CONFRONTING RESISTANCE: FUNDAMENTALS TO INNOVATIONS
The American Thoracic Society is now accepting abstracts and case reports for the ATS 2017 International Conference. Will you answer the call?

Don’t miss the opportunity to showcase your work to more than 15,000 of the world’s leading researchers and clinicians at the premier conference on pulmonary, critical care, and sleep medicine.

We are seeking:

- Scientific Abstracts that report on basic, translational, and clinical science research; epidemiologic, social, biobehavioral, and psychosocial investigations; or educational and quality improvement projects.

- Case Reports on single, unique cases.

**DEADLINE: Wednesday, Nov. 2, 2016, 5 p.m. EDT**

Dear members and colleagues,

We are pleased to welcome you to the 47th Union World Conference on Lung Health, here in Liverpool, UK.

Tuberculosis is curable, yet it kills more people today than any other infectious disease. Despite its seriousness, only one in four people who develop multidrug-resistant TB receive a diagnosis and begin treatment.

Our conference theme is Confronting Resistance: Fundamentals to Innovations. This theme addresses a number of critical areas for discussion—including the growing problem of antimicrobial resistance, which is one of the most important health, development and security challenges facing the world today.

Just last month, the United Nations’ landmark declaration to fight the threat of antimicrobial resistance placed MDR-TB squarely on the international agenda. Members of The Union have been at the forefront of this issue. Together, our research efforts proved critical in the World Health Organization’s decision to recommend a new MDR-TB regimen that shortens the length of treatment from 24 to nine months. The final results of this research, along with critical new findings in a variety of lung health areas, will be presented this week in Liverpool.

The conference theme also reflects The Union’s global tobacco control work, which requires coordinated efforts to confront resistance from the tobacco industry and to introduce the innovative policies needed to de-normalise and reduce tobacco use. This work combats the pandemic of tobacco-related diseases that account for the deaths of six million people each year.

Our inaugural keynote speaker is Stephen Lewis, co-founder and director of AIDS-Free World, who will address ‘Confronting Resistance’ from his extensive international experience in combatting global resistance to addressing HIV and antiretroviral drugs. We are also delighted to host a high-level forum with ministers and their representatives from nine countries.

Finally, co-chair of the Global TB Caucus, Rt Hon Nick Herbert CBE MP, will close the conference with insight into the UK’s approach to confront and end TB.

The annual Union World Conference draws participation from 125 countries and serves as a vital meeting place for the finest scientific minds, leading policy makers, health programme leaders, affected communities and advocates who come together to share and exchange ideas over the four-day scientific programme. It is truly fitting that in 2016 we are hosted by Liverpool—a historic hub of indispensable public health activity and scientific inquiry.

We welcome you to Liverpool and hope that you will enjoy the Union World Conference.

Sincerely,

José Luis Castro
Executive Director

Stacie C Stender
Chair, Coordinating Committee of Scientific Activities
### TUESDAY 25 OCTOBER
- 34 Who Global Tuberculosis Symposium
- 36 Post-graduate courses
- 38 Union administrative meetings
  - Membership Committee
  - Board meeting (1)
  - Editorial board of Public Health Action
  - Coordinating Committee of Scientific Activities (CCSA)
- 39 5th President’s Centennial Dinner

### WEDNESDAY 26 OCTOBER
- 43 Inaugural session
- 43 Union Medal presentation
- 43 Welcome reception
- 44 Post-graduate courses
- 46 Workshops
- 54 Union administrative meetings
  - Editorial board of the International Journal of Tuberculosis and Lung Disease
  - Union Scientific Working Groups
- 55 Side-meetings
  - New Diagnostics Working Group
  - 9th FIND symposium
  - AERAS stakeholder meeting and luncheon
- 56 The Community Common

### THURSDAY 27 OCTOBER
- 62 Plenary session I
- 62 The Karel Styblo Public Health Prize
- 63 Special sessions
- 64 Symposia
- 71 Oral abstract sessions
- 76 Short oral abstract sessions
- 79 E-poster sessions
- 82 Poster discussion sessions
- 95 Meet the expert sessions
- 96 Union administrative meetings
  - Union Working Groups
  - Union Regions
  - Union Inter-Regional meeting
  - Union Scientific Sections
  - General Assembly
- 97 Side-meetings
  - NCD dialogues session 1
  - Friends of Pakistan
- 98 Satellite Sessions
- 102 The Community Common

### FRIDAY 28 OCTOBER
- 110 Christmas Seals exhibit and contest
- 111 Plenary session II
- 111 Union Scientific Prize presentation
- 113 Special Sessions
- 114 Symposia
- 122 Oral abstract sessions
- 128 E-poster sessions
- 131 Poster discussion sessions
- 144 Meet the expert sessions
- 145 Union administrative meetings
  - Union Working Groups
  - Union Regions
  - Union Inter-Regional meeting
  - Union Scientific Sections
  - General Assembly
- 146 Side-meetings
  - NCD dialogues session 2
- 147 Satellite Sessions
- 150 The Community Common

### SATURDAY 29 OCTOBER
- 156 Plenary session III
- 157 The Stop TB Partnership Kochon Prize and the Princess Chichibu Memorial TB Global Award presentations
- 157 Rapporteur session
- 157 Closing session
- 157 The Union/Otsuka Young Innovator in TB Research Award presentation
- 158 Symposia
- 163 Oral abstract sessions
- 166 Short oral abstract sessions
- 170 E-poster sessions
- 170 Poster discussion sessions
- 181 Union administrative meeting
  - Scientific Programme Committee (CCSA: sub-group 2)
  - Board meeting (2)
- 182 The Community Common

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**No smoking conference**

The Union has designated this conference as a NO SMOKING CONFERENCE. Participants are therefore reminded that no smoking will be permitted on the Conference premises or at Conference functions.
ONLINE SUBMISSION OF SESSIONS FOR 2017 UNION WORLD CONFERENCE

The 48th Union World Conference on Lung Health will take place in Guadalajara, Mexico from 11—14 October 2017. Online submission of abstracts and sessions (symposia, workshops, and post-graduate courses) to be included in the scientific and community programme of the conference will open in January 2017.

The conference theme is ‘Accelerating Toward Elimination’. We welcome you to submit sessions and/or abstracts related to TB, HIV, tobacco control or adult and child lung health.

WHO: Any interested person may submit a proposal for a session or abstract. Union membership is not required. We encourage submissions from scientists, clinicians, public health specialists, affected communities and other members of civil society.

WHAT: All proposed sessions and abstracts must be related to lung health.

HOW: Please read the guidelines carefully before submitting. The Union is committed to promoting person-centred, non-stigmatising language in conference abstracts and presentations, and therefore requests that you follow the guidance laid out in the Stop TB Partnership’s publication, United to end TB: every word counts.

If you need assistance in preparing your abstract, you are invited to work with our Abstract Mentor Programme. This programme is designed to support new and less experienced researchers and implementers who hope to present their work at the conference.

All submitted abstracts and sessions will be peer-reviewed. Abstracts will be reviewed by a minimum of three individuals with expertise in the specific technical area. Members of the Coordinating Committee of Scientific Activities will review Sessions.

NOTE: In a change from previous conferences, sessions and abstracts will both have the same timeline.

If you have any questions, please contact scientific@theunion.org
FROM EVIDENCE TO PUBLIC HEALTH ACTION

Since our founding as a global scientific organisation in 1920, The Union has drawn from the best evidence and the skills, expertise and reach of our staff, consultants and membership in order to advance solutions to the most pressing public health challenges affecting people living in poverty around the world. We work with stakeholders across the globe from every sector, including governments, international agencies, civil society and the private sector.
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- Union-coordinated clinical trials in Francophone Africa reduced treatment time for multidrug-resistant tuberculosis (MDR-TB) from 24 to nine months. This research was critical in underpinning the World Health Organization’s recent recommendation of the shortened MDR-TB treatment regimen.
- Union research led to 104 papers in peer-reviewed journals in 2015.
- Child TB detection rates in Uganda doubled as a result of the DETECT Child TB programme.
- 3.33 billion people in 35 countries have benefited from tobacco control efforts supported by The Union.
- 1,798 participants attended some 100 technical, operational research and management development courses in 2015.
- Over 600,000 people have been tested for TB through The Union’s Project Axshya.

OUR IMPACT

In 2015, The Union’s 593 staff and consultants offered technical assistance, provided education and training and conducted research in 81 countries. In addition, Union members in 144 countries worked to fulfil our common vision of health solutions for the poor.
GENERAL INFORMATION

Abstract Book
The Abstract Book is available online only. It will not be accessible during the conference but will be downloadable from the conference website after the conference.

Cloakroom
A free cloakroom is available on the ground floor at ACC Liverpool. Due to limited capacity, this will be on a first come, first served basis. Opening hours will be posted on-site.

Refreshments
Cash catering offering a variety of hot and cold beverages and meal options is available in the Exhibition Areas from 26 through 29 October.

First aid
A medical service will be available during the conference. All medical problems should be reported to the ACC stewards or conference volunteers. In case of emergency, the delegate will be transferred to the nearest hospital. Hospital expenses must be covered by delegates.

Free WiFi
Delegates can benefit from free wifi access in the conference centre. Information on the login and password to access the free wifi will be posted on-site on the back of your conference badge.

Local transportation & Tours
To/from local airports
John Lennon Airport is half an hour from Liverpool. There is an inexpensive and efficient bus service. Manchester Airport is a hour from Liverpool, by car or train.

Transportation within Liverpool (Between hotels and ACC)
Liverpool is very compact with all city centre attractions and venues within walking distance. The city is also serviced by an underground railway service between the city’s stations, including Liverpool Lime Street, Liverpool Central, Moorfields and James Street. Liverpool has England’s largest hackney carriage (taxi) fleet outside of London. Look for the orange ‘Taxi’ light, which means the taxi is in service. All taxis can carry at least five passengers and are wheelchair accessible. Taxis can be hailed in the city centre or pre-booked on the numbers above.

Day tours
Delegates, accompanying persons and exhibitors will be able to book walking tours. Join a Blue Badge Guide for an introduction to Liverpool’s stunning Waterfront. The Guide will meet participants at 15.30 in Reception of Jurys Inn Hotel (opposite the conference venue). Tours are in English, and will take place in all weathers so please come prepared. Limited offer, subject to availability on a first come, first served basis.

Social media
Tweet about the conference, and follow others’ tweets at @UnionConference and @TheUnion_TBLH. Use hashtag #UnionConf and #ConfrontTB. You can also follow our Facebook page, https://www.facebook.com/The.Union.World Conferences.On.Lung.Health

Webcasts & Livestreaming
Webcasts of the main sessions (plenary sessions, symposia and oral abstract presentations) will be available on the conference website. The inaugural, plenary, rappporteur and closing sessions will be livestreamed.
You will find daily photos and news about the conference at www.worldlunghealth.org and www.theunion.org.

Union TV: A partnership with WebsEdge
The Union is partnering with the international film and broadcasting company, WebsEdge, to bring Union TV to the World Conference. WebsEdge will be filming Union TV at the Community Common in the Galleria.
Union TV will be an onsite conference television channel featuring a new episode daily, screened around the convention centre, as well as in selected guest hotel rooms, online and via social media. Each daily programme has two features: “Thought Leadership” and “Conference News.” Thought Leadership pieces are five-minute sponsored film segments highlighting programmes and initiatives in the field. Conference News is a daily programme of conference highlights, featuring “behind-the-scenes” interviews, coverage of conference events and reactions to the day from delegates.

To access these programmes, please go to:
YouTube: http://bit.ly/1OVEWWo
Learn more about WebsEdge:
www.websedge.com
SOCIAL PROGRAMME

Inaugural session and Welcome reception
The City of Liverpool and The Union cordially invite all registered delegates and accompanying persons to the Inaugural Session on Wednesday, 26 October at 18:00 at the Arena. A welcome reception will follow from 19:00 to 20:30.

Student networking forum
Young delegates are invited to the Student Networking Forum on Thursday, 27 October from 18:00 to 19:00 at The Union Village. This event follows on last year’s popular forum, which brought together young delegates and Union experts to socialise and network. To find out more, please visit the Membership Stand in The Union Village.

SPECIAL EVENTS AND EXHIBITS

Photography exhibition
Breathless is a photography exhibition depicting air pollution and its effect on our lives and lungs. The Union sent photographer Javier Galeano to India and China to document what happens when rapidly growing urban centres drive up air pollution.

The photos will be on display during the 47th Union World Conference on Lung Health from 26 through 29 October. All are invited you to view the exhibition in the Lower Galleria of the ACC.

IMAGE FROM THE BREATHLESS EXHIBITION, WHICH CAN BE FOUND IN THE LOWER GALLERIA OF THE ACC
REGISTRATION

Conference registration includes a delegate badge and conference bag, participation in pre-conference events, all scientific sessions, access to the exhibition area and the poster exhibition, and an invitation to the Welcome Reception on Wednesday, 26 October.

The WHO Global Tuberculosis Symposium on Tuesday, 25 October is free of charge for registered conference delegates. If you plan to only attend the Global TB Symposium, you register for at least one conference day.

Workshops/Post-graduate courses:
Post-graduate courses and workshops take place on Tuesday 25 and Wednesday 26 October.
It is possible to register only for a post-graduate course on-site. The fee for each course is 100 euro for both course-only and conference delegates. Workshops are free of charge for delegates, seating is limited.
If you are not registered for the conference, workshops cost 100 euro.

Conference registration desk
The registration area is located in the Galleria at the entrance of the ACC Liverpool.

Opening hours
08:00–18:00 Tuesday, 25 October
07:00–18:00 Wednesday, 26 October
07:00–18:00 Thursday, 27 October
07:00–18:00 Friday, 28 October
08:00–16:00 Saturday, 29 October

Means of payment
• International credit cards accepted:
  Visa, Eurocard, Mastercard or American Express
• Cash: Euros, US dollars, British Pounds
• Travellers cheques

Cancellation conditions
As of 1 October 2016, no refunds are given.
All refunds will be made after the conference.

Transfer of registration – Change of name
All requests to transfer a registration from one person to another must be submitted to the Conference Secretariat in writing and are subject to an 80 euro administration fee.

Lost badge
Please report lost badges immediately to the Registration Desk.
Replacement badges will be issued upon presentation of ID and are subject to a 40 euro administration fee.

Certificate of attendance
A certificate of attendance will be given to delegates upon completion of the post-conference evaluation.
Delegates wishing to include the title of the session they have attended or contributed to in their certificate of attendance should send their request to scientific@theunion.org after the conference.

Photography
Registered delegates give their permission for The Union’s official photographer and videographer, as well as attending media, to photograph them within the 47th Union World Conference on Lung Health for subsequent use in Union internal and external promotional material.

Press: Credentialed press representatives will be taking photographs and videotaping portions of the conference.

Other photography: Delegates are entitled to take photographs of the conference for their own personal, educational and/or advocacy purposes.
The Union will not be liable if delegates object to being photographed in these circumstances.

HOTEL ACCOMMODATION

The Liverpool Convention Bureau has been appointed as the official housing bureau of the 47th Union World Conference on Lung Health and is offering you an opportunity to book accommodation in a selection of Liverpool’s hotels at negotiated rates.
Contact the Convention Bureau team to modify a hotel reservation at conferences@visitliverpool.com or on 00 44 (0) 151 600 2991.
INFORMATION FOR PRESENTERS

Symposia, oral abstract, workshop, post-graduate courses presentations must be uploaded in the Speaker Centre by technical staff at the disposal of presenters. E-poster slides should be uploaded in the E-poster help desk Room 15, Upper Level.

Presenters must go to the Speaker Centre at least four hours before their session to upload and review their presentations. They should follow the guidelines sent by the conference secretariat. The Speaker Centre is located in the Galleria.

The opening hours are:
Tuesday, 25 through Friday, 29 October: 07:00-19:00
Saturday, 29 October: 07:00-17:00

Posters
The poster help desk will be located in the Poster Exhibition in Hall 2. Staff will be present daily during the official opening hours to provide assistance.

Set-up: Poster presenters may set up their poster as of 14:00 on Wednesday, 26 October. Authors are requested to display their posters from 27 to 29 October. This will give delegates the opportunity to visit the posters outside official session times.

Take-down: All posters must be removed between 14:00 and 16:00 on Saturday, 29 October.

Important Note: Posters should be set up on the assigned board in the poster area and not on any other board.

Conference embargo policy: information for presenters
All conference abstracts are released under a strict embargo policy. A detailed breakdown of the embargo variations for different types of abstracts is available below.

All delegates, presenters and media are asked to respect this policy.

Oral abstracts and short oral abstracts
Information about the oral abstracts may not be published or presented before the start of the session at the World Conference in which the abstract is being presented.

E-posters and poster discussion abstracts
Information about the e-posters and poster discussion abstracts may not be published or presented before 12:15 on 27 October.

Embargo breaks for presenters
A committee will analyse potential cases of embargo break by presenters on a case-by-case basis and as an ultimate consequence it could lead to the abstract being withdrawn from the conference.

Authors may publish the fact that their abstract has been selected for the World Conference, but may not publish the results of the study before the lifting of the embargo (as detailed above).

Any questions can be directed to scientific@theunion.org.

INFORMATION FOR THE MEDIA

Press registration
All working journalists may request press credentials to attend the conference. Those who have not received credentials in advance should register onsite at the Press Desk in the registration area. All journalists should go to the Press Desk in the registration area to pick up their conference bag and their press badge. Journalists are welcome to attend all sessions except closed meetings.

Press pack
The conference press pack may be downloaded from the online media centre at www.worldlunghealth.org. Journalists will also receive these materials on a flash drive.

Press Centre
Registered journalists are invited to use the Press Centre located 4B, Upper Level. There they will find a quiet place to work, with internet access and resources such as a schedule of press-oriented events at the World Conference.

Press room hours:
Tuesday 25 October until Saturday 29 October, from 08:00 to 20:00.

Press Conferences
All press conferences will take place in Room 4A Upper Level unless otherwise noted in the press pack.

Embargo policy for the media
All conference abstracts are released to delegates and media under a strict embargo policy.
A detailed breakdown of the embargo variations for different types of abstracts is shown below. All delegates, presenters and media are asked to respect this policy.

Oral abstracts and short oral abstracts
Information about the oral abstracts may not be published or presented before the start of the session at the 47th World Conference in which the abstract is being presented.

E-poster and poster discussion abstracts
Information about the e-posters and poster discussion abstracts may not be published or presented before 10:00 on Thursday, 27 October.

Embargo breaks
As well as having access to the materials detailed above, the media is also given prior access to the speakers’ slides. However, access is only granted to media onsite at the conference, and the same embargo rules apply – meaning the information in speaker slides cannot be referenced or published before the start of the presentation.

Breaking of the embargo policy by a reporter will lead to one or more of the following measures:
• Immediate suspension of the reporter’s media conference credentials
• Immediate barring of the reporter from the meeting premises
• Removal of the reporter’s name from The Union’s media distribution list for two years
• No access to the 2017 Union World Conference

If you have questions, please contact press@theunion.org.
Nurses and allied professionals

TB EDUCATIONAL MATERIAL DISPLAY/DISCUSSION

NURSES AND ALLIED PROFESSIONALS
TB EDUCATIONAL MATERIAL DISPLAY

All conference participants are invited to bring patient and provider tuberculosis (TB) education and training materials to display and discuss at The Union Conference. Bring any material you have, including brochures, posters, fact sheets, training curricula, videos. The TB education and material display will be in the exhibition area (Booths S2 and S3)

• Bring samples of education and training materials to share
• Network with colleagues involved in TB education and materials development
• Learn about TB education and training materials being used worldwide

NURSES AND ALLIED PROFESSIONALS
TB EDUCATIONAL MATERIAL DISCUSSION SESSION

Join us for this discussion on Saturday, 29 October 2016, 13:30-15:00, Session Room 13

• Find out about the development and availability of TB education and training materials from a variety of programmes and organisations
• Meet with material developers
• Share your own TB education and training ideas

To display materials, or if you have questions, please contact: Linette McElroy, email: thelearningrx@shaw.ca

CME CREDITS

The 47th Union World Conference on Lung Health is accredited by the European Board for Accreditation in Pneumology (EBAP) and the European Accreditation Council for Continuing Medical Education (EACCME) to provide up to 29 CME credits. The EACCME is an institution of the European Union of Medical Specialists (UEMS, visit www.uems.net). EACCME credits are recognised throughout Europe and can be exchanged for national CME credits by contacting your National CME Authority. Workshops, post-graduate courses and symposia are the only sessions eligible for CME credit hours.

ICNEC CREDITS

Participants of the 47th Union World Conference on Lung Health will be awarded a maximum of 27.5 International Continuing Nursing Education Credits for the conference.
Careers with The Union
Explore the world of opportunities waiting for you at The Union.

WHO WE ARE
Since our founding as a global scientific organisation in 1920, The Union has drawn from the best evidence and the skills, expertise and reach of our staff, consultants and membership in order to advance solutions to the most pressing public health challenges affecting people living in poverty around the world.

WHAT WE DO
Our team of 593 staff and consultants offered technical assistance, conducted research and provided training in 81 countries last year – and we are expanding.

WHAT WE OFFER
We are seeking talented, dedicated professionals to join us at our Paris headquarters and regional and country offices in China, DR Congo, India, Mexico, Myanmar, Peru, Singapore, Uganda, the UK, the USA and Zimbabwe. The principal areas of work are:

• TB/MDR-TB/childhood TB and clinical & operational management
• TB-HIV clinical & programmatic management
• Tobacco control policy development
• Laboratory skills
• Pharmacy/pharmacology
• Health programme management
• Health systems strengthening
• Operational research
• Clinical trials management
• Training and capacity building
• Advocacy and empowerment

AS PART OF THE UNION TEAM, YOU WILL
• Work in a world-renowned scientific organisation
• Receive tailored induction, training and mentoring
• Collaborate with leading experts
• Experience working in the field
• Help fulfil our vision: Health solutions for the poor

VISIT THE UNION CAREERS STAND IN THE UNION VILLAGE IN HALL 4
Learn about opportunities, talk to Union experts and upload your resume.
You may also go to theunion.org/get-involved/careers to create a personal profile and application account.
If you have questions, please write to hr@theunion.org
Union Conferences around the world

2016

PERU
16th Conference of The Union Latin America Region
4-5 November 2016
Swiss Hotel – Lima www.swisshotellima.com.pe
Lima, Peru
Official language: Spanish
Coordinating organisation: Sociedad Peruana de Neumología
www.spneumologia.org.pe

2017

CANADA
21st Conference of The Union North America Region
23-25 February 2017
Vancouver, BC, Canada
Website: https://bc.lung.ca/support-services/union-north-america
Email: tbconference@bc.lung.ca

JAPAN
6th Conference of The Union Asia Pacific Region
22-25 March 2017
Tokyo International Forum
Tokyo, Japan
Theme: TB free Asia Pacific – Accelerate steps towards healthier lungs
Coordinating organisation: Japan Anti-Tuberculosis Association
Website: http://www.aprc2017.jp/
Email: info@aprc2017.jp

EGYPT
29th Conference of The Union Middle East Region
29 March-1 April 2017
Cairo, Egypt
Further details to come

GHANA
20th Conference of The Union Africa Region
11-14 July 2017
Accra, Ghana
Further details to come

MEXICO
48th Union World Conference on Lung Health
11-14 October 2017
Expo Guadalajara Convention Centre, Guadalajara
Jalisco, Mexico
The Community Common is a vibrant part of the 47th Union World Conference on Lung Health where members of the community, conference delegates, students and advocates come together to discuss challenges and innovative solutions, raise awareness and share ideas.

Come see a fiery cookstove exhibit, hear resonating songs and be moved by films and performances. This area has everything to entertain, empower and educate with talks and debates from the people closest to the action.

SO TAKE A BREATH, MAKE A NOISE AND COME AND JOIN US.

ACTIVITIES WILL INCLUDE:

- Live cookstove display illustrating safe cookstoves and simple solutions to improving lung health in developing countries
- Impact Film Festival on Lung Health
- Scientific sessions, panel discussions and survivor testimonies
- Networking zone for discussion and debate
- Art exhibitions, cultural displays and performances
- Exhibition area for community and non-profit organisations
## SCHEDULE AT A GLANCE 2016

### TUESDAY 25 OCTOBER

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<tr>
<th>ROOM</th>
<th>ARENA</th>
<th>SESSION ROOM 1A</th>
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<td>08:00-14:30</td>
<td>03. Supressing resistance emergence in TB programmes using PK/PD science</td>
<td>08:00-14:30</td>
<td>01. Innovative WHO policies to support the End TB Strategy</td>
<td>08:00-14:30</td>
<td>07. Ethics and human rights in prevention, care and control of tuberculosis: challenges and approaches</td>
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<td>New Diagnostics Working Group Annual Meeting</td>
<td>09:00-12:30</td>
<td>07. Improving patient care, and international TB programmes</td>
<td>09:00-12:30</td>
<td>12:30-13:30 WG: Getting Research into Tobacco Control</td>
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<td>11:15</td>
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<td>11:30-17:00</td>
<td>9th FIND Symposium</td>
<td>11:30-17:00</td>
<td>11: Digital health technology for the End TB Strategy: developing priority products and making them work</td>
<td>11:30-17:00</td>
<td>16:00-17:00 WG: TB Education and Training</td>
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<td>14:45-17:45 13. Civil society, becoming equal and key partners in the national TB response</td>
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<td>18:00-19:00 INAGURAL SESSION ➤ ARENA</td>
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### THURSDAY 27 OCTOBER

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<thead>
<tr>
<th>ROOM</th>
<th>ARENA</th>
<th>SESSION ROOM 1A</th>
<th>SESSION ROOM 1B</th>
<th>SESSION ROOM 1C</th>
<th>SESSION ROOM 3A</th>
<th>SESSION ROOM 3B</th>
<th>SESSION ROOM 10</th>
<th>SESSION ROOM 11A</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:30</td>
<td></td>
<td>07:30-08:45</td>
<td>Satellite session-01, see page 100</td>
<td>Satellite session-02, see page 100</td>
<td>07:45-08:45 02.Confronting resistance: need for policy change against new industry tactics</td>
<td>07:45-08:45</td>
<td>07:45-08:45 WG: TB and Migration</td>
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<tr>
<td>07:45</td>
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<td>07:30-09:00</td>
<td>02. Pneumonia: supportive clinical care and control where there is no intensive care for treatment delays</td>
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<tr>
<td>09:00</td>
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<td>09:00-10:00</td>
<td>02. Pneumonia: supportive clinical care and control where there is no intensive care for treatment delays</td>
<td>09:00-10:00</td>
<td>09:00-10:00 PLENARY SESSION 1: Confronting resistance ➤ ARENA</td>
<td>09:00-10:00</td>
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<tr>
<td>10:30</td>
<td>10:30</td>
<td>10:30-12:00</td>
<td>01. High-dose rifampicin: recovering an old drug in the post-multidrug-resistant TB era</td>
<td>10:30-12:00</td>
<td>10:30-12:00 PLENARY SESSION 1: Confronting resistance ➤ ARENA</td>
<td>10:30-12:00</td>
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<tr>
<td>13:00</td>
<td>13:00</td>
<td>13:00-14:00</td>
<td>02. Advocacy and community engagement</td>
<td>13:00-14:00</td>
<td>13:00-14:00 North East Asia Region Meeting</td>
<td>13:00-14:00</td>
<td>13:00-14:00</td>
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<tr>
<td>15:15</td>
<td>15:15</td>
<td>15:15-16:45</td>
<td>02. - We can work it out: understanding and preventing diagnostic treatment delays</td>
<td>15:15-16:45</td>
<td>15:15-16:45</td>
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<tr>
<td>16:45</td>
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<td>16:45</td>
<td>02. - We can work it out: understanding and preventing diagnostic treatment delays</td>
<td>16:45</td>
<td>16:45-17:00</td>
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### TUESDAY 25 OCTOBER

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>11:15-14:15</td>
<td>08. Lessons learnt from increasing access to Bedaquiline and Delamanid for management of drug-resistant TB</td>
<td>SESSION ROOM 1B</td>
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<tr>
<td>14:45-17:45</td>
<td>14. What brought about a 10 percent annual decline in TB incidence? Lessons learnt from Japan, Western Europe and North America</td>
<td>SESSION ROOM 3B</td>
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### WEDNESDAY 26 OCTOBER

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Room</th>
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<tbody>
<tr>
<td>08:00-11:00</td>
<td>03. MDR-TB clinical management of adults and children</td>
<td>SESSION ROOM 12</td>
</tr>
<tr>
<td>07:45-08:45</td>
<td>03. MDR-TB clinical management of adults and children</td>
<td>SESSION ROOM 11C</td>
</tr>
<tr>
<td>07:30-19:30</td>
<td>For the Community Common programme, see page 194</td>
<td>COMMUNITY COMMON</td>
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### General Information

**Legend**

<table>
<thead>
<tr>
<th>Session Type</th>
<th>Code</th>
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<tbody>
<tr>
<td>Symposium (SP)</td>
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<tr>
<td>Post-graduate course (PGC)</td>
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<tr>
<td>Workshop (WS)</td>
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<tr>
<td>Satellite session (SS)</td>
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<tr>
<td>E-poster session (EP)</td>
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<tr>
<td>Poster discussion session (PD)</td>
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<tr>
<td>Oral Abstract session (OA)</td>
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**Communities Common**

1. **Room**
   - SESSION ROOM 1B
   - SESSION ROOM 1C
   - SESSION ROOM 12
   - SESSION ROOM 13
   - SESSION ROOM 14
   - COMMUNITY COMMON
   - FULLMAN

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**Session Table**

<table>
<thead>
<tr>
<th>Session</th>
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<tr>
<td>03. MDR-TB clinical management of adults and children</td>
<td>07:45-08:45</td>
<td>SESSION ROOM 12</td>
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<tr>
<td>03. MDR-TB clinical management of adults and children</td>
<td>07:30-19:30</td>
<td>COMMUNITY COMMON</td>
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**Africa Region Meeting**

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<tr>
<th>Session</th>
<th>Time</th>
<th>Room</th>
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<tbody>
<tr>
<td>03. Methodologies and models for TB education and training</td>
<td>05. Improving patient care in MDR-TB</td>
<td>Middle East Region Meeting</td>
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**Friends of Pakistan**

<table>
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<tr>
<th>Session</th>
<th>Time</th>
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<tbody>
<tr>
<td>14:30-15:30</td>
<td>Friends of Pakistan</td>
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**Orginal Information**

- **Sydney**
- **Ottawa**
- **Vancouver**
- **New Delhi**
- **Bangkok**
- **Jakarta**
- **Islamabad**
- **Kuala Lumpur**
- **Sao Paulo**
- **New York**

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**Contact Information**

1. **Address**
2. **Phone**
3. **Email**

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**Participant Information**

1. **Name**
2. **Email**
3. **Address**
4. **Phone**

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**Scheduling Information**

1. **Date**
2. **Time**
3. **Location**

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**Meeting Information**

1. **Type**
2. **Topic**
3. **Speaker**

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**Feedback**

1. **Comments**
2. **Suggestions**
3. **Questions**
### THURSDAY 27 OCTOBER

<table>
<thead>
<tr>
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<tr>
<td>17:30-19:00</td>
<td>Satellite session-03, see page 101</td>
<td>Satellite session-04, see page 101</td>
<td>Satellite session-05, see page 102</td>
<td>Satellite session-06, see page 102</td>
<td>17:00-18:00 07. Zoonotic TB</td>
<td>17:15-18:45 Adult &amp; Child Lung Health Section Meeting</td>
<td>Satellite session-07, see page 103</td>
<td>17:15-18:45 HIV Section Meeting</td>
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### FRIDAY 28 OCTOBER

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<tr>
<td>07:45-08:45</td>
<td>PLENARY SESSION DAY 2: Tobacco control</td>
<td>ARENA</td>
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<tr>
<td>12:00-13:30</td>
<td>The Lancet respiratory medicine symposium: dealing with drug-resistant tuberculosis</td>
<td>ARENA</td>
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<tr>
<td>17:30-18:15</td>
<td>Tobacco Control Section Meeting</td>
<td>Satellite session-10, see page 147</td>
<td>Satellite session-11, see page 148</td>
<td>Satellite session-12, see page 149</td>
<td>Satellite session-13, see page 148</td>
<td>Satellite session-14, see page 149</td>
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### SATURDAY 29 OCTOBER

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<th>SESSION ROOM 11B</th>
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<tbody>
<tr>
<td>07:30</td>
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<tr>
<td>09:00-10:00</td>
<td>PLENARY SESSION DAY 3: Ending TB in the SDG era: is there still resistance to the societal protection agenda?</td>
<td>ARENA</td>
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<tr>
<td>10:30-12:00</td>
<td>21. The Union/CDC late-breaker session on TB</td>
<td>41. It's time to scale-up treatment of TB infection in high TB burden countries</td>
<td>40. TB elimination initiative in countries of the Latin American Region</td>
<td>22. Priorities in finding the missing cases</td>
<td>23. Interplay of tobacco control and broader health agenda</td>
<td>44. Biosafety and tuberculosis infection control: sharing knowledge, challenges and solutions in TB laboratories</td>
<td>43. Novel quantitative approaches in paediatric tuberculosis</td>
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<td>13:30-15:00</td>
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<tr>
<td>15:30-16:30</td>
<td>RAPPORTEUR SESSION</td>
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<tr>
<td>16:30-17:30</td>
<td>CLOSING SESSION</td>
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### 07:30-18:55 For the Community Common programme, see page 150

#### 07:30-18:55 For the Community Common programme, see page 150

<table>
<thead>
<tr>
<th>Session</th>
<th>Room(s)</th>
<th>Time</th>
<th>Description</th>
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<tbody>
<tr>
<td>Satellite session-08</td>
<td>see page 103</td>
<td>17:15-18:45</td>
<td>Bacteriology &amp; Immunology Sub-section Meeting</td>
</tr>
<tr>
<td>Satellite session-09</td>
<td>see page 103</td>
<td>17:15-18:45</td>
<td>Nurses and Allied Professionals Sub-section Meeting</td>
</tr>
<tr>
<td>16. Adult lung health: chronic obstructive pulmonary disease, chronic disease, asthma and oxygen</td>
<td>Room 1C</td>
<td>06</td>
<td>Management of MDR-TB contacts</td>
</tr>
<tr>
<td>24. Asthma and COPD: a shifting landscape</td>
<td>Room 12</td>
<td>11</td>
<td>Bacteria, vaccines and immunity</td>
</tr>
<tr>
<td>25. Qualitative research for tuberculosis control: what lessons can researchers offer to policymakers and implementers in tackling drug-resistant TB?</td>
<td>Room 13</td>
<td>15</td>
<td>Tobacco packaging and graphic health warnings</td>
</tr>
<tr>
<td>26. Best practices and challenges in ending TB in correctional facilities</td>
<td>Room 14</td>
<td>31</td>
<td>Building research capacity in tuberculosis: the experience of training programmes and their impact in low-middle income countries</td>
</tr>
<tr>
<td>32. Should addressing tobacco use in TB and HIV patients be integral to disease control vs. a case for support?</td>
<td>Room 15</td>
<td>19</td>
<td>Drugs for MDR-TB: challenges and successes</td>
</tr>
<tr>
<td>38. The effectiveness and obstacles for social support to TB patients</td>
<td>Room 16</td>
<td>32</td>
<td>Should addressing tobacco use in TB and HIV patients be integral to disease control vs. a case for support?</td>
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<tr>
<td>39. Mycobacterium bovis: molecular epidemiology, economic impact and perspectives on global public health policy</td>
<td>Room 17</td>
<td>17:00-18:15</td>
<td>TB Section Meeting</td>
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<td>18:30-19:30</td>
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<td>GENERAL ASSEMBLY</td>
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### 07:30-15:25 For the Community Common programme, see page 182

<table>
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<th>Session</th>
<th>Room(s)</th>
<th>Time</th>
<th>Description</th>
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<tbody>
<tr>
<td>45. Adherence to treatment: social and behavioral interventions in Latin America</td>
<td>Room 11C</td>
<td>42</td>
<td>Reaching underserved groups to eliminate tuberculosis in England: patient perspectives, technological advances, and the role of the multidisciplinary team</td>
</tr>
<tr>
<td>12. Got the bug? Basic science</td>
<td>Room 13</td>
<td>13</td>
<td>Smoke-free environment</td>
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<tr>
<td>14. Latent TB infection: something for everyone</td>
<td>Room 14</td>
<td>15:45</td>
<td>Poster discussion sessions (n°39 to 57)</td>
</tr>
<tr>
<td>50. Trials of mice and men: recent advances and the future of TB drug development science</td>
<td>Room 15</td>
<td>51</td>
<td>TB and mental disorders: putting the science into practice</td>
</tr>
<tr>
<td>52. TB education and training materials discussion session</td>
<td>Room 16</td>
<td>52</td>
<td>Poster discussion sessions (n°39 to 57)</td>
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</table>
UNION WORLD CONFERENCE ON LUNG HEALTH TO HOST

FIRST MEETING OF GLOBAL TB CAUCUS EXECUTIVE COMMITTEE

TUESDAY 25 OCTOBER, LIVERPOOL, UK

Parliamentarians from all over the world will convene at the 47th Union World Conference on Lung Health in Liverpool, to participate in what will be the first meeting of the Executive Committee of the Global TB Caucus. This committee is comprised of the co-chairs of the Global TB Caucus regional networks in Asia, the Americas, Africa and Europe and Central Asia, as well as the two Global Co-chairs (and founders of the Caucus in 2014) – The Rt Hon Nick Herbert CBE MP from the UK and the Hon Dr Aaron Motsoaledi, South African Minister of Health.

The Global TB Caucus unites an international network of over 1800 parliamentarians from 130 different countries. They work collectively and individually to end the tuberculosis (TB) epidemic, aiming to secure commitments from their governments to improve policies and increase funding to tackle TB. The Caucus is non-partisan and inclusive, with its members working across geographical and political divides.

Three years ago, the Global TB Summit was originally inspired by a meeting between José Luis Castro, Executive Director of The Union, and Nick Herbert MP, co-chairman of the UK All Party Parliamentary Group on TB (APPG on TB), who agreed to collaborate on organising the first Global Summit on TB in more than 100 years.

Broad support is essential to meeting the goals of the Global TB Caucus. Both individuals and organisations can help build government support. Please go to the Global TB Caucus website and give your support. http://www.globaltbcaucus.org/

RESULTS FROM THE SECOND GLOBAL TB SUMMIT, 2015

As a pre-cursor to the 46th Union World Conference on Lung Health last year, close to 50 parliamentarians from 30 countries came for the Global TB Summit. This event, co-chaired by the Rt Hon Nick Herbert CBE MP (UK) and the Hon Dr Aaron Motsoaledi, South African Minister of Health, called upon parliamentarians to persuade their respective governments of the urgent need for action on TB, including the access to proper treatment for everyone affected. The Summit climax was an endorsement by all the members of the Stop TB Partnership’s Global Plan to End TB 2016–2020: The Paradigm Shift. The Global Plan is a 5-year investment plan that represents the roadmap to accelerating impact on the TB epidemic and reaching the targets of the WHO End TB Strategy.
THE UNION COURSES

The Union’s courses help develop clinical expertise, management skills and the ability to discover solutions through research and advocacy. Public health professionals, such as physicians, nurses, healthcare managers and other healthcare staff, receive detailed training and instruction from our experienced faculty.

CLINICAL AND OPERATIONAL MANAGEMENT

The Union’s clinical and operational management courses have expanded to meet the demands of today’s healthcare professionals and public health systems. Thorough training in the prevention, treatment and programmatic management of tuberculosis continues to be one of The Union’s strengths.

INTERNATIONAL MANAGEMENT DEVELOPMENT PROGRAMME (IMDP)

IMDP courses were developed to help countries improve the management of health programmes. IMDP strengthens health systems by training health professionals in the specific management competencies that are essential for healthcare programmes to provide quality care for patients.

OPERATIONAL RESEARCH

The Union’s SORT IT (Structured Operational Research and Training IniTiative) courses are offered in collaboration with Médecins Sans Frontières (MSF) and the WHO Special Programme for Research and Training in Tropical Diseases. They take participants from developing a research protocol to submitting a paper to a peer-reviewed journal.

Clinical and operational management training through clinical and operational management courses are provided for healthcare professionals in:

- Tuberculosis (TB)
- Multidrug-Resistant TB (MDR-TB)
- TB-HIV management and programme collaboration
- Childhood TB
- Tobacco Control

The IMDP addresses key issues in:

- Budgeting and financial management
- Training
- Project management and supply chain management
- Human resource management
- Health communications
- Monitoring and evaluation

The SORT IT courses help participants to:

- Build research capacity using a successful model of product-oriented training
- Advance in an operational research fellowship programme and research alumni network
- Implement relevant operational research in low- and middle-income countries

For more information on The Union’s training courses, visit our website at unioncourses.org

To learn more, visit the training and education booth in The Union Village, located in the Exhibition Area.
Join The Union as a Student Member

For nearly 100 years The Union has drawn together the best scientific evidence and expertise to address the most pressing public health challenges affecting people living in poverty around the world. As we enter our next century, there are new battles to be won.

By becoming a student member, you will help to bring the next generation of expertise to meet these challenges. Please join with us to shape the future of lung health.

**BENEFITS**

Student membership is an investment in your career, enabling you to grow and publish your own work; investigate mentoring opportunities and link up with the experts in TB and lung health.

- Online membership for as low as 20 euros per year
- Access to the online Members Directory – a comprehensive guide to who’s who in TB and lung disease research
- Opportunities to participate in an internationally recognised network of experts, mentors and colleagues working together to find health solutions for the poor
- Online subscription to the *International Journal of Tuberculosis and Lung Disease* (IJTLD)
- Discounted registration at Union conferences

**YOU CAN BECOME A STUDENT MEMBER IF YOU ARE:**

- A first-time member of The Union
- In training
- Under 35 years of age

**STUDENT NETWORK FORUM**

Student Network Forum has been confirmed for Thursday, 27 October from 18:00 to 19:00 at the Union Village.

Find out more at [theunion.org](http://theunion.org)  
[@TheUnion_TBLH](https://twitter.com/TheUnion_TBLH)  
[facebook.com/TheUnionLungHealth](https://facebook.com/TheUnionLungHealth)
EXHIBITORS

Booth number
Aeras Global TB Vaccine Foundation (USA) 10
Aeromed Inc. (USA) 9
Air Filter Maintenance Services International (AFMS) (South Africa) 47
American Thoracic Society (ATS) (USA) 61 - 62
BD Diagnostics (USA) 23 - 24
Carl Zeiss Microscopy GmbH (Germany) 33 - 40
Cepheid HBDC SAS (France) 29 - 36
Delft Imaging Systems (The Netherlands) 3 - 4
DNA Genotek (Canada) 57
Emocha Mobile Health (USA) 30
European Respiratory Society (ERS) (Switzerland) 55
Expertise France (France) 12
Germfree Laboratories, Inc. (USA) 25 - 26
Hain Lifescience GmbH (Germany) 07 - 08
Human Gesellschaft für Biochemica und Diagnostica GmbH (Germany) 59 - 60
IDA Foundation (The Netherlands) 21
Japan Anti-Tuberculosis Association (Japan) 06
Johnson & Johnson Global Public Health (USA) 63 - 64 - 65
KNCV Tuberculosis Foundation (The Netherlands) 42
Labratory Infrastructure Solutions (LIS) (South Africa) 37
Lilly MDR-TB Partnership (Switzerland) 38
Longhorn Vaccines and Diagnostics LLC (USA) 69
Macleods Pharmaceuticals Ltd (India) 67 - 68
Management Sciences for Health (USA) 34
MinXray Inc. (USA) 66
National TB Control Program (NTP) (Pakistan) 58
Nursing and Allied Professional 52 - 53
Oficina de Convenciones y Visitantes de Guadalajara (Mexico) 22
Oxford Immunotec LTD (United Kingdom) 43 - 51
Q2 Solutions (USA) 39
QIAGEN (Germany) 28 - 35
Sanofi (France) 50
Svizera Europe BV (The Netherlands) 14 - 15
SystemOne (USA) 17
The Union - Call to Action for a TB-Free India, Challenge TB Project (India) 32
University Research Co.,LLC (USA) 31
UNOPS - Stop TB Partnership (Switzerland) 18 - 19 - 20
Veredus Laboratories (Singapore) 11
Vital Strategies (USA) 44 - 45
World Health Organization (Switzerland) 48 - 56

EXHIBITOR OPENING HOURS

Wednesday, 26 October 11:00 - 20:00*
Thursday, 27 October 08:30 - 17:30
Friday, 28 October 08:30 - 17:30
Saturday, 29 October 08:30 - 14:00

* The Inaugural Session will be held in the Plenary Hall (Arena) at 18:00 and will be followed by the Welcome Reception in the exhibition area
PLENARY SESSIONS OVERVIEW

INAUGURAL SESSION

The conference will be officially opened by Dame Lorna E F Muirhead DBE, Her Majesty’s Lord-Lieutenant, representative of the Crown in Merseyside. The opening 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 2017 World TB Day theme and The Union Medal.

Entertainment by Liverpool band “Sing Your Socks Off” will feature people living (and singing) with COPD and asthma who, with Merseyside’s Breathe Easy programme, have recovered their lung capacity through singing.

AWARD PRESENTATION THE UNION MEDAL

Presented by Dr E Jane Carter, President of The Union

The Union Medal — The Union’s highest honour, which is awarded to members who have made an outstanding contribution to the control of tuberculosis (TB) or lung health through their scientific work and/or actions in the field.

WELCOME RECEPTION

A welcome reception for all delegates, exhibitors and accompanying people will be held immediately afterwards, hosted in conjunction with the City of Liverpool. Guests will have the opportunity to enjoy Liverpool’s world-renowned band, The Cheatles.
THURSDAY 27 OCTOBER  ▶  09.00 – 10.00  ▶  ARENA

**PLENARY SESSION I  CONFRONTING RESISTANCE**

Chair(s): Janet Hemingway (United Kingdom), Catharina Boehme (Switzerland), Hon Stephen Mule (Kenya)

The impact of air pollution on adult and child lung health
Speaker: Thomas Matte (United States of America) is Vice President for Environmental Health, Vital Strategies.

Changing course without rocking the boat: lessons learnt from implementing TB genomics in public health
Speaker: Jennifer Gardy (Canada) is Assistant Professor, University of British Columbia; and Canada Research Chair, Public Health Genomics.

Funding innovation to confront resistance
Speaker: Janet Ginnard (Switzerland) is Team Lead, Strategy, UNITAID.

**AWARD PRESENTATION  THE KAREL STYBLO PUBLIC HEALTH PRIZE**

The Karel Styblo Public Health Prize — awarded by The Union, acknowledges a health worker (physician or lay person) or a community organisation for contributions to tuberculosis control or lung health over a period of ten years or more.

FRIDAY 28 OCTOBER  ▶  09.00 – 10.00  ▶  ARENA

**PLENARY SESSION II  TOBACCO CONTROL**

Chair(s): Matthew Myers (United States of America), Senator Pierre Flambeau Ngayap (Cameroon), Jesus Felipe Gonzalez Roldan (Mexico)

E-cigarettes and the future of the tobacco industry: competition or capture, obsolescence or renewal?
Speaker: Jeff Collin (United Kingdom) is Professor of Global Health Policy, University of Edinburgh.

Current picture and tobacco control efforts in Africa
Speaker: Kellen Namusisi (Uganda) is Monitoring & Evaluation Specialist for the Center for Tobacco Control in Africa.

The political successes and shortfalls that 100% smoke-free campaigns are facing in Latin America
Speaker: Tania Cavalcanti (Brazil) - To be confirmed

**AWARD PRESENTATION  THE UNION SCIENTIFIC PRIZE**

The Union Scientific Prize acknowledges researchers at any stage of their career for work on tuberculosis or lung health in the past five years.
PLENARY SESSION III
ENDING TB IN THE SDG ERA:
IS THERE STILL RESISTANCE TO THE SOCIAL PROTECTION AGENDA?

Chair(s): Delia Boccia (United Kingdom), Knut Lönroth (Switzerland)

A brief perspective on TB and poverty
Speaker: Bertel Squire (United Kingdom) is Chair of Clinical Tropical Medicine at Liverpool School of Tropical Medicine; and Director, Centre for Applied Health Research and Delivery.

The devastating impact of TB on livelihood capabilities, even in the context of universal health care in the UK
Speaker: Amy McConville (United Kingdom) is Chair and Patient Advocate at TB Action Group.

Social protection for a comprehensive approach to health inequalities: barriers and consequences of inaction
Speaker: Dame Margaret Whitehead (United Kingdom) is W.H. Duncan Chair of Public Health; and Head of the World Health Organization (WHO) Collaborating Centre for Policy Research on the Social Determinants of Health.

Ending TB in the SDGs era: an overlapping agenda, a win-win opportunity
Diana Weil (Switzerland) is Coordinator of the Policy, Strategy and Innovations Unit of the Global TB Programme of the World Health Organization.

Conditional cash transfers to enhance TB prevention, care and control: lessons from Bolsa Familia
Speaker: Fabio Veras Soares (Belgium)

AWARD PRESENTATION
THE STOP TB PARTNERSHIP KOCHON PRIZE
AND THE PRINCESS CHICHIBU MEMORIAL TB GLOBAL AWARD

The Stop TB Partnership Kochon Prize is a US$ 65,000 award that is presented once a year to persons, institutions or organisations that have made a highly significant contribution to combating TB. It is fully funded by the Kochon Foundation, a non-profit foundation registered in the Republic of Korea. It honours the late Chairman Chong-Kun Lee, founder of the Foundation and Chong Kun Dang Pharmaceutical Corp in Korea. “Kochon” was his pen name.

The Princess Chichibu Memorial TB Global Award presented by the Japan Anti-Tuberculosis Association (JATA) recognises outstanding contributions to global TB control.
SATURDAY 29 OCTOBER  ▶  15.30 – 16.30  ▶  SESSION ROOM 1A

**RAPPORTEUR SESSION**

Chair: **Stacie C Stender**, Chair Coordinating Committee of Scientific Activities (South Africa)

Members of the Scientific Programme Committee will report on the highlights of the scientific outcomes presented in the abstract-driven sessions during the conference.

![Stacie C Stender](image)

SATURDAY 29 OCTOBER  ▶  16.30 – 17.30  ▶  SESSION ROOM 1A

**CLOSING SESSION**

Chairs: **Louise Ellman**, Member of Parliament for Liverpool Riverside (United Kingdom), **E Jane Carter** (USA)

Speakers: **José Luis Castro** (France), **The Rt Hon Nick Herbert CBE MP** (United Kingdom) is a Member of Parliament for Arundel and South Downs, **Diego Gómez Pickering**, Ambassador of Mexico in the United Kingdom.

SATURDAY 29 OCTOBER  ▶  15.30 – 16.30  ▶  SESSION ROOM 1A

**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.

![Louise Ellman MP](image) | ![E Jane Carter](image) | ![José Luis Castro](image) | ![The Rt Hon Nick Herbert CBE MP](image) | ![Diego Gómez Pickering](image)
TUESDAY
25 OCTOBER
2016
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 programmes, civil society actors and researchers to drive higher-level, cross-Ministry and cross-society engagement, greater resource mobilisation, and impact.

4. To profile recent advances in TB research and strategies for the rolling out of new diagnostics, drugs and regimens.

Provisional agenda

**OPENING**

10:00 – 10:15 Welcome  
José L Castro, The Union  
Mario Raviglione, WHO Global TB Programme  
Timpiyian Leseni, TB patient advocate, Kenya

10:15 – 10:30 Riding the wave: Capitalising on innovations within and beyond TB  
Mario Raviglione, WHO Global Tuberculosis Programme

Katherine Floyd, WHO Global Tuberculosis Programme

10:50 – 11:00 Questions & Answers

11:00 - 11:05 I. KNOW YOUR EPIDEMIC  
Chair: Ibrahim Abubakar, Institute for Global Health, University College London

11:05 – 11:20 The power of understanding and using your available data  
Charalambos Sismanidis, WHO Global TB Programme

11:20 – 12:40 New strategic directions driven by national epidemiological and patient pathway analysis, affected communities consultations and systems reforms  
Panel: Denise Arakaki, Ministry of Health of Brazil; Rein Houben, London School of Hygiene and Tropical Medicine; Sahu Suvanand, Stop TB Partnership; Christy Hanson, Macalester College; Hans Kluge, WHO/European Region; Thandar Lwin, Ministry of Health of Myanmar

12:40 – 13:00 Questions & Answers

13:00 – 14:00 Lunch
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<tr>
<th>Time</th>
<th>Session</th>
<th>Topic</th>
<th>Speakers</th>
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<tr>
<td>14:00 – 15:10</td>
<td><strong>II: DRIVING POLITICAL COMMITMENT AND ACCOUNTABILITY</strong></td>
<td>Outcomes of the 2nd WHO End TB Strategy Summit of National TB Programmes of the 30 Highest TB Burden Countries</td>
<td>Representative of National TB Programmes</td>
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<td>Progress on civil society engagement to end TB</td>
<td>WHO Civil Society Task Force on TB</td>
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<td>Progress on resource mobilisation and implementation of the Stop TB Partnership Global Plan to End TB, 2016-2020</td>
<td>Lucia Ditiu, Stop TB Partnership</td>
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<td>Progress on parliamentary action</td>
<td>Nick Herbert, Global TB Caucus of Parliamentarians</td>
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<td>Question &amp; Answers</td>
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<td>15:10 – 15:30</td>
<td><strong>Coffee Break</strong></td>
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<td>15:30 – 15:35</td>
<td><strong>III: ADVANCES IN TB RESEARCH AND ROLL-OUT OF INNOVATIONS</strong></td>
<td>From new diagnostics to new treatments</td>
<td>Christopher Gilpin, WHO Global TB Programme</td>
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<td></td>
<td>a. The role of new DSTs in determining MDR-TB patient treatment</td>
<td>Claudia Denkinger, FIND; Ernesto Jaramillo, WHO Global TB Programme;</td>
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<td>b. Panel discussion</td>
<td>Charles Daley, University of Denver/Global Drug-Resistant TB Initiative;</td>
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<td>From new drugs to new regimens</td>
<td>Madhukar Pai, McGill University</td>
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<td>a. Target regimen profiles for TB treatment</td>
<td>Christian Lienhardt, Lice Gonzalez-Angulo, WHO Global TB Programme</td>
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<td>b. Panel discussion</td>
<td>Erica Lessem, Treatment Action Group, San Francisco (TBC);</td>
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<td>From new treatments to prevention</td>
<td>Michael Rich, Harvard Medical School/Partners in Health; Cathy Bansbach,</td>
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<td>a. Updates on programmatic management of LTBI</td>
<td>Bill &amp; Melinda Gates Foundation; David W Dowdy, Johns Hopkins University;</td>
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<td>b. Panel discussion</td>
<td>Erica Lessem, Treatment Action Group, San Francisco (TBC);</td>
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<td>Michael Rich, Harvard Medical School/Partners in Health; Cathy Bansbach,</td>
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<td>Alberto Matteelli, University of Brescia</td>
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<td>Ibrahim Abubakar, University College, London; Jacqueline Shea, Aeras;</td>
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<td>Haileyesus Getahun, WHO Global TB Programme; Gavin Churchyard, Aurum</td>
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<td>Institute; Thomas Scriba, University of Cape Town</td>
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<td>17:05 – 17:20</td>
<td>Questions &amp; Answers</td>
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<td>Eric Goosby, UN Special Envoy on TB</td>
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<td>17:20 – 17:45</td>
<td><strong>CLOSING PANEL</strong></td>
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<td>Stephen Lewis, AIDS Free World</td>
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<td>Phumeza Tsile, TB Proof</td>
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<td>Mario Raviglione, World Health Organization</td>
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All post-graduate courses are eligible for accreditation.

POST-GRADUATE COURSE 01  ▶  11:00 - 17:30 ▶  SESSION ROOM 11C

UPDATE ON CLINICAL AND PROGRAMMATIC MANAGEMENT OF MDR- AND XDR-TB

Section: Tuberculosis

Multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) pose a significant threat to TB control; providing challenges to 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, laboratory 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.

Target audience:

Objectives:
Through a series of illustrative case presentations, to:
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 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) – Chair: Ignacio Monedero (Spain)

1) Updated guidelines on molecular tests for the diagnosis of DR-TB – Christopher Gilpin (Switzerland)
2) Implementation of rapid molecular diagnostics for MDR-TB: programmatic perspective - Malik Parmar (India)
3) Designing a treatment regimen for MDR-TB according to new WHO guidelines: presentation of a clinical case – Jose Caminero Luna (Spain)
4) Using new anti-TB drugs in the treatment of MDR-TB – Francis Varaine (France)
5) Treatment regimen for special MDR-TB situations in which new drugs are used: presentation of a clinical case – Barbara Seaworth (United States of America)
6) Treatment of MDR-TB : HIV coinfection, pregnancy – Jennifer Furin (United States of America)
7) Treatment of MDR-TB : Childhood TB – Simon Schaaf (South Africa)
8) Surgery in management of MDR-TB – Andrei Mariandyshev (Russian Federation)
9) Management of adverse drug reactions: presentation of a clinical case – Michael Rich (United States of America)
10) Patient-centred care to enable treatment adherence to new WHO recommendations – Ernesto Jaramillo (Switzerland)
11) Case presentations – Ignacio Monedero (Spain)
12) Panel: Questions and final remarks
POST-GRADUATE COURSE 02  ▶  11:00 - 17:30  ▶  SESSION ROOM 14

QUALITATIVE DATA INQUIRY AND ANALYSIS

Section: Tuberculosis

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:
- Qualitative data collection, with emphasis on semi-structured interviews and field observations
- Approaches to qualitative data analysis, with emphasis on coding, comparing, and representing qualitative data
- Adaptation techniques to tackle methodological challenges in the field. The course will be interactive, and use 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(s): Amrita Daffary (Canada), Madhukar Pai (Canada)

1) Qualitative methods: a complimentary lens to traditional operational research – Madhukar Pai (Canada)
2) Tenets of qualitative study design: rigour, ethics and reflexivity – Amrita Daffary (Canada)
3) Asking questions in qualitative research: conducting a semi-structured interview – Nora Engel (Netherlands)
4) Analysing talk, text and observations in qualitative research – Beverly Stringer (United Kingdom)
5) Analysing qualitative data in a complex health system: making sense of magic mountains of data – Andrew McDowell (France)

POST-GRADUATE COURSE 03  ▶  11:00 - 17:30  ▶  SESSION ROOM 10

TB PREVENTION IN CHILDREN AND PEOPLE LIVING WITH HIV IN HIGH-BURDEN SETTINGS: CONTACT INVESTIGATION, ACTIVE CASE-FINDING AND PREVENTIVE THERAPY

Section: Tuberculosis

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.

Coordinator(s): Alberto Matteelli (Italy), Chair: Riitta Dlodlo (Zimbabwe)

1) Overview of course – Riitta Dlodlo (Zimbabwe)
2) Risk factors and vulnerable populations – Chen-Yuan Chiang (Taiwan)
3) WHO strategy for latent TB infection management – Haileyesus Getahun (Switzerland)
4) Treatment options for latent TB infection – Neil Schluger (United States of America)
5) Implementation of the strategy for active case-finding and TB prevention: part 1 – Anna Nakanwagi-Mukwaya (Uganda)
6) Implementation of the strategy for active case-finding and TB prevention: part 2 – Riitta Dlodlo (Zimbabwe)
7) Monitoring of systematic testing and treatment for latent TB infection in children and people living with HIV – Alberto Matteelli (Italy)
8) Country example of implementation of case-finding and implementation of latent TB infection treatment – Seyou Mohamed Ouedraogo (Burkina Faso)
9) Conclusion and evaluation – To be confirmed
UNION ADMINISTRATIVE MEETINGS

08:00-09:30  ➤ ACC LIVERPOOL/BOX 4

MEMBERSHIP COMMITTEE MEETING

Attendees: Membership committee, Institute representatives and invited guests

10:00-15:00  ➤ PULLMAN/ALBERT & KINGS SUITE

BOARD MEETING (1)

Attendees: All current Board members

16:00-18:00  ➤ ACC LIVERPOOL/BOX 4

EDITORIAL BOARD OF PUBLIC HEALTH ACTION (PHA)

Attendees: PHA Editorial Board and Institute representatives

16:30-18:30  ➤ PULLMAN/ALBERT & KINGS SUITE

COORDINATING COMMITTEE OF SCIENTIFIC ACTIVITIES (CCSA)

Attendees: CCSA Chair, all section officers, Institute representatives and Union President
The 5th President’s Centennial Dinner will be held at Liverpool Cathedral, UK on Tuesday, 25 October.

Thank you to everyone who will be joining us. We wish you a lovely evening.

The Centennial Campaign is raising funds to support our next century of global impact. Our first four dinners, since 2012, have raised $1 million. Thank you to all those who have offered their generous support.

This series of dinners will be held each year until 2020 in conjunction with The Union World Conference on Lung Health and offers an ideal opportunity for Union supporters to join the campaign.
WEDNESDAY
26 OCTOBER
2016
Breathless is an exhibition of photographs depicting air pollution and its effect on our lives and lungs. As the world becomes increasingly urbanised and air pollution levels continue to grow, the consequences to our respiratory health cannot be ignored.

The Union sent photographer Javier Galeano to India and China to document this issue. We invite you to view the photos on display in the Lower Galleria during the 47th Union World Conference on Lung Health.
INAGURAL SESSION

The conference will be officially opened by Dame Lorna E F Muirhead DBE, Her Majesty’s Lord-Lieutenant, representative of the Crown in Merseyside. The opening 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.

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Entertainment by Liverpool band “Sing Your Socks Off” will feature people living (and singing) with COPD and asthma who, with Merseyside’s Breathe Easy programme, have recovered their lung capacity through singing.

INAUGURAL LECTURE: CONFRONTING RESISTANCE

Keynote speaker: Stephen Lewis (Canada) is co-founder and co-director of AIDS-Free World; co-founder and board chair of the Stephen Lewis Foundation.

Stephen Lewis is the co-founder and co-director of AIDS-Free World, an international advocacy organisation that exposes injustice, abuse, and inequality—the social ills that underpin and continue to sustain HIV.

Mr. Lewis is the co-founder and board chair of the Stephen Lewis Foundation. He served on the Global Commission on HIV & the Law, and in 2015 Mr. Lewis was appointed to the Lancet Commission on Drug Policy and Health.

Stephen Lewis was the UN Secretary-General’s Special Envoy for HIV/AIDS in Africa from June 2001 until the end of 2006. From 1995 to 1999, Mr. Lewis was Deputy Executive Director of UNICEF at the organisation’s global headquarters in New York. From 1984 until 1988, he was Canada’s Ambassador to the United Nations.

AWARD PRESENTATION

THE UNION MEDAL

Presented by E Jane Carter, President of The Union

The Union Medal —The Union’s highest honour, which is awarded to members who have made an outstanding contribution to the control of tuberculosis (TB) or lung health through their scientific work and/or actions in the field.

WELCOME RECEPTION

A welcome reception for all delegates, exhibitors and accompanying people will be held immediately afterwards, hosted in conjunction with the City of Liverpool. Guests will have the opportunity to enjoy Liverpool’s band, The Cheatles.
POST-GRADUATE COURSES

All post-graduate courses are eligible for accreditation.

POST-GRADUATE COURSE 04  ▶ 08:00 - 14:30 ◀  SESSION ROOM 11C

AN INTRODUCTION TO TUBERCULOSIS MODELLING (TB MAC)

Sub-section: Tuberculosis/Nurses & Allied Professionals

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(s): Piotr Hippner (South Africa), Richard White (United Kingdom), Richard White (United Kingdom), Tom Sumner (United Kingdom), Emilia Vynnycky (United Kingdom), Rein Houben (United Kingdom), Gabriela Gomez (Netherlands), Patrick Hazangwe (Zimbabwe), Nqobile Mlilo (Zimbabwe), Ronald Ncube (Zimbabwe), Nicolas Siziba (Zimbabwe), Charles Sandy (Zimbabwe), Saidi Egwaga (Tanzania, United Rep.)

1) Lecture 1: An introduction to tuberculosis modelling – Richard White (United Kingdom)
2) Practical 1: Setting up a model of Mtb – Emilia Vynnycky (United Kingdom), Tom Sumner (United Kingdom)
3) Paper discussion: How to critically review a modelling paper – Piotr Hippner (South Africa), Philip Eckhoff (United States of America)
4) Lecture 2: Tuberculosis modelling – interventions – Rein Houben (United Kingdom), Gabriela Gomez (Netherlands)
5) Practical 2: Modelling the impact and cost effectiveness of TB interventions – Tom Sumner (United Kingdom), Emilia Vynnycky (United Kingdom), Gwen Knight (United Kingdom)
6) Summary of the day – Richard White (United Kingdom)

POST-GRADUATE COURSE 05  ▶ 08:00 - 14:30 ◀  SESSION ROOM 13

MAKING SENSE AND USE OF ROUTINE TB DATA FOR MANAGEMENT

Section: Tuberculosis

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(s): Einar Heldal (Norway), Christopher Zishiri (Zimbabwe)

1) The role of reliable TB data and their use for implementing TB programmes – a regional perspective – Saidi Egwaga (Tanzania, United Rep.)
2) Introduction: Key questions to be answered by the recording and reporting system, indicators to be monitored, recording and reporting tools – Charles Sandy (Zimbabwe)
3) How to tabulate and analyse data at facility level, with exercises – Nicolas Siziba (Zimbabwe)
4) How to tabulate and analyse data at district level, with exercises – Ronald Ncube (Zimbabwe)
5) How to do data-driven supportive supervision and use data for decision-making at different levels – Nqobile Mlilo (Zimbabwe)
6) How to use electronic recording in the best way – Patrick Hazangwe (Zimbabwe)
7) Rolling out the guide in the country and maintaining its use – Einar Heldal (Norway)
AN INTRODUCTION TO COSTING TUBERCULOSIS STRATEGIES AND SERVICES

Section: Tuberculosis

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 post-graduate course 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 post-graduate course 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

Coordinator(s):
Anna Vassall (United Kingdom), Bertie Squire (United Kingdom)

1) Overview of costing – Anna Vassall (United Kingdom)
2) Principles of costing – Sedona Sweeney (United Kingdom)
3) Reporting and interpreting cost data – Gabriela Gomez (Netherlands)
4) Using cost data in priority setting – Jason Madan (United Kingdom)
5) Costing data and resources – Yoko Laurence (United Kingdom)

INTRODUCTION TO THE DESIGN OF A TB TELEECCHO PROGRAMME

Sub-section: Tuberculosis/Nurses & Allied Professionals

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.

Coordinator(s):
Bruce Struminger (United States of America), Lisa Chen (United States of America)

1) 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)
2) 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 – Curry International Tuberculosis Center/UCSF)
3) Adaptation and implementation of the ECHO model for drug-resistant TB in Viet Nam – Viet Nhung Nguyen (Viet Nam)
4) Adaptation and implementation of the ECHO model to support migrant and refugee populations with drug-resistant TB in Kenya – Maureen Kamene Kimenye (Kenya)
5) 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)
7) Adaptation and implementation of the ECHO model for drug-resistant TB in Haiti – Willy Morose (Haiti)
WORKSHOPS  

All workshops are eligible for accreditation.

WORKSHOP 01  ➤  08:00- 14:30  ➤  SESSION ROOM 3A

INNOVATIVE WHO POLICIES TO SUPPORT THE END TB STRATEGY

Section: Tuberculosis

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 patient care and support, TB infection control, 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(s): Linh Nguyen (Switzerland), Ernesto Jaramillo (Switzerland), Co-chairs: Charles Daley (United States of America), Linh Nguyen (Switzerland)

1) Updating the WHO guidelines: scope, process and evidence – Dennis Falzon (Switzerland)
2) Updated guidance on molecular tests for diagnosis of TB and TB drug-resistance – Christopher Gilpin (Switzerland)
3) WHO updates on the programmatic management of latent TB – Haileyesus Getahun (Switzerland)
4) Progress on updating WHO guidance on treatment of drug-susceptible TB – Giuliano Gargioni (Switzerland)
5) Updated guidance on treatment of drug-resistant TB – Charles Daley (United States of America)
6) New diagnostic pathways based on the updated policies and implications for clinical practice – Fuad Mirzayev (Switzerland)
7) Progress on updating WHO guidance on support to treatment adherence and model of care – Linh Nguyen (Switzerland)
8) Progress on updating WHO guidance on ethics of TB prevention, diagnosis, treatment and care – Diego Silva (Canada)
9) Progress on updating WHO guidance on TB infection control – Paul Jensen (United States of America)
10) Introducing the Companion Handbook to the WHO policies for the management of drug-resistant TB – Ernesto Jaramillo (Switzerland), Michael Rich (United States of America)

WORKSHOP 02  ➤  08:00- 14:30  ➤  SESSION ROOM 3B

TB TRANSMISSION CONTROL: ADVANCES IN THE SUSTAINABLE IMPLEMENTATION OF THE F-A-S-T CONTROL STRATEGY AND UPPER ROOM GERMICIDAL UV AIR DISINFECTION.

Section: Tuberculosis

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(s): Sevim Ahmedov (United States of America), Co-chairs: Edward Nardell (United States of America), Max Meis (Netherlands)

1) Intro and overview of FAST – Dylan Tierney (United States of America)
2) FAST in Russia – Viktoria Lychits (Russian Federation)
3) FAST in Viet Nam – Hien Le (Viet Nam)
4) FAST in Bangladesh – Paul Daru (Bangladesh)
5) FAST in Nigeria – Gidado Mustapha (Nigeria)
6) How to sustain FAST? Discussion – Dylan Tierney (United States of America)
7) Introduction and overview of GUV – Edward Nardell (United States of America)
8) Sustainable GUV in Russia – Gregory Volchinkov (Russian Federation)
9) Sustainable GUV in India – Soura Bhattacharyya (India)
10) Sustainable GUV in South Africa – Toby Van Reenen (South Africa)
11) Sustainable GUV in Ethiopia: business plan – Nathalie LaHood (Ethiopia)
12) How to sustain GUV: discussion – Paul Jensen (United States of America), Grigory Volchenkov (Russian Federation)

WORKSHOP 03 ▶ 08:00-14:30 ▶ SESSION ROOM 1C

OPERATIONAL RESEARCH SKILLS IN ONE DAY

Section: All sections

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 Confronting Resistance: Fundamentals to Innovations. 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(s): Anthony D Harries (United Kingdom), Rony Zachariah (Luxembourg)

1) Operational research: what, why and how – Rony Zachariah (Luxembourg)
2) Operational research capacity building – Anthony D Harries (United Kingdom)
3) Collection and organisation of data and use of Epidata – Ajay Kumar (India)
4) Moving research to policy and practice – Rony Zachariah (Luxembourg)

WORKSHOP 04 ▶ 08:00-14:30 ▶ SESSION ROOM 1B

SUPPRESSING RESISTANCE EMERGENCE IN TB PROGRAMMES USING PK/PD SCIENCE

Section: Tuberculosis

This is a one-day workshop on pharmacometric approaches to suppressing emergence of multidrug resistance and optimising existing anti-TB regimens to minimise side effects. The workshop will provide an overview of pharmacokinetics/pharmacodynamics (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(s): Jotam Pasipanodya (United States of America), Vhudzani Tshisevhe (South Africa)

1) PK/PD, drug development and role of public-private partnerships – Debra Hanna (United States of America)
2) PK/PD Basics: models, dose selection, therapeutic targets – Eric Nuermberger (United States of America)
3) Pharmacokinetic variability of anti-TB agents in special populations – Helen McIlleron (South Africa)
4) How ‘TB’ therapy failure and acquired drug resistances emerge: TB programme versus hostpathogenfactors – Jotam Pasipanodya (United States of America), Tawanda Gumbo (United States of America)
5) Role of drug gradient in lungs and acquired drug resistance – Keertan Dheda (South Africa)
6) Defining drug resistance in TB programmes based on PK/PD sciences – Tawanda Gumbo (United States of America)
7) How to implement PK monitoring in TB programmes: a practical approach – Jan-Willem Alfeenar (Netherlands)
8) Latest treatment regimens for children without drug resistant TB – Soumya Swaminathan (India)
9) Monitoring drug concentrations in patients with MDR-TB – Scott Heyssell (United States of America)
**WORKSHOP 05  ➤  08:00- 14:30 ➤ SESSION ROOM 12**

**CONFRONTING RESISTANCE: ENSURING ACCESS TO NEW TB DRUGS IN THE WHO EUROPEAN REGION WITH FOCUS ON EASTERN EUROPE AND CENTRAL ASIA**

**Section: Tuberculosis**

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 the 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

**Co-chairs:** Masoud Dara (Belgium), Irina Vasilyeva (Russian Federation)

1) WHO perspective of sharing knowledge on new TB drugs: regional perspective – Masoud Dara (Belgium)
2) Use of bedaquiline in the Russian Federation: national roll-out, needs and challenges – Irina Vasilyeva (Russian Federation)
3) Update from the work of new and repurposed TB drug introduction from the WHO Regional Office for Europe – Martin van den Boom (Denmark)
4) Field management of patients with new TB drugs: examples from the endTB project – Michael Rich (United States of America)
5) Monitoring and management of patients in the setting of new TB drugs, practical tools: example from Latvia – Liga Kuksa (Latvia)
6) Country report: experience of the use of new TB drugs, example from Georgia – Nino Lomtadze (Georgia)
7) Ensuring adequate supply of new drugs – Nigorsulton Muzafarova (Switzerland)
8) Country report: working with national regulatory authorities or around regulations to import the drugs into countries, experience from Kazakhstan – Elmira Berikova (Kazakhstan)
9) Country report: experience with pharmacovigilance/aDSM from Belarus – Alena Skrahina (Belarus)
10) Global tendency toward increasing access to BDQ and DLM – Jennifer Furin (United States of America)

**WORKSHOP 06  ➤  08:00- 11:00 ➤ SESSION ROOM 11B**

**DEVELOPING COUNSELLING SKILLS FOR TB CAREGIVERS**

**Sub-section: Tuberculosis/Nurses & Allied Professionals**

**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 behaviour
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 favourable treatment outcomes

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

1) A brief description of Cough-to-Cure Pathway – Dennis Cherian (United States of America)
2) What is counselling? Various types of counselling – Jeannette Ulate (Canada)
3) Counselling at different stages of Cough-to-Cure Pathway – Sugata Mukhopadhyay (India)
4) Counselling tools in TB care – Sushma Cornelius (India)
5) 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)
6) Measuring effectiveness of counseling services: methodologies and tools – Samuel Blesson (India)

WORKSHOP 07  ➤ 08:00- 11:00  ➤ SESSION ROOM 11A

ETHICS AND HUMAN RIGHTS IN PREVENTION, CARE AND CONTROL OF TUBERCULOSIS: CHALLENGES AND APPROACHES

Section: Tuberculosis

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(s): Nisha Ahamed (United States of America), Ernesto Jaramillo (Switzerland)

1) Overview of TB and ethics – Lee Reichman (United States of America)
2) WHO ethics and human rights activities: guidance and technical assistance – Ernesto Jaramillo (Switzerland)
3) Ethical challenges in TB approaches for improvement: South African experience – Lindive Myusi (South Africa)
4) Tools and training on ethics – Nisha Ahamed (United States of America)
5) Panel discussion – Michael Frick (United States of America)
6) Panel discussion – Tsira Chakhaia (Georgia)
7) Panel discussion – Ignacio Monedero (Spain)

WORKSHOP 08  ➤ 11:15-14:15  ➤ SESSION ROOM 11B

LESSONS LEARNT FROM INCREASING ACCESS TO BEDAQUILINE AND DELAMANID FOR MANAGEMENT OF DRUG-RESISTANT TB

Section: Tuberculosis

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

1) Access to bedaquiline and Delamanid through the Global Drug Facility: what you need to know – Andre Zargoski (Switzerland)
2) Providing technical assistance to build national TB programme readiness to introduce bedaquiline: lessons learnt – Owunna Chinweie (United States of America)
3) Providing technical assistance to build national TB programme readiness to introduce bedaquiline: lessons learnt – Gunta Dravniece (Netherlands)
4) Adoption of bedaquiline under programmatic conditions in Swaziland: country experience and lessons learnt – Welile Sikhondze (Swaziland)
5) Ensuring drug-safety monitoring and management for patients on bedaquiline: Georgia experiences – Nino Lomtadze (Georgia)
6) Understanding barriers that can delay access despite the availability of donated medicines – Vincent Balanag (Philippines)
7) Overall update on the bedaquiline donation programme and lessons learnt – Ya Diul Mukadi (United States of America)
8) Overall update on the bedaquiline donation programme and lessons learnt – Susan van den Hof (Netherlands)

WORKSHOP 09  ►  14:45-17:45  ►  SESSION ROOM 12

QUALITY CHEST X-RAY (CXR) FOR TB DIAGNOSIS IN ADULTS AND CHILDREN

Sub-section: Tuberculosis/Bacteriology & Immunology

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 Reconsider 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 or prevention among risk groups and for early 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 screening tool for triage and early TB diagnosis for adult and childhood.

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

1) WHO recommendations on the use of chest radiography for screening, triaging and diagnosis of TB – Knut Lönroth (Switzerland)
2) 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)
3) Capacity building on chest X-ray reading – Etienne Leroy-Terquem (France), James Seddon (United Kingdom)
4) IOM tele-radiology quality control systems – Sifrash Meseret Gelaw (Philippines)
5) Review of existing computer aid diagnosis (CAD) and retrofit DR plates – Frank Cobelens (Netherlands)
WORKSHOP 10 ➢ 11:15-14:15 ➢ SESSION ROOM 10

PROVIDING COMPREHENSIVE PATIENT-CENTRED CARE: A CONCEPTUAL FRAMEWORK FOR QUALITY TB CARE

Sub-section: Tuberculosis/Nurses & Allied Professionals

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.

Coordinator(s): Hala Jassim Al Mossawi (United States of America), Amber Almanzar (United States of America)

1) Ensuring sustainability of social support interventions through strengthening the legal framework for TB control – Tamar Gabunia (Georgia)
2) Linking social support with Pillar 2/universal healthcare component of End TB Strategy – Samson Haumba (Swaziland)
3) Integrating palliative care and end of life care into TB/MDR-TB programmes – Robert Makombe (South Africa)
4) Mobile cash transfers for MDR-TB patients in Bangladesh – Paul Daru (Bangladesh)

WORKSHOP 11 ➢ 14.45-17:45 ➢ SESSION ROOM 3A

DIGITAL HEALTH TECHNOLOGY FOR THE END TB STRATEGY: DEVELOPING PRIORITY PRODUCTS AND MAKING THEM WORK

Section: Tuberculosis

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(s): Mario Raviglione (Switzerland), Giovanni Battista Migliori (Italy)

1) Introduction – Mario Raviglione (Switzerland)
2) WHO, ERS, digital health and the End TB Strategy – Dennis Falzon (Switzerland)
3) How much can digital health contribute to global TB control: modelling the evidence – Richard Lester (Canada)
4) TB treatment observation using smartphones – Richard S Garfein (United States of America)
5) New approaches to adherence support for TB care: the future is now – Bruce Thomas (United States of America)
6) Bringing a target product profile for connected TB diagnostics to life – Chris Isaacs (Switzerland)
7) Could digital health bring precision medicine within reach of the TB clinician? – Zelalem Temesgen (United States of America)
8) Harnessing the power of digital platforms for clinical decision making and programme planning – Niranjan Konduri (United States of America)
9) NIKSHAY and Aadhaar as the cornerstones of TB notification in India – Kiran Kumar Rade (India)
10) Concluding remarks – Giovanni Battista Migliori (Italy)
WORKSHOPS   WEDNESDAY 26 OCTOBER 2016

WORKSHOP 12 ▶ 14:45-17:45 ▶ SESSION ROOM 3B

BUILDING CAPACITY FOR INCREASED ATTENTION AND SUPPORT FOR INTEGRATING MIGRANTS AND MOBILE POPULATIONS IN NATIONAL AND INTERNATIONAL TB PROGRAMMES

Section: Tuberculosis

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(s): Poonam Dhavan (Switzerland), Musa Ernest Mkoko (Swaziland)

1) Updates and overview: global migration context and TB prevention, care and control – Davide Mosca (Switzerland)
2) Migrants as key populations in the Global Plan to End TB – Jacob Creswell (Switzerland)
3) Perspectives from the field: Afghanistan – Ataulhaq Sanaie (Afghanistan)
4) Perspectives from the field: Romania – Jonathan Stillo (United States of America)
5) Migrants and mobile populations: engagement of programme stakeholders and communities in the Global Fund-related processes – Ed Ngoksin (Switzerland), Hyeyoung Lim (Switzerland)
6) 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)
7) TB and MDR-TB in Southern African mining migrant workers: civil society organisation’s stories of change – Dumisane Simelane (Swaziland)
8) 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)
9) I am a migrant (IAM) case stories – Poonam Dhavan (Switzerland)

WORKSHOP 13 ▶ 14:45-17:45 ▶ SESSION ROOM 1B

CIVIL SOCIETY: BECOMING EQUAL AND KEY PARTNERS IN THE NATIONAL TB RESPONSE

Track: Civil society and community engagement

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 build capacity for increased 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) Stop TB Partnership: challenge facility for civil society – Caoimhe Smyth (Switzerland)
2) Ramping up civil society engagement in the national response in Ethiopia – Jonniah William-Molle (Tanzania, United Rep.)
3) Using the community HIV experience in Cambodia to bolster the engagement of communities in the TB response – Choub Sok Chamreun (Cambodia)
4) The civil society response in the Philippines – Bertrand Prouminzhouer Kampoer (Cameroon)
5) Expanding and engaging key populations in TB in the national response – Safar Naimov (Tajikistan)

Coordinator(s): Jacob Creswell (Switzerland), Chair: Kate Thomson (Switzerland)

1) Stop TB Partnership: challenge facility for civil society – Caoimhe Smyth (Switzerland)
2) Ramping up civil society engagement in the national response in Ethiopia – Jonniah William-Molle (Tanzania, United Rep.)
3) Using the community HIV experience in Cambodia to bolster the engagement of communities in the TB response – Choub Sok Chamreun (Cambodia)
4) The civil society response in the Philippines – Bertrand Prouminzhouer Kampoer (Cameroon)
5) Expanding and engaging key populations in TB in the national response – Safar Naimov (Tajikistan)
WORKSHOP 14  14.45-17:45  SESSION ROOM 11B

WHAT BROUGHT ABOUT A 10 PERCENT ANNUAL DECLINE IN TB INCIDENCE? LESSONS LEARNT FROM JAPAN, WESTERN EUROPE AND NORTH AMERICA

Section: Tuberculosis

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.

At 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 needs 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(s): Kosuke Okada (Japan) Co-chairs: Chakaya Muhwa (Kenya), Paula I Fujiwara (United States of America)

1) Global and HBC’s trend of TB notification: why we couldn’t observe a significant decline under Stop TB Strategy – Ikushi Onozaki (Switzerland)
2) Experiences in Japan: universal health coverage, social protection and other counter-measures against TB – Akihiro Oihako (Japan)
3) Experiences in Western Europe: improved living conditions and nutrition, and chemotherapy – Ibrahim Abubakar (United Kingdom)
4) Experiences in North America: dramatic decline in TB incidence among Canadian native population – Anne Fanning (Canada)

WORKSHOP 15  14.45-17:45  SESSION ROOM 11C

BUILDING ENVIRONMENT FOR ACTIVE CASE DETECTION, TREATMENT MANAGEMENT AND ADHERENCE USING THE RURAL T4D MODEL

Track: Civil society and community engagement

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 centres, PHCs, TB Units and DOTS Centres 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 District 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 management.

Coordinator(s): Subhi Quraishi (India), Syed Fashihuddin (Pakistan)

1) Role of community radio in the fight against TB – Puja Murada (India)
2) Patients mobile-based active compliance – Pravin Raj (India)
3) Holistic rural model for combatting TB – Subhi Quraishi (India)
4) Digital communication for BCC: TB awareness building – Hilmi Quraishi (India)
UNION ADMINISTRATIVE MEETINGS

12:00-14:00 ➤ ACC LIVERPOOL/MULTIPURPOSE ROOM

EDITORIAL BOARD MEETING OF THE INTERNATIONAL JOURNAL OF TUBERCULOSIS AND LUNG DISEASE (IJTLD)

Attendees: IJTLD Editorial Board members, Institute representatives

UNION SCIENTIFIC WORKING GROUP MEETINGS

The Union currently has 14 working groups that undertake specific projects within fixed time-frames. Activities undertaken by current groups include developing official policy statements, publishing technical guides and other resources, carrying out research projects, raising global awareness of topical TB and lung health issues and providing a forum for discussion and development. Self-funded, working groups rely on the support and dynamism of members in order to flourish and achieve their aims.

Non-Union members are welcome to attend the working group meetings and find out more about projects and plans for 2017, as well as how to become involved.

11.15 – 12.15 ➤ SESSION ROOM 11A
Countering tobacco

12.30 – 13.30 ➤ SESSION ROOM 11A
Getting research into tobacco control

14.45 – 15.45 ➤ SESSION ROOM 1C
Drug-resistant TB (DR-TB)

14.45 – 15.45 ➤ SESSION ROOM 14
Asthma management in low- and middle-income countries

14.45 – 15.45 ➤ SESSION ROOM 13
Regional mobilisation of Nurses and Allied Professionals

16.00 – 17.00 ➤ SESSION ROOM 1C
Maternal-child TB

16.00 – 17.00 ➤ SESSION ROOM 11A
TB education and training

16.00 – 17.00 ➤ SESSION ROOM 14
TB and mental health

16.00 – 17.00 ➤ SESSION ROOM 13
TB infection control
NEW DIAGNOSTICS WORKING GROUP ANNUAL MEETING

Open to all delegates

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 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.

Coordinator: Alessandra Varga, FIND, NDWG Secretariat
Chairpersons: Catharina Boehme, FIND, Daniela Cirillo, San Raffaele Scientific Institute, NDWG Co-Chairs

9TH FIND SYMPOSIUM

Open to all delegates

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 individualised 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.

Coordinator: Alessandra Varga, FIND, NDWG Secretariat (Switzerland)
Co-Chairs: Catharina Boehme, FIND, Daniela Cirillo, San Raffaele Scientific Institute, NDWG

AERAS STAKEHOLDER MEETING AND LUNCHEON

Open to all delegates

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 mobilisation.

Coordinator: Jennifer Woolley, Aeras (United States of America)
CULTURAL ACTIVITY: PARTICIPATORY ACTIVITY  07.30 – 08.00  COMMUNITY COMMON SILENT THEATRE

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.”

Coordinator(s): Andrea von Delft and Chanel Rossouw (TB Proof, South Africa)

The string symbolises:
- 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 an more resilient to overcome TB.

The string is also reminiscent 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 stigmatised. It would offer them hope and courage and connection to the scientific world.
COMMUNITY COMMON CULTURAL ACTIVITY ➤ 8:00, 12:00, 16:00 ➤ PIAZZA

LIVE DISPLAY: ACE-1 COOKSTOVE VERSUS OPEN FIRE

“In this session, 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.”

Coordinators: Operation Florian, Dr Kevin Mortimer (LSTM, United Kingdom), Liverpool Life Sciences UTC (United Kingdom) and Merseyside Fire & Rescue Service (United Kingdom)

COMMUNITY COMMON CULTURAL ACTIVITY: PARTICIPATORY ACTIVITY ➤ 9:00-17:00 ➤ PIAZZA

OUTDOOR SOCCER: KICK TB AND IMPROVE LUNG HEALTH

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.

Coordinator: John Finnigan, Liverpool Homeless Football Club

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 income.

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 discuss how eliminating catastrophic health costs related to TB needs 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(s): David Bryden (United States of America), 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)

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 organisations 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 other social media.

This session will be targeted at civil society and community groups. It will aim to generate a lively and insightful discussion about the 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, 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)
PANEL DISCUSSION  ➤  11.25 – 11.55 ➤ COMMUNITY COMMON CULTURAL ACTIVITY: PARTICIPATORY ACTIVITY

**X-RAYS AND CT SCANS: WHAT ARE THEY AND HOW CAN THEY HELP IN THE TREATMENT OF LUNG DISEASES.**

Community Common Session Room. The session should read: The session will be presented by Consultant Radiologist Dr Elizabeth Joekes. It aims to accessible to all and will explain what exactly chest x-rays and CT lung scans are, as well as dispelling myths about their risks. There will be examples of equipment and the most common findings.

PANEL DISCUSSION  ➤  12.00 – 12.55 ➤ COMMUNITY COMMON SILENT THEATRE

**CREATING AN UNDERSTANDING OF THE UNION WITH DR E JANE CARTER, PRESIDENT 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 as civil society key players will be clear about the core business of The Union, as well as how it operates.

PANEL DISCUSSION  ➤  13.00 – 14.00 ➤ COMMUNITY COMMON SILENT THEATRE

**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 will 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 & Rescue Service and local school children, a series of open fires will be lit inside minaturised replica housing (created by school children) on the piazza of the ACC Arena to visibly demonstrate the air pollution and fire risks. These displays will take place throughout the day on Wednesday 26th October.

Coordinator(s): Steve Jordan (United Kingdom)

Presentation I – Kevin Mortimer (United Kingdom)

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. Urbanisation can be positive, increasing access to goods and services and accelerating development. However, it can also be disastrous; affecting resources and public health, including infectious disease control and non-communicable diseases. At its most serious, this can mean epidemics, however, urban stresses are often harder to detect. Successful urbanisation can be achieved by strengthening health systems and improving availability of data; public engagement; access to healthcare; and emergency response systems. This session will explore urban health stresses including TB management, engaging communities in air quality control, health data usage, and other NCD risk factors.

Co-Chairs: Sandra Mullin (United States), Claudia Cedillo (Mexico)

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 Schluger (United States of America)

Using data to drive lung health policy in China – Quan Gan (China)
PANEL DISCUSSION ➤ 15.40 – 16.40 ➤ COMMUNITY COMMON SILENT THEATRE

ENGAGING, MOBILISING AND UTILISING COMMUNITIES IN THE FIGHT AGAINST TB
(COMMUNITY COMMON ABSTRACT PRESENTATIONS)

Integrating strategy of door-to-door TB screening and mapping to improve TB cases detection in Depok City, West Java, Indonesia – N A Tamhid, A Rozaliyani, H Fazriah, R Martina, F Razi, H Diatmo, M Reksoprodjo, R A Panigoro (Indonesia)

Mobilising and screening Vulnerable TB communities in the Kanifing Municipal Council” (KMC) in The Gambia – O M Ceesay (Gambia)

Factors affecting the acceptance of Directly Observed Therapy (Dots) of tuberculosis in communities: the case of Kawempe community, Kampala Uganda – A Tumusiime, E C Mulumba (Uganda)

Adherence is not a pipe dream: effective community-based TB services for PLHIV – D Lewis (India)

Community engagement for TB care and control: experience from a hilly state in India – D R Mishra (India)

Empowered community volunteers improve case finding in access-poor areas – T Yu (Philippines)

Community tracing system performance for people affected by tuberculosis during Ebola epidemic in Conakry, Guinea – C Gba-Foromo, F Loua, N Ortiz-Butierrez, T Demeulenaere, S Hassane Harouna, A M Bangoura, L M Camara (Guinea, Belgium)

Strengthening community level management to improve TB control services in Quezon City, Philippines – A Lagos, L Adorio-Arce, K G See, M L de Guzman, C Garfin (Philippines)

Celebrity advocacy to fight stigma and discrimination against TB – A Suman, A Bhatnagar, L Paul, K Ayyagari, J Tonsingh (India)

Opportunities and challenges in involvement of non-formal healthcare providers to control tuberculosis among migrant population: lessons from TB REACH project – P Nanda, K C Sahoo, S Pattanaik, A Dutta, P Panigrahi (India, United States of America)

Webinars connecting lung health journalists and advocates with experts around current priorities – R K Dwivedi, S Shukla, B Ramakant (India)

Multi-pronged strategies for enhancing awareness and early detection of TB patients among marginalised and vulnerable populations – S Pandurangan, S Chidha, S Mohanty (India)

Coordinator(s): Zolani Barnes (TB/HIV Care Association, South Africa)

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 centre. 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(s): Serena Cavanagh (United Kingdom)

Presentation – Kath Charters (United Kingdom)
PLENARY SESSIONS

PLENARY SESSION I  CONFRONTING RESISTANCE

Chair(s): Janet Hemingway (United Kingdom), Catharina Boehme (Switzerland), Hon Stephen Mule (Kenya)

The impact of air pollution on adult and child lung health
Speaker: Thomas Matte (United States of America) is Vice President for Environmental Health, Vital Strategies.

Dr. Thomas Matte has more than 25 years experience in environmental epidemiology, environmental health practice and policy development at the national and local level. Tom joins Vital Strategies as the new Vice President for Environmental Health. Prior to joining Vital Strategies, Tom served as Assistant Commissioner for Environmental Surveillance and Policy at New York City Department of Health and Mental Hygiene where he directed studies of air pollution, extreme weather and other urban environmental hazards and represented the Department in applying public health evidence to the City’s cross-sectoral sustainability and climate resilience initiatives. He previously served in the Epidemic Intelligence Service at the US Centers for Disease Control and Prevention and as a medical epidemiologist with CDC’s National Center for Environmental Health. Tom holds a medical degree from Albany Medical College and a Master of Public Health from the Harvard School of Public Health where he completed a residency in Occupational Medicine.

He can be reached by email at tmatte@vitalstrategies.org

Changing course without rocking the boat: lessons learnt from implementing TB genomics in public health
Speaker: Jennifer Gardy (Canada) is Assistant Professor, University of British Columbia; and Canada Research Chair, Public Health Genomics.

Dr. Jennifer Gardy is an Assistant Professor at the University of British Columbia, where she holds a Canada Research Chair in Public Health Genomics. Her research examines how genome sequencing can be used to answer questions in public health, particularly around reconstructing communicable disease transmission patterns. In 2011, her group was the first to apply genomics to a large outbreak of TB, and she has since explored how genomic data can be used to find missing cases in a TB outbreak and time infection events to help declare TB outbreaks over. British Columbia, Canada is a low-incidence setting with a centralised TB laboratory and client registry – the ideal setting to implement whole genome sequencing as a tool to understand TB epidemiology. We’ve now sequenced every culture-positive, clustered case of TB diagnosed in the province over a ten-year period, including several large outbreaks, and our experience has shown that frontline public health professionals are excited about genomics’ potential, even if they don’t understand the technical basis of the approach. Here, I’ll briefly highlight some of the ways we’ve used genomics to answer important questions about TB transmission in BC, and what it was about each vignette that made the story a success from both the genomics and the frontline public health perspective.

Funding innovation to confront resistance
Speaker: Janet Ginnard (Switzerland) is Team Lead, Strategy, UNITAID.

Janet Ginnard is the Strategy Team Lead at UNITAID. She is responsible for the development of new areas for UNITAID investment, with an emphasis on market analysis and using strategic partnerships to optimise access to appropriate drugs, diagnostics, and preventive tools. Janet has 15 years’ international work experience in health, with a wide range of roles spanning public health and private-sector healthcare, focused on strategy development and technical project management. Prior to UNITAID, she worked at the World Health Organization, facilitating access to safe, reliable and appropriate diagnostic technologies. In private-sector consulting work, Janet focused on pharmaceutical pricing and reimbursement issues. She advised on market access optimisation for most of the world’s 25 largest pharmaceutical companies, and led targeted strategy development for boutique pharma and specialised biotechnology companies. She started her career at Chiron Corporation (now Novartis), focusing on validation and quality assurance of diagnostic products to test blood for HIV and Hepatitis C virus.

She has a B.S.E. in Chemical Engineering from the University of Michigan and an MPhil in Bioscience Enterprise from the University of Cambridge, Judge School of Business, and Massachusetts Institute of Technology.

AWARD PRESENTATION  THE KAREL STYBLO PUBLIC HEALTH PRIZE

The Karel Styblo Public Health Prize — awarded by The Union, acknowledges a health worker (physician or lay person) or a community organisation for contributions to tuberculosis control or lung health over a period of ten years or more.
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 improving lung health. This 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. This session will host an interactive discussion informed by international experiences and best practices, as well as the local innovation and experience of the participating Ministers.

Hon Smaila Ouédraogo, Minister of Health, Burkina Faso
Hon Shri J.P. Nadda, Union Minister of Health & Family Welfare, India
Dr Paulyn Jean B. Rosell-Ubial, Secretary of Health, Philippines
Hon Aaron Motsoaledi, Minister of Health, South Africa
Hon Rajitha Senaratne, Minister of Health, Nutrition and Indigenous Medicine, Sri Lanka
Hon Pagwesese Parirenyatwa, Minister of Health, Zimbabwe

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.
SYMPOSIA

All symposia are eligible for accreditation.

SYMPOSIUM 01  10:30-12:00  SESSION ROOM 3A

HIGH-DOSE RIFAMPICIN: RECOVERING AN OLD DRUG IN THE POST-MULTIDRUG-RESISTANT TB ERA

Section: Tuberculosis

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.

Co-chairs: Carole Mitnick (United States of America), Martin Boeree (Netherlands)

10.30 High-dose rifampicin in pulmonary TB – Geraint Davies (United Kingdom)
10.45 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)
11.00 High-dose rifampicin in TB-meningitis – Rob Aarnoutse (Netherlands)
11.15 Adjunctive therapies and other approaches to extending the useful life of rifampicin – Tawanda Gumbo (United States of America)
11.30 Panel discussion on the future of rifamycins for TB treatment in the face of resistance – Patrick Phillips (United Kingdom)
11.45 Discussion

SYMPOSIUM 02  10:30-12:00  SESSION ROOM 1C

PNEUMONIA: SUPPORTIVE CLINICAL MANAGEMENT WHERE THERE IS NO INTENSIVE CARE

Section: Adult & Child Lung Health

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?

Co-chairs: Jamie Rylance (United Kingdom), Stephen M Graham (Australia)

10.30 Oxygen support in severe respiratory illness: implementation where there is no ICU – To be confirmed
10.45 Support for patients with sepsis: a relevant agenda where there is no ICU – To be confirmed
11.00 How can risk stratification benefit children with pneumonia? – Eric Mccollum (United States of America)
11.15 How can risk stratification benefit adult patients with pneumonia? – Stephen Aston (United Kingdom)
11.30 Biomarkers of pneumonia: are new diagnostics on their way, or far away? – Enitan Carrol (United Kingdom)
11.45 Discussion

SYMPOSIUM 03  10:30-12:00  SESSION ROOM 12

TACKLING SECOND-HAND SMOKING: A LIFE COURSE APPROACH

Section: Tobacco Control

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.

Co-chairs: Heather Thomson (United Kingdom), Rumana Huque (Bangladesh)
10.30 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 Why do men smoke in the home? A qualitative investigation with pregnant women, their husbands and family members – Jackson Cath (United Kingdom)

11.00 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 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 What can be done with schools to protect children from second-hand smoke exposure – Rumana Huque (Bangladesh)

11.45 Discussion

SYMPOSIUM 04 ➤ 10:30-12:00 ➤ SESSION ROOM 11A

ACTIVE TB DRUG SAFETY MONITORING AND MANAGEMENT:
A TRANSFORMATIVE APPROACH TO LIMIT TREATMENT-RELATED PATIENT HARM

Section: Tuberculosis

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

Co-chairs: Ernesto Jaramillo (Switzerland), Antonia Kwiecin (United States of America)

10.30 Limitations and problems of current MDR-TB treatment adverse event reporting – Richard Menzies (Canada)
10.45 Reporting adverse events within the framework of aDSM: parameters and approaches – Dennis Falzon (Switzerland)
11.00 Adverse events reporting for anti-tuberculosis medicines in the Philippines: current situation, experiences and lessons learnt – Anna Marie Celina Garfin (Philippines)
11.15 Improving TB patient safety and management: the Georgia experience – Nino Lomtadze (Georgia)
11.30 Consolidating safety information collected in countries in the context of aDSM – Christian Halleux (Belgium)
11.45 Discussion

SYMPOSIUM 05 ➤ 10:30-12:00 ➤ SESSION ROOM 14

ADDRESSING HEALTHCARE DISRUPTION AND MINIMISING DRUG RESISTANCE DEVELOPMENT AMONG TB PATIENTS AFFECTED BY CONFLICT ARISING FROM ARMED RESISTANCE IN SYRIA

Section: Tuberculosis

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.

Co-chairs: Latha Rajan (United States of America), Jeffrey Rozelle (United States of America)

10.30 Conflict and the interruption of TB treatment among Syrians – M. Zaher Sahloul (United States of America)
10.50 Tuberculosis among Syrian Refugees- A physician’s perspective – Aula Abbara (Syria)
11.00 The impact of the Syrian civil war on TB care delivery and the role of the international community – Aleksandar Galev (Jordan), Saiful Qayyum (Jordan)
11.30 Public health strategy for tuberculosis among Syrian refugees in Jordan – Akrom Elton (Jordan)
11.50 Discussion
SYMPOSIUM 06  ➤  13:30-15:00  ➤  SESSION ROOM 1A

TUBERCULOSIS AND DIABETES COLLABORATIVE ACTIVITIES IN THE CONTEXT OF THE END TB STRATEGY AND SUSTAINABLE DEVELOPMENT GOALS

Section: Tuberculosis, Adult & Child Lung Health

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

Co-chairs: Gloria Sangiwa (United States of America), Kerri Viney (Australia)

13.30 Update on the global progress in implementing TB-diabetes collaborative activities – Anthony D Harries (United Kingdom)
13.45 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)
14.00 Charting the course for integrative care: five years of TB-diabetes programme progress for the Pacific – Richard Brøstrom (United States of America)
14.15 Using TB and HIV platforms for prevention and control of diabetes mellitus: successful example from Ethiopia – Degu Jerene (Ethiopia)
14.30 The TANDEM programme: understanding tuberculosis and diabetes through field studies and basic sciences – Reinout van Crevel (Netherlands)
14.45 Discussion

SYMPOSIUM 07  ➤  13:30-15:00  ➤  SESSION ROOM 3A

INTRODUCING BEDAQUILINE AND DELAMANID FOR DRUG-RESISTANT TB UNDER ROUTINE PROGRAMME CONDITIONS: PRELIMINARY RESULTS FROM THE END TB INITIATIVE

Section: Tuberculosis

This symposium will report the first results from the UNITAID-funded End TB 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. End TB 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.

Co-chairs: Carole Mitnick (United States of America), Francis Varaine (France)

13.30 Organising MDR-TB treatment with bedaquiline and delamanid: end TB in Armenia – Armen Hayrapetyan (Armenia)
13.45 Bedaquiline for the treatment of XDR-TB and pre-XDR-TB: end TB in Peru – Leonid Lecca (Peru)
14.00 Bedaquiline and delamanid for MDR-TB in a setting of high HIV coinfection: end TB in Lesotho – Liang Bridget Maama-Maime (Lesotho)
14.15 Bedaquiline and delamanid for MDR-TB in a setting of high HCV coinfection: end TB in Georgia – Tinatin Kotrikadze (Georgia)
14.30 Panel discussion: next steps for bedaquiline and delamanid for drug-resistant TB in end TB countries – Tiziana Masini (Switzerland)
14.45 Discussion
TUBERCULOSIS IN ADOLESCENTS: CONFRONTING NEGLECT, IMPROVING CARE

Section: Adult & Child Lung Health

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 about their experiences and to be advocates for themselves and others.

Co-chairs: Leslie Enane (United States of America), Kathryn Snow (Australia)

13.30 Global epidemiology of adolescent tuberculosis – Kathryn Snow (Australia)
13.45 Drug-resistant tuberculosis in adolescents and interventions to improve outcomes – Petros Isaakidis (India)
14.00 Adherence issues in adolescent TB and HIV treatment – Elizabeth Lowenthal (United States of America)
14.15 Social considerations in the care of adolescent with tuberculosis – Andrea Cruz (United States of America)
14.30 Improving the TB treatment experience: an adolescent’s perspective – Eleanor Frame (United Kingdom)
14.45 Discussion

SCREENING FOR LATENT TB INFECTION AMONG MIGRANTS: FROM CONTROVERSY TO CONSENSUS?

Section: Tuberculosis

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.

Co-chairs: Poonam Dhavan (Switzerland), Ibrahim Abubakar (United Kingdom)

13.30 Screening migrants for LTBI: review of the evidence on effectiveness and cost-effectiveness – Alberto Matteelli (Italy)
13.45 LTBI among migrants and refugees: European perspectives, WHO – To be confirmed
14.00 Guidance on programmatic management of latent TB infection: applicability for TB control in migrants – Marieke van der Werf (Sweden)
14.15 Screening migrants for LTBI in Italy, Netherlands, Sweden, and UK: a comparative analysis – Knut Lönnroth (Switzerland)
14.30 Intergovernmental Immigration and Refugee Health Working Group perspectives: pre-migration screening and the potential role of LTBI screening – Paul Douglas (Australia)
14.45 Discussion

POLICY-MAKERS AND PARTNERSHIPS: BUILDING THE POLITICAL WILL TO END TB

Track: Civil society and community engagement

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.

Chair: Mandy Slutsker (United States of America)

13.30 Getting our attention: engaging policy makers on TB – Nick Herbert (United Kingdom)
13.45 Building champions in the Kenyan Parliament: how grassroots support led 100+ MPs to take action on TB – Rahab Mwaniki (Kenya)
14.00 How to engage your colleagues on TB: creating a national TB caucus in Georgia – Giorgi Khechinashvili (Georgia)
14.15 Building parliamentary support at a regional level: the Asia Pacific TB caucus – Sarah Kirk (Australia)
14.30 Engaging policy makers on TB in emergency settings: the case of Nepal – Basanta Parajuli (Nepal)
14.45 Discussion
SYMPOSIUM 11 ▶ 13:30-15:00 ▶ SESSION ROOM 11A

ANOTHER TRANSNATIONAL TOBACCO COMPANY IN THE MAKING:
THE IMPACT OF THE GLOBALISATION OF THE CHINESE TOBACCO MONOPOLY ON TOBACCO CONTROL POLICIES AROUND THE WORLD

Section: Tobacco Control

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.

Co-chairs: Gao Xing (China), Ehsan Latif (United Kingdom)

13.30 History, aims and aspirations of the Chinese monopoly – Gao Xing (China)
13.50 China's monopoly role in tobacco agricultural sectors in Brazil – Tania Cavalcante (Brazil)
14.10 Impact on demand and supply side measures for tobacco control under expanding Chinese monopoly – Daouda Adam (Chad)
14.30 Impact on demand and supply side measures for tobacco control under expanding Chinese monopoly – Eduardo Bianco (Uruguay)
14:40 Discussion

SYMPOSIUM 12 ▶ 13:30-15:00 ▶ SESSION ROOM 11C

REFRAMING RESISTANCE:
RESEARCH AND INNOVATION TO IMPROVE PATIENT CARE AND END DRUG-RESISTANT TB

Sub-section: Tuberculosis/Nurses & Allied Professionals

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.

Co-chairs: David Lewinsohn (United States of America), Helene-Mari van der Westhuizen (South Africa)

13.30 Progress and challenges on the road to a universal regimen – Eric Nuermberger (United States of America)
13.50 Towards universal drug susceptibility testing: how could next generation sequencing support this goal – David Dolinger (Switzerland)
14.10 Developing a vaccine to prevent all forms of TB – Mark Hatherill (South Africa)
14.30 Intensified TB research is essential for re-centring care around the needs of TB patients – Mike Frick (United States of America)
14:50 Discussion

SYMPOSIUM 13 ▶ 15:15-16:45 ▶ SESSION ROOM 1A

MONITORING PROGRESS TOWARDS THE END TB STRATEGY TARGET TO ELIMINATE CATASTROPHIC COSTS: FINDINGS FROM THE FIRST ROUND OF SURVEYS

Section: Tuberculosis

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.

Co-chairs: Anna Vassall (United Kingdom), Knut Lönnroth (Switzerland)

15.15 Findings from the first national TB patient cost survey in Myanmar – Si Thu Aung (Myanmar)
15.30 Findings from the first national TB patient cost survey in Ghana – Debora Pedrazzoli (United Kingdom)
15.45 Findings from the first national TB patient cost survey in East Timor – Susana Vaz da Silva de Castro Nery (Australia)
16.00 Findings from the 2016 national TB patient cost survey in Viet Nam – Binh Hoa Nguyen (Viet Nam)
16.15 Field testing the generic protocol for patient cost surveys: lessons learnt and way forward – Ines Garcia Baena (Switzerland)
16:30 Discussion
ENOUGH IS ENOUGH: TIME TO END PREVENTABLE MORTALITY AMONG PEOPLE LIVING WITH HIV

Section: 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.

Co-chairs: Haileyesus Getahun (Switzerland), Riitta Dlodlo (Zimbabwe)

15:15 HIV-associated TB mortality: an irreversible truth? – Nathan Ford (Switzerland)
15:30 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 The role of presumptive TB treatment for improving survival in severely ill patients with HIV – Winceslaus Katagira (Uganda)
16:00 Strategies to end HIV-associated TB mortality are only as good as their implementation: lessons from Zimbabwe – Charles Sandy (Zimbabwe)
16:15 WHO guidance: examining the latest policies and their potential impact on ending mortality from HIV-associated TB – Annabel Baddeley (Switzerland)
16:30 Discussion

NEW APPROACHES AND INNOVATIONS IN TB VACCINE RESEARCH AND DEVELOPMENT

Sub-section: Tuberculosis/Bacteriology & Immunology

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.

Co-chairs: Willem Hanekom (United States of America), Frank Verreck (Netherlands)

15.15 Diversifying the TB vaccine portfolio – Danilo Casimiro (United States of America)
15.35 The role of a therapeutic vaccine in the fight against tuberculosis – Geneviève Inchauspé (France)
15.55 Pulmonary mucosal vaccination and local immunity – Helen McShane (United Kingdom)
16.15 Searching for correlates of immunity and protection – Thomas Scriba (South Africa)
16:30 Discussion

QUINOLONES: FROM BENCH TO BEDSIDE

Section: Tuberculosis

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

Co-chairs: Nicolas Veziris (France), Zaza Avaliani (Georgia)

15.15 Epidemiology of fluoroquinolone resistance in TB in 2016 – Timothy Sterling (United States of America)
15.35 Diagnostic performances of existing molecular and phenotypic assays for the diagnosis of fluoroquinolone resistance – Alexandra Aubry (France)
15.55 Can fluoroquinolones be used for the treatment of XDR-TB? Lessons from animal studies – Nicolas Veziris (France)
16.15 Can fluoroquinolones be used for the treatment of XDR-TB? Lessons from human studies – Armand van Deun (Belgium)
16:25 Discussion
SYMPOSIUM 17  ▶  15:15-16:45  ▶  SESSION ROOM 11A

DRIVING REAL-TIME ACCESS TO DIAGNOSTIC DATA THROUGH CONNECTED DIAGNOSTICS

Section: Tuberculosis/Bacteriology & Immunology

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.

Co-chairs: Chris Isaacs (Switzerland), Wayne van Gemert (Switzerland)

15.15  Analysis of the essential elements of connectivity solutions – Wayne van Gemert (Switzerland)
15.30  Integrality of connectivity to the success of the larger investment in diagnostics – Amy Piatek (United States of America)
15.45  On the ground experiences and challenges of a connected diagnostics intervention – Gidado Mustapha (Nigeria)
16.00  Experience piloting RemoteXpert and planned integration with Nikshay – Neeraj Raizada (India)
16.15  The impact of connectivity solutions on key programmatic and laboratory indicators – Heather Alexander (United States of America)
16.30  Discussion

SYMPOSIUM 18  ▶  15:15-16:45  ▶  SESSION ROOM 11C

ENDING TB TRANSMISSION, STEPPING UP TB INFECTION CONTROL: LESSONS LEARNT, OPPORTUNITIES IN SIGHT

Section: Tuberculosis

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.

Co-chairs: Ernesto Jaramillo (Switzerland), Max Meis (Netherlands)

15.15  Namibia’s experience in implementing TB infection control: lessons learnt – Farai Mavhunga (Namibia)
15.35  Early impact evaluation of the tuberculosis infection control training centre: Tajikistan, 2014–2015 – Colleen Scott (United States of America)
15.55  Occupational risk factors for TB among health workers: policies and practices – Carrie Tudor (Switzerland)
16.15  Progress in the sustainable application of highly effective upper room Germicidal Ultraviolet Air Disinfection – Edward Nardell (United States of America)
16:25  Discussion
ORAL ABSTRACT SESSIONS

ORAL ABSTRACT SESSION 01  ➤  10.30-12.00  ➤  SESSION ROOM 1A

RESISTANCE TO TB DRUGS: NEW MOVES AND WHAT NEXT?

Co-chairs: Grant Theron (South Africa), Anthony D Harries (United Kingdom) – Section: Tuberculosis/Bacteriology & Immunology

10.30  [OA-300-27]
Ethical and political challenges related to new and emerging TB drugs and diagnostics
L Winterton, R Boulanger, R Upshur, A Dawson, D Silva (United Kingdom, Canada, Australia)

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?
G de Knegt, L Dickinson, H Pertinez, D Evangelopoulos, T McHugh, I Bakker-Woudenberg, G Davies, J de Steenwinkel (Netherlands, United Kingdom)

10.50  [OA-302-27]
Transcriptional analysis of genes associated with rapid acquisition of multidrug resistance in Mycobacterium tuberculosis
K Srigirian, K Nilgiriwala, D Saranath, A Chatterjee, N Mistry (India)

11.00  [OA-303-27]
Role of efflux pumps in conferring resistance in extensively drug-resistant Mycobacterium tuberculosis strains
A Kanji, R Hasan, A Zaver, K Iqbal, K Imtiaz, T Clark, R McNerney, Z Hasan (Pakistan, United Kingdom)

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
L Rigouts, M Driessen, Y Kondo, B C de Jong (Belgium, Japan)

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
S Hofmann-Thiel, N Molodtsov, H Hoffmann (Germany)

11.30  [OA-306-27]
Different sensitivities of rapid phenotypic and genotypic methods for low-level rifampicin resistance conferring rpoB mutations
G Torrea, M Gumusboga, E André, D Affolabi, L Rigouts, A Van Deun, B C de Jong (Belgium, Benin)

11.40  [OA-307-27]
Evaluation of access to drug susceptibility testing for previously treated tuberculosis patients in Botswana, 2013-2014
R Boyd, A Finlay, M Kwaambana, C Serumola, B Kgwaadira, K Radisowa, C Modongo, H Cox (Botswana, United States of America, South Africa)

ORAL ABSTRACT SESSION 02  ➤  10.30-12.00  ➤  SESSION ROOM 11B

ADVOCACY AND COMMUNITY ENGAGEMENT

Co-chairs: Hastings Banda (Malawi), Carol Nawina (Zambia) – Section: Civil society and community engagement

10.30  [OA-308-27]
Finding the missing 20%: active TB case finding through engagement of private health care providers in Mombasa County, Kenya
D Mobegi, A Munene, S Musau (Kenya)

10.40  [OA-309-27]
Effective use of corporate social responsibility (CSR) strategies to accelerate TB control in Mumbai, India
D Shah, D N Sutar, D S Hegde, D N Shirsager, D I Behara, K Saran, V Venkatraman (India)

10.50  [OA-310-27]
From their own perspective: community perceptions of tuberculosis in a rural district of Eastern Tigray, Northern Ethiopia
Y Gezahagn, A Abdissa, S A Hussen, M Kaba (Ethiopia, United States of America)

11.00  [OA-311-27]
Addressing TB vulnerability among the seven indigenous tribes of Bukidnon Province, Philippines
T Yu, R Reyes (Philippines)

11.10  [OA-312-27]
Reaching the hard to reach: finding the missing cases
N Song, H Van, C Eang, B K Team, M Ngo, C Hamilton (Cambodia, United States of America)

11.20  [OA-313-27]
Engagement of public figures as catalysts for change
A Bhabagar, L Paul, A Suman, K Ayyagari, J Tonsing (India)
ORAL ABSTRACT SESSIONS   THURSDAY 27 OCTOBER 2016

PRISONS, SLUMS AND THE HOMELESS

Co-chairs: Eric Pevzner (United States of America), Lucy Block (Netherlands) – Section: Tuberculosis

10.30  [OA-316-27]  Role of mass screening in uncovering outbreaks of TB in correctional settings
N Ruswa, T Auala, N Ashapha, H Mungunda (Namibia)

10.40  [OA-317-27]  Yield of systematic screening for tuberculosis among vulnerable populations using enhanced diagnostic tools and algorithms in Palawan, the Philippines
W Lew, K-H Oh, R-P Yadav, F Morishita, N Nobuyuki, H-J Kim, H Choi, C Kim (Mongolia, Korea, Republic of, Philippines)

10.50  [OA-318-27]  Effectiveness of active TB case finding among prisoners in two prisons in Afghanistan
A Hamim, S M Sayedi, L Manzoor, G Q Qader, N Ahmadzada, M Shefa, K Rashidi, P Suarez (Afghanistan, United States of America)

11.00  [OA-319-27]  Role of systematic screening in improving tuberculosis case detection in selected urban slums of Bangladesh
S Kabir, M T Rahman, S Ahmed, A Rahman, M Sahrin, S M M Rahman, S Banu (Bangladesh)

11.10  [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
H I Adamu, A Awe, G Akang, B L Muhammad, P Patrobas (Nigeria)

11.20  [OA-321-27]  Computational modeling of TB epidemiology in Nigerian urban slum environments
S Chang, B Wagner, C Ogbudebe, A Bershteyn (United States of America, Nigeria)

S M Cavany, T Sumner, E Vynnycky, R G White, H L Thomas, H Maguire, C Anderson (United Kingdom)

S M Cavany, T Sumner, E Vynnycky, R G White, C Flach, H L Thomas, H Maguire, C Anderson (United Kingdom)

“HERE, THERE AND EVERYWHERE”: HOW TO END TB

Co-chairs: Lucica Ditiu (Switzerland), Randal Reve (United States of America) – Section: Tuberculosis

R Subbaraman, R Nathavitharana, S Satyanarayana, M Pai, B Thomas, V Chadha, K Rade, S Swaminathan, K H Mayer (United States of America, Canada, India)

M Brunetti, W Sikhondze, S Rajasekharan, S Roches, G Mchunu, F Khumalo, T Dlamini (Swaziland)

13.50  [OA-326-27]  Making sense of tuberculosis data: how district and facility staff can use their own routine data for management
N Mlilo, E Heldal, R Ncube, R Dlodlo, C Zishiri, N Siziba, C Sandy (Zimbabwe, Norway)

14.00  [OA-327-27]  Schedule H1 drugs status for anti-tuberculosis drugs as an effective surrogate marker for TB case notification: an Indian case study
R Chand (India)

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
M Legesse, Y Admassu, D Jerene, D Habte, M Melese, S Daba, M Chanyalew, P Suarez (Ethiopia, United States of America)
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<th>Time</th>
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<tbody>
<tr>
<td>14.30</td>
<td>A technology-enabled social franchise approach to increase tuberculosis case detection and cure rates in urban Patna, Bihar, India</td>
<td>M M Alam (India)</td>
</tr>
<tr>
<td>14.40</td>
<td>Innovative interventions to enhance access to TB services for vulnerable and marginalised populations: experience from India</td>
<td>S Pandurangan, S Chadha, S Mohanty (India)</td>
</tr>
</tbody>
</table>

**ORAL ABSTRACT SESSION 05** | 13:30-15:00 | SESSION ROOM 12

### IMPROVING PATIENT CARE IN MDR-TB

#### Co-chairs: Andrei Mariandysev (Russian Federation), Anna Marie Celina Garfin (Philippines) – Section: Tuberculosis

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.40</td>
<td>An innovative approach for designing and implementing drug-resistant tuberculosis treatment adherence interventions</td>
<td>K Alegria-Flores, C A Wiesen, B J Weiner, N N Becerra, M A Tovar, C A Evans (United States of America, Peru, United Kingdom)</td>
</tr>
<tr>
<td>13.50</td>
<td>Impact of Xpert® MTB/RIF testing on treatment delays among persons diagnosed with drug-resistant TB in Johannesburg, South Africa</td>
<td>D Evans, K Schnippel, T Sineke, C Govathson, A Black, L Long, R Berhanu, S Rosen (South Africa, United States of America)</td>
</tr>
<tr>
<td>14.00</td>
<td>Improved access to MDR-TB services via decentralised service delivery model in Amhara and Oromia regions, Ethiopia</td>
<td>Y Molla, G Aschale, D Habte, D Jerene, M Melese, K Melkeneh, S Daba, P Suarez (Ethiopia, United States of America)</td>
</tr>
<tr>
<td>14.20</td>
<td>Management of MDR-TB: transition from hospital to community-based management in Bangladesh</td>
<td>K Chakraborty, R Matji, N Kak, P Daru (United States of America)</td>
</tr>
<tr>
<td>14.30</td>
<td>Integration of MDR-TB contact tracing as part of DOT is efficient and cost-effective</td>
<td>P Daru, S Sultana, K Chakraborty (Bangladesh)</td>
</tr>
<tr>
<td>14.40</td>
<td>Burden of MDR-TB among contacts of MDR-TB cases: results from routine programme implementation in two regions of Ethiopia</td>
<td>N Hiruy, B Ayale, Z Gashu, M Melese, D Jerene, Y Molla, K Melkeneh, P Suarez (Ethiopia, United States of America)</td>
</tr>
</tbody>
</table>

**ORAL ABSTRACT SESSION 06** | 13:30-15:00 | SESSION ROOM 14

### INTERNALLY DISPLACED INDIGENOUS POPULATIONS AND HEALTH WORKERS

#### Co-chairs: Razia Kaniz Fatima Fatima (Pakistan), Elizabeth Rea (Canada) – Section: Tuberculosis

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.30</td>
<td>Comparative analysis of the predictive values of radiological changes to forecast the progression of pulmonary TB</td>
<td>M Muzymba, R Aldridge, P Dhavan, S Selaw, A Hayward, I Abubakar, D Zenner (United Kingdom, Philippines)</td>
</tr>
<tr>
<td>13.40</td>
<td>Increasing childhood TB case detection through contact tracing strategy: a case study from rural Pakistan</td>
<td>J Ahmed, S Siddiqui, A Malik, M Jaswal, S Saleem, A Khurshid, F Amanullah, H Hussain (Pakistan, United States of America)</td>
</tr>
<tr>
<td>14.00</td>
<td>Improving TB case finding and treatment adherence in underdeveloped ethnic minority areas: China’s experience</td>
<td>J Li, X Li, F Yu, Y Wang, Y Peng, X Gu, S Jiang, X Liu (China)</td>
</tr>
<tr>
<td>14.10</td>
<td>Factors associated with active TB in an indigenous population in Brazil: a case-control study</td>
<td>J Malacarne, P C Basta, R Souza Santos (Brazil)</td>
</tr>
</tbody>
</table>
14.20  [OA-345-27]  
Improved tuberculosis case detection in Afghanistan: an evaluation of passive and active approaches  
A Nasrat, A Sanaie, C Merchenthaler, M K Seddiq, S D Mahmoodi, R H Stevens, J Creswell (Afghanistan, Switzerland, United Kingdom)

14.30  [OA-346-27]  
The implications of gender on the uptake of isoniazid preventive therapy in Zulu communities of uMgungundlovu District, South Africa  
J Botha, M Mayan, S Nholo, R L Cowie, R S Sauve, T Williamson, D Fisher (South Africa, Canada)

14.40  [OA-347-27]  
Influence of quality of work life on motivation and retention of local government tuberculosis control programme supervisors in southeast Nigeria  
D Ogbuabor, J Chukwu, I Okoronkwo, O Ossai (Nigeria)

15.15  [OA-348-27]  
Negative tuberculin skin test result in patients with active TB is associated with increased mortality risk during TB treatment  
A Salindri, R-M Sales, S Auld, N Gandhi, M Magee (United States of America)

15.25  [OA-349-27]  
Interferon-gamma release assay is associated with disease site and death in active TB  
S C Auld, S H Lee, E S Click, R Miramontes, C L Day, N R Gandhi, C M Heilig (United States of America)

15.35  [OA-350-27]  
Predictors of mortality among patients registered for TB treatment in Kampala City, Uganda  
D Kimuli, D Okello, E Mabumba, D Lukoye, A Etwowm, D Sama, N Persaud, S Pedro (Uganda, United States of America)

15.45  [OA-351-27]  
Exploring gender differences in treatment outcomes among TB patients in Afghanistan: a cross-sectional study  
G Q Oader, A Momand, M K Seddiq, M K Rashidi, S D Mahmoodi, A B Maseed, N Persaud, P G Suarez (Afghanistan, United States of America)

15.55  [OA-352-27]  
Spatial distribution profile of mortality due to tuberculosis in an endemic city in the Brazilian Northeast  
A A R Queiroz, M C C Garcia, T Z Berra, A S Belchior, L H Arroyo, M A M Arcoverde, F Chiaravalloti Neto, R A Arcêncio (Brazil)

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  
M K Lalar, T Mohiyuddin, T Uddin, H L Thomas (United Kingdom)

16.15  [OA-354-27]  
Influenza pandemics and TB mortality in the 19th and 20th century in Switzerland  
K Zürcher, M Zwahlen, M Ballif, M Egger, L Fenner (Switzerland)

16.25  [OA-355-27]  
Associations of influenza vaccination with incident tuberculosis and all-cause mortality among elderly Taiwanese patients  
Y-F Yen, W-J Su (Taiwan)

14.20  [OA-345-27]  
Improved tuberculosis case detection in Afghanistan: an evaluation of passive and active approaches  
A Nasrat, A Sanaie, C Merchenthaler, M K Seddiq, S D Mahmoodi, R H Stevens, J Creswell (Afghanistan, Switzerland, United Kingdom)

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16.25  [OA-355-27]  
Associations of influenza vaccination with incident tuberculosis and all-cause mortality among elderly Taiwanese patients  
Y-F Yen, W-J Su (Taiwan)
15.55 [OA-360-27]
Community-level challenges to tuberculosis preventive therapy provision in KwaZulu-Natal, South Africa
J Boffa, M Mayan, S Ndlovu, R L Cowie, R S Sauve, T Williamson, D Fisher (South Africa, Canada)

16.05 [OA-361-27]
A public health evaluation of contact tracing and management in Brazil
A Trajman, M D S Ferreira, G Salgado, A B Melo, M F Wakooff-Pereira, M T Carreira Belo, E Guimarães Teixeira, A C Bezerra Silva Martins, S Carvalho Cornelio Lira, M Cordeiro-Santos, P C Hill, D Menzies, ACT4-Brazil Study Group (Brazil, Canada, New Zealand)

16.15 [OA-362-27]
Uptake and completion of isoniazid preventive therapy among household contacts of tuberculosis cases in Lima, Peru
L Otero, J Ríos, T Battaglioli, L Shah, C Seas, P Van der Stuyft (Peru, Belgium, Canada)

16.25 [OA-363-27]
Is isoniazid preventive therapy more effective in high-burden settings? Modelling the effect of TB incidence on IPT impact
R Ragonnet, J M Trauer, E S McBryde, R M G J Houben, J T Denholm, A Handel, T Sumner (Australia, United Kingdom, United States of America)

THE CHANGING LANDSCAPE OF TOBACCO CONTROL

Co-chairs: Anne Jones (Australia), Mira Aghi (India) – Section: Tobacco control

15.15 [OA-364-27]
Child labour in bidi factories: current situation and way forward
S Kumar Singha (Bangladesh)

15.25 [OA-365-27]
Who is accountable for tobacco control in India? Critical analysis of stakeholders
G Chauhan (India)

15.35 [OA-366-27]
What impedes tobacco control law enforcement in China?
J Yang, H Wang, H Li (China)

15.45 [OA-367-27]
Using mass media to support implementation of tobacco control policy in Viet Nam
T Carroll, M Lien, P T Hai, D T Phi, N Murukutla, S Mullin (Australia, United States of America, Viet Nam, India)

15.55 [OA-368-27]
Impact of ban on smokeless tobacco products on tobacco consumption behaviour in Punjab
R Gupta, S Goel, L Hussan (India)

16.05 [OA-369-27]
Analysing partnerships: drawing lessons from the multisectoral collaboration in the implementation of the FCTC in the Philippines
J Monis, M Beltran (Philippines)

16.15 [OA-370-27]
How many deaths can be averted by increasing the legal age at initiation to 21 years globally?
P Lal (India)

16.25 [OA-371-27]
Cost-effectiveness of a sponge campaign in Moscow
H Yan, N Murukutla, M Goodchild, I Morozova, A Kotov, S Mullin, S Hamill, R Perl (United States of America, Switzerland)
# SHORT ORAL ABSTRACT SESSIONS

## SHORT ORAL ABSTRACT SESSION 01  ▶  10:30-12:00  ▶  SESSION ROOM 1B

### DRUGS, VITAMINS, VALVES: THE DIVERSITY OF TB CLINICAL TRIALS

**Co-chairs:** Christopher Kuaban (Cameroon), Paul Nunn (United Kingdom)  
**Section:** Tuberculosis

<table>
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<tr>
<th>Time</th>
<th>Abstract Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>10.38</td>
<td>[SOA-501-27]</td>
<td>Effect of moxifloxacin on QTc interval in adults with pulmonary tuberculosis</td>
<td>D Nair, B Velayutham, P Chinnaiyan, M S Jawahar (India)</td>
</tr>
<tr>
<td>10.46</td>
<td>[SOA-502-27]</td>
<td>Bedaquiline for extensively drug-resistant or pre-XDR Mycobacterium tuberculosis: interim results of an early access study</td>
<td>I Vasilyeva, A Mariandyshev, B Kazennyy, E Davidavičienė, R DeMasi, C Liu, N Lounis, B Dannemann, on behalf of the TMC207TBC3001 Study Group (Russian Federation, Lithuania, United States of America, Belgium)</td>
</tr>
<tr>
<td>11.18</td>
<td>[SOA-506-27]</td>
<td>The effectiveness of treatment in patients with destructive pulmonary TB depending on the mode of administration of anti-tuberculosis drugs</td>
<td>M Kuzhko, O Avramchuk, N Hulchuk, L Protsyk, T Tlustova (Ukraine)</td>
</tr>
<tr>
<td>11.34</td>
<td>[SOA-508-27]</td>
<td>Challenges in supply of investigational medicinal products for MDR-TB clinical trials</td>
<td>J Komisra, I D Rusen (United States of America)</td>
</tr>
</tbody>
</table>

## SHORT ORAL ABSTRACT SESSION 02  ▶  10:30-12:00  ▶  SESSION ROOM 11C

### “WE CAN WORK IT OUT”: UNDERSTANDING AND PREVENTING DIAGNOSTIC TREATMENT DELAYS

**Co-chairs:** Christy Hanson (United States of America), Daria Szkwarko (United States of America)  
**Section:** Adult and Child Lung Health

<table>
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<th>Time</th>
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<tbody>
<tr>
<td>10.38</td>
<td>[SOA-511-27]</td>
<td>The social determinants underlying tuberculosis diagnostic delay: a mixed methods study</td>
<td>L Bonadonna, M Saunders, R Zegarra, C Evans, H Guo (United States of America, Peru, United Kingdom)</td>
</tr>
<tr>
<td>10.46</td>
<td>[SOA-512-27]</td>
<td>Perceived barriers and facilitators of isoniazid preventive therapy among people living with HIV in South Africa</td>
<td>H-Y Kim, C Hanrahan, D W Dowdy, K Motlhloaletla, L Lebina, N Martinson, J F Bridges, J Golub (United States of America, South Africa)</td>
</tr>
<tr>
<td>10.54</td>
<td>[SOA-513-27]</td>
<td>Cultural adaptation and validation of the tuberculosis-related stigma scale in Brazil</td>
<td>J A Crispim, I S Assis, L H Arroyo, M A M Arcoverde, A C V Ramos, I C Pinto, A A Monroe, R A Arcêncio (Brazil)</td>
</tr>
</tbody>
</table>
11.02 [SOA-514-27]
Delays of tuberculosis diagnosis in patients from a tuberculosis referral hospital in urban southeastern China
L Martinez, L Xu, C Chen, J Sekandi, Y Zhu, C Zhang, C Whalen, L Zhu (United States of America, China, Uganda)

11.10 [SOA-515-27]
Predictors of delay in seeking tuberculosis care in South Kivu Province, Democratic Republic of the Congo
E Musafiri, L Kitete, D Kalumuna, J-P Chirambiza, D Muzigo, Z Kashongwe, J Nachega (Congo (Democratic Rep.), Congo, South Africa, United States of America)

11.18 [SOA-516-27]
Anything to do with TB is dangerous: exploring barriers to uptake of household TB screening intervention in Blantyre, Malawi
K Kaswaswa, M Kumbwenda, M Mukaka, J Mpunga, M Nliwasa, T Tomoka, M Mwapasa, E Corbett (Malawi, United Kingdom)

11.26 [SOA-517-27]
Facilitators and barriers in TB treatment seeking and retention in care: patient and provider perspectives in South Africa
S Law, A Daffary, A Esmael, K Dheda, D Menzies (Canada, South Africa)

11.34 [SOA-518-27]
A pilot study to investigate the relationship between illness perception and clinical characteristics in patients with pulmonary tuberculosis in South Korea
J Min, Y Chang, K M Lee, K H Choe, J Y An (Korea, Republic of)

SHORT ORAL ABSTRACT SESSION 03 ➤ 13:30-15:00 ➤ SESSION ROOM 13

METHODOLOGIES AND MODELS FOR TB EDUCATION AND TRAINING

Co-chairs: Nisha Ahamed (United States of America), Linette McElroy (Canada) – Section: Tuberculosis/Nurses & Allied Professionals

13.30 [SOA-519-27]
Health education and focus group discussion to increase knowledge, motivation and medication adherence among patients with tuberculosis
R Y Sutrisno, R S Dinaryanti, M T A Liyana, N Kurniawati, M S Zamaa, R Sitorus, I M Kariasi (Indonesia)

13.38 [SOA-520-27]
Use of mobile technology to reach the unreached with information on TB: experience from six states in India
D Alam, P Shokheen, M Satpati, S E Waikar, A Das (India)

13.46 [SOA-521-27]
Implementing ECHO Telehealth Model to strengthen nurse case management and improve TB patient care outcomes
D Fortune, M Burgos, A Armistad, D Isaacks, B Struminger (United States of America)

13.54 [SOA-522-27]
Effects of motivational interviewing on treatment adherence of people affected by TB in the Philippines
R Loa (Philippines)

14.02 [SOA-523-27]
Implementation of international workshops for building technical capacity within NTPs using the TIME model
M Lalli, D Pedrazzoli, M Hamilton, R White, R Houben (United Kingdom, United States of America)

14.10 [SOA-524-27]
National remote TB consultation and training platform: an innovative way to ensure sustainable capacity building for TB hospitals in China
Y Liu, J Gao, X Jiang, J Du, S Xie, Y Ma, L Li (China)

14.18 [SOA-525-27]
Developing practical tools to train pharmacists in TB care and control in India
M Gharat, S Prasad (India)

14.26 [SOA-526-27]
Impact of training nurses on TB/MDR-TB in China
H Zhao, A Guo, C Tudor (China, Switzerland)

14.34 [SOA-527-27]
Mass media ACSM improves health-seeking behaviour for TB in Nigeria
M Odo, A Kawu, T Isaboh, D Unongo, G Akang (Nigeria)

14.42 [SOA-528-27]
Innovative e-learning methodologies using digital technology for TB-HIV: a digital India campaign
R Deshmukh, N Goel, S A Nair, V Purohit, A Narayanan, P Harvey, S D Khaparde (India)
SHORT ORAL ABSTRACT SESSION 04 ► 15:15-16:45 ► SESSION ROOM 13

SAD TO HAVE TB: SMOKING, AIR POLLUTION AND VITAMIN D

Co-chairs: Kamran Siddiqi (United Kingdom), Goedele Louwagie (South Africa) – Section: Tobacco control

15.15 [SOA-529-27]
Prevalence of cigarette smoking among patients with tuberculosis in Southern Namibia
K Husselmann, F Mavhunga, J Ndile, A Vermeulen, N Ruswa (Namibia)

15.23 [SOA-530-27]
The association of household air pollution and tuberculosis in women and children in Pune, India

15.31 [SOA-531-27]
Interaction between smoking and preexisting tuberculosis on lung cancer
H Choi, K-H Oh, H-J Kim (Korea, Republic of)

15.39 [SOA-532-27]
Tobacco cessation intervention of civil society (Seva Sadhan) plays a vital role in treatment adherence among tobacco-using TB patients
C K K R Gali, A Anantham, S Shastri, P Satish, B M Prasad, S Chadha (India)

15.47 [SOA-533-27]
Attitudes about the impact of smoking and smoking cessation on TB among health care workers at TB facilities in Georgia
L Darchia, M Kipiani, T Chakhaia, R Kempker, N Tukvadze, C Berg, H Blumberg, M Magee (Georgia, United States of America)

15.55 [SOA-534-27]
Pulmonary tuberculosis and its association with tobacco smoking habits in Panniya tribes of India
S Palliyal (India)

16.03 [SOA-535-27]
Barrier identification to smoking cessation for drug-resistant tuberculosis patients in South Africa
Z P C Shangase, J M Gwegweni (South Africa)

16.11 [SOA-536-27]
Quantifying the potential impact of smoking cessation campaigns on tuberculosis in Indonesia
B Wagner, S Chang (United States of America)

16.19 [SOA-537-27]
Seasonality of tuberculosis in Israel and serum 25-hydroxyvitamin D correlation, 2001-2011
Z Mor, I Margalit, C Block (Israel)
E-POSTER SESSIONS

E-POSTER SESSION 01 | 12:15-13:15 | SESSION ROOM 10

CHILD AND ADULT MDR WITH MODELLING

Chair: James Seddon (United Kingdom) — Section: Tuberculosis

  P J Dodd, C Sismanidis, J A Seddon (United Kingdom, Switzerland)

  Y Batyrshina, T Petrenko (Russian Federation)

- [EP-102-27] Low-dose linezolid therapy attains putative pharmacokinetic/pharmacodynamic efficacy and toxicity targets in tuberculosis: meta-analysis and Monte Carlo simulation
  J Millard, H Pertinez, L Bonnetti, E M Hodel, M Caws, G Davies, D Sloan (United Kingdom, Malawi)

  G E Velásquez, R J Calderon, C D Mitnick, M C Becerra, Z Zhang, C C Contreras, R M Yataco, J T Galea, L W Lecca, M B Murray (United States of America, Peru)

- [EP-104-27] Latent tuberculosis infection and tuberculosis disease in paediatric contacts of drug-resistant tuberculosis patients in Armenia
  H Huerga, M Bastard, A Hayrapetyan, N Melikyan, J Faqirzai, E Sanchez, F Varaine, M Bonnet (France, Armenia)

  E Omesa, M Kamene, D Mibei, R Kiplirim, A Wairia, J Kiarie, E Masini (Kenya)

  L Naidoo (South Africa)

- [EP-107-27] Treatment effectiveness among new isoniazid-resistant tuberculosis cases in Latvia
  S Peirga, L Kuksa, V Riekstina (Latvia)

  I P termane, L Kukša, G Kirvelaitė, V Rieksti a (Latvia)

  S A Desta, A B Leta (Lesotho)

E-POSTER SESSION 02 | 12:15-13:15 | SESSION ROOM 5

FROM SCREENING AND INTEGRATION TO OUTCOMES

Chair: Katharina Kranzer (United Kingdom) — Section: HIV

  A Nkwata, J Ugwu, S Mutembo, C Whalen (United States of America, Zambia)

  L Mtui, A Omary, J Iriya, E Chilipweli, S Munishi, S Daniel, L Mtawala, S Yahaya, B Mkanga, M Chiliyamkubi, H Mwizanduru, D Magesa, M Taksdal, PASADA (Tanzania, United Rep., Norway)

- [EP-113-27] Improving ART access in TB services in selected facilities in South Africa
  J Zingwari, R Matji, R Makombe, S Nyathie (South Africa)
Optimising the detection of TB among key populations using the Xpert® MTB/RIF assay in Northwest Cameroon
C Titahong, S Ngaila, H Numfor, L Ayuk, E Mbo, J Noeske, J-L Abena Foe, M Sander (Cameroon)

Assessment of intensified case finding and isoniazid preventive therapy at health facilities providing HIV care and treatment services in Namibia
K Robsky, N Hamunime, F Tijuka, F Mavhunga, H Menzies, M Gawanab, D Tollefson, H Mungunda (Namibia, United States of America)

Integration of TB and AIDS case management for migrants using the Reach-Recruit-Test-Treat and Retain (RRTTR) strategy
C Thamsuwan, N Win Phyo (Thailand)

Tuberculosis treatment success among HIV-infected persons: retrospective comparison of rural and urban care practices in western and central Uganda
J Musaazi, J Bradley, A Kirraga, B Castelnuovo, A Kambugu, A M Rehman (Uganda, United States of America)

The impact of drug abuse on treatment outcomes of HIV-TB cases reported to the Hong Kong TB-HIV Registry, 2008-2013
C K Chan, C C Leung, C W Chan, K H Wong, C M Tam, W K Chan, K W Pang, K Y Mak (China)

Predictors of tuberculosis recurrence in adult patients treated in Nyanza Region, Kenya
D Matemo, S M LaCourse, B Guyah, L Osborne, J Kinuthia, D Horne, R Onyango (Kenya, United States of America)

Epidemiology of paediatric tuberculosis in the United Kingdom, 2000-2014
T Mohiyuddin, H L Thomas, J A Seddon, M K Lalor (United Kingdom)

Epidemiology of paediatric multidrug-resistant tuberculosis in the United States, 1993-2014
S E Smith, R Pratt, S Shah (United States of America)

Evaluation of paediatric multidrug-resistant tuberculosis contact monitoring outcomes in Kyiv, Ukraine
Y Sheremeta, N Rybak, M Bachmaha, O Albana, T Flanigan, V Petrenko (Ukraine, United States of America)

Effect of drug resistance on risk of M. tuberculosis transmission to young children
V Golla, K Snow, A M Mandalakas, K du Preez, H S Schaaf, J A Seddon, A C Hesseling (South Africa, Australia, United States of America, United Kingdom)

Measuring the yield of an innovative TB REACH contact tracing strategy in Swaziland
K Ngo, P Ustero, R Golin, B Mzileni, F Antarawani, W Sikhondze, M Hlatshwayo, A Mandalakas (United States of America, Swaziland)

Implementation, challenges, and outcomes of a Stop TB Partnership TB REACH school-based TB contact tracing project in Swaziland
R Golin, P Ustero, K Ngo, J Glickman, B Mzileni, M Hlatshwayo, A Mandalakas (United States of America, Swaziland)

Empowering lay volunteers to implement a simple evaluation protocol to improve TB detection among hospitalised malnourished children in Malawi
H Chatenga, A McKenney, A Munthali, R Flick, K Simon, R Kachingwe, L Mankhambo, P Kazembe (Malawi, United States of America)

Improving childhood TB detection, treatment and reporting using new tools, intensified screening and incentives
A Nasrat, A Sanaie, M K Seddieq, L Manzoor, A Codlin, J Creswell, O Ramis (Afghanistan, Switzerland, United Kingdom)

Decentralisation of HIV care through Option B+: operationalising an opportunity to improve IPT uptake in children
S Wright, C Lijinsky, T Arscott-Mills, B R Phelps, A Amzel, J Firth (United States of America, Botswana)

TB Kids e-Training: operational implementation of the Union’s online childhood TB course for health care workers in South Africa
L Du Plessis, F Black, T Ncandana, B Ncanywa, E Mhlope, R Matji, A Detjen, A Hesseling, K Du Preez (South Africa, United States of America)
E-POSTER SESSION 04 ➤ 12:15-13:15 ➤ SESSION ROOM 8

REVOLUTION: HARNESING MOBILE TECHNOLOGIES TO SUPPORT CLIENT-CENTRED CARE

Chair: Richard Lester (Canada) — Section: Adult and Child Lung Health

J Du, Y Ma, Y Liu, J Gao, X Lv, K Zhu, L Li (China)

[EP-131-27] Utilising a full complement of communication strategies to maintain mobile patients in care
R Garay, D Garcia, A Colorado (United States of America)

S Ilham, S Park, S H Lee, S J Gil, Y J Park, J H Kim, C Shin, E Paek, W Park (Morocco, Korea, Republic of)

[EP-133-27] Using mobile phones to ensure that referred tuberculosis patients reach their treatment facilities: a call that makes a difference
K Choun, S Achanta, B Naik, J P Tripathy, S Thai, N Lorent, K E Khun, J van Griensven, A M V Kumar, R Zachariah (Cambodia, India, Belgium, Luxembourg)

[EP-134-27] Mobile text messaging for joint interventions on tuberculosis and tobacco control
S Joshi, S Pujari, D Fu, D Falzon, V C Arnold (Switzerland)

V Jondhale, P Mahesh, V Nagwekar, M Datta, C K Jain, R Chopra, M Panchal, J Thakker (India)

[EP-136-27] Factors contributing to good TB treatment adherence among patients in North West Region of Cameroon
A A Zaccheous (Cameroon)

[EP-137-27] Mobile banking system to aid MDR-TB patients and DOT providers can help TB programme to save time and money
P Daru, K Chakrabarty (Bangladesh)

[EP-138-27] SMS for sure: Use of mHealth for tuberculosis care in Delhi, India
K Chopra, A Khanna, S Matta, A Shah, S Chandra (India)

[EP-139-27] Utilisation of information on tuberculosis disease, available diagnostic and treatment services among helpline callers in five states of India
M Satpati, S E Waikar, P Shokhane, D Alam, A Das, S Chadha (India)

E-POSTER SESSION 05 ➤ 12:15-13:15 ➤ SESSION ROOM 9

BETTER TB SERVICES FOR BETTER TREATMENT OUTCOMES

Chair: Christopher Zishiri (Zimbabwe) — Section: Tuberculosis

[EP-141-27] Narrowing the gap between cure and treatment success over four years: sign of improved quality of TB treatment follow-up
D Habte, G Gizate, B Reshu, S Daba, M Chanyalew, D Jerene, N Persaud, P Suarez (Ethiopia, United States of America)

K Dale, E Tay, P Trevan, J Denholm (Australia)

[EP-143-27] Investigation of non-conversion for bacteriologically confirmed tuberculosis in Emfuleni Sub-District, Gauteng, South Africa
T Mbenge, S Strauss, N Sebitlo, R Matji, R Makombe (South Africa)

F Rubinstein, M P Bernachea, K Klein, F Zurbrig, S Iribarren, C Chirico, L Gibbons (Argentina, United States of America)

[EP-145-27] Isoniazid and ethionamide resistant mutations are associated with poor treatment outcomes among MDR-TB patients in South Africa
L Malinga, C van Rensburg, G Cassell, M van der Walt (South Africa, United States of America)

A Tucker, P MacPherson, P Cleary, J Walker, S B Squire (United Kingdom)

M Hassan, A Farid, H Aukasha, H Elhassan, A Elsony (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
G Mhalu, F Mhimbira, J Hella, K Said, E Mahongo, M Weiss, L Fenner (Tanzania, United Rep., Switzerland)
POSTER DISCUSSION SESSIONS

POSTER DISCUSSION SESSION 01  ► 12:15-13:15  ► POSTER AREA HALL 2

AN INTIMATE RELATIONSHIP: DRUG RESISTANCE AND GENES

Chair: Richard Anthony (Netherlands)  –  Section: Tuberculosis/Bacteriology & Immunology

[PD-600-27]
Molecular and phenotypic diagnosis of ethionamide resistance in Mycobacterium tuberculosis: a seven-year experience in France
F Brossier, W Sougakoff, C Bernard, N Veziris, A 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
A Giri, S Gupta, H Safi, A Narang, M Hanif, M Bose, D Alland, M Varma-Basil (India, United States of America)

[PD-602-27]
Persistence of highly drug-resistant Beijing strain in the Eastern Cape region of South Africa
H Said, S Omar, A Dreyer, N Ismail (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
N Mistry, A Chatterjee, K Nilgririvala, D Saranath, D Crook (India, United Kingdom)

[PD-604-27]
Pattern of rpoB gene mutations in Mycobacterium tuberculosis isolates of pulmonary TB patients using Xpert® MTB/RIF in Ethiopia
J Seid, G Tibessa, A Nyaruhiira, D Hable, D Jerene, F Belachew, W Gebeylehu, P Suarez (Ethiopia, South Africa, United States of America)

[PD-605-27]
Detection of multidrug resistance and characterisation of mutations in Mycobacterium tuberculosis isolates, IRL Dharampur, Himachal Pradesh, India
V Mehta, R Kumar, S Pundir, K Kumari, K Kanwar, A Kanga (India)

[PD-606-27]
Evaluating next generation sequencing pipelines for Mycobacterium tuberculosis complex genome reconstruction
B Ofori-Anyinam, F Gehre, P Lempens, B de Jong, L Rigouts, C Meehan (Belgium, Gambia)

[PD-607-27]
Resistance-conferring mutations with fitness cost among HIV-positive individuals from Uganda
W Seengooba, D Lukoye, C J Meehan, G W Kasule, K Musisi, M L Joloba, B C de Jong, F G Cobelens, F van Leth (Uganda, Netherlands, Belgium, United States of America)

[PD-609-27]
Performance of spoligotyping applied directly on sputum for genotypic characterisation of Mycobacterium tuberculosis complex
N Sanoussi, D Affolabi, L Rigouts, S Anagonou, B de Jong (Benin, Belgium)

[PD-610-27]
Nationwide molecular typing of Mycobacterium tuberculosis complex among retreatment cases in Benin, West Africa
D Affolabi, N Sanoussi, S Codo, F Sogbo, J Orekan, B de Jong, S Anagonou (Benin, Belgium)

POSTER DISCUSSION SESSION 02  ► 12:15-13:15  ► POSTER AREA HALL 2

INTEGRATION OF SERVICES: ATTITUDES AND LESSONS LEARNED

Chair: Muhammad Osman (South Africa)  –  Section: HIV

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

[PD-612-27]
Assessment of facility readiness to provide integrated services for HIV and TB in Namibia
A Zezai, M Mendhojo, S Nehale, S Tashiya, D Maloboka, F Mavhunga, N Ruswa, H Mungunda (Namibia)

[PD-613-27]
Extent of HIV co-infection and provision of services among TB patients in Myanmar
M S Kyi, S Aung, M Thompson, V Chongsuvivatwong (Myanmar, United States of America, Thailand)

[PD-614-27]
HIV testing among TB patients rises from 2% to 70% in 7 years in Jharkhand, India
S Nayak, R Pathak, V Ghule, P Mishra (India)
THURSDAY 27 OCTOBER 2016  POSTER DISCUSSION SESSIONS

[PD-615-27] Assessment of uptake of antiretroviral therapy among HIV-infected TB patients in Nigeria
B Odume, K E Dokubo, S Pais, O Ogbanufe, I Pathmanathan, P Dakum, N Chukwurah, H Tomlinson (Nigeria, United States of America)

[PD-616-27] Assessment of uptake of antiretroviral therapy among HIV-infected TB patients in Namibia
F Mavhunga, H Menzies, M Gawanab, M Nandjebo, N Taifa, I Pathmanathan, K Robsky, H Mungunda (Namibia, United States of America)

[PD-617-27] TB-HIV service integration among co-infected patients in Kapkatet district hospital
C 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
A Ebers, S Zhidanova, E Moiseeva, M Koshcheyev, E Zorkaltseva, S Shugaeva, V Serhiy, H Eric, S Heyssel (United States of America, Russian Federation)

[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
N Onuaguluchi, M Makumbi, N Ndulue, G Egesimba, V Adepoju, A Etsetowaghan, E Nwabueze, F Mairiga (Nigeria)

[PD-620-27] Improved TB-HIV collaborative activities via health system strengthening in two regions of Ethiopia
T Anteneh, Z Gashu, D Hable, D Jerene, M Melese, N Hiruy, B Ayele, P Suarez (Ethiopia, United States of America)

[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
M G Nabukunya-Mudlope, R Mwondha, F Nsubuga, T Nababi, C Akena, J Kigozi, A Muganzi (Uganda)

[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
G Egesimba, N Nwokedi, A Estetowaghan, V Adepoju (Nigeria)

CHILDHOOD ASTHMA AND TB: A POTPOURRI

Chair: Leslie Enane (United States of America) – Section: Adult and Child Lung Health

[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
C Ardura-Garcia, E Yntriago, P Hurtado, J Blakey, P Cooper (United Kingdom, Ecuador)

[PD-624-27] Asthma control among children aged 5-17 years attending Mulago Chest Clinics
J Abeso, E Wobudeya, H Aanyu, R Nantanda (Uganda)

P Daru, S Sultana, Z Sultana (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
S Kizito, P Turimumahoro, I Ayakaka, L Davis, A Cattamanchi, A Katamba (Uganda, United States of America)

[PD-627-27] Managing childhood TB in a high-burden district in South Africa: getting the basics right
L Du Plessis, F Black, E Mhlope, R Matji, B Ncarywa, A Hesseling, K Du Preez (South Africa)

[PD-628-27] Paediatric patient support through TB character “Buddy Beat TB” in South Africa
L Legoabe, S Kancijanic, M Molele, J Kruger, L Basson, Y Kock, A Van Zyl, N Gqwaru (South Africa, United States of America)

Y Ovchinnikova, A Starshinova, N Korneva, I Dovgaluk (Russian Federation)

[PD-630-27] Integrating childhood TB care in public-private mix in Pakistan: reaching the unreached
N Safdar, U Hussain, J Khan (Norway, Pakistan)
POSTER DISCUSSION SESSIONS   THURSDAY 27 OCTOBER 2016

CONFRONTING RESISTANCE: FUNDAMENTALS TO INNOVATION  -  THE 47 TH UNION WORLD CONFERENCE ON LUNG HEALTH

POSTER DISCUSSION SESSIONS   THURSDAY 27 OCTOBER 2016

[PD-631-27]
Paediatric TB: reverse contact tracing efforts in a rural setting of Pakistan
S Siddiqui, M Jaswal, J Fuad, S Saleem, A Malik, H Hussain, F Amanullah (Pakistan, United States of America)

[PD-632-27]
Contact tracing in children in northern Stockholm, Sweden, 2000-2014
S Nejat, M Eriksson, R Bennet (Sweden)

[PD-633-27]
A retrospective review to determine neonatal tuberculosis in KwaZulu Natal, 2012-2014
M Khan, K Misana, P Mahabeer (South Africa)

POSTER DISCUSSION SESSION 04  ▶  12:15-13:15  ▶  POSTER AREA HALL 2

NEW DEVELOPMENTS IN BASIC SCIENCE

Chair: Thomas Scriba (South Africa) – Section: Tuberculosis

[PD-634-27]
Effect of aldehyde dehydrogenase 2 genetic polymorphism on human airway stem/progenitor cell function in vitro
J Gao, Q Li, Y Liu, A E Hegab, A Kuroda, H Yasuda, K Soejima, T Betsuyaku (China, Japan)

[PD-635-27]
Pre-exposure to household air pollution dampens human alveolar macrophage responses during Mycobacterium tuberculosis infection
V Unwin, N Kontogianni, D Sloan, J Rylande (United Kingdom)

[PD-638-27]
Increased growth due to overexpression of cholesterol import gene in M. tuberculosis H37Rv
P Singh, R Sinha, N Kumar, G Tyagi, M Varma-Basil, M Bose (India)

[PD-639-27]
Pharmacodynamic interaction assessment of anti-tuberculosis drugs in a pre-clinical setting
O Clewe, S G Wicha, C de Vogel, J E M de Steenwinkel, U S Simonsson (Sweden, Netherlands)

[PD-640-27]
Assessment of pharmacodynamic interactions in tuberculosis infected mice using the Multistate Tuberculosis Pharmacometric Model and the General Pharmacodynamic Interaction Model
C Chen, S G Wicha, G de Kneet, J de Steenwinkel, U Simonsson (Sweden, Netherlands)

[PD-641-27]
Antipyrine derivatives in the treatment of tuberculosis
P Tripathi, G K Tripathi (India)

[PD-642-27]
A novel therapeutic vaccine against tuberculosis in the cynomolgus monkey model: preclinical study and clinical trial
M Okada, Y Kita, S Hashimoto, H Nakatani, S Nishimatsu, Y Kioka, T Nakajima, Y Kaneda, Y Inou, K Tsuyuguchi (Japan)

[PD-643-27]
Observational study of the duration of protection of school age BCG vaccination in England
P Mangtani, P Nguidjop Djomo, R Keogh, I Abubakar, P Smith, L C Rodrigues (United Kingdom)

[PD-644-27]
ICAM-1: a potential link between tuberculosis and type 2 diabetes mellitus
N Malkani, Z Aslam, M Mumtaz, Infectious Diseases (Pakistan)

POSTER DISCUSSION SESSION 05  ▶  12:15-13:15  ▶  POSTER AREA HALL 2

“HELP!”: NO DRUGS, NO PROGRAMME

Chair: Panganai Dhliwayo (Zimbabwe) – Section: Tuberculosis

[PD-645-27]
Implementation of digital health tools facilitates strategic information for decision making on TB pharmaceutical management in Tajikistan
O Bobokhojaev, G Jailova, F Mirzoeva, O Kurusov, M Kvatradze, A Salakaia (Tajikistan, United States of America)

[PD-646-27]
Interventions for programme implementation of bedaquiline in Georgia
Z Avaliani, N Kira, L Mikiashvili (Georgia)

[PD-647-27]
Improving the management of tuberculosis and leprosy medicines through an optimised logistics system: the experience of Tanzania
J Marko Mkumbo, V Sixbert Manyilizu, B Mutayoba (Tanzania, United Rep.)
Sustainable engagement of pharmacists in TB care and control: experiences from the PRATAM Project, India
V Panibatla, S Prasad (India)

An analysis of supply chain management policies to reduce stockouts of drugs for MDR-TB
L Bam, E Coetzee, Z McLaren, K von Leipzig (South Africa, United States of America)

Benefits of implementing an early warning system to improve decision making in five African countries
S Mwatavala, C Owunna, C Njuguna, M Ada Ochigbo (Tanzania, United Rep., United States of America, Kenya, Nigeria)

Private pharmacists: a vital link in the PPM model for TB control in Chennai city, India
R Ananthakrishnan, P Sujatha, N Krishnan, S Prasad (India)

Uzbekistan’s new approach to tackle the MDR-TB burden through an institutionalised early warning and quantification system
M Tillyashaykhov, N Parpieva, I Liverko, I Butabekov, N Sotvoldiev, M Kavtaradze, A Salakaia (Uzbekistan, United States of America)

Benefits of implementing an early warning system to improve decision making in five African countries
S Mwatavala, C Owunna, C Njuguna, M Ada Ochigbo (Tanzania, United Rep., United States of America, Kenya, Nigeria)

Aligning TB control activities to the devolved system of governance in Kenya
A Wairia, E Masini, M Kimenyte, J Njenga, F Ngari, B Mungai, M Maina (Kenya)

RAISING TB AWARENESS
Chair: Joel Mayowa (South Africa) — Section: Civil society and community engagement

Engaging Laskar TB Remaja (The Youth TB Warriors) in Depok City, Indonesia: a new hope in enhancing TB awareness
A Rozzaliyani, A I Gustina, N L Karmawati, H Pansila, N M Ismail, A Panigoro, A Panigoro (Indonesia)

Effectiveness of a door-to-door outreach strategy on pulmonary TB detection in two health zones in Kinshasa, DRC
J P S Simelo Kahodi Sy, P Tshiteta, B Bakoko, P Desrosiers (Congo (Democratic Rep.), United States of America)

Comparison of awareness about mode of TB transmission among the general population in 2011 and in 2013
M Kumar, S Kumar, A Das (India)

Government and community challenge obstacles and create a model of high compliance with legislation in Tehri, a difficult hilly terrain
G K Tripathi, Y K Pant, R J Singh (India)

How risky are the innovative strategies that involve community health volunteers in sputum sample collection, packaging and transportation?
Mumbasa, Kenya
B O Ulo, C Kamau, D Mobegi, T Kiptai, J Mueni, M Mungai, F Ngari (Kenya)

Working with empowered community health volunteers and community health workers as a cornerstone to intensify active case finding in Kajiado
T Leseni, P Kantai (Kenya)

Role of rural health care providers in TB prevention and care: experience from a civil society initiative, India
S Pandurangan, S Chadha, S Mohanty (India)

Gender differences in disclosure among TB-HIV patients reporting to some health facilities in the Greater Accra region of Ghana
H B Taylor-Abdulai, P Akweongo, P B Adongo (Ghana)

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
N Prasetyoningsih, D Sugio, F Ahmad Noor, A Darumurti (Indonesia)

Concept of Axshya Village, a tuberculosis-free village: a potential End TB strategy
S S Nayak, J P Tripathy, S Pandurangan, S Mohanty, P Agarwal (India)
POSTER DISCUSSION SESSIONS THURSDAY 27 OCTOBER 2016

POSTER DISCUSSION SESSION 07 ➤ 12:15-13:15 ➤ POSTER AREA HALL 2

ISSUES SURROUNDING TB: “MEDICINES MAKE YOU FEEL GOOD THOUGH THEY CAN ALSO MAKE YOU FEEL SICK”

Chair: Wendy Wobeser (Canada) — Section: Tuberculosis

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>[PD-664-27]</td>
<td>Systematic review and meta-analysis of the effect of fluoroquinolones on time to culture negativity in drug-susceptible tuberculosis</td>
<td>B Lange, J Camp, D Wagner, K Kranzer (Germany)</td>
</tr>
<tr>
<td>[PD-666-27]</td>
<td>Usefulness of moxifloxacin in tuberculous meningitis</td>
<td>R A Martinez, A Valencia, C Jimenez (Colombia)</td>
</tr>
<tr>
<td>[PD-668-27]</td>
<td>The impact of hepatitis C co-infection on tuberculosis drug-induced liver injury</td>
<td>A P G Chua, L K Y Lim, S H Gan, C B E Chee, Y T Wang (Singapore)</td>
</tr>
<tr>
<td>[PD-669-27]</td>
<td>Non-linear increase in exposure following higher rifampicin doses characterised by saturation in the elimination as determined using population pharmacokinetic analysis</td>
<td>R Svensson, R Aarnoutse, A Diacon, R Dawson, S H Gillespie, M Boeree, U Simonsson (Sweden, Netherlands, South Africa, United Kingdom)</td>
</tr>
<tr>
<td>[PD-670-27]</td>
<td>Variability in adverse event grading scales used to assess the safety of high-dose rifampin in TB trials</td>
<td>M Millstein, J Coit, P Phillips, R Aarnoutse, G Davies, M Boeree, C Mitnick (United States of America, United Kingdom, Netherlands)</td>
</tr>
<tr>
<td>[PD-672-27]</td>
<td>Local therapy for non-specific endobronchitis in patients with pulmonary tuberculosis</td>
<td>E Pavlova, L Vasileva, Pulmonary Tuberculosis Study Group (Russian Federation)</td>
</tr>
</tbody>
</table>

POSTER DISCUSSION SESSION 08 ➤ 12:15-13:15 ➤ POSTER AREA HALL 2

KNOWING THE ENEMY: MDR-TB EPIDEMIOLOGY I

Chair: Chen-Yuan Chiang (Taiwan) — Section: Tuberculosis

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>[PD-674-27]</td>
<td>Understanding the profile of multidrug-resistant TB patients in Delhi, India</td>
<td>S Waikar, M Satpatti, P Shokeen, N Mohammad, A Das, S Chadha (India)</td>
</tr>
<tr>
<td>[PD-678-27]</td>
<td>Second-line drug-resistant patterns of Mycobacterium tuberculosis in retreatment patients in Khartoum State</td>
<td>M Adam, E Khalil, H Ali (Sudan)</td>
</tr>
</tbody>
</table>
[PD-679-27] Drug resistance pattern of patients with multidrug-resistant tuberculosis in South Korea: a multicentre study, 2010-2014
J H Mok, B H Kang, S Y Kim, T H Lee, H K Lee, Y J Cho, D Jean (Korea, Republic of)

[PD-680-27] Distribution of MDR-TB cases by residence in Uganda: a time series analysis
D J Sama, D Lukoye, A Nyombi, H Luwaga, A Etworm, D Kimuli, S Turayhabwe, M Joloba (Uganda)

[PD-681-27] The true burden of MDR-TB in health settings in England: a focus on prevalent cases
M K Lalor, S Perkins, H L Thomas (United Kingdom)

[PD-682-27] Drug resistance patterns in rifampin-resistant and rifampin-susceptible tuberculosis in China
G Wang, H Huang (China)

[PD-683-27] Pattern of drug resistance among multidrug-resistant tuberculosis patients in Islamabad, Pakistan
S Rafique, A Jamal, Tuberculosis Research Study (Pakistan)

[PD-684-27] Prevalence of resistance to first-line anti-tuberculosis drugs of Mycobacterium tuberculosis isolates in Astana city
Z Rakisheva, G Balasaniantc, A Zepke, N Solovjeva, Z Dakenova (Kazakhstan, Russian Federation)

POSTER DISCUSSION SESSION 09 ➤ 12:15-13:15 ➤ POSTER AREA HALL 2

“SO SWEET”? TB-DIABETES SCREENING

Chair: Michael Kimerling (Netherlands) — Section: Tuberculosis/Adult and Child Lung Health/Tobacco Control

[PD-685-27] Risk scoring system and symptom-based screening as initial steps for detecting diabetes mellitus in TB and HIV clinics in Ethiopia
D Jerene, N Hiruy, I Jemal, T Anteneh, W Kiro, M Melese, P Suarez, G Sangiwa (Ethiopia, United States of America)

[PD-686-27] Active screening for diabetes mellitus among presumptive tuberculosis cases in private health care facilities, Bangladesh
M T Rahman, M M Rahman, A Nahar, M Reja, S Banu (Bangladesh)

[PD-687-27] Can bi-directional screening for diabetes and tuberculosis efficiently identify cases of co-morbidity?
B Alisjahbana, K Ronacher, C Ugarte-Gill, A Riza, D Grnt, J Critchley, H Dockrell, R van Crevel (Indonesia, South Africa, Peru, Romania, United Kingdom, Netherlands)

[PD-688-27] Screening for diabetes mellitus among tuberculosis patients in Southern Nigeria: a multi-centre implementation study under programme settings

K Viney, T Mills, T Klenene, D Harley (Australia, Kiribati)

[PD-690-27] TB, HIV and diabetes mellitus tri-directional screening in four hospitals of Ethiopia
D Jerene, N Hiruy, I Jemal, W Kiro, T Anteneh, P Suarez, G Sangiwa (Ethiopia, United States of America)

[PD-691-27] Integrating TB screening in diabetes care through Bangladesh Diabetic Samity (BADAS): moving from pilot to scale-up
Z S Siddique, A Villanueva, M D Hossain, A M Mahmud, N Kamp, C Welch (Bangladesh, Netherlands, United States of America)

[PD-692-27] Screening individuals with diabetes for latent tuberculosis infection: preliminary data from the TANDEM programme in Peru
C Ugarte-Gil, S Kerry, D Moore (Peru, United States of America, United Kingdom, Netherlands)

[PD-693-27] Prevalence of diabetes mellitus among active pulmonary tuberculosis patients in Addis Ababa, Ethiopia
Z Andarge, A Mihret, B Getnet, Y Feleke, D Aragaw, R Howe, L Yamuah, T Kassa (Ethiopia)

[PD-694-27] Screening tuberculosis patients for diabetes in rural and urban areas of Dodoma Region, Tanzania
P De Nardo, Z C Chauna, M Sarli Schepisi, B Nguhuni, A Piscini, F Vairo, G Ippolito, E Girardi (Italy, Tanzania, United Rep.)

[PD-695-27] Study of TB diabetes collaborative activities under the Revised National TB Control Programme, Maharashtra, India
S Bhdraswadkar, B Pawar, B Vetal, S Dapkekar, S Kamble (India)

[PD-696-27] Innovative approach to manage tuberculosis with diabetes co-morbidity in Bangladesh
P Daru, S Sultana, H Hussain, K Islam (Bangladesh)
### SUPPORTING MDR-TB PATIENTS: MHEALTH, NUTRITION, PALLIATION, AND HEALTH-RELATED QUALITY LIFE

**Chair:** Ernesto Jaramillo (Switzerland) — **Section:** Tuberculosis

<table>
<thead>
<tr>
<th>Poster Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD-697-27</td>
<td>Organisation of palliative care for TB patients in the Tjumen Region of Russia</td>
<td>E Tarasova, S Zvybulina (Russian Federation)</td>
</tr>
<tr>
<td>PD-698-27</td>
<td>Evaluating the quality of life of MDR-TB patients in St Petersburg, Russia</td>
<td>E Khasanova (Russian Federation)</td>
</tr>
<tr>
<td>PD-699-27</td>
<td>Role of nutritional supplementation in treatment adherence among drug-resistant tuberculosis patients on DOTS-plus therapy in an urban slum, India</td>
<td>N Gill, R Singh, A Nohwar (India)</td>
</tr>
<tr>
<td>PD-702-27</td>
<td>mHealth for managing MDR-TB patients at the community</td>
<td>N Kak, A N M Al Imran, D R Matji (United States of America, South Africa)</td>
</tr>
<tr>
<td>PD-703-27</td>
<td>Supervision of DOT by electronic tools and cell phones can greatly improve treatment adherence of DR-TB patients</td>
<td>P Daru, K Chakraborty (Bangladesh)</td>
</tr>
<tr>
<td>PD-704-27</td>
<td>The role of mHealth in the management of drug-resistant TB patients at community level in Bangladesh</td>
<td>S Imtiaz, A Villanueva, K Kalmbthout, A Mahmud, N Kamp (Bangladesh, Netherlands)</td>
</tr>
<tr>
<td>PD-705-27</td>
<td>Using mobile health solutions to improve patient retention in Eastern Cape Province, South Africa</td>
<td>S Nyathie, N Mdaka, T Dayimani, N Kak, N Qwara, R Matji, R Makombe (South Africa, United States of America)</td>
</tr>
<tr>
<td>PD-706-27</td>
<td>Impact of mHealth in increasing retention of patients in treatment</td>
<td>A N M Al Imran, D N Kak, K Chakraborty (United States of America)</td>
</tr>
</tbody>
</table>

### “WITH A LITTLE HELP FROM MY FRIENDS”: UNDERSTANDING AND SUPPORTING RETENTION AND ADHERENCE

**Chair:** Dina Fisher (Canada) — **Section:** Adult and Child Lung Health

<table>
<thead>
<tr>
<th>Poster Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD-707-27</td>
<td>Perceptions and factors associated with non-adherence to tuberculosis management among patients in selected hospitals in Osun State, Nigeria</td>
<td>A Adelekan, E Edoni (Nigeria)</td>
</tr>
<tr>
<td>PD-708-27</td>
<td>Reasons for pretreatment loss to follow-up of tuberculosis patients in Chennai, India: a qualitative study</td>
<td>S Senthil, S Lincy, L Agens, L Jayabal, R Subbaraman, B Thomas (India, United States of America)</td>
</tr>
<tr>
<td>PD-709-27</td>
<td>Profile of patients dropping out of TB treatment, Brazil, 2013</td>
<td>F Reis, D Dell Orti, N Saita, R Souza, A Brito, F Johansen (Brazil)</td>
</tr>
<tr>
<td>PD-710-27</td>
<td>Association between counselling and adherence to treatment for MDR-TB patients in two districts of West Bengal, India</td>
<td>A Dutta, S Bhattacharya, D Sutar (India)</td>
</tr>
<tr>
<td>PD-711-27</td>
<td>Association between tuberculosis-related stigma and medication adherence among TB patients in China</td>
<td>A Guo, S Li, T Pan (China)</td>
</tr>
</tbody>
</table>
Will an early counselling intervention with treatment interrupters help to prevent loss to follow-up among drug-resistant TB patients? S Waikar, A Pathak, P Singh, N Singh, N Solanki, R Kumar, S Upadhaya, A Das (India)

Patient-centred treatment support groups: the final solution to end loss to follow-up in tuberculosis S Balakrishnan, J Manikantan, P S Rakesh, S Achuthan Nair (India)

Krygyrz food parcels distribution practice and its influence on strengthening patients’ adherence to treatment A Niyazov, A Trusov (Krygyz Republic, United States of America)

Development and implementation of an approach to providing support for patients within Nepal’s MDR-TB management programme S Khanal, S Baral, P Shrestha, H Eisey, J Newell, B Lammichane (Nepal, United Kingdom)

Effect of a social support package on treatment adherence of DR-TB patients in Bangladesh K Jahan, A M Mahmud, A Villanueva, N Arefin, C Welch, S Sultana, N Kamp, L Stevens (Bangladesh, United States of America, Netherlands)

The use of community health workers in the in-patient setting to improve TB treatment outcomes in Karasburg, Southern Namibia K Husselmann, A Zezai, A Vermeulen, N Ruswa, L Petersen (Namibia)

Pharmacists and rural health care providers as key players in the fight against MDR-TB: experiences from the PRATAM Project, India V Panibatla, S Prasad, E Babu (India)

Findings from tuberculosis investigations associated with air travel, Canada, 2008-2012 M Ahmadi, M McGuire, J Tarasuk, K Dawson, A-C Bourgeois, J Halverson, S Ogunnaike-Cooke (Canada)


A novel approach in identifying tuberculosis transmission hotspots in urban Tanzania by using carbon dioxide levels and social information J Hella, C Morrow, F Mhimbira, N Chitnis, S Gagneux, B Mutayoba, R Wood, L Fenner (Tanzania, United Rep., Switzerland, South Africa)

Dynamics of tuberculosis transmission in an Italian metropolitan area A Cannas, S Camassa, O Butera, S Plane, A Mazzarelli, M Sali, G Delogu, E Girardi (Italy)

Long-term observation of molecular epidemiology of Mycobacterium tuberculosis in an urban area in Japan K Izumi, A Ohkado, K Uchimura, L Kawatsu, Y Murase, N Ishikawa (Japan)

Strain diversity in Mycobacterium tuberculosis complex isolates between 2006 and 2015 in Bamako, Mali T Antiene Combo Georges, S Moumine, B Bocar, D Bassirou, M Mamoudou, S Sophia, D Sounkalo, D Souleymane (Mali, United States of America)

Molecular epidemiology of Mycobacterium tuberculosis and its historical trends in South Korea, 1994-2006 H Choi, K-J Kim, J-S Yang (Korea, Republic of)

Genotypic and spatial analysis of multidrug-resistant tuberculosis transmission in a large metropolitan city in China X Wei, D Li, E Ge, X Shen, Q Gao (Canada, China)

Discriminatory power of MIRU-VNTR for differentiating Mycobacterium tuberculosis D Weerasekara, D Magana-Arachchi, H Pathirana, D Madagedara, N Dissanayake, V Thevanesam (Sri Lanka)
POSTER DISCUSSION SESSIONS  THURSDAY 27 OCTOBER 2016

POSTER DISCUSSION SESSION 13  ► 12:15-13:15  ► POSTER AREA HALL 2

SPECTRUM OF TB CARE IN KEY AFFECTED POPULATIONS

Chair: Lelisa Fekadu (Ethiopia) – Section: Tuberculosis

[PD-728-27] When students become patients: TB disease among medical undergraduates in Cape Town, South Africa
H-M van der Westhuizen, A Dramowski (South Africa)

[PD-729-27] Profile of health workers with TB in Brazil in 2015
F Reis, D Dell Orti, N Saita, S Cadenotti, F Johansen (Brazil)

[PD-730-27] Health care marker screening at selected health care facilities in Namibia
L Lipinge, S Hedimbi-Lipinge, T Haukena, R Nehale, L Haufiku, A Zezai, P Mavhunga, H Mungunda (Namibia)

[PD-731-27] Screening for TB in 600,000 Bangladesh garments workers
K E K Talukder, M A Rahman (Bangladesh)

[PD-732-27] TB surveillance in Nunavut, Canada
E Cumming (Canada)

[PD-733-27] Optimising quality in tuberculosis control in Northwestern Ontario
T Krahn, P Dasno, A Cleland, W Wobeser (Canada)

[PD-734-27] Sustained community intensive initiatives saved lives of primitive tribe communities in Kawardha district, Chhattisgarh, India
G Mallick, V Jaiprakash, S Chadha (India)

[PD-735-27] To achieve WHO Post-2015 Targets: simplified scoping review for TB epidemiology and programmatic response in the elderly in Hong Kong
J Li, P Chung, L Leung, G Tam, E Yeoh (China)

[PD-736-27] Risk factors for developing tuberculosis among the national HIV-positive cohort over 15 years in England, Wales and Northern Ireland
J R Winter, H R Stagg, C Smith, M K Lalor, A Skingsley, H L Thomas, I Abubakar, V Delpech (United Kingdom)

[PD-737-27] Tuberculosis and pregnancy in a cohort of women receiving antiretroviral therapy in Ethiopia
D Jerene, K T Garie, W A Taye, D Habte, P Suarez (Ethiopia, United States of America)

[PD-738-27] Integrating TB screening in routine antenatal care services through engagement of lay providers: lessons from Kampala
S Ntudhu, A Birungi, J Namutosi, C Nanziri, L Deus, K Mutesasira, E Birabwa, P Suarez (Uganda)

POSTER DISCUSSION SESSION 14  ► 12:15-13:15  ► POSTER AREA HALL 2

IMPLEMENTING TOBACCO CONTROL STRATEGIES

Chair: Mira Aghi (India) – Section: Tobacco control

[PD-739-27] City made free from tobacco product hoardings and boards without litigation through self removal and signed declarations by shopkeepers
M K Sinha (India)

[PD-740-27] Comparison of tobacco control programmes worldwide: a quantitative analysis of the 2015 MPOWER report
G 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
T Anand, S Grover, P Lal (India)

[PD-742-27] How West Bengal has been enforcing smokefree policies. An assessment from India
M Mukherjee, B Pal, R Sharma, R J Singh (India)

[PD-743-27] Compliance with smoke-free legislation among Istanbul hospitality premises in 2015
P Ay, E Evrengil, M Güner, E Daglı (Turkey)
**POSTER DISCUSSION SESSION 15**  
12:15-13:15  
POSTER AREA HALL 2

### TOBACCO INDUSTRY INTERFERENCE

**Chair:** Rumana Huque (Bangladesh)  
**Section:** Tobacco control

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD-749-27</td>
<td>Monitoring the tobacco industry in Africa for effective implementation of the FCTC</td>
<td>L D M Sessou, H Bakenou, D Mohee (Togo)</td>
</tr>
<tr>
<td>PD-753-27</td>
<td>Legal and metalegal strategies employed by local government to combat tobacco industry interference: Philippine best practices and practical lessons</td>
<td>P Miranda (Philippines)</td>
</tr>
<tr>
<td>PD-754-27</td>
<td>Sustaining tobacco control under tobacco industry surveillance in Chandigarh, the first smoke-free city in India</td>
<td>D Bakshi (India)</td>
</tr>
<tr>
<td>PD-755-27</td>
<td>Judicial interventions the most effective tool for countering tobacco industry interference: lessons from Mandi District in Himachal Pradesh, India</td>
<td>L D Thakur (India)</td>
</tr>
<tr>
<td>PD-756-27</td>
<td>Innovative approaches to counter tobacco industry interference in sustaining tobacco control: lessons from the state of Himachal Pradesh, India</td>
<td>G Chauhan (India)</td>
</tr>
<tr>
<td>PD-757-27</td>
<td>‘Loose ends’ in compliance with ban on ‘loose cigarette’ sales: a descriptive analysis of tobacco vendors at point of sale in India</td>
<td>S Goel, R Gupta, H S Bali (India)</td>
</tr>
<tr>
<td>PD-758-27</td>
<td>Illicit tobacco products: tobacco industry in disguise to weaken the impact of pictorial warnings</td>
<td>O P K Arora, R Sharma, S Goel (India)</td>
</tr>
</tbody>
</table>

**POSTER DISCUSSION SESSION 16**  
12:15-13:15  
POSTER AREA HALL 2

### TB DIAGNOSTIC PATHWAYS: IMPROVING ITS STEPS

**Chair:** Alaine Nyaruhirira (South Africa)  
**Section:** Tuberculosis/Bacteriology & Immunology

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD-759-27</td>
<td>Sputum sample transportation system for DR-TB diagnosis and treatment follow-up of DR-TB patients</td>
<td>S T Hossain, A Mujtaba Mahmud, A Villanueva, S M Mostofa Kamal, P K Modak, C Welch, N Kamp, S Sultana (Bangladesh, United States of America, Netherlands)</td>
</tr>
<tr>
<td>PD-760-27</td>
<td>Evaluation of OMNIgene SPUTUM (OM-SPD) reagent for the transport of clinical specimens to a reference laboratory without cold chain</td>
<td>E Tagliani, R Alagna, S Tafaj, H Harizci, D M Cirillo (Italy, Albania)</td>
</tr>
</tbody>
</table>
[PD-761-27] Improving sample transport to drive service delivery in TB care  
S Denamps (United States of America)

[PD-762-27] A meta-analysis comparing different sputum collection methods  
S Datta, L Shah, R H Gilman, C A Evans (United Kingdom, Peru, Canada, United States of America)

[PD-763-27] LED microscope giving better results in Bangladesh  
P Daru, H Hussain, M Rahman (Bangladesh)

[PD-764-27] Performance of the Xpert® MTB/RIF assay from fluorescent acid-fast stained slides  
S Chishty, J Farooqi, Y Shafquat, S Shafiq, K Jabeen, R Hasan (Pakistan)

G Wang, H Huang, G Jiang (China)

M Agonafrir, Y Assefa, F Girmachew (Ethiopia)

[PD-767-27] Experiences and challenges in the scale-up of GeneXpert services in Oromia and Amhara regions, Ethiopia  
J Seid, G Tibesso, G Ayana, M Melese, D Habte, D Jerene, N Persaud, P Suarez (Ethiopia, United States of America)

[PD-768-27] Optimising TB diagnosis among PLHIV using GeneXpert machines through a robust specimen transport and result reporting system using motorbikes  
R Eneogu, G Akang, M Gidado, N Chukwumerem, E Usoroh, J Onazi, C Ihesie, K Ajayi (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  
F Beynon, M Gimo, D Respeito, H Bulo, S Blanco, A L Garcia-Basteiro (Spain, Mozambique, Netherlands)

[PD-770-27] Cost-effective and innovative technology for effective and rapid TB response in Nigeria  
K Jimoh Agbaiyero, G Akang, G Alawode, C Macek, M Benezet, E Baruwa (Nigeria, United States of America)

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**POSTER DISCUSSION SESSION 17 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2**

**TB AMONG REFUGEES**

Chair: Elizabeth Rea (Canada) – Section: Tuberculosis

B Babamuradov, Z Zhandauletova, M Sianozova, A Trusov, N Osmanova, E Berikova (Kazakhstan)

E Kirito, R Tuwayenga, S Turyahabwe, F Mugabe, K Mutesasira, A Berhanemeskal, E Birabwa, P Suarez Guillermo (Uganda, Ethiopia, United States of America)

T Wangchuk, L Paul, N Arora, K Ayyagarai, J Tonsingh, L Tsering (India)

[PD-774-27] Combination of active case finding and contact screening: high yield in a residential school for Tibetan refugee children in India  
T Lobsang, R Dolma, J Tonsing, N Arora, L Paul, K Ayyagarai, T Wangchuk (India)

[PD-775-27] Cross-border migration of MDR-TB patients between Equatorial Guinea and Cameroon: a solution through South-South collaboration  
M F Enoka, J-L Abena Foe, J Eyene Acuresila, H Wembanyama Kasandji (Cameroon, Equatorial Guinea, Gabon)

[PD-776-27] The yield of screening campaigns for tuberculosis in camps of internally displaced people in Iraq  
D Hashim, S Ameen, L Al-Salihi (Iraq)
[PD-777-27] Novel case management strategy for latent tuberculosis infection among migrant farmworkers
E Oren, D Garcia, E Barrett, F Gonzalez-Salazar (United States of America, Mexico)

A Galev, M S Qayyum, K Kontunen, H Yaacoub, N Sabrah, H Abaza, A Mkanna (Jordan, Lebanon)

J Limo, T Boru, E Masini, R Nkirote, Kakuma TB Treatment Outcomes Study Group (Kenya)

[PD-780-27] High non-favourable outcome in districts with significant cross-border interaction: call for regional coordination
B G Belaineh, I Dambe, K Mbendera, A Dimba, B Shiggut, J Mpunga (Malawi)

[PD-781-27] Factors contributing to time to sputum conversion among migrant population treated for pulmonary tuberculosis in IOM, Kenya, 2010-2014
D Miriti, M Kipsang, D Nyachieo, B Opare, V Gajdaziev, N Marwan (Kenya)

POSTER DISCUSSION SESSION 18 ➤ 12:15-13:15 ➤ POSTER AREA HALL 2

TB MODELLING, PREVALENCE AND SURVEILLANCE

Chair: Gabriela Gomes (United Kingdom) — Section: Tuberculosis

[PD-782-27] Systematic review of mathematical models exploring the epidemiological impact of future TB vaccines
R C Harris, T Sumner, G M Knight, R G White (United Kingdom)

[PD-783-27] The use of sub-national TB modelling to inform decision-making in South Africa
P Hippner, T Sumner, R Houben, V Cardenas, L Mvusi, G Churchyard, R G White (South Africa, United Kingdom)

[PD-784-27] TIME modelling to estimate the potential impact of case-finding activities in Ghana
M Lalli, D Pedrazzoli, F Bonsu, A Kwami, N Nortey, R White, R Houben (United Kingdom, Ghana)

[PD-785-27] Estimating tuberculosis incidence from primary survey data: a mathematical modelling approach
S Pandey, V K Chadha, R Laxminarayan, N Arinaminpathy (India, United Kingdom)

J Ershova, P K Moonan, E V Kurbatova, J P Cegielski (United States of America)

[PD-789-27] Spatial and spatio-temporal risk clusters of occurrence in an endemic area of the São Paulo State, Brazil
L H Arroyo, M Yamamura, S T Pratti-Zanatta, A B Fusco, P F Palha, J A Crispim, A C V Ramos, R A Arcâncio (Brazil)

[PD-790-27] Disease surveillance through mobile phones: geotagging the ‘smart-phone’ way
R Taralekar, D S Lal, D A Banme, A Kinter, P Kandasaamy, S Mohapatra, R Gandhi, D P Keskar (India, United States of America)

C Zishiri, R Ncube, C Sandy, P Hazangwe (Zimbabwe)
INTENSIFIED CASE FINDINGS

Chair: Nunurai Ruswa (Namibia) — Section: Civil society and community engagement

[PD-792-27] Behind the scenes and the stones: active TB case finding in a quarry population in Nigeria
U Ebenezer, K N Ukwaja, I Odinye, I Alobu, S Nwite (Nigeria)

[PD-793-27] Early TB detection among most at-risk population in Ukraine
E Geliukh, S Filipovych, N Kamenska (Ukraine)

[PD-794-27] Empowering local NGOs to control the TB burden in the private sector
V Jondhale, D S Vijayan, S Pandey, S Deshmukh, R Chopra, M Datta, A A Sayyed, R Gandhi (India)

[PD-795-27] Role of the community in counselling clients in accessing health services and retention on tuberculosis treatment
B K 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

[PD-797-27] Gaining momentum through effective partnership in tuberculosis control programme, Bangladesh
M M Rana, M A Islam, S Islam, Q A M Siddiqui, F Khatun, M M Rahman, V Begum (Bangladesh)

P Ustero Alonso, K Ngo, L Gonzalez Fernandez, B Mzileni, F Anabwani, R Golin, W Sikhondze, A Mandalakas (United States of America, Swaziland)

[PD-799-27] Mobilising community health volunteers can contribute to early case finding in Kathmandu Valley, Nepal
R S Gopali (Nepal)

[PD-800-27] Improving TB case finding through organised and trained community volunteers in San Juan City, Philippines
E Mendoza, C Libunao, P Co, C Basiloy, K Dalawangbayan (Philippines)

[PD-801-27] Experiences from conducting TB outreach campaigns in Waterfront slums of Port Harcourt Local Government Area, Rivers state, Nigeria
E Oyama, M Jose, K Alerechi, R Kifasi, A Awe, G Akang, A O Fadare (Nigeria)
MEET THE EXPERT SESSIONS

At these sessions, experts will meet with small groups of participants to discuss, face to face, the challenges and opportunities presented by working to promote lung health. These sessions are free of charge for registered participants only and can hold a maximum of 50 people. Please register for the ‘Meet the expert’ sessions at the conference registration desk. Participation will be on a first-come, first-served basis.

07:45 - 08:45 ➤ SESSION ROOM 11B

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.

07:45 - 08:45 ➤ SESSION ROOM 11A

02. CONFRONTING RESISTANCE: NEED FOR POLICY CHANGE AGAINST NEW INDUSTRY TACTICS

CHANGING THE INDUSTRY APPROACH TO WOMEN
Mira Aghi (India)

INNOVATIVE STRATEGIES FOR NEWER TACTICS OF TOBACCO INDUSTRY
Elif Dagli (Turkey)

This session will discuss 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. This session will debate the new strategies to increase women customers and ideas for new solutions. 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 conventional strategies.

07:45 - 08:45 ➤ SESSION ROOM 13

03. MDR-TB CLINICAL MANAGEMENT OF ADULTS AND CHILDREN
Alena Skrahina (Belarus)

M/XDR-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 repurposed drugs as well as new regimens based on them.
UNION ADMINISTRATIVE MEETINGS

UNION WORKING GROUP MEETINGS

07.45 – 08.45  ➤  SESSION ROOM 11C
TB and Migration

07.45 – 08.45  ➤  SESSION ROOM 14
Global Indigenous Stop TB Initiative

UNION REGION MEETINGS

The Union is divided into seven regions to provide a platform to address lung health and related issues from a regional perspective. The structure offers members opportunities to network with colleagues who face the same regional challenges and contributes to The Union’s deep understanding of local issues. All conference delegates (members and non-members) are encouraged to attend their region’s meeting to share ideas for strengthening their region and turning The Union’s vision of ‘health solutions for the poor’ into a reality at a local level.

12.15 – 13.15  ➤  SESSION ROOM 12
Africa

12.15 – 13.15  ➤  SESSION ROOM 14
Middle-East

12.15 – 13.15  ➤  SESSION ROOM 11C
South-East Asia

UNION SUB-SECTION MEETINGS

The Tuberculosis Scientific Section is split into three sub-sections that give members the option of focusing on key TB issues and approaches. Non-members are welcome to attend the sub-section meetings to find out how to become more involved.

17.15 – 18.15  ➤  SESSION ROOM 14
Tuberculosis/Nurses & Allied Professionals

17.15 – 18.15  ➤  SESSION ROOM 13
Tuberculosis/Bacteriology & Immunology

18.00 – 19.30  ➤  SESSION ROOM 10
Zoonotic Sub-section and Working Group Meeting

UNION SECTION MEETINGS

The Union’s scientific 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.

17.15 – 18.45  ➤  SESSION ROOM 11A
Adult & Child Lung Health Section Meeting

17.15 – 18.45  ➤  SESSION ROOM 11C
HIV Section Meeting
STUDENT NETWORKING FORUM

18:00-19:00 > THE UNION VILLAGE

Attendees: Current and interested student members, Union bureau and Institute representatives

The Union would like to invite all current and interested students to attend its 3rd annual student networking forum. This informal event will take place Thursday, 27 October from 18:00 to 19:00 at The Union Village and will be a valuable opportunity for students to meet Union experts as well as engage with other students. To find out more, please visit the Membership Stand in The Union Village.

SIDE-MEETINGS

THE NCD DIALOGUES SESSION 1

SIDE-MEETINGS ➤ 12:15-13:15 ➤ SESSION ROOM 11A

ON THE FRONT LINE: THE ROLE OF FRONT LINE HEALTH WORKERS IN PREVENTING AND TREATING LUNG DISEASES AND NCDS

Open to all delegates

People living with lung diseases, and in particular additional non-communicable disease (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.

Coordinator: Tiphaine Lagarde, NCD Alliance (Switzerland)

SIDE-MEETINGS ➤ 14:30-15:30 ➤ ALBERT & KINGS SUITE/PULLMAN

FRIENDS OF PAKISTAN

Closed meeting

Friends of Pakistan is an annual meeting of national and international partners, collaborating organisations, and individuals working with the National TB Control Programme in Pakistan. The meeting provides an opportunity to share progress and highlight challenges in TB control in Pakistan, one of the top 10 TB high burden countries in the world.

Chairperson: Nasir Mahmood Khan, NTP Pakistan (Pakistan)
01. THE PRESERVING EFFECTIVE TB TREATMENT STUDY (PETTS): METHODS, FINAL RESULTS, CONCLUSIONS AND POLICY IMPLICATIONS

Scientific section: Tuberculosis
Organised by: Centers for Disease Control and Prevention (CDC)
Chair: Ruwen Jou (Taiwan)

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.

7.30 Goals, study population, methods – Ekaterina Kurbatova (United States of America)
7.50 Main results – Peter Cegielski (United States of America)
8.10 Implications for policy and research – Ernesto Jaramillo (Switzerland)
8.30 Panel discussion, Q & A
8.45 Adjourn

02. PUSHING THE BOUNDARIES: USE OF NEW TB DRUGS, THE MSF EXPERIENCE

Scientific section: Tuberculosis
Organised by: Medecins Sans Frontieres (MSF)
Co-Chairs: Philipp du Cros (United Kingdom), Alena Skrahina (Belarus)

With the arrival of two new drugs to treat MDRTB, bedaquiline and delamanid, and subsequent WHO guidance on their use, National tuberculosis programmes (NTPs) around the world are introducing these drugs into routine programmatic use. Médecins sans frontières (MSF) is supporting NTPs with this challenge. This satellite aims to share the combined experience of MSF and NTPs from different settings around the world, in opening up the access to these drugs and expanding their indications and use, including the use of delamanid and bedaquiline in combination, delamanid in children and extended use beyond 24 weeks of bedaquiline and delamanid.

17.30 Update on MSF projects & global scale up of new & repurposed drugs – Krzysztof Herboczek (United Kingdom)
17.45 Description and preliminary results of patients receiving Dlm in MSF-NTP projects – Catherine Hewison (France)
18.00 Dlm-Bdq combination: Programmatic aspects and preliminary results of patients receiving Dlm and Bdq combination in MSF-NTP projects – Gabriella Ferlazzo (South Africa)
18.15 Extending Bdq or Dlm beyond 24 weeks: description and preliminary results of patients receiving Dlm or Bdq longer than 24 weeks – Animesh Sinha (Belarus)
18.30 Children and adolescents under Dlm: description and preliminary results of children and adolescents receiving Dlm – Sylvie Jonckheere (India)
18.45 Discussion
03. UPDATE ON TB ALLIANCE’S LATE-STAGE TRIALS: AN EMERGING NEW PARADIGM FOR TB THERAPY

Scientific section: Tuberculosis

Organised by: TB Alliance

Co-Chairs: Mario Raviglione (Switzerland), Francesca Conradie (South Africa)

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.

17.30 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)

17.50 Nix-TB: A Clinical Trial of Bedaquiline, Pretomanid, and Linezolid in Extensively Drug-Resistant TB – Daniel Everitt (United States of America)

18.10 The diagnostic landscape: availability and suitability for drug regimens – Claudia Denkinger (Switzerland)

18.30 A new paradigm for TB treatment – Mel Spigelman (United States of America)

18.50 Discussion

04. PARTNERSHIP APPROACH IN ACHIEVING STANDARDS FOR TB CARE

Scientific section: Tuberculosis

Organised by: Reliance Foundation with technical support from World Health Organization Country Office for India

Co-Chairs: Hendrik Jan Bekedam (India), Srinivas Hundy (India)

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.

17.30 Framework for equitable access to high quality TB diagnosis – Ranjani Ramachandran (India)

17.45 E-Governance and TB surveillance – Achuthan Nair Sreenivas (India)

18.00 Engaging elected representatives and professional organisations to move the agenda beyond TB control – Nandini Sharma (India)

18.15 Fostering partnerships beyond clinical care for TB – David Griffith (Germany)

18.30 Health in life course – Rahul Thakur (India)

18.45 Discussion
SATELLITE SESSION  ➤  17.30 – 19.00  ➤  SESSION ROOM 3A

05. NEW TOOLS TO SUPPORT END THE TB STRATEGY

Scientific section: Tuberculosis/Bacteriology & Immunology

Organised by: Cepheid

Co-Chairs: Amy Piatek (United States of America), Cheri Vincent (United States of America)

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 programme managers, laboratories, clinicians, and healthcare workers improve patient care and clinical operations. This workshop 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.

17.30 New diagnostic application of Xpert MTB/RIF for paediatric MTB – David Alland (United States of America)
17.50 Engaging private sector and road to a successful implementation – Madhukar Pai (Canada)
18.10 How to measure TB programme success: C360 – Lesley Scott (South Africa)
18.30 Reaching out to missing three million: Mobile MTB/HIV Programme – Linda Gail-Bekker (South Africa)
18.50 Discussion

SATELLITE SESSION  ➤  17.30 – 19.00  ➤  SESSION ROOM 3B

06. PRESENTATION OF TB REFLECT: AN INTEGRATED ANALYSIS OF THE FLUOROQUINOLONE CLINICAL TRIALS FOR TB TREATMENT

Scientific section: Tuberculosis

Organised by: Critical path to TB regimens

Co-Chairs: Debra Hanna (United States of America), Christian Lienhardt (Switzerland)

This symposium describes a joint initiative by the World Health Organization (WHO) and the Critical Path to TB Drug Regimens (CPTR) to maximise 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. Publicly-accessible tools, data standards, and the data sharing platform developed to enhance TB clinical research efforts will be described.

17.30 The OFLOTUB trial: key results and outputs – Katherine Fielding (United Kingdom)
17.50 The REMox and RIFAQUIN trials: key results and outputs – Patrick Philips (United Kingdom)
18.10 An integrative analysis of the fluoroquinolone containing phase III TB clinical trials – Rada Savic (United States of America)
18.30 Application of learning’s from the TB-REFLECT collaboration – Christian Lienhardt (Switzerland)
18.50 Panel discussion – Debra Hanna (United States of America)
07. HOW FACILITIES EARN THEIR KEEP: PROVIDER PAYMENT FOR QUALITY TB SERVICES

Scientific section: Tuberculosis
Organised by: United States Agency for International Development (USAID) / Health Finance and Governance Project
Co-Chairs: Sara Feinstein (United States of America), Cheri Vincent (United States of America)

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.

17.30 What the heck is provider payment and why does it matter for TB? – Peter Cowley (Barbados)
17.45 Development of a TB DRG system for Kyrgyzstan – Alexandr Katsana (Canada)
18.00 Building a road map for TB system restructuring – Rakhat Cholurova (Kyrgyz Republic)
18.15 TB control and the link to health financing in Ukraine – Yana Terleeva (Ukraine)
18.30 TB models of care and payment in the WHO European Region: association with treatment outcomes? – Martin Van Den Boom (Denmark)
18.45 Discussion

08. FROM SURVEILLANCE AND DIAGNOSIS TO THERAPEUTIC INNOVATION: 3 CASE STUDIES TO ILLUSTRATE TB CHALLENGES EXPERTISE FRANCE ADDRESSES IN COMPLEX SETTINGS

Scientific section: Tuberculosis
Organised by: Expertise France
Co-Chairs: Christelle Boulanger (France), Christophe Michon (France)

In Abidjan, Expertise France included 943 prisoners in the biggest ever 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 GenXpert machine in a regional capital was the first step to develop the national MDR-TB programme;
The Union, with a 3 year 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

17.30 First case study: short therapeutic regimen for MDR-TB – Arnaud Trébucq (France), Dissou Affolabi (Benin)
17.55 Second case study: TB and key populations in Ivory Coast – Marie-Christine Receveur (France)
18.20 Third case study: national MDR-TB programme in Chad – To be confirmed
18.45 Discussion
<table>
<thead>
<tr>
<th>Session Title</th>
<th>Time</th>
<th>Room</th>
<th>Session Type</th>
<th>Coordinators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stories from behind the masks</td>
<td>7:30-8:00</td>
<td>Community Silent Theatre</td>
<td>Community Session: Participatory Activity</td>
<td>Koot Kotze (Stellenbosch University &amp; TB Proof, South Africa) and Helene-Mari van der Westhuizen (South Africa)</td>
</tr>
<tr>
<td>A deadly duo: combating TB and HIV through policy change</td>
<td>10:15-11:15</td>
<td>Community Networking Space 2 (Galleria)</td>
<td>Community Session: Panel Discussion</td>
<td>Rachael Crockett (RESULTS UK) and Mandy Slutsker (RESULTS)</td>
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<tr>
<td>The Global TB Caucus – how to get involved and how to contribute</td>
<td>10:20-11:20</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>Tushar Nair (Global TB Caucus)</td>
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<tr>
<td>Asbestos-related disease support groups: a survey of their organisational structures and activities and hazards to workers in developing countries from asbestos-related lung disease</td>
<td>11:25-12:10</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>John Flannagan (Merseyside Asbestos Victim Support Group, UK) and Dr Jeff Morgan (Retired Occupational Physician, UK)</td>
</tr>
<tr>
<td>TB 101: An introduction to scientific terminology in tuberculosis.</td>
<td>13:20-14:50</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>Jody Boffa (Stellenbosch University, South Africa) and Adrian Muwonge (University of Edinburgh, Scotland)</td>
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<tr>
<td>“Proud2Bsmokefree” – smoking and vaping in the LGBT community</td>
<td>15:45-16:45</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>Lawrence Roberts and Ben Heyworth (LGBT Cancer Support Alliance, UK)</td>
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<tr>
<td>More of donor and national HIV budgets should be diverted to cover TB-HIV collaborative activities</td>
<td>16:50-17:50</td>
<td>Community Silent Theatre</td>
<td>Community Session: Testimonials</td>
<td>Rachael Crockett (RESULTS UK) and Mandy Slutsker (RESULTS)</td>
</tr>
<tr>
<td>Voices from the community: the stories of 10 TB patients reached through community-based activities</td>
<td>17:55-18:25</td>
<td>Community Silent Theatre</td>
<td>Community Session: Testimonials</td>
<td>Olga Guerrero Horas (Humana People to People, Spain)</td>
</tr>
<tr>
<td>Championing the political will to end TB</td>
<td>18:30-19:30</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>Aamirah Patel and Dan Sharp (RESULTS UK)</td>
</tr>
</tbody>
</table>
CULTURAL ACTIVITY: PARTICIPATORY ACTIVITY  07.30 – 08.00  COMMUNITY COMMON SILENT THEATRE

STORIES FROM BEHIND THE MASKS

Patients with TB and drug-resistant TB are highly stigmatised. This acts as a barrier to accessing care, and isolates patients. This interactive session will connect participants with patients who have personally experienced drug-resistant TB, helping to ‘unmask’ the stigma associated with TB and confronting the experiences of patients.

Step 1: We have set up a photo booth at a TB hospital in the Eastern Cape, South Africa where patients with TB have taken a photo wearing a surgical mask with the #UnmaskStigma sticker. They wrote a message about their personal experiences with TB on a white board.

Step 2: We will present this photo series as an interactive session at the Community Common, using themes presented by patients from the photos to stimulate conversation.

Step 3: We will then invite conference participants to take a photo wearing a surgical mask with the #UnmaskStigma sticker and write a message of support about TB stigma for TB patients on a white board.

Step 4: After the session, we will collate the photos into a photobook or collage and display it at the TB hospital.

Co-Chairs: Helene-Mari van der Westhuizen (South Africa)
Coordinator(s): Koot Kotze (South Africa)
Presentation  Koot Kotze (South Africa), Helene-Mari van der Westhuizen (South Africa)

NETWORKING ACTIVITY  10.15 – 11.15  COMMUNITY COMMON NETWORKING SPACE 2 (GALLERIA)

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 programmes, 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 treatment programmes treat require patients to travel to one clinic to receive their HIV care, and another clinic to receive TB care.

Civil society, affected communities, policy makers, 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, with donors, civil society, affected communities, policy makers and parliamentarians to discuss ACTION latest research on TB HIV integration, identify gaps and opportunities, and plan the next steps going forward.

Presentation

PANEL DISCUSSION  10.20 – 11.20  COMMUNITY COMMON SILENT THEATRE

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 Caucus works 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 (MPs)
   b. Getting MPs to sign the Barcelona Declaration
   c. Setting up a National TB Caucus
4. Open Session – Questions and clarifications

Coordinator(s): Tushar Nair (India)
Presentation I  Sarah Kirk (Australia)
Presentation II  Tushar Nair (India)
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 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. A significant health hazard is therefore posed to local residents, as well as those working in the shipbreaking and recycling processes, who are rarely provided with personal protective equipment.

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

Presentation I – John Flanagan (United Kingdom)
Presentation II – Jeff Morgan (United Kingdom)

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.

Co-Chairs: Jody Boffa (South Africa), Adrian Muwonge (United Kingdom)

Coordinator(s): Jody Boffa (Stellenbosch University, South Africa) and Adrian Muwonge (University of Edinburgh, Scotland).

13:20 Pathogenesis & transmission of tuberculosis – Nash Dhallia (Canada)
13:30 TB diagnostics – Jody Boffa (South Africa)
13:50 TB in special populations Blessina – Amulya Kumar (India)
PANEL DISCUSSION  ▶  15.45 – 16.45  ▶ COMMUNITY COMMON SILENT THEATRE

“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 than 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 programmes.

Coordinator(s): Lawrence Roberts (United Kingdom), Co-Chairs: Ben Heyworth (United Kingdom)

Presentation I – Melody Holt (United Kingdom)
Presentation II – Peter Mackereth (United Kingdom)
Presentation III – Ben Heyworth (United Kingdom)
Presentation IV – Ben Blackman (United Kingdom)

TESTIMONIALS  ▶  16.50 – 17.50  ▶ COMMUNITY COMMON SILENT THEATRE

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 bear 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(s): Rachael Crockett (United Kingdom), Mandy Slutsker (United States)

Presentation I – Rachael Crockett (United Kingdom)
TESTIMONIALS ▶ 17.55 – 18.25 ▶ COMMUNITY COMMON SILENT THEATRE

VOICES FROM THE COMMUNITY:
THE STORIES OF 10 TB PATIENTS REACHED THROUGH COMMUNITY-BASED ACTIVITIES

Community engagement through civil society and non-governmental organisations is recognised by the WHO as critical to the End TB strategy. Most civil society programmes undergo evaluations to monitor the efficiency, effectiveness and value for money provided. However, little is known from the perspective of the patients and their families themselves on how the projects have made a difference to their own lives.
TB Alert has been implementing community based TB activities in the UK, India and Southern Africa over more than a decade. More recently, TB Alert and Humana People to People have been partnering to implement innovative community based collaborative TB and HIV activities in Malawi and Zimbabwe. As both organisations begin active-case finding efforts in eight countries as part of the regional TB in the Mining Sector Programme (TIMS), we reflect upon and share stories from 10 TB and HIV/TB affected patients reached through grass root activities in five countries. Stories such as that of Zororai, 31, from Chimanimani district in Zimbabwe who, showing TB symptoms for six months, had sought help twice at the health facility and twice from traditional healers but was never tested for TB or for HIV. It was only when an outreach community worker trained by the TB Alert/ Humana project screened him at his doorstep and facilitated the collection and transport of sputum to the clinic that he was diagnosed with TB and found to be HIV+. Migrant worker G. Simhadari worked as a labourer in a farm in Vijayawada district in India and lived with another labourer in the same room. He did not know that the person he was sharing the room with had TB since his room partner would not tell due to the stigma attached to the infection

Coordinator(s): Olga Guerrero Horas (Spain)
Presentation I – Olga Guerrero Horas (Spain)
Presentation II – Sameer Sah (United Kingdom)

PANEL DISCUSSION ▶ 18.30 – 19.30 ▶ COMMUNITY COMMON SILENT THEATRE

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 policy makers 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 professionals at Global Fund-funded projects in Cambodia

Coordinator(s): Aamirah Patel (United Kingdom), Dan Sharp (United Kingdom)
Presentation I – Susan Dart (United Kingdom)
Presentation II – Jessica Potter (United Kingdom)
THE CENTENNIAL CAMPAIGN

For 96 years, The Union has drawn from the best scientific evidence and expertise to advance solutions to public health challenges affecting people living in poverty. As we approach our 100 year anniversary as a global organisation, we look back on our history and commemorate the many advances we have made against tuberculosis, HIV/AIDS, illnesses caused by tobacco use, and the diseases that too often target the world’s most vulnerable people.

We have come far, but our work is not over.

We must continue to find new ways to overcome these devastating challenges. The Centennial Campaign is raising funds to support our next century of global impact.

These principles have driven The Union’s work since its founding nearly 100 years ago:

**KNOW**
We conduct research to provide evidence for health policy and practice.

**SHARE**
We disseminate scientific knowledge to strengthen public health programmes.

**ACT**
We deliver services and conduct advocacy to safeguard people’s health.

TO FIND OUT MORE AND TO SUPPORT THE CENTENNIAL CAMPAIGN:
CENTENNIALCAMPAIGN.ORG
FRIDAY
28 OCTOBER
2016
The Christmas Seals tradition dates back to 1904, when a Danish postman named Einar Holboell developed the idea of adding an additional charitable stamp onto seasonal letters as a way to raise funds to fight tuberculosis. The tradition was quickly adopted by other countries and continues today. Lung health associations have since raised millions of dollars in funds by selling these Christmas or TB seals.

The Union holds its annual Christmas Seals Exhibit and Contest during the World Conference every year in recognition of this colourful tradition. Constituent and organisational members are invited to submit their Christmas Seals for exhibition at the conference.

Visit the Christmas Seals exhibit in the Exhibition Area.

Union members vote for their favourite seals during the General Assembly, which will be held:

FRIDAY 28 OCTOBER
18:30 - 19:30
Session Room 12

2015 1st prize winner: The Philippine Tuberculosis Society, Inc (The Philippines)

2015 2nd prize winner: Japan Anti-Tuberculosis Association (Japan)

2015 3rd prize winner: The Hong Kong Tuberculosis, Chest and Heart Diseases Association
PLENARY SESSIONS

09.00 – 10.00 ★ ARENA

PLENARY SESSION II  TOBACCO CONTROL

Chair(s): Matthew Myers (United States of America), Senator Pierre Flambeau Ngayap (Cameroon), Jesus Felipe Gonzalez Roldan (Mexico)

E-cigarettes and the future of the tobacco industry: Competition or capture, obsolescence or renewal?

Speaker: Jeff Collin (United Kingdom) is Professor of Global Health Policy, University of Edinburgh.

Jeff Collin is Professor of Global Health Policy at the University of Edinburgh. A political scientist by background, his research interests focus on health policy and global health governance, with a particular emphasis on the role of the commercial sector. He has a particular interest in unhealthy commodity industries, with extensive research experience in examining how tobacco companies have sought to shape public policy, with a growing programme of work also examining the alcohol and ultra-processed food industries. He has been a member of WHO expert groups on tobacco industry influence on policy, is a member of Cancer Research UK’s Tobacco Advisory Group and new International Tobacco Advisory Group, and is a co-investigator in the UK Centre on Tobacco and Alcohol Studies.

Current picture and tobacco control efforts in Africa

Speaker: Kellen Namusisi (Uganda) is Monitoring & Evaluation Specialist for the Center for Tobacco Control in Africa (CTCA).

Kellen Nyamurungi is a public health professional working with the Center for Tobacco Control in Africa (CTCA), supporting African governments to enact and implement tobacco control policy and laws. Previously, Kellen worked as a Country Programme Advisor for Uganda supported by Interact Worldwide. Kellen holds a Masters in Population and Reproductive Health from Makerere University and a two-year Fellowship in HIV/AIDS management by Makerere University and Center for Diseases Control (CDC).

The political successes and shortfalls that “100% smoke-free” campaigns are facing in Latin America

Speaker: Tania Cavalcanti (Brazil) - To be confirmed

AWARD PRESENTATION  THE UNION SCIENTIFIC PRIZE

The Union Scientific Prize acknowledges researchers at any stage of their career for work on tuberculosis or lung health in the past five years.
The Union Journals

The Union publishes two scientific, peer-reviewed journals, disseminating the latest research to public health professionals, healthcare workers and researchers.

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SUBMIT AN ARTICLE

The IJTLD encourages submissions of original research on tuberculosis control and the promotion of lung health.

Visit theunion.org/what-we-do/journals/ijtld for more information

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PHA welcomes the submission of articles on health systems and health services research.

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“PHA encourages articles that contribute to making the greatest possible impact on health in developing countries”

Dr Dermot Maher, MD, Editor in Chief, Public Health Action

JOIN THE UNION: All Union memberships include full access to the IJTLD. Contact membership@theunion.org for more information.
### SPECIAL SESSIONS

**10.30-12.00  ➤ SESSION ROOM 3A**

#### ERS HIGHLIGHTS

**Chair:** Giovanni Battista Migliori (Italy)

- Management of COPD 2016 – Peter Calverley (United Kingdom)
- Pneumonia - State of the Art – Mark Woodhead (United Kingdom)
- To be confirmed – Ashley Woodcock (United Kingdom)
- Domiciliary NIV for COPD – Robert Parker (United Kingdom)

#### LANCET RESPIRATORY MEDICINE SYMPOSIUM ➤ 12.00-13.30 ➤ ARENA

#### DEALING WITH DRUG-RESISTANT TUBERCULOSIS

**Co-chairs:** Keertan Dheda (South Africa), Tawanda Gumbo (United States of America)

- **12:00** New insights into the pathogenesis of drug-resistant TB and implications for clinical practice  
  Keertan Dheda (South Africa)
- **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)
- **12:35** 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)
- **12:50** Using bedaquiline and delamanid in MDR-TB and their contacts: key advances, controversies and practice points  
  Gavin Churchyard (South Africa)
- **13:05** 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  
  Edward Nardell (United States of America)
- **13:20** Panel Discussion

#### 13.30-15.00  ➤ SESSION ROOM 1A

#### FROM PIPELINE TO PILL BOTTLE: BRINGING DRUG INNOVATION TO PATIENTS

**Co-chairs:** Sylvia Kelbert (Italy), Luis Soto-Ramirez, (Mexico), Paula I Fujiwara (United States of America) - To be confirmed

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.

- **13:30** Experience from long-acting HIV drug development  
  Susan Swindells (United States of America)
- **13:45** PK-PD as applied to TB drug development  
  Gerry Davies (UK)
- **14:00** Progress in scaling up delamanid use and introducing Otsuka’s second anti-TB compound  
  Lawrence Geiter, Rajesh Gupta (United States of America)
- **14:15** The Bill & Melinda Gates Foundation strategy for new TB drug development and support for a PAN-TB regimen  
  Jan Gheuens (United States of America)
- **14:30** Updates on new regulations: entire regimens or combinations vs individual compounds  
  Marco Cavaleri (United Kingdom)
- **14:45** Discussion
**SYMPOSIA**

All symposia are eligible for accreditation.

**SYMPOSIUM 19**  ▶  10:30-12:00  ▶  SESSION ROOM 3B

**IMPLEMENTING PILLAR THREE OF WHO’S END TB STRATEGY AT THE COUNTRY LEVEL: LESSONS LEARNT FROM PATH-FINDING COUNTRIES**

*Section: Tuberculosis*

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.

*Co-chairs: Christian Lienhardt (Switzerland), Mauricio Barreto (Brazil)*

10.30 Implementing Pillar 3 of WHO’s End TB Strategy at country level – Priya Shete (United States of America)
10.45 The role of Ethiopia’s TB research network (TRAC) in driving the agenda for TB research – Leilisa Fekadu (Ethiopia)
11.00 Establishment of Viet Nam’s research network (VICTORY): setting the pace for novel research studies in Viet Nam – Viet Nguyen Nhung (Viet Nam)
11.15 Using current country level socio-economic data to define high-risk groups for targeting interventions: the S-Protection project – Ethel L Maciel (Brazil)
11.30 Modelling for evidence: defining country-derived research questions and answers – Gavin Churchyard (South Africa)
11.45 Discussion

**SYMPOSIUM 20**  ▶  10:30-12:00  ▶  SESSION ROOM 1C

**CHALLENGING TUBERCULOSIS IN URBAN SETTINGS AND BIG CITIES IN COMPREHENSIVE TB CONTROL PROGRAMMES**

*Section: Tuberculosis*

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.*

*Co-chairs: Seyoum Dejene (Uganda), Pedro G Suarez (United States of America)*

10.30 Strengthening TB service provision through urban DOTS in Kampala, Uganda – Frank Mugabe (Uganda)
10.45 Addressing the TB control issue in fragile states: urban DOTS experience in Kabul, Afghanistan – Mohamad Rashidi (Afghanistan)
11.00 TB in urban settings and big cities in Latin America: general overview – Mirtha Del Granado (United States of America)
11.15 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)
11.30 The perfect storm: the convergence of clinical and social complexity in London, UK – Alistair Story (United Kingdom)
11.45 Discussion

**SYMPOSIUM 21**  ▶  10:30-12:00  ▶  SESSION ROOM 1B

**MDR-TB AND MIGRATION: FROM INFECTION FUNDAMENTALS TO PROGRAMME INNOVATIONS**

*Section: Tuberculosis*

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.

Co-chairs: Gilles Cesari (Switzerland), Poonam Dhavan (Switzerland)

10.30 Overview of MDR-TB in migrants: epidemiology, increased risks and clinical specific issues to addressing MDR-TB in mobile populations – Jose Caminero Luna (Spain)

10.45 Accessing MDR-TB treatment: labour migration in Tajikistan, and the journey of an MDR-TB patient crossing borders to access better care – Rukhshona Qurbonova (Tajikistan)

11.00 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)

11.15 Increased risk for MDR-TB for labour migrants in Southern Africa, especially miners – Llang Bridget Maama-Maime (Lesotho)

11.30 MDR-TB in migrants: a gender and children perspective – Anna Scardigli (Switzerland)

11.45 Discussion

SYMPOSIUM 22 ➤ 10:30-12:00 ➤ SESSION ROOM 11B

NEW APPROACHES TO MDR-TB TREATMENT IN CHILDREN: FROM RESEARCH TO EVIDENCE-BASED IMPLEMENTATION

Section: Adult & Child Lung Health

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.

Co-chairs: James Seddon (United Kingdom), Simon Schaaf (South Africa)

10.30 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)

10.45 Pharmacokinetics of moxifloxacin and linezolid in children with MDR-TB and implications for paediatric dosing – Anthony Garcia-Prats (South Africa)

11.00 Predictors of MDR-TB treatment outcomes in children and adolescents receiving individualised regimens – Silvia Chiang (United States of America)

11.15 World Health Organization treatment guidelines for drug-resistant TB, 2016 update: recommendations and their application to children – Dennis Falzon (Switzerland)

11.30 Challenges and solutions to scaling up paediatric MDR-TB treatment in Central Asia – Aravind Swaminathan (India)

11.45 Discussion

SYMPOSIUM 23 ➤ 10:30-12:00 ➤ SESSION ROOM 11A

MAGNITUDE AND SCOPE OF TB STIGMA: SCALE VALIDATION AND CROSS-COUNTRY COMPARISONS

Section: Tuberculosis

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.

Co-chairs: Ellen MH Mitchell (Netherlands), Ernesto Jaramillo (Switzerland)

10.30 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)

10.45 Stigma hotspots and time trends: mapping attitudes toward TB disease disclosure across 39 countries – Mirjam Bakker (Netherlands)

11.00 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)

11.15 Are TB stigmas compound stigmas? Correlation of TB disease disclosure and levels of poverty, incarceration, substance use and HIV – To be confirmed

11.30 Adding fuel to the fire: accounting for drug-resistance and HIV in measurement of TB stigma – Amrita Daftary (Canada)

11.45 Discussion
### SYMPOSIUM 24  10:30-12:00  SESSION ROOM 11C

**ASTHMA AND COPD: A SHIFTING LANDSCAPE**

**Sections:** Tuberculosis/Adult & Child Lung Health

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.

**Co-chairs:** Karen Bissell (New Zealand), Jean-William Fitting (Switzerland)

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<td>10.30</td>
<td>Challenges of using spirometry and peak flow measurement in low-income countries – Asma El Sony (Sudan)</td>
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<td>10.50</td>
<td>A new paradigm for understanding and managing obstructive airways disease – Ian Pavord (United Kingdom)</td>
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<td>11.10</td>
<td>Challenges of implementing new models of care in low- and middle-income countries – Kevin Mortimer (United Kingdom)</td>
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<td>11.30</td>
<td>Asthma and COPD – a continuum of disease from childhood: implications for low- and middle-income countries – Heather Zar (South Africa)</td>
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### SYMPOSIUM 25  10:30-12:00  SESSION ROOM 13

**QUALITATIVE RESEARCH FOR TUBERCULOSIS CONTROL: WHAT LESSONS CAN RESEARCHERS OFFER TO POLICY MAKERS AND IMPLEMENTERS IN TACKLING DRUG-RESISTANT TB?**

**Section:** Tuberculosis

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.

**Co-chairs:** John Porter (United Kingdom), Ian Harper (United Kingdom)

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<tr>
<td>10.30</td>
<td>Using qualitative research and stakeholder engagement to develop a patient-centred, psychosocial support intervention for MDR-TB care in Nepal – Sushil Baral (Nepal)</td>
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<td>10.45</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 – Virginia Bond (Zambia)</td>
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<td>11.00</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 – Solomon Salve (India)</td>
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<td>11.15</td>
<td>Lessons learnt from qualitative research in TB control in Nepal – Ian Harper (United Kingdom)</td>
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<td>11.30</td>
<td>Confronting resistance: positioning qualitative research in relation to global tuberculosis control and research – Coll Hutchison (United Kingdom)</td>
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### SYMPOSIUM 26  10:30-12:00  SESSION ROOM 14

**BEST PRACTICES AND CHALLENGES IN ENDING TB IN CORRECTIONAL FACILITIES**

**Section:** Tuberculosis/Nurses & Allied Professionals

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

**Co-chairs:** Rafail Mehdiyev (Azerbaijan), Masoud Dara (Belgium)
10.30 Impact of TB transmission in prisons to the community – Julio Croda (Brazil)
10.45 Early case-finding and its impact on the TB burden in prisons of Azerbaijan – Elmira Gurbanova (Azerbaijan)
11.00 Results of TB treatment and care for ex-prisoners in Republic of Moldova – Svetlana Doltu (Moldova)
11.15 Optimisation of TB services in the prison system of the Ukraine – Olexander Etnis (Ukraine)
11.30 TB control and respiratory health interventions in the prisons of the UK – To be confirmed
11.45 Discussion

SYMPOSIUM 27 ► 13:30-15:00 ► SESSION ROOM 3B

MDR-TB AND XDR-TB TREATMENT SERVICE DELIVERY MODELS IN AFRICA AND LATIN AMERICA

Section: Tuberculosis

Multidrug-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 centres 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.

Co-chairs: Ernesto Jaramillo (Switzerland), Seyoum Dejene (Uganda)

13.30 Mixed ambulatory and in-patient treatment model of care: Ethiopian experience – Blen Ayele (Ethiopia)
13.45 Achieving rapid scale-up of MDR-TB treatment using a decentralised, mixed model of patient care in Uganda – Kenneth Mutesasira (Uganda)
14.00 Integrated home-based treatment of MDR-TB: South Africa experience – Norbert Ndjeka (South Africa)
14.15 Challenging MDR-TB and XDR-TB through a decentralised, mixed model in Peru – Valentina Alarcón Guizado (Peru)
14.30 Do decentralised treatment and care lead to better outcomes for MDR-TB patients? Results of systematic review – Gregory Fox (Australia)
14.45 Discussion

SYMPOSIUM 28 ► 13:30-15:00 ► SESSION ROOM 1B

EARLY WARNING SYSTEM TO IMPROVE PATIENT ACCESS TO TB MEDICINES: FROM QUANTIFICATION TO DECISION MAKING

Section: Tuberculosis

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 paediatric 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.

Co-chairs: Job van Rest (Netherlands), Luis Gustavo do Valle Bastos (United States of America)

13.30 Project implementation strengthening country MDR-TB drug management and quantification in Belarus: strengths and weaknesses – Vaira Leimane (Latvia)
13.45 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 Use early warning system for effective planning of resources and to improve access to TB medicines: Rwanda and Somaliland experience – Floribert Biziyaremye (Rwanda)
14.15 Managing risks of stock-outs, wastage, overstocks and expiries of TB medicines in Tanzania – Jumanne Mkumbo (Tanzania, United Rep.)
14.30 Early warning systems for streamlining Global Drug Facility procurement services – Andre Zagorski (Switzerland)
14.45 Discussion
SYMPOSIUM 29  ▶  13:30-15:00  ▶  SESSION ROOM 11B

MOVING TOWARDS INTEGRATED COMMUNITY AND PRIMARY HEALTH SYSTEMS TO IMPROVE OUTCOMES FOR WOMEN AND CHILDREN AFFECTED BY TB AND TB-HIV

Section: Adult & Child Lung Health

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.

Co-chairs: Anne Detjen (United States of America), Marian Loveday (South Africa)

13.30 Child TB case finding and prevention at the community level in Uganda – Moorine Sekadde (Uganda)
13.45 Joining the country dialogue on integration – Sabine Verkuijl (South Africa)
14.00 Integrating TB services within the reproductive, maternal, neonatal and child health platform – Avinash Kanchar (Switzerland)
14.15 Health systems thinking around TB integration – Marian Loveday (South Africa)
14.30 Strengthening community and primary health systems for TB – Anne Detjen (United States of America)
14.45 Discussion

SYMPOSIUM 30  ▶  13:30-15:00  ▶  SESSION ROOM 11A

RESISTANCE TO PUBLIC HEALTH POLICY, THE UNIQUE VECTOR: TOBACCO INDUSTRY

Section: Tobacco Control

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 behaviour 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.

Chair: Matthew Allen (New Zealand)

13.30 Status report on global and national measures to prevent tobacco industry interference in health and tobacco tax policies – Anne Jones (Australia)
13.50 Countering tobacco industry interference in tax policies: successful strategies – Jean Tesche (United States of America)
14.10 Observatory to monitor the strategies of the tobacco industry in Brazil – Silvana Rubano Turci (Brazil)
14.30 Public health policy and industrial epidemics: tackling conflict of interest, promoting policy coherence – Jeff Collin (United Kingdom)
14.50 Illicit tobacco trade – Luk Joossens (Belgium)

SYMPOSIUM 31  ▶  13:30-15:00  ▶  SESSION ROOM 13

BUILDING RESEARCH CAPACITY IN TUBERCULOSIS: THE EXPERIENCE OF TRAINING PROGRAMMES AND THEIR IMPACT IN LOW AND MIDDLE-INCOME COUNTRIES

Sub-section: Tuberculosis/Nurses & Allied Professionals

There is an urgent need to increase the number of in-country clinical researchers focused on tuberculosis in low-middle income countries. Given the lack of current research infrastructure in many high TB burdened settings, partnerships are often needed to develop and jumpstart an in-country research programme. In such scenarios, research training and mentoring provided from external partners can be essential to developing a critical mass of investigators capable of both addressing the most relevant issues and to ensure the long term sustainability of an in-country research programme. We report here on the experiences of a few such programmes.

Co-chairs: Henry Blumberg (United States of America), Anthony D Harries (United Kingdom)

13.30 An NIH Fogarty clinical research training programme: achievements and lessons learnt over 10 years – Russell Kempker (United States of America)
13.50 SORT IT model: successes and challenges – Ajay Kumar (India)
14.10 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)
14.30 Learning through training: experience at the Armauer Hansen Research Institute in Ethiopia – Abraham Aseffa (Ethiopia)
14.45 Discussion

**SYMPOSIUM 32  ► 13:30-15:00  ► SESSION ROOM 14**

**SHOULD ADDRESSING TOBACCO USE IN TB AND HIV PATIENTS BE INTEGRAL TO DISEASE CONTROL PROGRAMMES? A CASE FOR SUPPORT**

Section: Tobacco Control

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.

Co-chairs: Mario Raviglione (Switzerland), Jonathan Golub (United States of America)

13.30 Prevalence of tobacco use in TB and HIV patients: secondary analyses based on demographic and health surveys and literature review – Noreen Mdege (United Kingdom)
13.45 Digital health interventions for TB tobacco control – Dennis Falzon (Switzerland)
14.00 Innovations for TB-tobacco: mHealth – Surabhi Joshi (Switzerland)
14.15 TB and tobacco control integration in primary care: WHO/The Union recommendations and country experiences – Dongbo Fu (Switzerland)
14.30 Scaling-up TB-tobacco integration at global level-mobilisation of resources – Reuben Swamickan (India)
14.45 Discussion

**SYMPOSIUM 33  ► 15:15-16:45  ► SESSION ROOM 3A**

**THE GROWING GENDER GAP IN TB: A CONSEQUENCE OF RESISTANCE TO RECOGNISING MEN’S VULNERABILITY IN TB DIAGNOSIS AND CARE?**

Section: Tuberculosis

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 policy makers 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.

Co-chairs: Liz Corbett (Malawi), Knut Lönroth (Switzerland)

15.15 A patient’s perspective – Timur Abdullaev (Uzbekistan)
15.30 Gender differences in TB burden and care pathways – Katherine Horton (United Kingdom)
15.45 The influence of masculinity on care-seeking for TB – Jeremiah Chikovore (South Africa)
16.00 Strategies for reaching men through occupational screening in Lagos – Nkem Chukwueme (Nigeria)
16.15 Advocacy for gender equity – Colleen Daniels (Switzerland)
16:30 Discussion

**SYMPOSIUM 34  ► 15:15-16:45  ► SESSION ROOM 1C**

**MONITORING TB TREATMENT: ALTERNATIVES TO MICROSCOPY AND CULTURE?**

Section: Tuberculosis/Bacteriology & Immunology

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.
### Confronting Resistance: Fundamentals to Innovation - The 47th Union World Conference on Lung Health

**Symposia Friday 28 October 2016**

**Co-chairs:** Richard Anthony (Netherlands), Luis Cuevas (United Kingdom)

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<td>15.15</td>
<td>Innovative non-culture methods for monitoring treatment response in tuberculosis</td>
<td>Stephen Gillespie (United Kingdom)</td>
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<td>15.35</td>
<td>Monitoring host immune response: a realistic approach to treatment monitoring?</td>
<td>Alberto García-Basteiro (Mozambique)</td>
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<td>15.55</td>
<td>Monitoring drug levels during TB therapy a realistic goal?</td>
<td>Jan-Willem Alffenaar (Netherlands)</td>
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<td>16.15</td>
<td>Is treatment monitoring as a test of cure realistic?</td>
<td>Frank Cobelens (Netherlands)</td>
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**Symposium 35**

**15:15-16:45**
**Session Room 1B**

**E-Cigarettes and Other Electronic Nicotine Delivery Devices: Where Are We Now? Regulation, Opportunities and Protecting Public Health**

**Section:** Tobacco Control

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.

**Chair:** Ehsan Latif (United Kingdom)

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<td>15.15</td>
<td>Regulation on electronic nicotine delivery systems in different countries</td>
<td>Joanna Cohen (United States of America)</td>
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<td>15.35</td>
<td>Opportunities offered by e-cigarettes</td>
<td>Linda Bauld (United Kingdom)</td>
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<td>15.55</td>
<td>Challenges posed by e-cigarettes</td>
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<td>16.15</td>
<td>E-cigarettes and FCTC articles</td>
<td>Myra Wisotzky (United States of America)</td>
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**Symposium 36**

**15:15-16:45**
**Session Room 11B**

**Demonstrated Need for Strengthened National Stop TB Partnerships**

**Track:** Civil society and community engagement

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.

**Co-chairs:** Charlotte Colvin (United States of America), Lucica Ditiu (Switzerland)

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<td>15.15</td>
<td>Identifying TB champions</td>
<td>Mayowa Joel (Nigeria)</td>
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<td>15.30</td>
<td>Mobilising Members of Parliament</td>
<td>Evaline Kibuchi (Kenya)</td>
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<td>15.45</td>
<td>Partnering to implement the national TB programme</td>
<td>Amelia Sarmiento (Philippines)</td>
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<tr>
<td>16.00</td>
<td>Engaging civil society in the fight against TB</td>
<td>Samarendra Misra (India)</td>
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<td>16.15</td>
<td>Strengthening collaboration between all partners and engaging with the CCM</td>
<td>Paul Isiko (Uganda)</td>
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<tr>
<td>16.30</td>
<td>Discussion</td>
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**Symposium 37**

**15:15-16:45**
**Session Room 11C**

**Tackling TB in Cities: Lessons and Best Practices in Urban TB**

**Section:** Tuberculosis

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.
SYMPOSIUM 38  ▶  15:15-16:45  ▶  SESSION ROOM 13

THE EFFECTIVENESS AND OBSTACLES FOR SOCIAL SUPPORT TO TB PATIENTS

Sub-section: Tuberculosis/Nurses & Allied Professionals

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 centre 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

Co-chairs: Ernesto Jaramillo (Switzerland), Susan van den Hof (Netherlands)

15.15 Social support guidelines – Ernesto Jaramillo (Switzerland)
15.30 Effectiveness of social support on TB treatment adherence and treatment outcomes – Susan van den Hof (Netherlands)
15.45 Obstacles for social support provision within health service delivery – To be confirmed
16.00 Effectiveness of interventions to reduce TB stigma – Nina Sommerland (Belgium)
16.15 A patient’s tale – Ingrid Oxley (South Africa)
16:30 Discussion

SYMPOSIUM 39  ▶  15:15-16:45  ▶  SESSION ROOM 14

MYCOBACTERIUM BOVIS: MOLECULAR EPIDEMIOLOGY, ECONOMIC IMPACT AND PERSPECTIVES ON GLOBAL PUBLIC HEALTH POLICY

Sub-section: Tuberculosis/Zoonotic

Several communities in developing countries still consume unpasteurised milk and many patients, particularly children, infected with M.bovis are misdiagnosed as Mycobacterium tuberculosis. Therefore the burden due to recognised and undiagnosed M.bovis is substantial. This a half-day symposium on global epidemiology of M.bovis, its transmission between wildlife and domesticated animal livestock as well as human populations and the impact of the disease on agricultural communities and global trade. Focus will be on how sequencing technology including cheaper whole genome sequencing can be used to better understand TB disease transmission, improve disease detection and treatment and improve TB programmes, worldwide.

Chair: Thaddeus Miller (United States of America)

15.15 Epidemiology of Mycobacterium bovis – Patrick Moonan (United States of America)
15.30 Chemotherapy of Mycobacterium bovis: pharmacokinetic pharmacodynamic perspectives – Jotam Pasipanodya (United States of America)
15.45 Economic impact of Mycobacterium bovis on individuals and society – Thaddeus Miller (United States of America)
16.00 Mycobacterium bovis and other zoonosis control in veterinary services in the US – Katherine Fogelberg (United States of America)
16.15 Impact of zoonotic diseases in pastoral communities in developing countries – Thomas Graham (Uganda)
16:30 Discussion
ORAL ABSTRACT SESSIONS FRIDAY 28 OCTOBER 2016

ORAL ABSTRACT SESSION 10 ▶ 10:30-12:00 ▶ SESSION ROOM 1A

HIV AND TB: LESSONS FROM AFRICA

Co-chairs: Alwyn Mwinga (Zambia), Neil Martinson (South Africa) — Section: HIV

10.30 [OA-372-28]
Tuberculosis prevalence and incidence among people living with HIV attending HIV care and treatment clinics in Botswana, August 2012-Oct 2014
A Finlay, T Agizew, A Date, R Boyd, S Pals, H Alexander, B Kgwadira, A Auld (Botswana, United States of America)

10.40 [OA-373-28]
The infectiousness of HIV-seropositive tuberculosis patients in sub-Saharan Africa
L Martinez, M E Castellanos, J Sekandi, S Salwango, C Whalen (United States of America, Uganda)

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
V Mutabazi, G Mutembayire, P Migambi, P Uwizeye, E Rusesa, E Ncuti, C B Uwizeye, A Dushime, M Gasana (Rwanda)

11.00 [OA-375-28]
Performance of WHO TB symptom screen in hospitalised HIV-positive Kenyan children

11.10 [OA-376-28]
Successfully tested but not enrolled in HIV treatment and care: missed opportunities for TB patients in Papua New Guinea
J Kisomb, S Miyano, G Towaira, V Kerui, T Islam, A Gurung, P Aia (Papua New Guinea)

11.20 [OA-377-28]
Patient preferences for provision of isoniazid preventive therapy among people living with HIV in South Africa
C Hannah, H-Y Kim, D Dowdy, K Motthiolaeng, L Lebina, N Martinson, J Bridges, J Golub (United States of America, South Africa)

11.30 [OA-378-28]
Efficacy of the BCG vaccine on overall causes of mortality in Brazil
K B Andrade, M L Barreto, L C Rodrigues, S M Pereira (Brazil, United Kingdom)

11.40 [OA-379-28]
Delayed-type hypersensitivity response in Balb/C mice vaccinated with chimera DNA vaccine against tuberculosis and leishmania co-infection
P Shankar, J Mishra, M Kumar, P Sharma, S Singh (India)

11.00 [OA-380-28]
Mycobacterium tuberculosis-specific interferon-gamma responses, the Beijing-lineage, and plasma adipocytokine levels in patients with active tuberculosis
P H Thuong, N T L Hang, S Maeda, I Matsushita, D B Tam, M Hijikata, L T Lien, N Keicho (Viet Nam, Japan)

ORAL ABSTRACT SESSION 11 ▶ 10:30-12:00 ▶ SESSION ROOM 12

11. BACTERIA, VACCINES AND IMMUNITY

Chair: Mark Hatherill (South Africa), Thomas Scriba (United States of America) — Section: Tuberculosis

10.30 [OA-380-28]
Previous BCG vaccination associated with variation in mycobacterial-specific immune response: a modelling study
S Rhodes, G Knight, J Guedj, H Fletcher, R White (United Kingdom, France)

10.40 [OA-381-28]
Can BCG prevent M. tuberculosis infection in guinea pigs exposed to human cases?
E Nardell, D Ordway, A Stoltz, R Basaraba, M Mphaphlele (United States of America, South Africa)

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
S A Prabowo, A Zelman, L Stackdale, S Smith, K Seifert, H Fletcher (United Kingdom)

11.00 [OA-383-28]
Efficacy of the BCG vaccine on overall causes of mortality in Brazil
K B Andrade, M L Barreto, L C Rodrigues, S M Pereira (Brazil, United Kingdom)

11.10 [OA-384-28]
Delayed-type hypersensitivity response in Balb/C mice vaccinated with chimera DNA vaccine against tuberculosis and leishmania co-infection
P Shankar, J Mishra, M Kumar, P Sharma, S Singh (India)

11.20 [OA-385-28]
Mycobacterium tuberculosis-specific interferon-gamma responses, the Beijing-lineage, and plasma adipocytokine levels in patients with active tuberculosis
P H Thuong, N T L Hang, S Maeda, I Matsushita, D B Tam, M Hijikata, L T Lien, N Keicho (Viet Nam, Japan)
11.30 [OA-386-28]  First comparative proteomic analysis of the Mycobacterium tuberculosis lineage 7  
S Yimer, A Godana, T Riaz, S Kalayou, C Holm-Hansen, G Norheim, M Abebe, A Aseffa, T Tanjum (Norway, Ethiopia)

11.40 [OA-387-28]  Inflammamosomal response after ESAT stimulation could help differentiate between active TB and latent TB infection  
M-R Lee, L-Y Chang, C-J Tsai, J-Y Wang (Taiwan)

ORAL ABSTRACT SESSION 13 ➤ 13:30-15:00 ➤ SESSION ROOM 3A

ENHANCED CASE-FINDING AND CONTACT TRACING

Co-chairs: Elizabeth Corbett (Malawi), Riitta Dlodlo (Zimbabwe) – Section: Tuberculosis

13.30 [OA-388-28]  A systematic review of national policies on tuberculosis contact investigations  
C A Rodriguez, K Yuehling, S Azzawi, M C Becerra, C M Yuen (United States of America)

13.40 [OA-389-28]  Comparison of patients identified by active case finding against those identified in health centres  
L Lawson, S Abdurrahman, M Blaskiston, J Obasanya, M Yassin, R Anderson, O Oladimeji, A Ramsay, L Cuevas (Nigeria, United Kingdom, Switzerland)

13.50 [OA-390-28]  Optimising the efficacy and efficiency of household contact tracing in sub-Saharan Africa  
L Martinez, M Castellanos, S Zalwango, R Kaka, J Sekandi, N Kwanuka, C Whalen (United States of America, Uganda)

14.00 [OA-391-28]  Do pilot active case finding projects increase case notification of sputum smear-positive tuberculosis at national level?  
K Koura, A Trebuq, V Schwebel (France)

14.10 [OA-392-28]  Risk factors associated with undetected pulmonary TB in a prevalence survey, Callao, Perú  
M Tovar, T Wingfield, M Saunders, R Montoya, E Ramos, T Valencia, S Datta, C Evans (Peru, United Kingdom)

14.20 [OA-393-28]  Targeting TB preventive therapy to adult household contacts at high risk using a TB risk score  
M J Saunders, T Wingfield, M A Tovar, K Zevallas, R Montoya, M Baldwin, J Lewis, C Evans (United Kingdom, Peru)

14.30 [OA-394-28]  Cost-effectiveness of active case finding of pulmonary tuberculosis patients in an endemic setting, Lima, Peru  
L Shah, M Rojas Peña, M Mori, C Zamudio, L Otero, J S Kaufman, E Gotuzzo, C Seas, T F Brewer (Canada, Peru, United States of America)

14.40 [OA-395-28]  Impact of tuberculosis control interventions targeted to previously treated people in a high-burden setting  
R Marx, R Yaesoubi, N A Menzies, J A Salomon, N Beyers, T Cohen (United States of America, South Africa)

ORAL ABSTRACT SESSION 14 ➤ 13:30-15:00 ➤ SESSION ROOM 1C

CHALLENGES IN TB DIAGNOSTICS: AN OVERVIEW OF METHODS AND ISSUES

Co-chairs: Stella van Beers (Netherlands), Alaine Nyaruhirira (South Africa) – Section: Tuberculosis/Bacteriology & Immunology

13.30 [OA-396-28]  Bovine tuberculosis in humans in Germany: what do we know from tuberculosis surveillance?  
L Fiebig, B Hauer, M Andrés Miguel, W Haas (Germany)

13.40 [OA-397-28]  Low-cost automated tuberculosis whole smear screening system  
Y N Law, H Jian, N Lo, M Ip, M Chan, K M Kam, C Tse, X Wu (Hong Kong)

13.50 [OA-398-28]  Serial molecular testing improves the detection of tuberculosis in a low-prevalence setting  
B J Baker, C Reed, H Rivas, N Green (United States of America)

14.00 [OA-399-28]  Diagnosing extra-pulmonary tuberculosis by Xpert® MTB/RIF: the Bangladesh experience  
P Daru, K Mostofa (Bangladesh)

P Shete, K Farr, L Strnad, C Gray, A Cattamanchi (United States of America, United Kingdom)

14.20 [OA-401-28]  Misclassification of tuberculosis as other lung diseases in a tertiary chest disease hospital of a high prevalence country  
S M Kamal, M S Hossain, R Sultana, B Ahmed, M N Hoque, B Ullah, M R H Hassan (Bangladesh)
14.40 [OA-403-28]  
Is introducing the Xpert® MTB/RIF test into the diagnostic algorithm of smear-negative tuberculosis cost-effective?  
N Yakhelef, M Audibert, F Varaine, J Sitienei, M Bonnet (France, Kenya)

14.50 [OA-404-28]  
Systematic review and meta-analysis of clinical outcomes of drug-susceptible tuberculosis diagnosed by Xpert® MTB/RIF and smear microscopy  
T Agizew, A Finlay, R Boyd (Botswana, Georgia)

ORAL ABSTRACT SESSION 15  ➤ 13:30-15:00 ➤ SESSION ROOM 12

TOBACCO PACKAGING AND GRAPHIC HEALTH WARNINGS

Co-chairs: Elif Dagli (Turkey), Angela Jackson-Morris (United Kingdom) — Section: Tobacco control

13.30 [OA-405-28]  
Tobacco pack warnings in South East Asia. Where are we after 12 years of the FCTC?  
R Sharma, J S Rana (India)

13.40 [OA-406-28]  
Changes in Vietnamese male smokers’ reactions towards pictorial cigarette pack warnings over time  
T T Ngan, N N Bich (Viet Nam)

13.50 [OA-407-28]  
Overcoming resistance to bigger and better GHWs- case studies from Nepal, Cambodia and Pakistan  
Fouad Aslam (Pakistan)

14.00 [OA-409-28]  
Are health warnings really effective?  
TS Bam, AB Chand (Singapour, Nepal)

14.10 [OA-410-28]  
Health warnings as integral part of health communications  
T Turk, N Singh Negi, A Kapil, S Reza Choudhury, S Islam, N Murukutla, S Mullin (India, Bangladesh, United States of America)

14.20 [OA-411-28]  
Are ‘loose’ cigarettes associated with increased intensity of smoking? A secondary analysis from the Global Adult Tobacco Survey, 2009-2010, India  
S Goel, M Sharma, A M V Kumar, R Kumar, V Dogra (India)

14.30 [OA-412-28]  
Pictorial health warnings on cigarette packs are highly effective in thinking about quitting: a case study in Punjab, India  
R Gupta, S Goel, R J Singh, V Mahajan (India)

ORAL ABSTRACT SESSION 16  ➤ 13:30-15:00 ➤ SESSION ROOM 11C

ADULT LUNG HEALTH: CHRONIC OBSTRUCTIVE PULMONARY DISEASE, CHRONIC DISEASE, ASTHMA AND OXYGEN

Co-chairs: Jean-William Fitting (Switzerland), Asma El Sony (Sudan) — Section: Adult and Child Lung Health

13.30 [OA-413-28]  
Prevalence and risk factors of chronic obstructive pulmonary disease in a sample of adult smokers, Baghdad, Iraq, 2014  
F Lami (Iraq)

13.40 [OA-414-28]  
Increasing trends of COPD in persons living with diabetes: a population-based matched cohort study, 1984-2013  
N Yu, P Klassen, R Wang, C Ens (Canada)

13.50 [OA-415-28]  
Cost of hospitalisation for chronic respiratory diseases in India: how much are the poor spending?  
J P Tripathy, H Shewade, A M Kumar, A D Harries (India, France, United Kingdom)

14.00 [OA-416-28]  
Feasibility and effectiveness of PAL proposed by the WHO for medical care for adult patients with respiratory diseases, Orizaba, Veracruz, Mexico  
E Ferreira-Guerrero, G Delgado Sanchez, L D Ferreyra-Reyes, A Hernandez, S Canizales Quintero, G Canales-Velazquez, N P Mongua, L Garcia-Garcia (Mexico)
14.10 [OA-417-28]  
The development of a lung health awareness-raising programme in Masindi province, Uganda  
R Jones, B Kirenga, F van Gemert (United Kingdom, Uganda)

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  
T H Gebremariam, A B Binegdie, A W Ashagrie, A S Mitiku, K G Gebrehiwot, D K Huluka, C B Sherman, N W Schluger (Ethiopia, United States of America)

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  

14.40 [OA-420-28]  
Diagnostic performance of chest computed tomography for the localisation of bleeding site in patients with hemoptysis  
Y-S Kwon, H J Seon, H-J Shin (Korea, Republic of)

HIV-TB LATE-BREAKER SESSION

Chair: Amy Bloom, Keren Middelkoop, Katharina Kranzer (Union HIV section officers), Paula I Fujiwara (The Union) — Section: HIV

15.15 [OA-3048]  
Potential impact of antiretroviral therapy on tuberculosis incidence among people with and without HIV — 26 countries, Sub-Saharan Africa, 2010–2014  
D Surie, M W Borgdorff, K P Cain, E S Click, K M DeCock, C M Yuen (United States of America, Kenya)

15.30 [OA-3106]  
Do high expression MIF alleles confer protection against active tuberculosis?  

15.45 [OA-3110]  
Immunological recovery in tuberculosis/HIV co-infected patients on antiretroviral therapy: insight into strategy for tuberculosis preventive therapy  
B Kano, G Krause, S Castell, C Kollan, O Hamouda, W Haas, The ClinSurv HIV Study Group (Germany)

16.00 [OA-2981]  
Effectiveness of combination intervention package on initiation of antiretroviral therapy among patients with tuberculosis and HIV (TB/HIV)  

16.15 [OA-3112]  
Community-based TB screening and HIV testing for ex-miners in Lesotho  
R Chang, S Stender, L Maama, E Kobayashi, S Reinhardt, A Singh, P Akugizibwe (United States of America, South Africa, Lesotho, Rwanda)

16.30 [OA-3012]  
Accessibility to HIV-TB services is a facilitator for TB screening amongst PLHIVs: a case study from Central India  
M Biswas, T Nale, P Sharma, A Kharate (India)

THE TIDE IS HIGH: TB AND CO-MORBIDITIES

Co-chairs: Megan Murray (United States of America), Srinath Satyanarnyana (India) — Section: Tuberculosis/Adult and Child Lung Health/Tobacco Control

15.15 [OA-421-28]  
Tuberculosis and diabetes: trends in hospitalisations and impact on health care costs in the United States  
M Pearson (United States of America)

15.25 [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  
C Ugarte-Gil, P Huangfu, F Pearson, J Golub, J Critchley (Peru, United States of America, United Kingdom)

15.35 [OA-423-28]  
Chronic kidney disease progression and risk of tuberculosis: a cohort study  
P Cho, M-Y Wu, C-Y Wu, Y-J Shih, C-C Chan, H-H Lin (United States of America, Taiwan)

15.45 [OA-424-28]  
Prevalence and clinical relevance of respiratory viruses among tuberculosis patients and household controls in Tanzania  
F Mnimbira, H Hiza, J Hella, T Maroa, E Mbuya, M Chiryanikubi, S Gagneux, L Kenner (Tanzania, United Rep., Switzerland)
15.55 [OA-425-28]
The effect of risk factor control on tuberculosis in Taiwan: a modelling study
C-H Wang, H-H Lin (Taiwan)

16.05 [OA-426-28]
Challenges in diagnosing diabetes among those with newly diagnosed pulmonary TB: diagnostic variability according to diabetes disease severity
D Grint, A Riza, C Ugarte-Gil, K Ronacher, B Alisjahbana, H Dockrell, R van Crevel, J Critchley, on behalf of the TANDEM Consortium (United Kingdom, Romania, Peru, South Africa, Indonesia, Netherlands)

16.15 [OA-427-28]
A rapid assessment of the nutritional status of TB patients and the integration of a nutrition assistance programme in Ethiopia
J Ahmed, A Kassa, M H/silassie, A Fantaye (Ethiopia)

16.25 [OA-428-28]
Alcohol and substance use among participants in a clinical trial receiving home-based DOT for tuberculosis
C Pinedo, J Jimenez, K Tintaya, S R Leon, J M Coit, M B Milstein, L Lecca, C D Mitnick (Peru, United States of America)

ORAL ABSTRACT SESSION 19 • 15:15-16:45 • SESSION ROOM 12

DRUGS FOR MRD-TB: CHALLENGES AND SUCCESSES

Co-chairs: Francesca Conradie (South Africa), ID Rusen (Canada) – Section: Tuberculosis

15.15 [OA-429-28]
Timing of acquired resistance to fluoroquinolones and second-line injectable drugs during treatment of MDR-TB
P Cegielski, C Contreras, T Dalton, V Leimane, K Kliman, H J Kim, M van der Walt, T Tupasi, O Demikhova, L Via, C Kvasnovský, L Diem, M Yagui, J Bayona, Preserving Effective TB Treatment Study (PETTS) (United States of America, Peru, Latvia, Estonia, Korea, Republic of, South Africa, Philippines, Russian Federation)

15.25 [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
E Sagwa, N Ruswa, F Mavhunga, T Rennie, A Mengistu, A K Mantel-Teeuwisse (Netherlands, Namibia)

15.35 [OA-431-28]
Dose-ranging activity of clofazimine in combination with the first-line regimen in the mouse model of tuberculosis treatment
N Ammerman, R Swanson, E Bautista, H Guo, D Almeida, E Nuermberger, J Grosset (United States of America, South Africa)

15.45 [OA-432-28]
Roll-out of new drugs to treat DR-TB: success and challenges with implementation
N Misra, I Master (South Africa)

15.55 [OA-433-28]
Treatment outcome in patients with multidrug-resistant tuberculosis as measured by sputum culture conversion rate in Rwanda
M C Muvunyi, J C S Ngabonziza, Y Mucyo, G Mutembayire, P Migambi, M Gasana (Rwanda)

16.05 [OA-434-28]
Predictors of unfavourable treatment outcome in adults with multidrug-resistant tuberculosis in India
D Nair, B Velayutham, K Thiruvengadam, J P Tripathy, A D Harries, K S Sachdeva, M Natrajan, S Swaminathan (India, France)

16.15 [OA-435-28]
DR-TB treatment costs: trends towards more affordability under threat with new drugs
C Perrin, W Bellamy, G Brigden, S Cloez (France, United States of America, Switzerland)

16.25 [OA-436-28]
High rates of ocular toxicity associated with ethambutol in the treatment of multidrug-resistant tuberculosis in South Africa
K N Nelson, N R Gandhi, N S Shah, S Allana, A Campbell, K Milisana, J C M Brust (United States of America, South Africa)
TB INFECTION CONTROL: TOO FAST, TOO SLOW OR JUST RIGHT?

Co-chairs: Carrie Tudor (Switzerland), Enos Masini (Kenya) — Section: Tuberculosis

15.15 [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

H Le, N V Nguyen, P N Tran (Viet Nam)


S Sultana, P Daru (Bangladesh)

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

N McCreesh, C Looker, P J Dodd, I D Plumb, K Shanaube, E L Corbett, H Ayles, R G White (United Kingdom, Zambia, Malawi)

15.45 [OA-440-28] TB infection control assessment at high-burden antiretroviral therapy centres under the ‘3Is’ project in India: country experience

R Deshmukh, R S Gupta, B B Rewari, S A Nair, R Ramchandran, M Parmar, S Nicole, P Harvey (India)

15.55 [OA-441-28] Infection control in MDR decentralised sites in South Africa: a baseline study

A Peters, M Mahlepe, Z Claassen, J Peters, N Ndjeka, P Peters, I Asia (South Africa, United Kingdom)

16.05 [OA-442-28] Exploring level of knowledge of health care staff on TB infection control measures in Afghanistan

A Momand, G Qader, M K Rashidi, D Safi, H Momand, N Ahmadzada, P Suariz, A Hamim (Afghanistan, United States of America)

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 G Kigozi, M C Engelbrecht, A Janse van Rensburg, H C Janse van Rensburg, J C Heunis (South Africa)

16.25 [OA-444-28] Incidence of tuberculosis among health workers at public health care facilities in two regions of Ethiopia

A Ayalew, D Habte, N Hiruy, G Gizatie, B Reshu, L Fekadu, D Jerene, P Suarez (Ethiopia, United States of America)
E-POSTER SESSIONS

E-POSTER SESSION 06 ➤ 12:15-13:15 ➤ SESSION ROOM 5

COMMUNITY-BASED APPROACHES FOR TB

Chair: Munachitombwe Muyabala (Swaziland) — Section: Civil society and community engagement

[EP-148-28] TB detection rates through community mobilisation versus household contact investigation in rural South Sudan
E Males, E Bepo, J Lou, M Ladu, E Dulu, M Awet, S Macharia, B Assefa (South Sudan, Republic of, Ethiopia)

[EP-149-28] Notification of TB-HIV co-infected cases through a community-based approach
S Mukhopadhyay, G Karapetyan, S Cornelius, D Cherian, B Samuel, M Jose (India, United States of America)

E Andre, O Bahati Rusumba, E Mutume Musafiri, O Le Polain de Waroux (Belgium, Congo (Democratic Rep.), United Kingdom)

[EP-151-28] Redefining the scope of civil society for tuberculosis control by 2035: a unique initiative by The Union
S Pandurangan, S Chadha, S Mohanty (India)

[EP-152-28] Educlowns and tuberculosis: community theatre, gender and TB awareness in rural areas of Tamil Nadu
M Annapoorni, L Griffith-Jones, N Owens (India)

J Karahyla, N K Sharma, P Aggarwal (India)

[EP-154-28] Promoting proper diagnosis and treatment of tuberculosis among employees through the workplace TB programme in the City of Calamba, Philippines
R Esguerra, M Onite, R Palomique, K Dalawangbayan, C Agustin, J C Dycoco-Cam, M G De Ello-Alcantara (Philippines)

G Okoko, M Mangut, U Benson, J Kitonga, N Ang’wa, R Kibech, C Mwamisidu (Kenya)

[EP-157-28] Analysing the impact of the context in which disease control programmes are embedded: a situational assessment of tuberculosis in Myanmar
M S Khan, S S Khili, J Yoong, Z M Tun, S Watson, R J Coker (Singapore, United Kingdom, United States of America, Thailand)

E-POSTER SESSION 07 ➤ 12:15-13:15 ➤ SESSION ROOM 6

TB TRANSMISSION DYNAMICS

Chair: Gerry Davies (United Kingdom) — Section: Tuberculosis

M Sane Schepisi, I Motta, S Dore, C Costa, G Sotgiu, E Girardi (Italy)

P K Moonan, J L Tobias, C Sermumola, A Finlay, E S Click, C Modongo, N M Zetola, J E Oeltmann (United States of America, Botswana)

I Nisan, P J Freidlin, D Chemtob, D Goldblatt, H Kaidar-Shwartz, Z Dvesrin, E Rorman (Israel)

E Click, J Basoti, T Tamuhla, C Modongo, P Moan, J Oeltmann, N Zetola, A Finlay (United States of America, Botswana)

[EP-162-28] Potential of a combined technique of social network analysis and geographic information system in understanding transmission of M. tuberculosis
K Izumi, L Kawatsu, A Ohkado, K Uchimura, Y Murase, N Ishikawa (Japan)
Whole genome sequencing to analyse the transmission dynamics of multidrug-resistant Mycobacterium tuberculosis strains in Saudi Arabia
S Al-Hajoj Al-Nakhli, B Varghese, T Kohl, A Halees, S Niemann (Saudi Arabia, Germany)

Evaluation and expansion of genome-based transmission chain estimation of drug-resistant Mycobacterium tuberculosis strains
C J Meehan, S Akter, T Kohl, M Merker, P Beckert, S Niemann, B C de Jong (Belgium, Germany)

Determining the transmission dynamics of tuberculosis in the Greater Banjul Area of The Gambia
T I Faal-Jawara, A Ayorinde, N Sallah, J Sutherland, S Gagneux, B C de Jong, M Antonio, F Gehre (Gambia, Switzerland, Belgium)

Empirical measurement of the agent of tuberculosis transmission utilising the respiratory aerosol sampling chamber
B Patterson, C Morrow, G Majumdar, A Moosa, V Singh, D Warner, V Mizrahi, R Wood (United States of America, South Africa)

Implementing standard operation procedures for tuberculosis case detection: a solution to tackle TB in 13 provinces of Afghanistan
G Q Qader, M K Rashidi, S D Mahmoodi, M K Seddiq, M H Akhgar, S M Sayedi, N Persaud, P Suarez (Afghanistan, United States of America)

Multi-stakeholder participation builds synergies to accelerate TB control
M V Antique-Garalza, R Masangkay, R Borromeo, L Lilloc, E Magsayo, K Dalawangbayan, J C Dyoco-Cam, E Caccam, Jr., T Yu, Jr., M S Dela Cruz (Philippines)

Strengthening coordination for TB control at all levels: experience of Challenge TB and the Global Fund in Nigeria
M Gidado, A Gabriel, E Rupert, O Jumoke, U Sani, N Chukwueme, K Joseph, O Amos Fadare (Nigeria)

Trend and prospect of tuberculosis mortality rate in Brazil: contributions for the National Plan to End Tuberculosis
A P Lobo, D M Pelissari, C O Dantas, K B Andrade, S Codenotti, W N Araujo (Brazil)

Effect of wellness-based health promotion and education on the demand for TB and other disease screening services
M Munachitombwe - Muna (Swaziland)

How does the Global Fund impact on managerial capacity to achieve targets for tuberculosis management in Sri Lanka? Qualitative insights
R A Jayasinghe, K Kielmann (United Kingdom)

Contribution of GeneXpert implementation towards detection of multidrug-resistant TB in Uganda
H Luwaga, F Magabe, M Joloba, S Turayhabwe, K Mutesasira, S Dejene, E Birabwa, P Suarez (Uganda, United States of America)

Increased diagnostic yield and notifications of bacteriologically confirmed cases using Xpert® MTB/RIF as the initial test in semi-pastoralists: Ethiopia
J R Soressa, T A Boro, T Adepoymi, L Sadasivan, M B Ensermu (Ethiopia, United States of America)
[EP-179-28]
Does the clinical performance of new tuberculosis diagnostic tools meet the required performance standards under programmatic conditions?
M C Muvunyi, J C S Ngabonziza, A N Umubyeyi, M Gasana (Rwanda, South Africa)

[EP-180-28]
Implementation of GeneXpert technology for rapid TB diagnosis in South Sudan: lessons learnt
A Worri, F Mori, D Lodiongo, M Lou, S Macharia, J Lou, M Awet, B Assefa (South Sudan, Republic of, Ethiopia)

[EP-181-28]
A tool to reduce treatment initiation delay
A N M Al Imran, D N Kak, K Chakraborty (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
A B Cissé, B Diarra, G Berthé, F Camara, B Baya, D Soumaré, M S Traoré, B C de Jong (Mali, Belgium)

[EP-183-28]
Distribution of DR-TB following the nine revised criteria for Xpert® MTB/RIF testing in Bangladesh
S T Hossain, A Villanueva, A Tafsina, C Welch, N Kamp, F Khanam, L Stevens, P K Modak (Bangladesh, United States of America, Netherlands)

[EP-184-28]
Scaling up Xpert® MTB/RIF implementation under India’s Revised National TB Control Programme
S Dhawan, S Mannan, K Rade, A Sreenivas, S Chadha, J Tonsing, R Rao, D Gupta (India)

[EP-185-28]
It’s broken again: the scenario of GeneXpert machines in Bangladesh
L Stevens, S T Hossain, A Villanueva, A Mujtaba Mahmud, M A Hamid Salim, F Khanam (Bangladesh)
POSTER DISCUSSION SESSIONS

POSTER DISCUSSION SESSION 20  ▶  12:15-13:15  ▶  POSTER AREA HALL 2

“HELP!” IDENTIFYING TB EDUCATION AND TRAINING NEEDS AND OUTCOMES FROM SELECTED INTERVENTIONS

Chair: Linette McElroy (Canada) – Section: Tuberculosis/Nurses & Allied Professionals

[PD-802-28] Tuberculosis knowledge, attitudes and practice among cases and contacts in a UK city
C Browne, M Munang, M Dedicat (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
K D Sagili, A Trivedi (India)

[PD-804-28] Operational research on the role of patient education in treatment outcomes
I Pylypas, Y Chorna, M Dolynska, E J Pearlman (Ukraine)

[PD-805-28] Tuberculosis prevention and control: how knowledgeable are hospital workers in India?
R Km, Pedodontia (India)

[PD-806-28] Establishing a framework for TB nursing education in Australia
A Christensen, P Banner, K Shaw (Australia)

[PD-807-28] A study of knowledge, attitudes and practice regarding Mycobacterium tuberculosis among private practitioners in Abbottabad District, Khyber Pakhtunkhwa, Pakistan
K Naz, Health Economic Group (Pakistan)

[PD-808-28] Building an educational campaign with the participation of the prison community
L Nemeth, D Pelissari, P Werlang, D Kuhleis, J Machado, K Portolan (Brazil)

[PD-809-28] Improving the treatment success rate and case notification of smear-positive tuberculosis patients through household health education in Kenya
T Kiptai, B Ulo, S Karanja, F Ngari, A Otieno, C Kamau, B Malamba, M Mungai (Kenya)

[PD-810-28] Evaluation of the knowledge of registered nurses about TB and MDR-TB in Lesotho
R Fosa (Lesotho)

[PD-811-28] “Finding” TB in India via active pharmacy engagement: early results from the IC-IMPACTS Study
A Daftary, N Jha, P Das, S Papineni, M Singh, K Talreja, S Satyanarayana, M Pai (Canada, India)

[PD-812-28] Capacity building of primary care providers to improve TB case detection in Georgia
T Gabunia, N Solomonia, M Danelia, T Zurashvili, I Karosanidze (Georgia)

[PD-813-28] Social and behaviour change initiatives to improve TB detection and treatment adherence in Georgia
T Gabunia, T Chakhia, M Butsashvili, G Kamkamidze (Georgia)

POSTER DISCUSSION SESSION 21  ▶  12:15-13:15  ▶  POSTER AREA HALL 2

ADULT LUNG HEALTH IN AFRICA AND ASIA

Chair: Guy Marks (Australia) – Section: Adult and Child Lung Health

[PD-814-28] Correlation between body mass index and forced expiratory volume in one second (FEV1 % predicted) in patients with COPD
N K Chauhan, S Singh, N Dutt, L Saini, S Kumar, A Kuwal (India)

[PD-815-28] Community-based screening for chronic obstructive pulmonary disease among the elderly in an urban area of South India
R Chauhan, A Purty, Z Singh (India)
POSTER DISCUSSION SESSIONS   FRIDAY 28 OCTOBER 2016

[PD-816-28] Prescription practices rationalised by the Practical Approach to Lung health in Kerala, India
S Balakrishnan, V Krishnaveni, S Jayasankar, P S Rakesh, M Sunilkumar, S Achuthan Nair (India)

R Jones, B Kirenga, J Pooler, W Katagir, R Kasita, A Barton, S Creanor, D Gragn Enki, S Singh (United Kingdom, Uganda)

[PD-819-28] Prognostic factors for interstitial lung disease with microscopic polyangiitis
A Ssempala (Uganda)

P U Chulasiri, N S Gunawardane, K Siddiqi (Sri Lanka, United Kingdom)

[PD-821-28] Trigger factors for asthma symptoms in Sudan and their validation using skin prick tests
A Magzoub, O Musa, A Elsony, G Elmahi, A Alawad, O Dawod (Sudan, Saudi Arabia)

[PD-823-28] Computed tomographic pulmonary angiography findings in pulmonary embolism: report of 38 cases
A Bakebe, J M Kayembe, B Kabengele, S Bisuta, I Kashongwe, C Mulenga, M Lelo, M Tshiasuma (Congo (Democratic Rep.)

POSTER DISCUSSION SESSION 22   ▶ 12:15-13:15 ▶ POSTER AREA HALL 2

CHILDHOOD TB CLINICAL AND OUTCOMES

Chair: Anne Detjen (United States of America) — Section: Adult and Child Lung Health

[PD-824-28] Two’s company, three’s a crowd: tuberculosis in HIV-infected South African children with complicated severe acute malnutrition
H Adler, M Archary, P Mahabeer, P LaRussa, R Bobat (South Africa, Ireland, United States of America)

[PD-825-28] Integrating routine TB screening for children in malnutrition programmes: a review of country guidelines from high TB burden countries
L Patel, A Detjen (United States of America)

[PD-826-28] TB case finding among malnourished school-age children
A Orenciana, H Bucu, J Luseco, N Cervantes, K Dalawangbayan, J C Dycoco-Cam, R A Fabella (Philippines)

[PD-827-28] Tuberculosis pericardial effusions in children
N J Obihara, E Walters, J Lawrenson, A Garcia-Prats, A C Hesseling, H S Schaaf (Netherlands, South Africa)

[PD-828-28] Atypical radiological patterns in children with bacteriologically confirmed pulmonary tuberculosis
M Palmer, E Walters, A C Hesseling, H S Schaaf, P Goussard, M M van der Zalm, R P Gie (South Africa)

[PD-829-28] Factors associated with mortality among children diagnosed with tuberculosis in Kampala City, Uganda
D Kimuli, F Mugabe, D Okello, D Lukoye, A Etworn, R Kalisa, B Assefa, S Pedro (Uganda, Ethiopia, United States of America)

[PD-830-28] Factors affecting treatment outcome of childhood tuberculosis in two regions of Ethiopia
D Habte, Y Tadesse, M Melese, G Diro, M Chaneyalew, S Daba, N Persaud, P Suarez (Ethiopia, United States of America)

[PD-831-28] Excellent outcomes seen in children treated for tuberculosis under programmatic conditions in Cape Town, South Africa
M Osman, K Lee, A Hesseling, R Dunbar, J Seddon (South Africa, United Kingdom)

[PD-832-28] Risk factors for treatment default in paediatric tuberculosis cases
D Chau-Giang (Viet Nam)

[PD-833-28] Investigating loss to follow-up among adolescent TB patients in Gaborone, Botswana
L Rieke, E Lowenthal, T Arscott-Mills, J Eby, B Kgwaadira, S Coffin, A Steenhoff (United States of America, Botswana)
### CHILDHOOD TB AROUND THE WORLD

**Chair:** Daria Szkwarko (United States of America)  
**Section:** Adult and Child Lung Health

<table>
<thead>
<tr>
<th>Poster Discussion Session 23</th>
<th>12:15-13:15</th>
<th>Poster Area Hall 2</th>
</tr>
</thead>
</table>

#### [PD-834-28]
Community-based tracing of contacts to improve tuberculosis screening and uptake of isoniazid preventive therapy among children  
*C Mwamsidu, F Ngari, B Ulo, M Mangu’t, T Kiptai, E Masini (Kenya)*

#### [PD-835-28]
Risk factors for complicated TB in children aged under 2 years: an observational study in a low-incidence TB country  
*A Soriano-Aranedes, A Nogueira-Julían, A Martín-Nald, T Vallmanya, M Mendoza, M Coll-Síbina, L Mayol, A Clopés, V Pineda, L Garcia, N López, O Calavia, N Rius, H A Rodríguez Chitiva, P Soler-Palacín (Spain)*

#### [PD-836-28]
Paediatric tuberculosis in Timor-Leste: opportunities for improving recognition, diagnosis and prevention  
*J Francis, C Hall, A Draper, N Hersch, R Santos, D Murphy, C Lopes, A Hazarika, C Nourse (Australia, Timor-Leste, United Kingdom)*

#### [PD-837-28]
Factors associated with non-adherence to antituberculosis treatment among children attending three paediatric TB clinics in Kampala, Uganda  
*R Nakiranda, S Bakeera-Kitaka, C Karamagi (Uganda)*

#### [PD-838-28]
Window ventilation is an effective intervention for preventing clusters of tuberculosis in schools  
*L Tang, Q Ma, H Su (China)*

#### [PD-839-28]
Implementation of task-shifting for childhood TB in Nigeria: the role of paediatricians  
*M Gidado, A Gabriel, E Rupert, O Jumoke, U Sani, N Chukwueme, E Usoroh, A Tijjani (Nigeria)*

#### [PD-840-28]
Implementation of gastric aspiration rooms for diagnosis of paediatric tuberculosis in two health facilities in Lima, Peru  
*M Mendoza, K T Tafur, C Pinedo, S R Leon, C C Contreras, J T Galea, L Lecca, M F Franke (Peru, United States of America)*

#### [PD-841-28]
Management of children with tuberculosis at a referral hospital in Malawi  
*H Kanyerere (Malawi)*

#### [PD-842-28]
Retrospective analysis of paediatric tuberculosis management at Kyiv City Paediatric Tuberculosis Hospital in Ukraine  
*N Rybak, Y Sheremeta, M Bachmaha, V Yeromenko, O Albana, A Mamonotenko, T Flanigan, V Petrenko (United States of America, Ukraine)*

#### [PD-843-28]
Are young females more at risk? Three of four children were girls among notified paediatric MDR-TB cases in Maharashtra, India  
*S Dapkekar, R Yeole, P Nayak, S Kamble, M Parmar (India)*

### KNOWING THE ENEMY (BETTER): MDR-TB EPIDEMIOLOGY II

**Chair:** Susan van den Hof (Netherlands)  
**Section:** Tuberculosis

<table>
<thead>
<tr>
<th>Poster Discussion Session 24</th>
<th>12:15-13:15</th>
<th>Poster Area Hall 2</th>
</tr>
</thead>
</table>

#### [PD-844-28]
Detection of XDR-TB in the Russian Federation  
*T Vadim, I Vasilyeva, V Puzanov, A Storolova (Russian Federation)*

#### [PD-845-28]
Multidrug-resistant tuberculosis in Brazil: descriptive analysis, 2010-2015  
*J Nery, K Bonfim Andrade, A Coelho de Brito, N M Saita, F Dockhorn Costa, R Andrade de Souza, S Barbosa Codenotti, K V 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  
*M S Khan, C Hutchison, R J Coker, J Yoong, K M Hane, A L Innes, T M Khine, S Aung (Singapore, United Kingdom, Thailand, United States of America, Myanmar)*

#### [PD-847-28]
Burden of multidrug-resistant TB in Indian states: current trend  
*R Babu, K D Sagili, P K Subrahmanyan, A G Jacob, S S Chadha (India)*
POSTER DISCUSSION SESSIONS  FRIDAY 28 OCTOBER 2016

POSTER DISCUSSION SESSION 25  ▶  12:15-13:15  ▶  POSTER AREA HALL 2

“WITH A LITTLE HELP FROM MY FRIENDS”: LINKING THE PUBLIC-PRIVATE SECTORS

Chair: Mandy Slutsker (United States of America) – Section: Tuberculosis

[PD-855-28]
Implementation of Public-Private Mix for TB control in India: perspectives and practices of district managers and frontline workers
S Salve, J Porter (India, United Kingdom)

[PD-856-28]
Outcomes of institutionalising DOTS in urban settings on tuberculosis case notification and treatment: the case of Kandahar city
G Q Qader, M K Rashidi, S D Mahmoodi, M K Seddiq, A Hamim, S M Sayedi, N Persaud, P Suarez (Afghanistan, United States of America)

[PD-857-28]
Tuberculosis case notification by private practitioners in Delhi, India: is the mechanism sustainable?
M Satpati, S B Nagaraja, A Khanna, S E Waikar, S Chadha (India)

[PD-858-28]
Tuberculosis management practices of private practitioners in Central India
M Biswas, A Kharate (India)

[PD-860-28]
Models of corporate engagement in TB control in India
M Shadab, S Shrestha, M Kumar, K Ayyagari (India)

POSTER DISCUSSION SESSION 26  ▶  12:15-13:15  ▶  POSTER AREA HALL 2

TUBERCULOSIS AND DIABETES OUTCOMES: NOT ALWAYS “SO SWEET”

Chair: Wim Vandevelde (South Africa) – Section: Tuberculosis/Adult and Child Lung Health/Tobacco Control

[PD-861-28]
Treating diabetes in tuberculosis patients: experience with metformin and insulin in the TANDEM Programme
R Ruslami, N N M Soetedjo, D Hendra, S Immaculata, R Aarnoutse, P Hill, B Alisjahbana, R van Crevel (Indonesia, Netherlands, New Zealand)

[PD-862-28]
Impact of diabetes on drug-resistant tuberculosis treatment outcomes: retrospective cohort study in Pakistan
A Tahir, A Latif, A Ghafoor (Pakistan)

[PD-863-28]
Epidemiological characteristics and treatment outcomes among Peruvian MDR-TB patients with and without diabetes
C Ugarte-Gil, V Alarcon, C Figueroa, D Moore, J Golub (Peru, United States of America, United Kingdom)
Comorbidities and other factors associated with retreatment of tuberculosis in Brazil, 2010-2014
N Saita, M D S Evangelista, R Souza, F Johansen, S Codenotti, A Brito, D Dell Orti, F Johansen (Brazil)

The influence of diabetes mellitus on treatment outcomes of patients with pulmonary tuberculosis
S Sahakyan, V Petrosyan, L Abrahamyan (Armenia, Canada)

Is diabetes mellitus a risk factor for relapse among tuberculosis patients on directly observed treatment?
A Bansal, T Singh, N Sachdeva, L P.V.M. (India)

Diabetes in tuberculosis patients in Iraq: prevalence and impact on treatment
L Al-Salhi, S Ameen, B Rubiae, O Jarad (Iraq)

Clinical manifestations of tuberculosis in patients with pulmonary TB and TB combined with different types of diabetes
O Komissarova, O Konyayeva, O Berejnaya, R Abdullaev, I Vasilyeva (Russian Federation)

Indonesia’s tuberculosis-diabetes registry: comparison of sputum smear and culture results for tuberculosis diagnosis in patients with and without diabetes comorbidity
R I Sugiyono, N H Susanto, D Arlinda, A D Harso, A K Syarif, A Yulianto, M Karyana (Indonesia)

Impact of poorly controlled diabetes and adverse drug reactions on treatment outcome in patients receiving directly observed treatment for TB: a prospective study
A N Siddiqui, K U Khayyam, M Sharma, R Sarin (India)

Too little, too late: new anti-tuberculosis drugs for patients with complex drug-resistant tuberculosis in Mumbai
S S Thi, S Jonckheere, C Laxmeshwar, C Correa, P Nair, M Das, H Mansoor, P Isaakidis (India, Luxembourg)

Drug use reviews: an approach for ensuring the rational use of anti-tuberculosis and antiretroviral medicines in Ukraine
O Lebega, T Dumenko, Y Malyshevska, O Tonkovyd (Ukraine)

Removing one of the major barriers to accessing bedaquiline and delamanid, life-saving treatments for MDR-TB patients
T Masini, L N Nguyen, L Gonzalez-Angulo, C Lienhardt, E Jaramillo (Switzerland)

Country perceptions for implementation of new multidrug-resistant TB medicines
D Laloo, G Brigden, National TB Programmes (Switzerland)

Implementation of a bedaquiline access programme for the treatment of drug-resistant tuberculosis in the Western Cape, South Africa
Y Kock, V Mudaly (South Africa)

Achievements and challenges in accessing new drugs for drug-resistant TB patients managed in primary care settings in Khayelitsha, South Africa
J Hughes, E Mohr, L Trivino Duran, A Shroufi (South Africa)

Strengthening quality assurance systems of pharmaceutical manufacturers to ensure availability of affordable TB medicines on the global market
J Derry, A Salakaia, A Hong, P Nkansah, L Evans, J Nwokike (United States of America)

Cost analysis of models of care during the intensive phase of multidrug-resistant tuberculosis treatment at St Peter’s Hospital, Ethiopia
M Birhanu, E Gama, E Yessuf, A Warkicho, D Kokobu (Ethiopia, United Kingdom)

No severe hearing loss detected with pure tone audiometry in patients treated with short-course MDR-TB treatment in Niger
M B Souleymane, A Piubello, B Moustapha, A Sina, A Gagara Issoufou, M M Assao Neino, S Morou, S Attaher (Niger, France)

Minimum inhibitory concentration testing can improve multidrug-resistant tuberculosis regimen choice in Bangladesh
POSTER DISCUSSION SESSION 28  ► 12:15-13:15  ► POSTER AREA HALL 2

“GETTING BETTER”: SERVICE DELIVERY REFORMS TO ENHANCE PATIENT CENTRED-CARE

Chair: Carrie Tudor (Switzerland) — Section: Tuberculosis

[PD-881-28] Integrating tuberculosis care in designated hospitals in Zhejiang Province, China: implications for service delivery
G Zou, K Kielmann, X Wei, B Mcpake (United Kingdom, Canada, Australia)

[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
S Muchuro, F Mugabe, A Burua, D Okello, D Lukoye, K Mutesasira, S Dejene, P Suarez, E Kizito (Uganda, United States of America)

[PD-883-28] The need to restructure TB hospitals in the Kyrgyz Republic
A Ibraimova, R Cholurova, K Djemuratov (Kyrgyz Republic)

B Vu, N Nguyen, L Tran, M Vu, S Nguyen, H Trinh (Viet Nam)

[PD-885-28] Social enterprise model for increased tuberculosis case detection in the private sector of Dhaka, Bangladesh
S Banu, M T Rahman, M Reja, A Nahar, M M Rahman (Bangladesh)

[PD-886-28] The yield of TB screening in over 16 million out-patient department visitors in two regions of Ethiopia
Z Gashu, D Jerene, M Melese, S Daba, M Chaneyleav, T Anteneh, D Habet, P Suarez (Ethiopia, United States of America)

[PD-887-28] Should smear-negative TB individuals with symptoms be actively followed up to identify missing cases in India? Study from Barmer, Rajasthan
R Kumar, S E Waikar, A Das, S Chadha (India)

[PD-888-28] Strengthening patient-centred care by implementing a TB-HIV active surveillance system in Swaziland
K Kunene (Swaziland)

[PD-889-28] Cost and operation management of a community outreach programme improving access to TB care services in tribal populations in Central India
H Sohn, A Vyas, L Puri, S Gupta, Z Z Qin, A Codlin, J Creswell (Canada, India, Switzerland)

[PD-890-28] Improving case management with integration of TB patient management into hospital software in Viet Nam
H Le, N V Nguyen, T V Duong (Viet Nam)

[PD-891-28] Out-patient treatment of TB patients in the Kyrgyz Republic
R Cholurova, T Chubakov (Kyrgyz Republic)

[PD-892-28] Medical college’s contribution in ensuring universal access to TB care in India: a case study from an Indian state
A Bhardwaj, R Kumar (India)

POSTER DISCUSSION SESSION 29  ► 12:15-13:15  ► POSTER AREA HALL 2

COMMUNITY-BASED, DECENTRALISED MDR CARE

Chair: Benson Otieno Ulo (Kenya) — Section: Tuberculosis

[PD-893-28] Addressing the challenges of drug-resistant tuberculosis and other TB treatment outcomes in selected local government areas in Nigeria
T Idaboh, H Khamofu, M Odo, B Olusola-Faleyi, I Ezekpeazu, U Ralph-Opara, G Akang, K Torpey (Nigeria)

[PD-894-28] Unraveling on-treatment mortality at a decentralised DR-TB hospital in KwaZulu-Natal, South Africa
A Beeson, S Sheni, L-M Larkan, F Eksteen, A P Moll, M Loveday, A Q Mngadi, G Friedland (United States of America, South Africa)

[PD-895-28] Decentralisation of MDR-TB cohort reviews to regional level improves participation of key stakeholders: lessons from enhanced regional cohort reviews in Uganda
E Alfred, C Marra, D Ebony, M Kenneth, M Frank Rwabinumi (Uganda)
Interim treatment outcome among patients managed for drug-resistant TB in three treatment centres in Nigeria
M Odo, B Olusola Faleye, E Nkombe, H Khamofu, C Hamilton (Nigeria, United States of America)

Follow-up of multdrug-resistant tuberculosis patients enrolled in the home care project of a community health department in a tertiary care hospital in Delhi
J Vaghela, T Anand, S Grover, A Kumar (India)

Survival and predictors of mortality among multdrug-resistant tuberculosis patients on treatment in two regions of Ethiopia
Z Gashu, B Ayale, D Habte, N Hiruy, D Jerena, Y Molla, N Persuad, P Suarez (Ethiopia, United States of America)

High retention in a community-based MDR-TB programme in Haiti
S C Vilbrun, K F Walsh, J Joseph, S Delva, O Jeantine, G Joissaint, S P Koenig, J W Pape (Haiti, United States of America)

A new child on board: nurse-initiated MDR-TB treatment
A Peters, N Ndjeka, J Peters, M Tellie, F Peters, I Asia (South Africa, United Kingdom)

Interim treatment outcomes of clinic-based ambulatory care of MDR-TB patients initiating treatment at the Mulago Hospital MDR-TB Clinic, Kampala, Uganda
S Namatovu (Uganda)

Low pre-diagnosis and pre-treatment attrition among adults with presumptive MDR-TB in Chennai, India: an operational research
H D Shewade, D Nair, J S Klinton, L Murali, M Parmar, J P Tripathy, S Swaminathan, M V Ajay Kumar (India)

Impact of community-based DR-TB programme in reducing time to treatment initiation and increasing the number of enrollments
P Daru, S Sultana, H Hussain, K Islam (Bangladesh)

The role of civil society in policy advocacy for tobacco control in Africa
D Mohee, L Sessou (Togo)

How cigarette affordability can affect smoking prevalence in Brazil
A P Leal Teixeira, T M Cavalcante (Brazil)

The impact of sin tax on health awareness programmes
R E Degollacion (Philippines)

Impact of effective monitoring and regulatory mechanisms on vendors’ compliance with ban on electronic nicotine delivery systems in Punjab, India
R Gupta, S Goel, L Hussain (India)

Role of evaluation of internal tobacco industry documents in tobacco control: the case of Rwanda
J C Rusatira, A Kaneza (Rwanda)

Physicians’ knowledge and practices regarding e-cigarettes in the United States: results from a national survey of primary care physicians
O El Shahawy, S Sherman, J Elston Lafata (United States of America, United Arab Emirates)

Misleading health claims of e-cigarette websites in Turkey
M Guner, E Dagli, P Ay, F Yildiz, O Elbek (Turkey)

E-cigarettes: prevalence of use and perceptions among adolescent college students in Mangalore city
E Aluckal (India)
POSTER DISCUSSION SESSION 31  ▶  12:15-13:15 ▶ POSTER AREA HALL 2

TOBACCO EPIDEMIOLOGY

Chair: Sonu Goel (India) — Section: Tobacco control

[PD-914-28] A case control study of the prevalence of Green Tobacco Sickness in two villages of rural Mizoram, India
J Ralte, Z Chhakchhuak, L Tochhong, L Renthei, V Khangte, L Ruati, J Khup, R J Singh (India)

[PD-915-28] A snapshot of tobacco use among adult population in Punjab, India, using GATS protocol
R Gupta, S Goel, V Mahajan (India)

[PD-916-28] An analysis of the opportunity cost of household expenditure on tobacco in Uganda’s two lowest income groups
H Zakumumpa, W Ntwihi, C Van Walbeek (Uganda, South Africa)

[PD-917-28] Economic burden of tobacco-attributable diseases in India
R M John, S Rout, R Kumar, M Arora (India)

[PD-918-28] What GATS, India, has to say on female tobacco use initiation. What insights can we draw to halt this trend?
M Aghi (India)

[PD-919-28] Tobacco use and its correlates in slum communities of Kathmandu, Nepal
P M S Pradhan, S M Shrestha, R Dhital, A K Rajbhandari (Nepal)

[PD-920-28] Evaluation of dual smoking (water pipe and cigarette) and related factors in Iran
Z Hessami, G Heydari, M R Masjedi, M Aryanpour, H Sharifi (Iran, Islamic Rep. Of)

[PD-921-28] Factors associated with smoking among adult males in Colombo district, Sri Lanka
P U Chulasiri, N S Gunawardane, K Siddiqi (Sri Lanka, United Kingdom)

S Goel, S Sharma, P Lal (India)

POSTER DISCUSSION SESSION 32  ▶  12:15-13:15 ▶ POSTER AREA HALL 2

SECOND-LINE TB DRUGS: NEW DRUGS, NEW RESISTANCE, NEW CHALLENGES

Chair: Alyssa Finlay (Botswana) — Section: Tuberculosis/Bacteriology & Immunology

[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
N Chu, W Jing (China)

[PD-925-28] Genetic characterisation of second-line drug-resistant and extensively drug-resistant Mycobacterium tuberculosis in North India
R Yadav, A Saini, J Mankota, R Khaneja, P Agarwal, S Sethi, PGIMER RNTCP Study Group (India)

[PD-926-28] Susceptibilities of multidrug-resistant Mycobacterium tuberculosis culture isolates to unconventional drugs
J Cavanaugh, R Jou, M-H Wu, J Ershova, E Kurbatova, P Cegielski (United States of America, Taiwan)

[PD-927-28] Validation of levofloxacin drug susceptibility testing in clinical isolates of Mycobacterium tuberculosis
Z M Puyen, C Osorio, A Sloutsky, D Kaur (Peru, United States of America)

S Osei-Wusu, A Asante-Poku, I Darko Otchere, S Omari, A Forson, F Bonsu, D Yeboah-Manu (Ghana)

[PD-929-28] Development of an oligonucleotide array for detection of first- and second-line Mycobacterium tuberculosis drug resistance
C-Y Chen, W-L Huang, R Jou (Taiwan)
In vitro activities of clofazimine in combination with ethambutol or bedaquiline against drug-resistant tuberculosis
M-H Wu, K-Y Lin, R Jou (Taiwan)

Performance of the new V2.0 of the GenoType MTBDRsl test
F Brosier, D Guindo, A Pham, F Reibel, W Sougakoff, N Veziris, A Aubry (France)

Performance and utility of TaqMan Array Card for genotypic susceptibility testing for nine anti-tuberculosis drugs in MDR-TB

Evaluation of diagnostic accuracy of Anyplex™ MTB/NTM/MDR-TB Detection with PrimeStore™ Transport Media, Thailand
H Kirk ing, P Monkongdee, K Soontornmon, T Natthakan, S Wanlaya, A Negar, S Whitehead, E Kurbatova (United States of America, Thailand, Canada)

Use of fosfomycin to control contamination of Mycobacterium tuberculosis culture in the BD BACTEC™ MGIT™ 960 System
R Calderon Espinoza, M B Arriaga Gutierrez, K Lopez Tamara, N Barreda Ponce, D Quiroz Farfan, L Lecca Garcia, C D Mitnick, G R Davies, D J Coleman (Peru, Brazil, United States of America, United Kingdom)

Comparison of five methods for recovery of Mycobacterium tuberculosis DNA from stool samples
D I Quiroz, R I Calderón, R C Holmberg, N H Thakore, J M Coit, C G Pariona, M F Franke (Peru, United States of America)

Xpert MTB/RIF assay for detection of Mycobacterium tuberculosis in stool samples of patients with pulmonary tuberculosis
S M M Rahman, U T Malila, S Afrin, S Ahmed, M T Rahman, S Banu (Bangladesh)

Application of a quantifiable stool RT-PCR assay to increase diagnostic yield in childhood TB
N M Harris, A R DiNardo, T Simelane, C Fung, G Mte twa, G Mphalala, R Mejia, A M Mandalakas (United States of America, Swaziland)

Experience in applying the Xpert® MTB/RIF assay to diagnose bone and joint tuberculosis in the Republic of Uzbekistan
Z Nurildinov, Z Sayutfudinov, R Abdullayev, G Murmusaeva, N Djurabaeva (Uzbekistan)

Rapid detection of multidrug resistance in Mycobacterium tuberculosis from direct smear-negative sputum samples by high-resolution melt curve analysis
S Haldar, D Anthwal, R K Gupta, M Bhalla, J S Tyagi (India)

Utility of the Myco/F lytic culture system for recovery of Mycobacterium tuberculosis from sterile body fluids
G Wang, H Huang (China)

Comparative performance of the Loopamp™ MTBC Detection kit for rapid detection of complex Mycobacterium tuberculosis: a retrospective study
S Cheng, S Heng, V Him, N Sreng, A Kerléguer (Cambodia)

Usefulness of a loop-mediated isothermal amplification (LAMP) test for diagnosing pulmonary tuberculosis in a clinical setting
K Okada, A Aono, W Chen, W Ding, B Sun, K Tan, Y Wang, N Naguchi, N Yamada (Japan, China)

A novel bead-based extraction method for improved qPCR and next-generation sequencing of Mycobacterium tuberculosis from low target samples
L T Daum, J D Rodriguez, G W Fischer (United States of America)

Predicting mycobacterial load from the time of positive culture using the microscopic-observation drug-susceptibility assay
E S Ramos Magu ira, S Datta, T R Valencia, M A Tovar, R Montoya, J J Lewis, R H Gilman, C A Evans (Peru, United Kingdom, United States of America)
**POSTER DISCUSSION SESSION 34**  
**12:15-13:15**  
**POSTER AREA HALL 2**

**PRISONS: THE SMOKING GUN**

Chair: Farai Mavhunga (Namibia) – Section: Tuberculosis

- **[PD-945-28]**
  Profile of tuberculosis patients in prisons in Japan: a cross-sectional study
  L Kawatsu, M Kobayashi, K Uchimura (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
  I Gelmanova, N Zemlyanaya, Y Andreev, A Yedilbayev, S Keshayjee (Russian Federation, United States of America)

- **[PD-947-28]**
  Prevalence and risk factors associated with latent tuberculosis infection in security guards from a Colombian prison
  L Arroyave, L López, D Marín, Y Keynan, D Sanchez, M Posada, M P Arbeláez, Z V Rueda (Colombia, Canada)

- **[PD-948-28]**
  A linked epidemic? Incarcerated populations may drive tuberculosis rates in the general population
  A Milliken, A Sharp, J Boracio, A Nanoo, Z McLaren (United States of America, South Africa)

- **[PD-949-28]**
  Results of the first mass screening campaign for tuberculosis in the Namibian Correctional Service
  L Ashipala, T Auala, T Kueyo, R Mushimba, P Uukunde, H Mungunda, N Ruswa (Namibia)

- **[PD-950-28]**
  Is symptom screening sufficiently sensitive for identification of presumed tuberculosis patients in a congregate setting?
  D Lukoye, J Oluka, J Masika, D Okello, S Salwango, D Kimuli, D Sama (Uganda)

- **[PD-951-28]**
  Successful involvement of ASDAP in the management of tuberculosis cases in the central prison of Bamako, Mali
  C Fatimata, T Mamadou Fakoly, C Aissata, D Seydou, K Bakary, T Awa, C Abdoul Karim, T Nassiama (Mali)

- **[PD-952-28]**
  High incidence of tuberculosis infection and disease in twelve Brazilian prisons
  E Ferreira Lemos, D Sanchez G. Paião, A da Silva S. Carbone, A Laranjeira Junior, M Pompilio, A Ko, J Andrews, J Croda (Brazil, United States of America)

- **[PD-953-28]**
  Tuberculosis case finding in a Brazilian prison
  D M Pelissari, D C Kuhleis, L T Nemeth, P Werlang, C L P Oliveira, R S d Jesus (Brazil)

- **[PD-954-28]**
  D Curtis, S Hartshorne, C Anderson, D Pedrazzoli (United Kingdom)

**POSTER DISCUSSION SESSION 35**  
**12:15-13:15**  
**POSTER AREA HALL 2**

**FROM TB DATA COLLECTION TO TB DATA USE FOR DECISION MAKING**

Chair: Anete Trajman (Brazil) – Section: Tuberculosis

- **[PD-955-28]**
  Improving TB patient indicators through frequent and prompt data use: a shift from quarterly to monthly data collection in Kampala
  R Zimula, A Etwom, D Lukoye, J Magoola, D Okello, S Salwango, D Sama, D Kimuli (Uganda)

- **[PD-956-28]**
  Assessment of TB performance indicators: a comparison of public and private health sectors in Kenya
  E Mailu, J Kiarie, W Tomno (Kenya)

- **[PD-957-28]**
  Estimating under-reporting of tuberculosis cases in the national surveillance system in Japan: comparing surveillance data and vital statistics
  K Uchimura (Japan)

- **[PD-958-28]**
  Underreporting of tuberculosis cases in the Notifiable Disease Information System in Brazil
  K B Andrade, A D P Lobo, D M Pelissari, S B Codenotti, P O Bartholomay (Brazil)

- **[PD-959-28]**
  Availability of bacteriological information in tuberculosis notification data in Germany
  M Andres, W Haas, L Fiebig (Germany)
POSTER DISCUSSION SESSIONS

FRIDAY 28 OCTOBER 2016

POSTER DISCUSSION SESSIONS

Research and programmatic agendas since 2000 in Cambodia: HIV, tuberculosis and malaria
R James, S Wu, N Sundaram, V Saphonn, M T Eang, R Coker, M Khan (Singapore, Cambodia, United Kingdom)

Universal Access to TB Care (UATBC): information technology platform to drive scale-up in private sector engagement
M Raychaudhary, R Menon, A Gupta, A Tikku, V Jondhale, R Chopra, S Pandey, P Bang (India)

Improving the suitability and usage of MDR-TB surveillance data in South Africa
D Tolleson, J Ngozo, Z Mhlanga, N Bantubani, L J Podewils (United States of America, South Africa)

Promoting evidence-informed policy making: lessons learned from setting up the NDOH TB Think Tank in South Africa
Y Pillay, S Charalambous, V Cardenas, P Hipper, M Kinnerling, A Vassall, G Churchyard, R G White (South Africa, Netherlands, United Kingdom)

The impact of tuberculosis risk scores for child contacts on timely uptake of treatment for latent infection
P-C Chan, M-J Lu, Y-C Huang, P-H Lee, S-H Huang, Y-F Huang (Taiwan)

POSTER DISCUSSION SESSION 36  »  12:15-13:15  »  POSTER AREA HALL 2

TB TESTING: A BOUQUET OF APPROACHES

Chair: Grant Theron (South Africa) — Section: Tuberculosis

Evolving diagnostic algorithms to improve detection and cost-efficiency: a TB REACH project in Cambodia
S Thai, K Choun, P Setha, A Codlin, J Creswell, T E Mao (Cambodia, Switzerland)

Experience with computer-aided detection for tuberculosis through chest radiography of presumptive cases under a public-private mix initiative in Bangladesh
M T Rahman, A Nahar, M M Rahman, M Reja, S Banu (Bangladesh)

RiView: an advanced computer-aided diagnosis platform for tuberculosis detection from digital chest X-rays
M Acharyya, S Chatterjee, N Kapoor, K Bose (India)

Systematic screening with chest X-ray among hospital out-patients in North West Cameroon
S Laah, M Sander, J-L Abena Foe, C Lele, T Kinge, C Tiahang, J Creswell, A Codlin (Cameroon, Switzerland)

Strengthening TB diagnosis through informal doctors
J Thakker, D S Vijayan, R K Gandhi, D R Taralekar, R Chopra, V Nagwekar, D A McDowell, S A Ali (India, France)

STAMP out TB: tuberculosis case-finding in the primary care setting
C Miller, F Putri, B Djojonegoro, C Berger, P Hopewell, E Burhan, E Fair (United States of America, Indonesia)

Large-scale expansion of drug-resistant tuberculosis case-finding in Mumbai via private provider engagement
D Shah, S Vijayan, S Kumta, P Kandasamy, A Phadke, S A Ali, R Chopra, D M Thakkar (India)

Further situation analysis of asymptomatic sputum smear-negative and culture-positive tuberculosis cases from the Cambodian prevalence survey in 2011
S Hirao, K Okada, N Yamada, S Saint, M T Eang (Japan, Cambodia)

Utilisation of WHO-endorsed TB tests by private health care providers in Hyderabad, India
S Kelamane, A K Eddu, S Surugipina Nagaraja, S Satyanarayana (India, Canada)

Relative effectiveness of free test vouchers on private provider TB test prescribing behaviour in urban India
A Parulkar, M Sabharwal, R Singh, H Dabas, S Deo, N Shah, P Dewan (India)
**POSTER DISCUSSION SESSION 37 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2**

**TB MORTALITY AND RECURRENCE**

Chair: Adrian Muwonge (Uganda) – Section: Tuberculosis

- **[PD-975-28]**
  Clinical parameters, routine inflammatory markers and LTA4H genotype as predictors for mortality among 552 tuberculous meningitis patients in Indonesia
  
  S Dian, A van Laarhoven, C Ruesen, L Chaidir, J Annisa, B Alisjahbana, A R Ganiem, R van Crevel (Indonesia, Netherlands)

- **[PD-977-28]**
  Profile of deaths due to drug-resistant tuberculosis in Brazil, 2013-2015
  
  K V Freitas de Andrade, J Silva Nery, K Bonfim Andrade, A D P Lobo, S Barbosa Codenotti (Brazil)

- **[PD-978-28]**
  Analysis of risks factors associated with death in a cohort of tuberculosis patients in Suriname
  
  E Commiesie, D Stijnberg, S Kromokarso (Suriname)

- **[PD-979-28]**
  Tuberculosis treatment outcomes amongst patients enrolled in treatment with biometric monitoring, India
  
  C Jackson, H R Stagg, A Doshi, A Sinha, D Pan, S Batra, R Abubakar, M Lipman (United Kingdom, India)

- **[PD-980-28]**
  Recurrence of tuberculosis in a low-incidence setting without directly observed treatment: Victoria, 2002-2014
  
  K Dale, M Globan, E Tay, P Trevor, J Denholm (Australia)

- **[PD-981-28]**
  Long-term risks of repeated tuberculosis treatment episodes in Birmingham, UK
  
  M Munang, G Medley, M Dedicoat, D Hollingsworth (United Kingdom)

- **[PD-982-28]**
  Factors associated with multiple tuberculosis recurrences among HIV-uninfected persons
  
  Y van der Heijden, F Maruni, F Karim, G Mutamad, Y Moosa, B Shepherd, T Sterling, A Pym (United States of America, South Africa)

- **[PD-983-28]**
  Determinants of mortality due to tuberculosis in Amazonas, Brazil: a challenge for the End TB strategy
  
  A S Belchior, L H Arroyo, A A R Queiroz, D T Santos, M P Popolin, T Z Berra, R A 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
  
  O Audu, S-A Igbabul, J Ajebo-Okopi, I A Joshua, I S Ejila, O Anefu (Nigeria)

**POSTER DISCUSSION SESSION 38 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2**

**ALTERNATIVE DIAGNOSTICS: FROM BIOMARKERS, SEROLOGY TO X-RAY**

Chair: Arinze Austin Obiefuna (Ghana) – Section: Tuberculosis

- **[PD-985-28]**
  The diagnostic value of immunologic tests in differential diagnosis of infiltrative pulmonary TB
  
  N Karpina, S Posazhennikova, O Demikhova (Russian Federation)

- **[PD-986-28]**
  Performance of gene expression signatures in the context of intensified tuberculosis case finding among people living with HIV
  
  J Rajan, X Deng, M Seielstad, F Semitala, M Kamya, C Yoon, A Cattamanchi (United States of America, Uganda)

- **[PD-987-28]**
  Evaluating the effect of T-Cell Xtend on T-SPOT.TB assay results
  
  Y Wu, A Cattamanchi, N Banai, A Largen, R Brostrom, L Chinna, A C Whelen, Tuberculosis Epidemiologic Studies Consortium (United States of America)

- **[PD-988-28]**
  Identification of novel host biomarkers in plasma as candidates for the immunodiagnosis of tuberculosis disease
  
  R Jacobs, O Walzl, N N Chegou, SUN Immunology Research Group (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
  
  H Hoffmann, K Avsar, R Göres, S-C Mavi, S Hofmann-Thiel (Germany)
Evaluation of the antibody in lymphocyte supernatant assay in the detection of active tuberculosis
M Sariko, C Anderson, B Mujaga, J Gratz, S Mpagama, S Heysell, G Kibiki, B Mmbaga, E Houpt, T Thomas (Tanzania, United Rep., United States of America)

Multidrug-resistant mycobacterial strains in lymph node aspirated specimens from a National Reference Laboratory in India
A Verma, G Kumar, J Arora, H Poojari, V Myneedu, R Sarin (India)

Utility of urine lipoarabinomannan in diagnosing tuberculosis and predicting mortality with and without HIV: an Asian perspective
G Suwanpimolkul, K Kawkitinarong, W Manosuthi, A Avihingsanon, J Sophonphan, C Karapuks, P J Ohata, S Ubolyam, T Lampornsins, P Katerattanakul, K Ruxrungtham (Thailand)

Chest X-ray findings in tuberculosis patients identified by spot sputum culture screening
E Rastoder, S B Shaker, K Bach, M Naqibullah, M M Winkler Wille, N Seersholm, T Wulcke, S Graff Jensen (Denmark)
MEET THE EXPERT SESSIONS

At these sessions, experts will meet with small groups of participants to discuss, face to face, the challenges and opportunities presented by working to promote lung health. These sessions are free of charge for registered participants only and can hold a maximum of 50 people. Please register for the ‘Meet the expert’ sessions at the conference registration desk. Participation will be on a first-come, first-served basis.

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.

07:45 - 08:45  ➤ SESSION ROOM 11B

05. OVERLAPPING EPIDEMICS HIV/DIABETES/TB

Anthony D Harries (United Kingdom)

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.

07:45 - 08:45  ➤ SESSION ROOM 12

06. MANAGEMENT OF MDR-TB CONTACTS

Simon Schaaf (South Africa), Greggory Fox (Australia)

People in contact with MDR-TB patients 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 by presenting some cases for discussion.

07:45 - 08:45  ➤ SESSION ROOM 12

07. CHALLENGES OF ZOONOTIC AND BOVINE TB CONTROL IN ETHIOPIA

James Woods (United Kingdom)
UNION ADMINISTRATIVE MEETINGS

UNION WORKING GROUP MEETINGS

07.45 – 08.45  ➤ SESSION ROOM 11A
TB, HIV and Tobacco

07.45 – 08.45  ➤ SESSION ROOM 11C
TB Control in Prisons

UNION REGION MEETINGS

12.15 – 13.15  ➤ SESSION ROOM 11C
Asia Pacific

12.15 – 13.15  ➤ SESSION ROOM 11B
Europe

12.15 – 13.15  ➤ SESSION ROOM 12
North America

12.15 – 13.15  ➤ SESSION ROOM 13
Latin America

14:15 – 15:45  ➤ PULLMAN/ALBERT & KINGS SUITE
Inter-Regional meeting

UNION SCIENTIFIC SECTION MEETINGS

17.00 – 18.15  ➤ SESSION ROOM 1B
Tobacco Control

17.00 – 18.15  ➤ SESSION ROOM 12
Tuberculosis

UNION ADMINISTRATIVE MEETINGS  ➤  18.30 – 19.30  ➤ SESSION ROOM 12

GENERAL ASSEMBLY

All members are encouraged to participate and cast their votes to help shape The Union’s future!

The General Assembly is the annual meeting of all Union members to review the past year and to hear the plans for the coming one, elect new members and officers of the Board of Directors and conduct other business.

Newly appointed Honorary Members are also announced. The title of Honorary Member of The Union is granted to a person who has become distinguished through active participation in The Union’s activities and the fulfillment of its goals.

These members serve as informal advisors to The Union.
ON THE FRONT LINE: GLOBAL OPPORTUNITIES: CLIMATE CHANGE, LUNG HEALTH AND NCDS?

Open to all delegates

Climate change and non-communicable diseases (NCDs) 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 are to:

• 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)

Coordinator(s): Tiphaine Lagarde (Switzerland)
**09. THE LUCKY SPECIALS: A FEATURE-LENGTH FILM DEMYSTIFYING TUBERCULOSIS (TB), EXPLAINING HOW IT SPREADS AND HOW IT CAN BE TREATED**

Track: Civil Society and Community Engagement

Organised by: Management Sciences for Health (MSH)

Speakers will include representatives from MSH, PEPFAR and “The Lucky Specials” cast/crew.

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, 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.

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**10. LILLY MDR-TB PARTNERSHIP: IMPACT AND LESSONS FROM PEOPLE-FOCUSED WORK**

Sub-section: Tuberculosis/Nurses & Allied Professionals

Organised by: Lilly MDR-TB partnership

Chair: Evan Lee (France)

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.

**Part One: Driving Impact in Countries with Heavy MDR-TB Burdens**

17:30 TB Aid, the mobile app for better disease management of patients with TB – Lui Yuhong (China)

17:45 Supporting policy of TB decentralisation in South Africa – Marian Loveday (South Africa)

18:00 Reducing TB incidence among at risk populations in Russia – Viktorniya Livchits (United States of America)

18:15 Engaging the diverse private health sector in TB care in India – Ramya Ananthkrishnan (India)

**Part Two: Moderated panel discussion**

18:30 Global Progress on MDR-TB – Lucica Ditiu (Switzerland), Lasha Goguadze (Switzerland), Carrie Tudor (Switzerland), Diane Weil (Switzerland)
11. TESTING TOTS FOR TB: NEW DATA ON THE PERFORMANCE OF THE T-SPOT.TB TEST IN PAEDIATRIC PATIENTS

Section: Tuberculosis/Nurses & Allied Professionals

Organised by: Oxford Immunotec

Co-Chairs: Andrea Cruz, Anna Mandalakas (United States of America)

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 programme.

17.30 T-SPOT.TB performance in routine paediatric practice in a low TB burden setting
   To be confirmed

18.00 Connecting the DOTs: the Louisiana experience
   To be confirmed

18.30 Discussion

12. A ONE-HEALTH DIALOGUE ON THE 2035/2038 ZOONOTIC AND BOVINE TUBERCULOSIS ERADICATION STRATEGIES

Section: Tuberculosis/Zoonotic TB

Organised by: To be confirmed

Chair: Adrian Muwonge (United Kingdom)

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 collaboration. This session is aimed at building bridges between these eradication strategies on areas of commonality.

17.30 Overview of TB and zoonotic eradication and policy – Mario Ravglione (Switzerland)

17.45 Food safety, policy and social implications of zoonotic and Bovine TB – Ahmed Eldrissi (Italy)

18.00 Cost and timeline of implementation, policy provisions for bovine TB eradication – Glyn Hewinson (United Kingdom)

18.15 How Ethiopia is approaching the problem – James Wood (United Kingdom)

18.30 The diagnostic bottleneck in TB eradication – Mark Bronsvoot (United Kingdom)

18.45 Discussion

13. VALUE AND IMPACT OF COMPLEMENTARY DIAGNOSTICS AND EXPANDED DRUG SUSCEPTIBILITY TESTING IN THE TB ALGORITHM

Section: Tuberculosis/Bacteriology & Immunology

Organised by: BD (Becton Dickinson and Company)

Chair: Salman Siddiqi (United States of America)

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.

17.30 The importance of liquid culture-based DST for effective drug-resistant TB management – Anastasia Samoylova (Russian Federation)

17.50 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 The importance of expanded phenotypic DST with molecular diagnostics implementation – Miguel Viveiros (Portugal)

18.30 Validation of Bedaquiline drug susceptibility testing on MGIT – Nazir A Ismail (South Africa)

18.50 Discussion
14. QUALITY ACCESS TO MEDICINES IN THE AGE OF AMR – WHAT WE KNOW FROM OUR EXPERIENCE WITH TUBERCULOSIS

Section: Tuberculosis

Organised by: MSF Access Campaign

Co-chairs: S Bertel Squire (United Kingdom), Nargiza Parpieva (Uzbekistan)

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 more patients on treatment by potentially shortening treatment time and costs, while improving diagnosis. But will the End TB Strategy be jeopardised 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.

17.30 The use and misuse of antibiotics: why quality access is a necessity – Elizabeth Pisani (United Kingdom)
17.45 Regulatory approach to limiting availability of TB medicines on the free market: experiences from Belarus – Representative of ministry of health (Belarus)
18.00 The scale of the problem: how India is taking action – Petros Isaakidis (India)
18.15 Ensuring quality access of new TB medicines: why a concerted effort is needed – Charles Daley (United States of America)
18.30 The patient perspective on quality access: example from Uzbekistan – Beverely E Stringer (United Kingdom)
18.45 Discussion
## THE COMMUNITY COMMON

<table>
<thead>
<tr>
<th>Session Title</th>
<th>Time</th>
<th>Room</th>
<th>Session Type</th>
<th>Coordinators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Literacy Networking Zone</td>
<td>07:30-18:00</td>
<td>Community Networking Zone 2</td>
<td>Community Session: Participatory Activity</td>
<td>S. Seidel (TB Alliance, USA)</td>
</tr>
<tr>
<td><strong>Affected communities in Asia &amp; the Pacific: Advancing communities, rights &amp; gender in the TB response</strong></td>
<td>10:15-11:15</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>James Malar (APCASO Asia-Pacific Communities, Rights &amp; Gender Platform) and Colleen Daniels (Stop TB Partnership, Switzerland)</td>
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<td>My personal experience with TB and HIV confection</td>
<td>11:20-11:50</td>
<td>Community Silent Theatre</td>
<td>Community Session: Testimonials</td>
<td>Johnson Mwangi (Faith in People, UK)</td>
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<tr>
<td>Innovative patient driven movements and responses to challenge the status quo in TB</td>
<td>14:10-15:40</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>Rachael Crockett (RESULTS UK)</td>
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<tr>
<td>United to end stigma associated with TB</td>
<td>15:45-17:15</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>AMEND to: Gini Williams, (Gini Williams Consulting Ltd, UK) and Caoimhe Smyth (Stop TB Partnership, Switzerland)</td>
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<tr>
<td>Increasing uptake of latent TB testing and treatment among new entrants to low incidence countries</td>
<td>17:20-18:20</td>
<td>Community Silent Theatre</td>
<td>Community Session: Panel Discussion</td>
<td>Mike Mandelbaum (TB Alert, UK)</td>
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<tr>
<td>High-resource countries: why is TB even an issue?</td>
<td>18:25-18:55</td>
<td>Community Silent Theatre</td>
<td>Community Session: Testimonials</td>
<td>Jenny Walker (Specialist Community TB Nurse and PhD Candidate at LSTM)</td>
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RESEARCH LITERACY NETWORKING ZONE

Coordinator: Stephanie S. Seidel (TB Alliance, USA)

Over the past few years, Community Engagement (CE) and Good Participatory Practice in TB Trials (GPP-TB) have become increasingly accepted as standard of practice in TB clinical research. TB Alliance and Aeras are collaborating to advance the field of CE in clinical research, and work with research site-level stakeholders to support the engagement of communities in ongoing and planned TB clinical trials.

The Research Literacy Networking Zone will be an interactive exhibition space that allows TB Alliance and Aeras, along with any other interested partners involved in CE and research literacy efforts, to showcase and share materials they have developed to raise knowledge in communities involved in TB clinical research.

CULTURAL ACTIVITY: PERFORMANCE ➤ 07.30 – 08.30 ➤ COMMUNITY COMMON SILENT THEATRE

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 leading 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(s): V G Ranjith Babu (India), Ajith G Maniyan (India)

Presentation – Ranjith Babu (India), Karuna Devi Sagili (India), Sarabjit Chadha (India)

PANEL DISCUSSION ➤ 10.15 – 11.15 ➤ COMMUNITY COMMON SILENT THEATRE

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, APCASO 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(s): James Malar (Thailand), Colleen Daniels (Switzerland)

Presentation I – James Malar (Thailand)
Presentation II – Colleen Daniels (Switzerland)
Presentation III – Daniel Marguari (Indonesia)
MY PERSONAL EXPERIENCE WITH TB AND HIV CO-INFECTION

I hail from Kenya and have been living in UK since 1998. I had been diagnosed with Lung Tuberculosis in early 1990s, at that time I had little knowledge of the disease. There was no awareness or information about TB, there was just stigma surrounding the disease. People would avoid any contact with me and I didn’t see any of my friends support me, apart from my family. Luckily we were middle class family and my father worked as a senior government official and politician. I had the best healthcare anyone in Kenya would have wished for. TB cost many lives of poor people in those days; lack of hospitals, poverty, awareness, stigma, government corruption being the main reasons. I was offered a free HIV test by a private TB after care clinic which my father took me to. I declined this due to fear of the then dreaded disease. To make matters worse the clinicians added fear by informing me that TB is an early stage sign of HIV. I swore then I’d rather not test for HIV. After 3 months of treatment and monitoring I recovered.

I came to the UK, and in 2009 got a very bad flu that seemed to inflame my chest severely and traces of blood made me admit myself to the hospital. An endoscopy test proved I had TB again after the illness laid dormant in my lungs. I had three months treatment and again declined an HIV test when offered. Having fully recovered, it wasn’t until 2013 when I acquired symptoms close to TB although no blood was coughing up, I had flu symptoms felt weak. I thought this disease will never let me be. I accepted the HIV test, and I was confirmed HIV positive. In this session, I will talk about my experiences.

Presentation – Johnson Mwangi (United Kingdom)

A SHORT FILM ON LUNG DISEASE

TB Proof’s Chanel Rossouw will present a short film that aims to give the audience an insight into personal stories of illness and recovery.

Coordinator(s): Chanel Rossouw (South Africa)

Presentation – Chanel Rossouw (South Africa)

INNOVATIVE PATIENT DRIVEN MOVEMENTS AND RESPONSES TO CHALLENGE THE STATUS QUO IN TB

The panel will consider innovative ways to ensure policies, training and practice reflect the wider challenges facing people affected by TB and how it can be measured. There will also be space to discuss how health care workers and communities can engage to carry out this work locally. Panelists include someone who has recovered from TB, a health care provider, an academic, a TB activist and a representative from a national TB programme. Members of the audience will be welcome to ask questions and share their experiences.

Co-Chairs: Charlotte Colvin (USAID, Washington DC, United States of America), Aimin Guo (Peking University Medical College, Beijing, China)

Coordinator(s): Gini Williams (Gini Williams Consulting Ltd, Eye, United Kingdom), Caoimhe Smyth (Stop TB Partnership, Geneva)

Speakers: Mel Burden (Exeter, United Kingdom), Mohammed Yessuf (Addis Ababa, Ethiopia), Ellen Mitchell (The Hague, Netherlands), Blessina Kumar (Dehli, India), Enos Masini (Nairobi, Kenya)
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(s): Mike Mandelbaum (United Kingdom)
Presentation I – Dominik Zenner (United Kingdom)
Presentation II – Mike Mandelbaum (United Kingdom)
Presentation III – Niesje Hansen (Netherlands)

TESTIMONIALS ➤ 18.25 – 18.55 ➤ COMMUNITY COMMON SILENT THEATRE

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(s): Jeniffer Walker (Specialist Community TB Nurse and PhD Candidate)
SATURDAY
29 OCTOBER
2016
PLENARY SESSIONS

09.00 – 10.00 ➞ ARENA

PLENARY SESSION III ENDING TB IN THE SDG ERA:
IS THERE STILL RESISTANCE TO THE SOCIAL PROTECTION AGENDA?

Chair(s): Delia Boccia (United Kingdom), Diana Weil (Switzerland)

A brief perspective on TB and poverty
Speaker: Bertel Squire (United Kingdom) is Chair in Clinical Tropical Medicine; and Director Centre for Applied Health Research and Delivery (CAHRD).

Professor Squire studied medicine and immunology at University College London and Cambridge University before professional training in internal medicine, infectious diseases and respiratory medicine at the Royal London Hospital and the Royal Free Hospital. From 1992 to 1995 he was Head of the Department of Medicine, Kamuzu Central Hospital, Lilongwe, Malawi. Since his appointment at LSTM in 1995, Bertie has maintained his research collaboration with the National TB Control Programme in Malawi and has facilitated the transformation of the collaboration into the Malawi-registered Trust for Research on Equity and Community Health (REACH). With his colleagues in Liverpool, Malawi and China he has built up a programme of multi-disciplinary applied health research aimed at providing knowledge for action in making health services for tuberculosis more accessible to poor people in developing countries (including those affected by the HIV pandemic). He holds an appointment in the UK National Health Service as Honorary Consultant in Infectious Diseases and Tropical Medicine at the Royal Liverpool University Hospital and is the immediate past President of the International Union Against Tuberculosis & Lung Disease.

The devastating impact of TB on livelihood capabilities, even in the context of universal health care in the UK
Speaker: Amy McConville (United Kingdom) is Chair and Patient Advocate at TB Action Group.

Amy McConville is an established TB Patient Advocate in the UK, having been an active participant in the fight against TB since 2006. Amy is a founding member and Chair of the TB Action Group (TBAG), the only UK-based network of people affected by TB. TBAG was established in 2008 by the UK’s TB charity, TB Alert, to provide a voice to people who have personal experience of TB and a valuable insight into what high quality care and support looks like. As a representative of TBAG, Amy has contributed towards policy development and guidance on TB care, and prevention at both a national and international level.

Social protection for a comprehensive approach to health inequalities: barriers and consequences of inaction
Speaker: Dame Margaret Whitehead (United Kingdom) is W.H. Duncan Chair of Public Health; and Head of the World Health Organisation (WHO) Collaborating Centre for Policy Research on the Social Determinants of Health.

Professor Dame Margaret Whitehead holds the W.H. Duncan Chair of Public Health at the University of Liverpool, UK, where she has also been Head of the World Health Organisation (WHO) Collaborating Centre for Policy Research on Social Determinants of Health since 2005. Researchers involved in this programme are studying both the social causes of ill health and the adverse consequences of having a chronic illness, such as reduced income and employment chances, social isolation and stigma. With Nordic collaborators, she is looking at the ways in which health and social welfare systems themselves reduce or exacerbate the adverse consequences of ill health and what can be done to improve the situation. Dame Margaret has been involved in various national and international efforts to address social inequalities in health, including sitting on the UK Government’s Independent Inquiry into Inequalities in Health (the Acheson Inquiry) and membership of the Senior Advisory Board of the WHO European Review of Social Determinants of Health and the Health Divide. She is a Visiting Professor in the Department of Public Health Sciences, Karolinska Institute, Stockholm.

Ending TB in the SDGs era: an overlapping agenda, a win-win opportunity
Diana Weil (Switzerland) is Coordinator of the Policy, Strategy and Innovations Unit of the Global TB Programme of the World Health Organization.

Ms Diana Weil has spent 25 years pursuing global health policy development, analysis and technical assistance, with special focus on tuberculosis. She helped frame the WHO End TB Strategy, the Stop TB Strategy, the Global Drug Facility and, earlier,DOTS implementation tools, working at the World Health Organization, the Pan American Health Organization and the World Bank. With the Sustainable Development Goals and the End TB Strategy, she is dedicated to supporting collaboration across countries and agencies to advance social protection and other human rights. She holds an AB from Brown University in development studies and from the Harvard School of Public Health in health policy and management.

Conditional cash transfers to enhance TB prevention, care and control: lessons from Bolsa Familia
Speaker: Fabio Veras Soares (Belgium)

Conditional cash transfers to enhance TB prevention, care and control: lessons from Bolsa Familia
Speaker: Fabio Veras Soares (Belgium)
15.30 – 16.30  ▶  SESSION ROOM 1A

**AWARD PRESENTATION**

**THE STOP TB PARTNERSHIP KOCHON PRIZE AND THE PRINCESS CHICHIBU MEMORIAL TB GLOBAL AWARD**

The Stop TB Partnership Kochon Prize is a US$ 65,000 award that is presented once a year to persons, institutions or organisations that have made a highly significant contribution to combating TB. It is fully funded by the Kochon Foundation, a non-profit foundation registered in the Republic of Korea. It honours the late Chairman Chong-Kun Lee, founder of the Foundation and Chong Kun Dang Pharmaceutical Corp in Korea. “Kochon” was his pen name.

The Princess Chichibu Memorial TB Global Award presented by the Japan Anti-Tuberculosis Association (JATA) recognises outstanding contributions to global TB control.

15.30 – 16.30  ▶  SESSION ROOM 1A

**RAPPORTEUR SESSION**

**Stacie C Stender**, Chair, Coordinating Committee of the Scientific Activities (South Africa)

Members of the Scientific Programme Committee will report on the highlight of the scientific outcomes presented in the abstract-driven sessions during the conference.

16.30 – 17.30  ▶  SESSION ROOM 1A

**CLOSING SESSION**

**Chairs:** Louise Ellman, Member of Parliament for Liverpool Riverside, (United Kingdom), E Jane Carter (United States of America)

**Speakers:** José Luis Castro (France), The Rt Hon Nick Herbert CBE (United Kingdom) is Member of Parliament (MP) for Arundel and South Downs.

H.E. Diego Gómez Pickering, the Ambassador of Mexico in the United Kingdom

The conference will conclude with highlights of the scientific outcomes in the Rapporteur Session, immediately followed by the Closing Ceremony. British MP and long-time TB champion, Nick Herbert, will provide the closing keynote address and H.E. Diego Gómez Pickering, the Ambassador of Mexico in the United Kingdom, will introduce us to the sights and sounds of the 48th Union World Conference on Lung Health, to be held in Guadalajara, Mexico.

15.30 – 16.30  ▶  SESSION ROOM 1A

**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.
### SYMPOSIUM 40  ▶  10:30-12:00  ▶  SESSION ROOM 1C

**TB ELIMINATION INITIATIVE IN COUNTRIES OF THE LATIN AMERICAN REGION**

**Section:** Tuberculosis

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.

**Co-chairs:** Pedro G Suarez (United States of America), Rafael Lopez Olarte (United States of America)

10.30 Moving forward from TB control to TB elimination in Latin America Region – Mirtha Del Granado (United States of America)
10.50 Tuberculosis in Chile: building the road to elimination – To be confirmed
11.10 Strategies to advance the elimination of tuberculosis in Costa Rica – To be confirmed
11.30 Addressing the TB elimination issue in Cuba – Edilberto R González Ochoa (Cuba)
11.40 Discussion

### SYMPOSIUM 41  ▶  10:30-12:00  ▶  SESSION ROOM 1B

**IT’S TIME TO SCALE-UP TREATMENT OF TB INFECTION IN HIGH TB BURDEN COUNTRIES**

**Section:** Tuberculosis

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.

**Co-chairs:** Lisa V. Adams (United States of America), Gavin Churchyard (South Africa)

10.30 Efficacy of rifamycin-based TB preventive therapy and experience of using 3HP in low-burden countries – Timothy Sterling (United States of America)
10.45 Preventive therapy in children: policies, practice, performance and perceptions – Anna Mandalakas (United States of America) – Donald Skinner (South Africa)
11.00 Novel rifamycin based TB preventive therapy regimens and strategies for high burden settings – Neil Martinson (South Africa)
11.15 Lessons from the field: experience of scaling up 3HP in Pakistan – Hamidah Hussain (Pakistan)
11.30 Pharmacokinetic aspects of 3HP regimen in special populations – Amita Gupta (United States of America)
11.45 Discussion

### SYMPOSIUM 42  ▶  10:30-12:00  ▶  SESSION ROOM 12

**REACHING UNDERSERVED GROUPS TO ELIMINATE TUBERCULOSIS IN ENGLAND: PATIENT PERSPECTIVES, TECHNOLOGICAL ADVANCES AND THE ROLE OF THE MULTI-DISCIPLINARY TEAM**

**Section:** Tuberculosis

A key priority of England’s National Collaborative TB strategy 2015-2020 is tackling TB in underserved 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.
Co-chairs: Mark Woodhead (United Kingdom), James Mpunga (Malawi)

10.30 The epidemiology of TB in north west England and its relationship with poverty – Peter Macpherson (United Kingdom)
10.50 The role of whole genome sequencing in detecting and reducing onward transmission of TB in England – Paul Cleary (United Kingdom)
11.10 The role of the multi-disciplinary team and TB cohort review in reaching underserved groups – Jennifer Walker (United Kingdom)
11.30 Patients’ perceptions of barriers to accessing TB care and involvement of civil society in TB strategy – Mango Hoto (United Kingdom)
11:50 Discussion

SYMPOSIUM 43 ► 10:30-12:00 ► SESSION ROOM 11B

NOVEL QUANTITATIVE APPROACHES IN PAEDIATRIC TUBERCULOSIS

Section: Adult & Child Lung Health

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 in 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.

Co-chairs: James Seddon (United Kingdom), Courtney Yuen (United States of America)

10.30 Childhood TB case-fatality and implications for mortality estimates – Helen E Jenkins (United States of America)
10.45 Modelling to determine optimal dosing in treating paediatric TB meningitis – Rada Savic (United States of America)
11.00 Modelling the cost-effectiveness of household contact screening for children – Anna Mandalakas (United States of America)
11.15 Host bio-signatures for TB diagnosis: analytical challenges and future directions – Myrsini Kaforou (United Kingdom)
11.30 The potential impact of BCG vaccine shortfalls on childhood mortality – Rebecca C Harris (United Kingdom)
11.45 Discussion

SYMPOSIUM 44 ► 10:30-12:00 ► SESSION ROOM 11A

BIOSAFETY AND TUBERCULOSIS INFECTION CONTROL:
SHARING KNOWLEDGE, CHALLENGES AND SOLUTIONS IN TB LABORATORIES

Section: Tuberculosis/Bacteriology & Immunology

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

Co-chairs: Alaine Umubyeyi Nyaruhirira (South Africa), Paul Jensen (United States of America)

10.30 Overview of the risk assessment approach: story of implementation – Christopher Gilpin (Switzerland)
10.45 Biosafety and infection control in TB laboratories: challenges and solutions – Paul Jensen (United States of America)
11.00 Challenges and solutions to constructions and maintenance of safe TB culture labs in Africa: end user perspective from Uganda – Moses Joloba (Uganda)
11.15 Primary containment devices: their application, operation and maintenance – Jeff Serle (United States of America)
11.30 Evolution of the TB laboratory in Vladimir Oblast, Russia – Grigory Volchenkov (Russian Federation)
11.45 Discussion

SYMPOSIUM 45 ► 10:30-12:00 ► SESSION ROOM 11C

ADHERENCE TO CONFRONT RESISTANCE:
SOCIAL AND BEHAVIOURAL INTERVENTIONS IN LATIN AMERICA

Sub-section: Tuberculosis/Nurses & Allied Professionals

The special socio-cultural contexts in Latin America where people share unique social structures and cultural norms, lead to special challenges for 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.

Co-chairs: Latha Rajan (United States of America), Sidney Mejia (United States of America)

10.30 Colombia: social factors influencing patient resistance to TB treatment – To be confirmed
10.45 Argentina: relationship of social factors including SES with resistance to TB treatment – To be confirmed
11.00 Haiti: government, institutional, and patient partnerships for TB stigma reduction strategies – To be confirmed
11.15 Mexico: influence of family system dynamics on resistance to DOTS – To be confirmed
11.30 Peru: understanding social support mechanisms to influence health-seeking behaviour, resistance to treatment and overall patient well-being in TB patients – Carltin Evans (United Kingdom)
11.45 Discussion

SYMPOSIUM 46 ➤ 10:30-12:00 ➤ SESSION ROOM 13

M. TUBERCULOSIS LOW-LEVEL RESISTANCE: A CHALLENGE FOR THE LABORATORY, AN OPPORTUNITY FOR MDR- AND XDR-TB TREATMENT

Section: Tuberculosis

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.

Chair: Alexandra Aubry (France)

10.30 Redefining breakpoints for M. tuberculosis drug resistance – Erik C Boettger (Switzerland)
10.50 Fluoroquinolone low-level resistance: an opportunity for improving XDR-TB treatment – Nicolas Veziris (France)
11.10 Detecting rifampicin low-level resistance: a challenge for the laboratory – Armand van Deun (Belgium)
11.30 Bedaquiline low level resistance: risk factors and clinical impact – Koen Andries (Belgium)
11.50 Discussion

SYMPOSIUM 47 ➤ 13:30-15:00 ➤ SESSION ROOM 3A

MODELLING TO OVERCOME RESISTANCE TO TB DRUGS AND THE END TB STRATEGY

Section: Tuberculosis

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 overcoming resistance to achieving the End TB Strategy and Global Plan goals.

Co-chairs: Diana Weil (Switzerland), E Jane Carter (United States of America)

13.30 Cost-effectiveness of triage testing for facility-based systematic screening of tuberculosis in Uganda – Achilles Katamba (Uganda)
13.45 Tradeoffs in new anti-tuberculosis drug introduction policies: a model based analysis – Amber Kunkel (United States of America)
14.00 Capturing in situ fitness costs to drug resistant Mycobacterium tuberculosis in Peru – Gwen Knight (United Kingdom)
14.15 Understanding the contribution of social protection to accelerate TB elimination – Delia Boccia (United Kingdom)
14.30 Illness-related impoverishment averted by TB control: findings for India and South Africa – Stephane Verguet (United States of America)
14.45 Discussion

SYMPOSIUM 48 ➤ 13:30-15:00 ➤ SESSION ROOM 3B

SHORTENED REGIMENS FOR THE TREATMENT OF MULTIDRUG-RESISTANT TUBERCULOSIS

Section: 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

Co-chairs: Kenneth Castro (United States of America), Christopher Kuaban (Cameroon)

13.30 The nine-month MDR-TB regimen: how does it work? – Armand van Deun (Belgium)
13.45 Results of the nine-month MDR-TB regimen in Bangladesh – K J M Aung (Bangladesh)
14.00 Results of The Union’s observational study of the nine-month MDR-TB regimen in Africa – Arnaud Trébucq (France)
14.15 Shorter and better? Results and challenges from of a simplified short regimen for multidrug-resistant tuberculosis in Karakalpakstan, Uzbekistan – Philipp du Cros (United Kingdom)
14.30 Scaling-up implementation of shortened MDR-TB regimens: what are the challenges – Alberto Piubello (Niger)
14.45 Discussion

SYMPOSIUM 49  ►  13:30-15:00  ►  SESSION ROOM 1C

TB SCREENING AND ISONIAZID PREVENTIVE THERAPY FOR PREGNANT AND BREASTFEEDING WOMEN IN RESOURCE-LIMITED SETTINGS

Section: HIV

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.

Co-chairs: Surbhi Modi (United States of America), Lisa Cranmer (United States of America)

13.30 Maximising access to TB screening and isoniazid preventive therapy for pregnant and breastfeeding women – Annabel Baddeley (Switzerland)
13.45 Assessing the safety and effectiveness of isoniazid preventive therapy and antiretroviral treatment in HIV-infected pregnant women in high TB burden settings: IMPAACT P1078 – Anita Gupta (United States of America)
14.00 Developing strategies for TB screening among HIV-infected and HIV-uninfected pregnant and postpartum women in Swaziland – Samson Haumba (Swaziland)
14.15 Evaluating the utility of the World Health Organization symptom screening algorithm for TB diagnosis among pregnant women in India – Akanksha Vaidya (India)
14.30 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 Discussion

SYMPOSIUM 50  ►  13:30-15:00  ►  SESSION ROOM 12

TRIALS OF MICE AND MEN: RECENT ADVANCES AND THE FUTURE OF TB DRUG DEVELOPMENT SCIENCE

Section: Tuberculosis

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.

Co-chairs: Rob Aarnoutse (Netherlands), Deron Burton (United States of America)

13.30 How critical is Isoniazid? – Andreas Diacon (South Africa)
13.45 Optimised rifamycin and PZA doses derived from trials and models – Kelly Dooley (United States of America), Rada Savic (United States of America)
14.00 Mouse tales and their predictions, building on the example of Clofazimine – Eric Nuermberger (United States of America), Veronique Dartois (United States of America)
14.15 Drug penetration into TB lesions – how does this add to rational drug development? – Norbert Heinrich (Germany)
14.30 Examples, learnings, better trials and regimens – Norbert Heinrich (Germany)
14.45 Discussion
### SYMPOSIUM 51  ▶  13:30-15:00 ▶ SESSION ROOM 11C

**TB AND MENTAL DISORDERS: PUTTING THE SCIENCE INTO PRACTICE**

*Section: Tuberculosis/Adult & Child Lung Health*

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.

**Co-chairs:** Adam Karpati (United States of America), Knut Lönnroth (Switzerland)

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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<tr>
<td>13.30</td>
<td>Mental health in MDR-TB management: an issue for patients, caregivers and healthcare workers – Ernesto Jaramillo (Switzerland)</td>
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<td>13.45</td>
<td>TB and mental health: a survey of national TB programme directors – Annika Sweetland (United States of America)</td>
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<td>14.00</td>
<td>Biomarkers for TB and depression – Afranio Kritski (Brazil)</td>
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<td>14.15</td>
<td>TB and mental disorders in Bangladesh – Akramul Islam (Bangladesh)</td>
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<td>14.30</td>
<td>Co-managing psychiatric issues in patients undergoing treatment for MDR-TB in Peru – Jerome Galea (Peru)</td>
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<tr>
<td>14.45</td>
<td>Discussion</td>
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ORAL ABSTRACT SESSIONS

ORAL ABSTRACT SESSION 21 ► 10:30-12:00 ► ARENA

THE UNION/CDC LATE-BREAKER SESSION ON TB

Chair: Kevin Schwartzman (The Union), Emily Bloss, Brian Baker (CDC) — Section: Tuberculosis

10.30 [OA-3163]
Short-course MDR-TB treatment compared with standard of care in Uzbekistan: culture conversion rates after 2 months
A Ronnachit, A Khramraev, P du Cros, J Greig, T Pylypenko, Z Tigay, J Achar (Uzbekistan, United Kingdom)

10.45 [OA-3117]
Interim results of nix-TB clinical study of pretomanid, bedaquiline and linezolid for treatment of XDR and treatment intolerant/failed MDR-TB
F Conradie, A Diacon, C Mendel, D Everitt, C van Niekerk, P Howell, M Spigelman (South Africa, United States of America)

11.00 [OA-3161]
Mutations in pncA are associated with poor treatment outcomes in MDR-TB patients in the preserving effective TB treating study (PETTS)
M Willby, J Khayumbi, T Dalton, P Cogielski, J Posey (United States of America, Kenya)

11.15 [OA-3097]
Performance of the GeneXpert MTB/RIF in previously treated patients for the diagnosis of tuberculosis in a highly endemic setting
A Sánchez, M Dalcolmo, C S Toledo, V Diuana, B Larouzé (Brazil)

11.30 [OA-3032]
Effective TB case-finding with routine systematic cough screening in general outpatient, inpatient, HIV clinical services in Haiti, 2012 – 2015
M Charles, M Richard, D L Fitter, G Perrin, W Morose, D W Lowrance (Haiti, United States of America)

11.45 [OA-3114]
Tuberculosis stigma in a high-risk indigenous population in Brazil
I V Kolte, I M Carvalho de Sousa, E Pereira Henrique, P C Basta (Brazil)

ORAL ABSTRACT SESSION 22 ► 10:30-12:00 ► SESSION ROOM 3A

PRIORITIES IN FINDING THE MISSING CASES

Co-chairs: Katherine Horton (United Kingdom), James Mpunga (Malawi) — Section: Tuberculosis

10.30 [OA-445-29]
Delay in diagnosis of pulmonary tuberculosis in low- and middle-income settings: systematic review and meta-analysis
F Getnet, Y Berhane, N Assefa, B Mengistie, A Worku (Ethiopia)

10.40 [OA-446-29]
Prolonged delays to diagnosis despite availability of free health services: a study of 76 486 tuberculosis patients in Yunnan, China
M S Khan, Y Ning, J Chen, L Xu, R J Coker (Singapore, United Kingdom, China, Thailand)

10.50 [OA-447-29]
Improved TB screening via a novel mHealth app in both the community and health facility settings in South Africa
R Forse, R Hassan, O Hussain, A Habib, T Mbatha, A Khan, L Page-Shipp (South Africa, Pakistan)

11.00 [OA-448-29]
Engaging private health care providers in Pakistan to increase case notification
F Naureen, A Noor, A Rashid (Pakistan)

11.10 [OA-449-29]
Study of impact of contact tracing of smear-positive TB cases on annualised TB notification rates in Maharashtra, India
S Bharaswadkar, S Kamble, S Patil, A Shah, K Rade, A Sreenivas (India)

11.20 [OA-450-29]
Differences in yield of active versus passive contact screening in urban DOTS-supported cities, Afghanistan
A Hamim, M M Sayedi, Q Qader, L Manzoor, A Momand, M Shefa, K Rashid, P Suarez (Afghanistan, United States of America)

11.30 [OA-451-29]
Active TB case finding using contact investigation is a more efficient approach compared to targeted community TB screening outreach
K Mutesasira, S Ntudhu, D Lukoye, D Okello, F Mugabe, R Byaruanga, S Dejene, P Suarez (Uganda, United States of America)

11.40 [OA-452-29]
TB prevalence among individuals undergoing contact tracing and its determinants in Mandalay City, Myanmar
K K K Htet, T Liabsuetrakul, S Thein (Myanmar, Thailand)

11.50 [OA-453-29]
Tuberculosis among immigrant workers from highly endemic countries following pre-entry screening in Taiwan
M-M Kuan (Taiwan)
INTERPLAY OF TOBACCO CONTROL AND BROADER HEALTH AGENDA

Co-chairs: Ehsan Latif (United Kingdom), Jonathan Golub (United States of America) – Section: Tobacco control

10.30 Integrating tobacco control within primary care interventions for multiple addictions in Mexico
   Arturo Sabines (Mexico)

10.40 Pilot experiences that integrate smoking cessation within primary health care, both in public and private family medicine practice.
   Enrique Soto (Uruguay)

10.50 Tobacco control policies in a context of internal migration and displacement in Colombia
   Lorena Calderon (Colombia)

11.00 Long-term integration of tobacco control and NCD policies in Brazil
   Tania Cavalcante (Brazil)

11.10 20 years of pioneering tobacco control integration within public health programmes in Argentina
   Marta Angueira (Argentina)

11.20 [OA-459-29]
   With a little help from BAT: prices, bans and smoking onset in Chile
   G Paraje, G E Guindon (Chile, Canada)

11.30 [OA-460-29]
   An analysis of major policy level intervention and tobacco epidemic trend in Madhya Pradesh, India
   B Sharma (India)

11.40 [OA-461-29]
   Innovative health financing for tobacco control: the implementation and effectiveness of India’s ‘movie rules’
   N Murukutta, N Singh Negi, P Puri, V Munish Gill, P Sinha, S Mullin (United States of America, India)

THE UNION STUDENT LATE-BREAKER SESSION ON LUNG HEALTH

Co-chairs: E Jane Carter (United States of America), Bertie Squire (United Kingdom), Lucica Ditiu (Switzerland) - To be confirmed

Section: Adult and Child Lung Health

13.30 [OA-3036]
   Effectiveness of TB treatment regimens containing bedaquiline with repurposed drugs for drug resistant tuberculosis in the Chechen Republic, Russian Federation
   A Sinha, Y Tassew, M Khusainova, Z Khaidarkhanova, I Vasilyeva, K Herboczek, J Greig, J Achar (Russian Federation, United Kingdom)

13.40 [OA-3024]
   MDR-TB patients’ support at outpatient stage of treatment in Ukraine
   E Geliukh, S Filippovych (Ukraine)

13.50 [OA-3138]
   Short course regimen for MDR-TB in high HIV prevalence setting: model of care in Swaziland
   M Verdecchia, K Keus, E C Casas (Swaziland, Netherlands)

14.00 [OA-3143]
   Operational research: delays of treatment initiation in first time diagnosed TB patients in Ukraine from healthcare system perspective
   A Tyshkevych, Y Barska, Y Slavutsky, D Kutuzova, E-H Lukash, M Dolynska (Ukraine)

14.10 [OA-3141]
   Effectiveness of isoniazid preventive therapy to prevent tuberculosis among people living with HIV in KwaZulu-Natal, South Africa: a cohort study
   J Boffa, T Williamson, R L Cowie, M Mayan, R S Sauve, D Fisher (Canada, South Africa)

14.20 [OA-3116]
   Establishment of interpretive criteria for phenotypic bedaquiline resistance determination and association with clofazamine resistance
   N Ismail, S Omar, K Kaniga, A Dreyer (South Africa, United States of America)

14.30 [OA-2666]
   Prevalence and molecular epidemiology of pulmonary tuberculosis at Hawassa prison centre, Southern Region of Ethiopia
   T A Yates, L Tomlinson, S M Langan, K Bhaskaran, S L Thomas, L Smeth, I Douglas (United Kingdom)

14.40 [OA-3075]
   Lansoprazole use and tuberculosis disease, a primary care based cohort study
   T A Yates, L Tomlinson, S M Langan, K Bhaskaran, S L Thomas, L Smeth, I Douglas (United Kingdom)

14.50 [OA-3125]
   Application of the shorter MDR-TB regimen in high M/XDR-TB burden prison system of Azerbaijan
   E Turbanova, R Mehdiyev, K Blondal, A Altraja (Azerbaijan, Estonia, Iceland)
ORAL ABSTRACT SESSIONS 25 ➤ 13:30-15:00 ➤ SESSION ROOM 11B

CHILDHOOD TB, MDR AND PHARMACOKINETICS

Co-chairs: Anneke Hesseling (South Africa), Khurshid E Khuda Talukder (Bangladesh) – Section: Adult and Child Lung Health

13.30 [OA-462-29] Long-term safety, tolerability, and pharmacokinetics of delamanid in children aged 7-11 with MDR-TB
J Hafkin, S Mallikaarjun, N Hittel, M Frias, A De Leon, A Hesseling, A J Garcia-Pratts, M T Gler (United States of America, Germany, Philippines, South Africa)

13.40 [OA-463-29] Effect of co-administration of lignocaine on pain and pharmacokinetics of intramuscular amikacin in children with multidrug-resistant tuberculosis
A Garcia-Prats, P Rose, H Draper, J Seddon, J Norman, H McIlrnon, A Hesseling, H S Schaaf (South Africa, United Kingdom)

P Denti, A Garcia-Prats, H Draper, L Wiesner, S Thee, H McIlrnon, H S Schaaf, A Hesseling (South Africa, Germany)

14.00 [OA-465-29] Baseline predictors of multidrug-resistant tuberculosis treatment outcomes in children: a retrospective cohort study
S Chiang, J Starke, A Miller, A Cruz, W J Valdivia, G Tunque, F Garcia, C Contreras, L Lecca, V Alarcón, H Del Castillo, M Becerra (United States of America, Peru)

14.10 [OA-466-29] The impact of household environmental tobacco smoke exposure on risk of TB infection in children with household TB exposure
K Du Preez, K Kranzer, A M Mandalakas, A C Hesseling (South Africa, Germany, United Kingdom, United States of America)

14.20 [OA-467-29] Characteristics and outcomes of early versus late ART initiation in HIV-infected, ART-naïve children diagnosed with TB disease in Mbeya, Tanzania
J Bacha, L Campbell, J Benjamin, H Draper, A Di Nardo, A Mandalaka (Tanzania, United Rep., United States of America)

14.30 [OA-468-29] Risk factors for complications and poor treatment outcomes in children with tuberculosis in Spain

T Cowger, D Burton (United States of America)
SHORT ORAL ABSTRACT SESSIONS

SHORT ORAL ABSTRACT SESSION 05 ▶ 13:30-15:00 ▶ SESSION ROOM 11A

IMPROVING DIAGNOSTICS IMPLEMENTATION: CHALLENGES AND NEW SOLUTIONS

Chair: Catherine Mundy (United States of America), Harry Hausler (South Africa) – Section: Tuberculosis/Bacteriology & Immunology

13.30 [SOA-539-29]
Barriers to point-of-care testing in India and South Africa
N Engel, V Yellappa, M Davids, K Dheda, N Pant Pai, M Pai (Netherlands, India, South Africa, Canada)

13.38 [SOA-540-29]
Task shifting in TB laboratory service delivery: the experience of non-laboratory technicians in two regions of Ethiopia
N Hiruy, D Jerene, D Hailu, G Negasso, W Gebeeyehu, F Belachew, D Habte, P Suarez (Ethiopia, United States of America)

13.46 [SOA-541-29]
Field testing of TB sputum specimen optimiser (OMNI-gene) in Malawi, 2016
W Asefa, S Neri, S Dalebout, R Nalikungwi, A Trusov, A Mwanyimbo, A Dimba, Z Qin (Ethiopia, Namibia, United States of America, Malawi, Switzerland)

13.54 [SOA-542-29]
Cost-effective technology improves distribution and management of logistics commodity for drug-resistant tuberculosis testing in Nigeria
K Jimoh Agbaiyero, M Benezet, G Alawode, C Macek, G Akang, E Baruwa (Nigeria, United States of America)

14.02 [SOA-543-29]
Electronic laboratory specimen (eSpecimen) referral system in Ethiopia: a feasible approach
M Melese, G Ayana, Y Molla, G Tibesso, B Sherefedin, T Eyasu, D Habte, P Suarez (Ethiopia, United States of America)

14.10 [SOA-544-29]
Increasing TB laboratory capacity: can we reduce the incubation time of MGIT?
M E Murphy, A L Bateson, R Hunt, S Murthy, S Murray, C Mendel, M Lipman, T D McHugh, S H Gillespie, for the REMoxTB Consortium (United Kingdom, United States of America)

14.18 [SOA-545-29]
Implementation of quality improvement project on Xpert® MTB/RIF utilisation in a resource-limited setting of Nigeria using the Plan-Do-Check-Act (PDCA) Cycle
A Kwizera, J G Epoupa, C Ugwu (Nigeria, United Kingdom)

14.26 [SOA-546-29]
Introduction of second-line drug-susceptibility testing services at the National TB Reference Laboratory of Swaziland
G P Maphalala, M G Dlamini, V Dlamini, D Khumalo, T Dlamini, S Dlamini, K G William, T Abreha (Swaziland, Uganda)

14.34 [SOA-547-29]
A qualitative evaluation of factors influencing adherence to the algorithm for TB diagnosis in primary health clinics in South Africa
K McCarthy, K Fielding, A Grant, G Churchyard, K Kielmann (South Africa, United Kingdom)

14.42 [SOA-548-29]
Connected diagnostics for tuberculosis programme support: from concept to reality
C Isaacs, T Broger, D Fatson, W van Gemert, F Mirzayev (Switzerland)
E-POSTER SESSIONS

E-POSTER SESSION 10 ➤ 12:15-13:15 ➤ SESSION ROOM 10

EYES, EARS AND KIDNEYS: MDR DRUG TOXICITY

Chair: Silvia Kelbert, (Italy) — Section: Tuberculosis

O Okorie, O Chijioke, G Akang, E Ubochioma (Nigeria)

[EP-188-29] Incorporating mobile automated audiometry into MDR-TB patient treatment plans
R Lefrançois (Canada)

[EP-189-29] Improving the monitoring of ototoxicity among DR-TB patients receiving aminoglycosides in South Africa
Z Claassen, N Ndjeka (South Africa)

[EP-190-29] Symptom and laboratory screening for early detection of ototoxicity among registered DR-TB patients in Delhi, India
A Khanna, S Chandra, S Abbas, S Lohiya, R Arora, N Babbar, T J Padmani (India)

[EP-191-29] Evaluating the impact of adverse drug reactions and application of second-line anti-tuberculosis drugs
W-F Liang, S-K Huang, M-Y Liou, Y-W Huang, W W Chen (Taiwan)

[EP-192-29] Avoiding nephrotoxicity during treatment of multidrug-resistant tuberculosis by stepwise extension of aminoglycoside dosing intervals
C-H Lee, M-C Yu, K-J Bai, J-H Chang, H-C Lin, C-N Lee, Y-T Tseng, Y-H Lin (Taiwan)

M B Souleymane, A Piubello, S Hassane Harouna, S Morou, I Boukary, A Gagara Issoufou, M M Assao Neino, S Attaher (Niger, France)

[EP-194-29] Adverse events among patients treated for multidrug-resistant tuberculosis in the Philippines
E Kurbatova, T E Tupasi, J M Mangan, R Orillaza-Chi, M Mantala, L Naval, G Balane, A M C G Garfin (United States of America, Philippines)

E-POSTER SESSION 11 ➤ 12:15-13:15 ➤ SESSION ROOM 5

“HOW DO YOU DO IT” USING E-HEALTH TO IMPROVE TB PROGRAMME OUTCOMES

Chair: Chawangwa Modongo (Botswana) — Section: Tuberculosis

A Bhardwaj (India)

[EP-196-29] South Africa’s implementation of an integrated monitoring system to manage data for TB and HIV: lessons from the pilot
C White, M Osler, R Govender, N Somnath, K de Tolly, A Bouille, P Barron, D Mamejeta, Y Pillay (South Africa, United States of America)

[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
L F Avelino Reciolino, Q Andrade, N konduri, L G do Valle Bastos, K Sawyer (Switzerland, Brazil, United States of America)

[EP-198-29] Hospitalisations and rehospitalisations due to tuberculosis and their economic burden for the health system in an endemic city in Brazil
M C C Garcia, A A R Queiroz, M P Popolin, L S Alves, J A Crispim, T Z Berna, C Nunes, R A Arcâncio (Brazil, Portugal)

[EP-199-29] Using the Management Organizational Sustainability Tool (MOST) to strengthen management systems at the National TB and Leprosy Programme in Uganda
S Muchuru, F Mugabe, A Burua, M Mudoipe, K Mutesasira, E Birabwa, S Dejene, P Suarez, E Kizito (Uganda, United States of America)

[EP-200-29] Harnessing digital application to improve recording and reporting for TB control in Bangladesh: roll-out experience and opportunities
M Kibria, A Taleb, Z Islam, S Bashar, M Q Islam (Bangladesh)
Investigation of tuberculosis deaths in the area of influence of COMPERJ (Petrochemical Complex of the State of Rio de Janeiro)  
C M Bodart Noronha, P C Basta (Brazil)

E-Office as an effective tool for E-Governance in the TB control programme, Delhi, India  
S Chandra, M Dhuria, N Babbar, N Sharma, A Khanna, T J Padmini, N Agarwal, S Kumar (India)

Health network patient navigation and bridge case management: migration need never be an impediment to effective TB treatment  
D Garcia, R Garay, E Zuwroweste (United States of America)

Investigation of tuberculosis deaths in the area of influence of COMPERJ (Petrochemical Complex of the State of Rio de Janeiro)  
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Health network patient navigation and bridge case management: migration need never be an impediment to effective TB treatment  
D Garcia, R Garay, E Zuwroweste (United States of America)
G K Tripathi, D Shinde, A Pandey, R Sharma, R J Singh (India)

[EP-218-29]
Smoke-free homes: a step further in prevention of second-hand smoke and delaying initiation
O P K Arora (India)

[EP-219-29]
Students’ perceived effectiveness of a tobacco-free campus policy
M Ickes, A Wiggins, M K Rayens, E Hahn (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
S Goel, R Gupta, R J Singh (India)

[EP-221-29]
Compliance with local smoke-free legislation in Bali Province after 4 years implementation: a serial survey
I W G Artawan Eka Putra, I M Kerta Duana, P A S Astuti, I K H Mulyawan, I K Suarjana, T S Bam (Indonesia, Singapore)

[EP-222-29]
Advancement of (tobacco) smoke-free environment in Karnataka: a comparative analysis
P Mahamad, P Jaganath, R Raghuendarhan (India)

[EP-223-29]
Millennium youths joining hands for a tobacco-free generation
N Chitindi (Zambia)

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**E-POSTER SESSION 14 ▶ 12:15-13:15 ▶ SESSION ROOM 9**

## LATENT TB INFECTION: SOMETHING FOR EVERYONE

Chair: Ronald Thulani Ncube (Zimbabwe) – Section: Tuberculosis

[EP-224-29]
Does the tuberculin skin test result vary by gender?
F Rudolf, C B Patsche, G Lemvik, F Vieira, V F Gomes, P Aaby, C Wejse (Guinea-Bissau, Denmark)

[EP-225-29]
Optimising screening for latent tuberculosis infection among foreign-born persons in the United States using latent class analysis
J Stout, Y Wu, T Venkatappha, D Katz, M Johnson, A Pettit, C Ho, Tuberculosis Epidemiologic Studies Consortium (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
A Pettit, M Johnson, Y Wu, P-J Feng, R Punnoose, J Stout, C Ho, for the Tuberculosis Epidemiologic Studies Consortium (TBESC) (United States of America)

[EP-227-29]
Controversies in the diagnosis and treatment of tuberculosis infection among paediatric infectious disease specialists in North America
A Cruz, A Hersh, J Starke, S Beekmann, P Polgreen, R Banerjee (United States of America)

[EP-228-29]
LTBI screening in NW England: evaluating experience from almost two decades
D Zener, M Loutet, R J Harris, S Wilson, L P Ormerod (United Kingdom)

[EP-229-29]
High prevalence of latent TB infection among non-household contacts in urban Uganda
A Nkwata, S Zalwango, R Kakaire, L Martinez, J Mutanga, M Castellanos, J Sekandi, A Handel, N Kiwanuka, C Whalen (United States of America, Uganda)

[EP-230-29]
The incidence of active tuberculosis correlates geographically with the prevalence of latent tuberculosis infection in a high-incidence urban setting
M Burman, M Loutet, S Dart, D Trathen, N Jayasekera, S Tiberi, D Zener, H Kunst (United Kingdom)

[EP-231-29]
Toward safe and reachable preventive therapy for LTBI: a multi-centre randomised controlled study in Taiwan
J-Y Wang, I-W Huang, W-C Huang, L-Y Chang (Taiwan)

[EP-232-29]
Improved tuberculosis contact investigation and isoniazid preventive therapy among under-5 children in two regions of Ethiopia
Y Tadesse, D Habte, F Negussie, B Belayneh, G Hora, Y Demissie, S Daba, P Suarez (Ethiopia, United States of America)

[EP-233-29]
LTBI treatment completion and risk factors for non-completion in an urban city of western Canada: a population-based study
P Plourde, A Bertram-Farough, R Wang, C Ens, N Yu (Canada)

[EP-234-29]
Dynamics of progression to active tuberculosis: which model structure to best replicate them?
R Ragonnet, J M Trauer, N Scott, M T Meehan, J T Denholm, E S McBryde (Australia)
POSTER DISCUSSION SESSIONS

POSTER DISCUSSION SESSION 39 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2

THE “ROCKY ROAD” OF SCREENING AND TREATMENT OUTCOMES

Chair: Nesri Padayatchi (South Africa) – Section: HIV

[PD-994-29]
Prevalence of TB in HIV-infected injectable drug users with CD4 count < 500 cells/µl admitted to a detoxification centre in Islamabad
S Tahseen, A H Rizvi, I S Raja, W Aslam, M Hussain, F M Khanzada, B Achakzai, E Qadeer (Pakistan)

[PD-995-29]
Enhancing TB detection and diagnosis amongst people living with HIV/AIDS utilising peripheral TB laboratory service-delivery networks: experiences from Northern Nigeria
G Egesimba, N Nwokedi, A Estefowaghan, V Adepoju, E Blessing, C Ntagbo (Nigeria)

[PD-996-29]
Intensive screening for tuberculosis among people newly diagnosed with HIV in rural Cameroon
E Mbu, F Sauter, M Sander, A Zoufaly, M Bronsvooort, K Morgan, J Noeske, J-L Abena Foe (Cameroon, United Kingdom)

[PD-997-29]
Utility of urine as a clinical specimen for the diagnosis of pulmonary tuberculosis in people living with HIV
A Chemeda, Pulmonary Tuberculosis (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
S K Sinha, P K Moonan, A M V Kumar, S A Nair, V K Chadha (India, United States of America)

[PD-999-29]
Barriers affecting utilisation of Xpert® MTB/RIF testing for tuberculosis in Cambodia
K Kim Eam, M Tan Eang (Cambodia)

[PD-1000-29]
The prevalence of HIV and tuberculosis and risk of mortality in adults with tuberculosis symptoms: a systematic literature review
M Nliwasa, P MacPherson, A Gupta-Wright, C Flach, E L Corbett (Malawi, United Kingdom)

[PD-1001-29]
Characteristics and treatment outcomes of extra-pulmonary tuberculosis patients in Kenya
B O Ulo, E Masini, F Ngari (Kenya)

[PD-1002-9]
Effectiveness of treatment of patients with pulmonary tuberculosis combined with HIV infection
T Morozova, T Salina (Russian Federation)

[PD-1003-29]
High mortality in tuberculosis patients despite HIV interventions in Swaziland
G Mchunu, J van Griensven, W Sikhondze, T Harries, S G Hinderaker, M Manzi, T Dlamini (Swaziland, Belgium, United Kingdom, Norway)

POSTER DISCUSSION SESSION 40 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2

CHILDHOOD TB DIAGNOSIS AND CARE DETECTION

Chair: Olivier Marcy (France) – Section: Adult and Child Lung Health

[PD-1004-29]
Increasing diagnosis of childhood tuberculosis in Swaziland: clinical utility of sample collection and diagnostic methods among children
S M Haumba, E Broughton, M Calnan, S Dube, G Maphalala, E Ruhinda, C Mlambo, R Jeffries (Swaziland, United States of America, Tanzania, United Rep.)

[PD-1005-29]
Yield of tuberculosis among children with presumptive TB using the Xpert® MTB/RIF assay in two regions of Ethiopia
J Seid, G Tibeze, Z Gashu, A Alem, D Hable, F Negussie, F Belachew, P Suarez (Ethiopia, United States of America)

[PD-1006-29]
Effective testing for pulmonary TB in children using stool specimens using the Xpert® MTB/RIF assay in Pakistan
Z Hasan, F Arif, S Shakoor, A Mehnaz, A Akbar, A Kanji, M Ashraf, R Hasan (Pakistan)

[PD-1007-29]
Perceptions of health workers towards sputum sample collection from children for the diagnosis of tuberculosis in Uganda
E Wobudeya, H Lukolyo, M G Akello, R Nakawungu, S Zawedde, A Nakanwagi (Uganda, United States of America)
[PD-1008-29] Improving detection of tuberculosis through active case finding among children attending informal schools in urban informal settlements in Nairobi  
E Mueni, R Wangusi, E Omanya, F Leli, B Sialaal, D Wanyama, E Koech, D Nyukuri (Kenya)

S Kasa Tom, H Welch, C Kilalang, N Tefuarani, E Lauv, K Johnson, R Magaye, T Duke (Papua New Guinea, United States of America, Austria)

[PD-1010-29] Increasing childhood TB notification through systematic screening in public-sector hospitals in rural Pakistan: an update  
A Malik, F Amannullah, M Jaswal, S Siddiqui, J Ahmed, S Saleem, A Khurshid, H Hussain (Pakistan, United States of America)

[PD-1011-29] Reaching missing paediatric TB cases through contact tracing: experience from sixty districts in India  
S Waikar, A Pathak, P Singh, S Upadhyaya, P Jha, R Kumar, N Sinta, A Das (India)

T Idaboh, H Khamofu, C Gana, S Olarewaju, M Odo, I Ezekpeazu, C Agbawurwur, R Mamulu, K Torpey (Nigeria)

[PD-1013-29] Tolerability of the string test for tuberculosis diagnosis in children aged 4-14 years  
K T Tafur, M J Mendoza, C Pinedo, S R Leon, J M Coit, C C Contreras, R I Calderon, M F Franke (Peru, United States of America)

[PD-1014-29] Risk factors for active tuberculosis in human immunodeficiency virus co-infected tuberculosis contacts, Taiwan  
P H Lee, Y A Lin, M J Lu, M Y Chou, S H Huang, Y F Huang (Taiwan)

[PD-1015-29] Diagnostic specificity of immunological methods in diagnosis of the tuberculosis and latent tuberculosis infection among children  
A Starshinova, N Koreneva, I Dovgaluk, M Plahtienko, E Bobkevich, B Pinegin, V Murugin (Russian Federation)

[PD-1016-29] T-SPOT performance in routine paediatric practice in a low TB burden setting  
H Highsmith, A Gendreau, H L Kirchner, C Callahan, N Harris, A Mandalakas (United States of America)

[PD-1017-29] Pregnancy-associated decreased TST vs. QFT positivity and lower QFT mitogen and Mycobacterium tuberculosis antigen responses compared to postpartum in HIV-infected women  
S Lacroise, L Cranmer, D Matemo, J Kinuthia, D Horne, G John-Stewart (United States of America, Kenya)

[PD-1018-29] Latent TB in patients with chronic renal failure: results from a national survey  
K Bhatt, M Dedicoat, J Baharani (United Kingdom)

[PD-1019-29] Micronutrient supplementation augments anti-mycobacterial immune responses in TST-reactive household contacts  
M J Saunders, K Zevallos, M A Tovar, R Monroy, C Santillan, M Baldwin, S Schumacher, C A Evans (United Kingdom, Peru)

[PD-1020-29] Using country of origin to prioritise testing for latent tuberculosis infection in the United States  
B J Baker, J Yeats, J S Kammerer (United States of America)

[PD-1021-29] Knowledge and attitudes about active and latent tuberculosis among index cases and contacts in three high TB burden Brazilian capitals  
A Trajan, F Salame, M D S Ferreira, J Ramos, G Salgado, A B Melo, M Cordeiro-Santos, M F Militão de Albuquerque, P Hill, R Araes Ximenes, D Menzies, ACT4-Brazil Study Group (Brazil, Canada, New Zealand)

[PD-1022-29] Programmatic implementation of the interferon-gamma release assay in Norway, 2009-2014  
B A Winge, A M B Kran, E Heldal (Norway)

[PD-1023-29] Strong standard operating procedure: a key to effective implementation of isoniazid preventive therapy  
A Musyani (Tanzania, United Rep.)
INFECTION CONTROL: KNOWLEDGE AND INTERVENTIONS

Chair: Max Meis (Netherlands) — Section: Tuberculosis

[PD-1025-29]
Infection control in tuberculosis hospitals in Almaty, Kazakhstan: knowledge, practices and infrastructure assessment, 2015
D Nabirova, Y Kislicin, I Kunbasova, R Yusupova, G Schmid, S Ajellat, S Ismailov, J Enshova, D Moffett (Kazakhstan, Tajikistan, United States of America)

[PD-1026-29]
Tuberculosis infection control knowledge, attitudes and practices of health care workers in primary health care facilities in Mangauung Metropolitan, South Africa
M C Engelbrecht, N G Kigozi, A Janse van Rensburg, H C Janse van Rensburg (South Africa)

[PD-1027-29]
Improved ventilation for the cessation of tuberculosis transmission: an outbreak on a college campus, 2010-2013, Taipei, Taiwan
C-R Du, S-C Wang, M-C Yu, T-F Chiu, J-Y Wang, P-C Chan, C-T Fang (Taiwan)

[PD-1028-29]
Tuberculosis en milieu de soins au Sénégal (Tuberculosis in the healthcare setting, Senegal)
A Niang, M Sarr, M Kane, Y M Diop, T A Ba, F Ba, I Diouf, P S E Agne, N O Toure, L Gueye (Senegal)

[PD-1029-29]
Enhanced infection control programme among health staff in tuberculosis services during the Ebola epidemic in Conakry, Guinea
C Gba-Foromo, F Loua, N Ortuno Gutierrez, T Demeulemaere, S Hassane Harouna, A M Bangoura, L M Camara (Guinea, Belgium)

[PD-1030-29]
Involvement of community volunteers in Chisokone Market congregate setting (hot spot), Copperbelt Province, Zambia
B Muscle Chikumbi, S Musakanya, R Mwilu, CHEP Study Group (Zambia, Norway)

[PD-1031-29]
Clinical characteristics and delay among patients diagnosed with pulmonary tuberculosis after hospitalisation
Y Mutoh, J Takasaki, E Morino, T Kobayashi, H Sugiyama, N Kobayashi (Japan)

[PD-1032-29]
Contribution of health facility patient triaging to the case detection trend in 15 provinces of Afghanistan

[PD-1033-29]
Impact of TB infection control on patient waiting time and early diagnosis at health facilities in 15 provinces of Afghanistan
A Momand, D Safi, M K Rashidi, M Shefa, N Samadi, M Sayedi, P Suariz, K Seddiq (Afghanistan, United States of America)

[PD-1034-29]
Effectiveness of tuberculosis infection control committees on implementation of TB Infection control measures at health facilities in Afghanistan
A Momand, G Gader, M K Rashidi, D Safi, P Suariz, M Zafari, F Bakhtani, L Faqiri (Afghanistan, United States of America)

MEDIA ENGAGEMENT IN TB INTERVENTIONS

Chair: Rachael Crockett (United Kingdom) — Section: Civil society and community engagement

[PD-1035-29]
Measuring community contributions to the TB Programme using simple RR forms and methods in 12 districts, Indonesia, 2015
H Diantoro, R Artifin Panigoro, M Reksoprodjo, S Tarsono, S Sumantri (Indonesia)

[PD-1036-29]
#UnmaskStigma: a global advocacy initiative to address TB stigma
A von Delft, A Dramowski, K Kotze, P Lederer, T Mosidi, R Nathavitharana, A von Delft, B Willems, M Raviglione (South Africa, Switzerland)

[PD-1037-29]
Does mobile technology improve referrals and reduce delay in diagnosis and treatment initiation of TB patients? Impact analysis from India
A Trivedi, K Sagili, N K Sinha, S Kumar, A Kumar, B K Sahu, B M Prasad, S Prasad (India)

[PD-1038-29]
How do the media see tuberculosis in India?
S Shrestha, R Sinha, S Tripathy, T A Sharma (India)

[PD-1039-29]
Trends in media coverage of TB: a retrospective analysis
A Bhatnagar, L Paul, A Suman, K Ayagari, J Tonsing, R Rajora (India)
Is more better? A descriptive study comparing two hashtags
P Swamy, K Ngo, A Mandalakas (United States of America)

School children as ‘TB soldiers’: astounding results of pilot intervention in schools in two districts in Rajasthan, India
G Kumar, A J Naqvi, A Das, R R Singh (India)

Schoolchildren raise tuberculosis awareness among their peers
T Yu (Philippines)

Engaging parliamentarians in TB control efforts: lessons from India
S Shrestha, M Sharma, M Shadab, M Kumar, K Ayyagari, J Tonsing (India)

Community to clinic: community health workers successfully conduct home-based TB screening and facilitate linkage to care in rural South Africa

POSTER DISCUSSION SESSION 44 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2

EXTRAPULMONARY TB

Chair: Simon Tiberi (United Kingdom) — Section: Tuberculosis

Epidemiology of extra-pulmonary tuberculosis in Afghanistan
A Hamim, S M Sayedi, P P Desrosiers, L Manzoor, M Shefa, E Darwish, A Momand, N Ahmadzada (Afghanistan, United States of America)

Epidemiological assessment and profiling of EPTB cases registered under the national TB programme in Himachal Pradesh state, India
A Bhardwaj (India)

The role of macrophages P2X7 1513 A-C and IL-10R1 S138G polymorphisms in susceptibility to extra-pulmonary tuberculosis in Indonesia
Y J Sugiri, A Harjadi, O B Panggabean (Indonesia)

Tuberculous lymphadenitis in Ethiopia predominantly caused by strains belonging to the Delhi/CAS Lineage and newly identified Ethiopian clades
F Degeneh (Ethiopia)

Detection of mycobacteraemia in individuals with presume extra-pulmonary tuberculosis
M Sankar, R Sood, S Singh (India)

Assessment of lymph node tuberculosis in Tunisia: a national prospective study
S Smaoui, D Gamara, A Ghariani, S Kammoun, E Mhiri, C Marouane, M Driss, H Skhiri, R Fourati, S Ben Salah, B Ben Mrad El Bekri, L Slim-Saidi, F Messadi-Akrout (Tunisia)

Comparison of characteristics of extra-pulmonary and pulmonary tuberculosis cases in Kenya, 2011-2015: retrospective study
E Okesia, D Mibei, M Kamene, A Wairia, J Kiarie, E Masini (Kenya)

Testicular tuberculosis: the experience of a tertiary centre in a high-incidence urban setting in the United Kingdom
V Naidu, M Burman, D Vaghela, S Dart, N Jayasekera, V White, S Tiberi, H Kunst (United Kingdom)

POSTER DISCUSSION SESSION 45 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2

“DO YOU WANT TO KNOW A SECRET?” THE RISING INCIDENCE OF NON-TUBERCULOSIS MYCOBACTERIA

Chair: Adrian Muwonge (United Kingdom) — Section: Tuberculosis

Clinical significance of non-tuberculous mycobacteria isolated in a mycobacteriology laboratory in Delhi, India
K Shrivastava, K Karima, C Kumar, A Narang, A Chaudhary, R Singla, M Bose, M Varma-Basil (India)

Nationwide laboratory survey of uncommon mycobacteria isolated in Japan
A Takaki, K Chikamatsu, T Yamashita, M Ikeda, T Torii, K Tamai, A Aono, S Mitarai (Japan)
[PD-1055-29]
Pulmonary non-tuberculous mycobacterial infection: 372 cases
A Babalik, T Kuyucu, E N Koç, E N Ordu, M Partal, K Koksalan (Turkey)

[PD-1056-29]
Prevalence of non-tuberculous mycobacteria among presumptive TB cases in Namibia
N Ruswa, F Mavhunga, E Shipiki, A Beukes (Namibia)

[PD-1057-29]
Identification and drug susceptibility profiling of non-tuberculous mycobacteria species from sputum smear-positive pulmonary cases in Ghana
I Otchere, A Asante-Poku, S Osei-Wusu, S Aboagye, A Forson, A Badoo, F Bonsu, D Yeboah-Manu (Ghana)

[PD-1058-29]
Diagnosing NTM in immunocompetent chronic lymphadenitis cases: an emerging entity
A Verma, H Pojari, S Munzal, K Gupta, G Kumar, J Arora, V Myneedu, R Sarin (India)

[PD-1060-29]
Spectrum and susceptibility pattern of non-tuberculous mycobacterial infections in Pakistan: 2012-2015
J Farooqi, H Zaheer, S K Qadri, F Farooqui, S Shafiq, I Ahmed, K Jabeen, R Hasan (Pakistan)

[PD-1061-29]
Distribution of pulmonary NTM cases in the Information System for Special Tuberculosis Treatment (SITE-TB), Brazil, 2010-2015
A C Brito, K B Andrade, L A Nascimento Jr, R Souza Jr, S B Codenotti, M B F d F Hammerle, N M Saita, F D Costa (Brazil)

[PD-1062-29]
Safety and efficacy of tioureidoiminomethylpyridinium perchlorate in treatment of pulmonary MDR-TB
M Pavlova, A Starshinova, T Vinogradova, N Sapozhnikova, I Chernokhaeva, L Archakova, P Yablonskii (Russian Federation)

[PD-1063-29]
Adverse events in linezolid treatment of pulmonary TB caused by extensively drug-resistant Mycobacterium tuberculosis
M Pavlova, A Starshinova, I Chernokhaeva, E Istomina, E Belyaeva, N Sapozhnikova (Russian Federation)

[PD-1064-29]
When is the right time to add new and repurposed medication for treatment of pre-XDR and XDR-TB?
L Barkane, L Kuksa, V Riekstina (Latvia)

[PD-1065-29]
Determination of plasma levels of levofloxacin by high performance liquid chromatography for use at a multidrug-resistant tuberculosis hospital in Tanzania
A Ebers, S Stroup, S Mpagama, E Houpt, S Heysell (United States of America, Tanzania, United Rep.)

[PD-1066-29]
Additive effects of cotrimoxazole in the treatment of XDR-TB in a mouse model of experimental tuberculosis
S Popov, G Mozhokina, N Elistratova, T Sabgaya, S Kosenkov (Russian Federation)

[PD-1067-29]
The prolongation of bedaquiline-containing regimens for MDR/XDR-TB: effectiveness and safety
S Borisov, T Ivanushkina, D Ivanova, A Filippov, N Lithoyna (Russian Federation)

[PD-1068-29]
Third anti-tuberculosis drug in the continuation phase for TB patients: is it the need of the hour for India?
V Mave, N Pradhan, A Kagal, R Bharadwaj, N Gupta, A Gupta, S Meshram, J Golub (India, United States of America)

[PD-1069-29]
A model of bedaquiline’s exposure-response relationship and predicted effects of drug-drug interactions
E M Svensson, S Rossenu, M O Karlsson (Sweden, Belgium)

[PD-1070-29]
Analysis of the treatment effect of regimens containing different fluoroquinolones in MDR-TB patients
Q Li, X Jiang, J Liang, K Yang, X Kan, L Qiu, S Tang, B Cai, J Bu, L Zhang, L Li, W Gao, Y Liu, G Niu, W Yu, F Gao (China)
POSTER DISCUSSION SESSION 47  ➤  12:15-13:15  ➤  POSTER AREA HALL 2

MDR- AND ISONIAZID-RESISTANT TB: OUTCOMES

Chair: Carole Mitnick (United States of America) – Section: Tuberculosis

[PD-1071-29] Treatment outcomes for multidrug-resistant tuberculosis patients under DOTS-Plus in developing counties: systematic review and meta-analysis
Y M Mesfin (Ethiopia)

[PD-1072-29] High treatment success in patients started on multidrug-resistant tuberculosis treatment in Kenya
H Huerga, M Bastard, M Kamene, S Wanjala, A Arnold, N Oucho, I Chikwanha, F Varaine (France, Kenya, United Kingdom)

[PD-1073-29] Treatment outcomes among multidrug-resistant tuberculosis cases at a referral hospital for infectious diseases in Italy
G Gualano, R Urso, S Rosati, R Tonnarini, D Biagioli, G Matteucci, P Ghirga, S Murachelli, G Biava, D Goletti, E Girardi, G Ippolito, F Palmieri (Italy)

[PD-1075-29] Outcome of new cases of drug-resistant tuberculosis in Brazil
S Barbosa Codenotti, K Andrade, A Lobo, D Pelissari (Brazil)

[PD-1076-29] Factors associated with treatment outcomes in a Brazilian isoniazid-monoresistant tuberculosis cohort
A Trajman, M Lisboa Bastos, F Docchhorn Costa, S Barbosa Codenotti, D M Pelissari, D Menzies (Brazil, Canada)

T C Mahant, R Kumar, S Pundir (India)

[PD-1078-29] Outcomes of retreatment cases of drug-resistant tuberculosis at the Indus Hospital, Karachi
R Batool, A Malik, H Hussain, Z Barry, S Butt, S Adnan, S Khan, N Salahuddin (Pakistan)

[PD-1079-29] XDR-TB treatment outcomes in European regions of the Russian Federation
S Sterlikov, V Testov, I Vasilyeva, A Samoilova (Russian Federation)

[PD-1080-29] Description of attributes of multidrug resistant tuberculosis cases in Afghanistan: a cross-sectional explanatory assessment
H K Amirzada, S D Mahmoodi, G Q Qader, M K Seddiq, M Isono, A Momand, M R Aloudal (Afghanistan)

[PD-1081-29] Outcome in MDR-TB patients treated under the Revised National Tuberculosis Control Programme of India
A Janmeja, D Aggarwal, R Sharma (India)

POSTER DISCUSSION SESSION 48  ➤  12:15-13:15  ➤  POSTER AREA HALL 2

MDR TREATMENT OUTCOMES

Chair: Paul Nunn (United Kingdom) – Section: Tuberculosis

[PD-1082-29] Impact of fluoroquinolone resistance on multidrug-resistant tuberculosis treatment outcomes: retrospective cohort study in Pakistan
A Ghafoor, A Latif, Z Toor (Pakistan)

[PD-1083-29] Modelling the effect of reduced regimen duration for multidrug-resistant TB in Karakalpakstan, Uzbekistan
J M Trauer, J Achar, N Parpieva, A Khamraev, J T Denholm, A Mesic, D Falzon, E Jaramillo, P Du Cros, E S McBryde (Australia, United Kingdom, Uzbekistan, Netherlands, Switzerland)

[PD-1084-29] Treatment outcomes of pulmonary MDR-TB in the Tokyo metropolitan area, Japan
N Kobayashi, T Hattori, S Kato, J Takasaki, K Ohta (Japan)

[PD-1085-29] Evaluation of the effectiveness and tolerability of two short-course treatments for multidrug-resistant tuberculosis in Niger
S Hassane Harouna, M B Souleymane, S Morou, I Boukary, S Attaher, Z Hamidou Harouna, A Plubello (Niger, France)

[PD-1087-29] Novel treatment regimens for rifampin-resistant tuberculosis: linking specific regimen characteristics to expected population-level impact
E Kendall, S Shrestha, T Cohen, K Dooley, C Lienhardt, T Forissier, M Rich, D Dowdy (United States of America, Switzerland)

[PD-1088-29] Outcomes for pregnant and postpartum women with drug-resistant tuberculosis and their infants in Belarus
A Skrahina, I Salonko, H Hurevich, A Skrahin (Belarus)
Mental Health, Diabetes and other Co-Morbidities in TB

[PD-1092-29] Impact of concurrent mental health illness on TB treatment outcomes: a case of Butabika Hospital in Uganda
  D Kimuli, R Tbyonza, S Zalwango, K Mutesasira, D S Tumuhairwe, R Byaruhanga, N Persaud, S Pedro (Uganda, United States of America)

[PD-1093-29] Burden of comorbidities and social determinants of health among tuberculosis patients in Carabayllo, Peru
  C Contreras, C Yuen, A Millones, J Santa Cruz, M Aguilar, K Llaro, L Lecca, M Becerra (Peru, United States of America)

[PD-1095-29] Risk factors for tuberculosis going beyond HIV: a case control study in Western Kenya
  G Kasera, S Karanja, C Mvachari, J Kioko, E Masini (Kenya)

[PD-1096-29] Impact of diabetes mellitus on treatment outcome of multidrug-resistant pulmonary tuberculosis
  T Mahmood, R K Srivastava, A Akmal, S Satapathy (India)

[PD-1097-29] Effect of type 2 diabetes mellitus on the clinical and paraclinical presentations of pulmonary tuberculosis in Northeastern Iran
  P Moharloie, H Kamalinia, S Rafiee (Iran, Islamic Rep. Of)

[PD-1098-29] Indicators of acute phase reaction in patients with pulmonary tuberculosis combined with diabetes mellitus
  O Komissarova, O Berejnak, R Abdullaev, G Kaminskaya, O Konyayaeva (Russian Federation)

[PD-1099-29] Mental disorders among new cases of tuberculosis in Brazil
  N Saita, M Jacobs, A Lobo, M D S Evangelista, K Alves, R Souza, F Johansen, A Brito (Brazil)

[PD-1100-29] Xpert® MTB/RIF assay for pulmonary tuberculosis diagnosis in patients with pre-diabetes mellitus and diabetes mellitus
  V Mave, N Gupte, S Meshram, A Kagal, A Gupta, R Bharadwaj, N Pradhan, J Golub (India, United States of America)

Media Communication: For or Against Tobacco Use Strategies

[PD-1101-29] Study on how media influence (impact) on tobacco promotion could be reversed or corrected
  H S D De Seram (Sri Lanka)

[PD-1102-29] Ban on tobacco advertising: an absolute public health gain in Jakarta
  B F Nusarrivera, D R Suhadi, T S Bam, R R Elperida (Indonesia, Singapore)

[PD-1103-29] Beyond the school gate: bombarded by cigarette advertising
  H Pradityas, L Sundari, H Hendriyani (Indonesia)

[PD-1104-29] An analysis of online marketing of bidi smoking tobacco in international markets
  B Sharma (India)
[PD-1105-29]
Tobacco advertisements, promotion and sponsorships in India: business of lies and deception continues
R Chand (India)

[PD-1106-29]
Advancing towards tobacco-free Chattisgarh using communication as a tool to deter people from chewable forms of tobacco
P Tripathi, S Raj (India)

[PD-1107-29]
Letter to editor as an innovative tool of media advocacy for tobacco control
B Sharma (India)

[PD-1108-29]
Effectiveness of complementing paid social media with organic social media
P Puri, D Svenson, S Hamill, N Singh Negi, S Mullin, V Mallik, N Murukutla (United States of America)

[PD-1109-29]
Trend analysis of pan masala advertisements in print media
B Sharma (India)

[PD-1110-29]
Can social media change behaviour as part of a synergised tobacco control communication strategy? Message pre-test findings from Bangladesh
T Turk, N Singh Negi, M Kapil Ahmed, D Svenson, S Hamill, N Murukutla (United States of America, India, Bangladesh)

POSTER DISCUSSION SESSION 51  ▶  12:15-13:15  ▶  POSTER AREA HALL 2

DRUG RESISTANCE ASSESSMENT: METHODS, FEASIBILITY AND RESULTS

Chair: Tefera Agizew (Botswana)  –  Section: Tuberculosis/Bacteriology & Immunology

[PD-1111-29]
Feasibility analysis of rapid diagnostic tools for drug-resistant tuberculosis in Bangladesh
S Ahmed, M T Rahman, S S Ferdous, S M M Rahman, M K M Uddin, R Khatun, S Banu (Bangladesh, United States of America)

[PD-1112-29]
Accuracy of line probe assays for resistance to rifampicin and isoniazid and detection of Mycobacterium tuberculosis: a systematic review and meta-analysis
R R Nathavitharana, P G T Cutahy, S G Schumacher, K Steingart, M Pai, C M Denkinger (United States of America, Switzerland, United Kingdom, Canada)

[PD-1113-29]
The TB eXist assay for improvement in the accuracy of diagnosis of cases with drug resistance
N Ciobanu, S Eftodii, T Popescu, E Romancenco, E Noroc, N Turcan, VCrudu (Moldova)

[PD-1114-29]
The role of TB-LAMP and Xpert® MTB/RIF assay for the diagnosis of smear-negative pulmonary TB
M Getahun, Z Dagze, Z Yaregal, A Hailenmariam, S Moga, A Meaza, A Kebede, Y Feseha (Ethiopia)

[PD-1115-29]
Resistance to first-line anti-tuberculosis drugs in Southern Mozambique: results from a population-based drug resistance survey
S Valencia, D Respeito, R de Moraes Ribeiro, G Sequeria, H Bulo, E Lopez, S Blansco, A L Garcia-Basteiro (Spain, Mozambique, Netherlands)

[PD-1116-29]
National Anti-Tuberculosis Drug Resistance Survey in the Kingdom of Lesotho, 2013-2014
L B M Maama-Maime, M Mareka, M Sekhele, E T Tlali, D M Mothabeng, S E Smith, P K Moonan, J Ershova (Lesotho, United States of America)

[PD-1117-29]
Results of the national anti-tuberculosis drug resistance survey in Senegal: an innovative approach using rapid molecular technologies
F Ba, P A L Gueye, A Niang, M F Clissé, A B Ly, M Sarr, A S Dean, A van Deun (Senegal, Switzerland, Belgium)

[PD-1118-29]
Study on pyrazinamide resistance of M. tuberculosis in Viet Nam: making comparisons between two national surveys
N V Hung, P T T Hang, D N Sy (Viet Nam)

[PD-1119-29]
Reduction in treatment delay of MDR-TB cases as a result of Xpert® MTB/RIF implementation in Moldova
D Chesov, V Crudu, V Soltan, V Botnaru (Moldova, Germany)

[PD-1120-29]
Implementation of a molecular diagnostics programme to improve TB case detection in Malawi
R Nalikungwi, W Asefa, S Neri, S Dalebout, A Trusov, A Mwanyimbo, Z Qin (Malawi, Ethiopia, Namibia, United States of America, Switzerland)
### POSTER DISCUSSION SESSION 52  ▶  12:15-13:15 ▶  POSTER AREA HALL 2

**KEY POPULATIONS: ALL IN**

**Chair:** Zolani Barnes (South Africa)  
**Section:** Tuberculosis

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<tr>
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<th>Title</th>
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<tr>
<td>[PD-1122-29]</td>
<td>Finding the missing cases: active TB case finding in communities in two mining districts in Zimbabwe</td>
<td>P Dhlilwayo, C Sandy, P Mwangambako, R Makombe, R Matji (South Africa, Zimbabwe)</td>
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<td>[PD-1123-29]</td>
<td>Will repeat household visits for active case finding in key affected populations yield results?</td>
<td>A Pathak, S Waikar, A Das, S Chadha (India)</td>
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<td>[PD-1125-29]</td>
<td>Poverty predisposes patients to intermittent adherence to TB treatment</td>
<td>M Tovar, T Wingfield, M Saunders, R Montoya, E Ramos, T Valencia, S Datta, C Evans (Peru, United Kingdom)</td>
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<td>[PD-1126-29]</td>
<td>Institutionalising systematic screening for early TB case finding among PLHIV: progress and challenges in Nepal’s Tuberculosis Programme</td>
<td>D Joshi, N Maharjan (Nepal)</td>
</tr>
<tr>
<td>[PD-1128-29]</td>
<td>TB and poverty: do we really care?</td>
<td>K D Sagili, A Das, S S Chadha (India)</td>
</tr>
<tr>
<td>[PD-1129-29]</td>
<td>Systematic facility- and community-based screening for TB in Phnom Penh, Cambodia</td>
<td>S Thai, K Choun, P Setha, A Codlin, J Creswell, T E Mao (Cambodia, Switzerland)</td>
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<tr>
<td>[PD-1130-29]</td>
<td>Innovative contact-tracing strategy within a 50 m radius of index tuberculosis cases using Xpert® MTB/RIF in Pakistan: did it increase case detection?</td>
<td>E Qadeer, R Fatima, A Yaqoob, M Ul Haq, A Kumar, S Majumdar, H Shewade, K Ali (Pakistan, India, Australia)</td>
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### POSTER DISCUSSION SESSION 53  ▶  12:15-13:15 ▶  POSTER AREA HALL 2

**COST: SOCIOECONOMIC IMPACT ON TB**

**Chair:** Carol Nawina Nyirenda (Zambia)  
**Section:** Civil society and community engagement

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<tbody>
<tr>
<td>[PD-1131-29]</td>
<td>High return in TB diagnosis and treatment with low investment in tribal and extremist areas of Jharkhand, India</td>
<td>S Nayak, S Chadha, V Ghule, R Pathak, A Das (India)</td>
</tr>
<tr>
<td>[PD-1132-29]</td>
<td>Towards zero TB-affected households facing catastrophic costs: the role of governmental cash transfer programmes</td>
<td>W Rudgard, S Sweeney, T Wingfield, C Evans, D Barreira, K Lonnroth, D Boccia (United Kingdom, Peru, Brazil, Switzerland)</td>
</tr>
<tr>
<td>[PD-1133-29]</td>
<td>Impact of the new financing and payment model on TB patients’ financial burden in China</td>
<td>W Jiang, D Dong, J Chen, L Xiang, O Li, F Huang, S Tang (China, United States of America)</td>
</tr>
<tr>
<td>[PD-1135-29]</td>
<td>Do households face catastrophic expenditure because of tuberculosis disease in India?</td>
<td>B M Prasad, J P Tripathy, S S Chadha (India)</td>
</tr>
<tr>
<td>[PD-1137-29]</td>
<td>Feedback from TB-affected households receiving a socio-economic intervention in Peruvian shantytowns: an acceptability assessment from the CRESPIPT pilot study</td>
<td>T Wingfield, M Tovar, D Huff, R Montoya, E Ramos, J J Lewis, C Evans (United Kingdom, Peru, United States of America)</td>
</tr>
</tbody>
</table>
[PD-1138-29]
Not by choice but due to compromised financial situation. Compelling factors for choosing tuberculosis treatment in the public sector
O Berz, S Kamble, A Mane, R Tate, S Nayak (India)

[PD-1139-29]
Preventing catastrophic costs: opportunities and barriers for reducing household TB-related costs
S N Williams, T Wingfield, M A Tovar, A Lozano, J Franco, A L Pro, R Montoya, C A Evans (Peru, United Kingdom)

[PD-1140-29]
Cost-effectiveness of the community-based DOTS (CB-DOT) approach for treatment of tuberculosis in Afghanistan
B Ahmad, M Shefa, M N Samadi, H Habib, T Noori, N Ahmadzada, G Qader, N Persaud (Afghanistan, United States of America)

POSTER DISCUSSION SESSION 54 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2

TB PROGRAMME IMPLEMENTATION AND EFFECTIVENESS

Chair: Jody Boffa (South Africa) – Section: Tuberculosis

[PD-1141-29]
Tuberculosis patients in an Indian mega-city: where are they coming from and where are they diagnosed?
R Subbaraman, S Sellappan, J Lavanya, S Lincy, A L Raja, B E Thomas (United States of America, India)

[PD-1142-29]
Using geographical information systems for evidence-based programming and performance monitoring
E Alfred, L Deus, N Syrus, K Derrick, S Denis, O Daniel, M Frank Rwabinumi (Uganda)

[PD-1143-29]
Tuberculosis prevention, diagnosis, and care in Manitoba, 2008-2010: a performance analysis
C A Basham, B Elias, P Orr, C Cook, A Fanning (Canada)

[PD-1144-29]
Assessing the quality of TB diagnosis, treatment and support services in private sector in India: a field-based case study
T C Mahant, R Kumar, A K Singh (India)

[PD-1145-29]
Comparing tuberculosis management under public and private health care providers: Victoria, Australia, 2002-2014
K Dale, E Tay, P Trean, J Denholm (Australia)

[PD-1146-29]
Perspectives to end tuberculosis as a public health problem in Brazil
D M Pelissari, A D P Lobo, W N Araújo, C O Dantas, K Andrade, S Codenotti, F A D Quijano (Brazil)

[PD-1147-29]
Factors influencing smear non-conversion in patients with new smear-positive pulmonary tuberculosis, Antananarivo, Madagascar
O Farambahiny (Madagascar)

[PD-1148-29]
Geographic variation of tuberculosis case notification in two regions of Ethiopia and its implication on TB programme management
D Habet, N Hiruy, Z Gashu, M Chanyalew, S Negash, K Melkeneh, A Mekonnen, P Suarez (Ethiopia, United States of America)

[PD-1150-29]
Social determinants of non-adherence to tuberculosis treatment in selected municipalities of Buenos Aires, Argentina
M B Herrera, J U Braga (Argentina, Brazil)

[PD-1151-29]
Can the number of patients with presumptive tuberculosis lost in the general health services in Pakistan be reduced?
R K Fatima, E Qadeer, S G Hinderaker, A Yaqoob, D A Enarson, M Ul Haq, B Javed, Tuberculosis (Pakistan, Norway, South Africa)

[PD-1152-29]
What is the time from symptom onset to the initiation of treatment for tuberculosis patients in Afghanistan?

POSTER DISCUSSION SESSION 55 ▶ 12:15-13:15 ▶ POSTER AREA HALL 2

TB CONTACT TRACING AND LATENT TB INFECTION

Chair: Luis Eduardo Cuevas (United Kingdom) – Section: Tuberculosis

[PD-1153-29]
Prevalence of latent tuberculosis infection in the community by meeting venue
M Castellanos, L Martinez, S Salwango, J Sekandi, R Kakaire, A Mkwata, N Kiwanuka, C Whalen (United States of America, Uganda)

[PD-1154-29]
Risk of tuberculosis in Germany
C Herzmann, G Solgiu, O Bellinger, R Diel, S Gerdes, U Götsch, H Heykes-Uden, T Schaberg, C Lange (Germany, Italy)
[PD-1155-29]
Yield of contact investigation under programmatic conditions in rural Namibia
N Ruswa, A Evard, O Badi, O Ikekanan, V Kambuta, Y Stephanus, F Mavhunga, A Zezai (Namibia)

[PD-1156-29]
Yield of facility-based verbal screening amongst household contacts of patients with multidrug-resistant tuberculosis in Pakistan
E Qadeer, R K Fatima, M Ul Haq, A Yaqoob, N T Thu Kyaw, S Shah, M Das, P Isaakidis (Pakistan, Myanmar, India)

[PD-1157-29]
Innovative geographic information systems (GIS) based screening for tuberculosis contacts in household and community contacts in Pakistan: how effective is it?
E Qadeer, R K Fatima, M Ul Haq (Pakistan)

[PD-1158-29]
Correlation of childhood TB case notification with bacteriologically confirmed pulmonary TB case notification: results from two regions of Ethiopia
N Hiruy, Z Gashu, D Habte, Y Tadesse, M Melese, S Negash, M Chanyalew, P Suarez (Ethiopia, United States of America)

[PD-1159-29]
The yield of tuberculosis contact screening in Ethiopia: comparing contacts of bacteriologically confirmed and clinically diagnosed index TB cases
K Melkeneh, N Hiruy, M Melese, B Reshu, L Fekadu, Y Demissie, G Gizate, P Suarez (Ethiopia, United States of America)

[PD-1160-29]
Body mass index and TB incidence: a consistent dose-response relationship among adult household contacts
M J Saunders, T Wingfield, M A Tovar, R Montoya, T Valencia, C Santillan, A Necochea, C A Evans (United Kingdom, Peru)

[PD-1161-29]
Intensifying TB case finding in hospital
N Song, K E Khun, M Ly, C Eang, C Hamilton (Cambodia, United States of America)

[PD-1162-29]
Active TB case finding in the private sector in the Eastern Development Region of Nepal
B Rai, R M Wali, S Sudrungrot (Nepal)

[PD-1163-29]
Improved TB case notifications by engaging the private sector through Private Provider Interface Agency in Mumbai, India: 2013-2015
A Karad, D Shah, J Salve, S Vijayan, P Keskar, A Sreenivas (India)

[PD-1165-29]
Community-based active case finding: a strategy to increase TB case detection in Mandalay, Myanmar, 2012-2015
A M Phyo, T Wint Aung, N T Thu Kyaw, M M Oo, N L Oo, M M Su Naing, S Thein, A M V Kumar (Myanmar, India, France)

[PD-1166-29]
Can repeated visits and examinations of contacts of pulmonary TB cases yield additional TB cases within households? Southern Ethiopia
M Yassin, D Datiko, M Yassin (Ethiopia, Switzerland)

[PD-1168-29]
Contributions of faith-based organisations in improving TB-HIV testing in Indonesia
A Rahmat Hidayat, S Baswedan (Indonesia)

[PD-1169-29]
Factors influencing sputum smear conversion after two months of tuberculosis treatment in Addis Ababa, Ethiopia
Z Admassu (Ethiopia)

[PD-1170-29]
Does anti-tuberculosis treatment increase the risk of biliary events?
L-Y Chang, J-Y Wang, C-H Lee (Taiwan)
### TOBACCO DEPENDENCE AND CESSATION

**Chair:** Sarwat Shah (United Kingdom)  
**Section:** Tobacco control

<table>
<thead>
<tr>
<th>Poster ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD-1171-29</td>
<td>Tobacco and marijuana use in young men presenting for medical circumcision in South Africa</td>
<td>M Milovanovic, L Lebina, P Abraham, J Golub, E Variava, K Otwombe, N Martinson (South Africa, United States of America)</td>
</tr>
<tr>
<td>PD-1172-29</td>
<td>Exploring the role of black cumin seeds (Nigella sativa) in overcoming nicotine dependence</td>
<td>M T Ahmad (India)</td>
</tr>
<tr>
<td>PD-1173-29</td>
<td>Heavyiness of smoking index, cigarettes per day, and time to first smoke in settings of multiple tobacco products use</td>
<td>S Das, P Jena (India)</td>
</tr>
<tr>
<td>PD-1174-29</td>
<td>Preparedness among health professionals for tobacco cessation and control in South India: an exploratory study</td>
<td>P Jodali (India)</td>
</tr>
<tr>
<td>PD-1175-29</td>
<td>Estimation of salivary thiocyanate levels among tobacco users, passive smokers and tobacco non-users: implications in tobacco cessation</td>
<td>A D’Cruz, A Benny, V Pathiyil (India)</td>
</tr>
<tr>
<td>PD-1176-29</td>
<td>Smoking cessation advice from midwives during the perinatal period in Greece</td>
<td>A Diamanti, P Katsaounou, A Tsoukaraki, M Efthimiou, V Vivilaki (Greece)</td>
</tr>
<tr>
<td>PD-1177-29</td>
<td>National Tobacco Cessation Programme, Sri Lanka</td>
<td>CANCELLED</td>
</tr>
<tr>
<td>PD-1178-29</td>
<td>Effects of mass media tobacco control campaigns in Indonesia</td>
<td>N Singh Negi, A Rachfiansyah, E Adljondro, D Svenson, S Hamill, S Mullin, N Murukutla (United States of America, Indonesia)</td>
</tr>
<tr>
<td>PD-1179-29</td>
<td>Smoking cessation process</td>
<td>I Pesic, B Bulajic Subotic, N Lazovic (Serbia)</td>
</tr>
<tr>
<td>PD-1180-29</td>
<td>Readiness to quit addiction: a study among patients attending a tertiary care hospital in Western India</td>
<td>K Mehta, C Pandya, D Solanki, P Chavda (India)</td>
</tr>
</tbody>
</table>

### UNION ADMINISTRATIVE MEETINGS

**UNION ADMINISTRATIVE MEETINGS**  
**08:00-09:00**  
PULLMAN/ALBERT & KINGS SUITE

**SCIENTIFIC PROGRAMME COMMITTEE MEETING (CCSA: SUB-GROUP 2)**

Attendees: CCSA Chair, programme Secretaries, Civil Society representative and Institute representative, Director of Scientific Activities

**UNION ADMINISTRATIVE MEETINGS**  
**11:00-13:00**  
PULLMAN/ALBERT & KINGS SUITE

**BOARD MEETING (2)**

Attendees: All Board members, including newly elected
### Session Title | Time | Room | Session Type | Coordinators
---|---|---|---|---
**IMPACT Film Festival on Lung Health** | 7:30-15:00 | Community Common Networking Zone 1 (Galleria) | Community Common Session: Cultural Activity | Lisa Russell (United States of America)

**Post-replenishment – what does Global Fund advocacy look like now** | 7:30-9:00 | Community Common Silent Theatre | Community Common Session: Panel Discussion | Rachael Crockett (RESULTS UK)

**Where do I fit in? Cough to cure pathway board** | 10:20-11:20 | Community Common Silent Theatre | Community Common Cultural Activity: Participatory Activity | Martin-Mary Falana (Kids & Teens Resource Centre, Nigeria) and Mayowa Joel (Stop TB Partnership Nigeria)

**Empowered community volunteers improve case finding in access-poor areas** | 11:25-11:55 | Community Common Silent Theatre | Community Common Session: Panel Discussion | Dr Emily Grace Banal (Opol Rural Health Center, Philippines)

**Healthy Liverpool Programme: inspiring a generation to be more active** | 14:55-15:25 | Community Common Silent Theatre | Community Common Session: Panel Discussion | Gina Perigo (Liverpool CCG, UK) and Nicky Yates (Liverpool City Council, UK)

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### CULTURAL ACTIVITY  07.30 – 15.00  COMMUNITY COMMON NETWORKING ZONE 1 (GALLERIA)

**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.

Coordinator(s): Lisa Russell (United States of America)

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**PANEL DISCUSSION  07.30 – 09.00  COMMUNITY COMMON SILENT THEATRE**

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

Presentation I – Rachael Crockett (United Kingdom)
**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. Participants will be asked to identify where they can do more work in their respective countries.

Each delegate will receive the ideal copy of the pathway, which shows the barriers to individual, the community and system as well as the solutions.

Coordinator(s): Martin-Mary Falana (Nigeria), Mayowa Joel (Nigeria)

Presentation – Ibrahim Umoru (Nigeria), Martin-Mary Falana (Nigeria), Mayowa Joel (Nigeria)

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**PANEL DISCUSSION**  >  **11.25 – 11.55**  >  **COMMUNITY COMMON SILENT THEATRE**

**EMPOWERED COMMUNITY VOLUNTEERS IMPROVE CASE FINDING IN ACCESS-POOR AREAS**

Interventions: Trained through USAID technical assistance, the Integrated Provincial Health Office (IPHO) in turn trained barangay officials on TB prevention; and trained 25 volunteers to conduct TB education, identify presumptive TB cases and to refer them to the nearest DOTS facility, and to encourage patients to adhere to TB treatment.

The volunteers also posted TB leaflets on the doors of houses and other strategic places. The community volunteers called themselves Katawhan sa Opol Maghuggong Batok TB (KOMBAT), which means people of Opol rally against TB. The Municipal Health Office’s advocacy led barangay officials to provide transportation fare for patients who needed to go to a DOTS centre for assessment and diagnosis. The IPHO meanwhile arranged with a hospital for free X-ray 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(s): Emily Grace Banal (Philippines)

Presentation I – Emily Grace Banal (Philippines)

Presentation II – Teodoro Jr Yu (Philippines)

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**PANEL DISCUSSION**  >  **14.55 – 15.25**  >  **COMMUNITY COMMON SILENT THEATRE**

**HEALTHY LIVERPOOL PROGRAMME: INSPIRING A GENERATION TO BE MORE ACTIVE**

The value of daily physical activity on improved health 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 new approach is needed to engage the Liverpool population in living a more active lifestyle. 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, developing 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 both locally and nationally. It builds upon the effective partnerships, and successful and innovative approaches already evident within Liverpool, and is recognised internationally by the International Olympic Committee.

The programme aims to increase physical activity levels of inactive and under-active people in Liverpool, by engaging them in a wide range of innovative programmes. 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(s): Gina Perigo (United Kingdom), Nicky Yates (United Kingdom)

Presentation I – Maurice Smith (United Kingdom)
JOIN THE UNION

Union members make up a powerful international network across more than 140 countries, working together to transform public health and provide health solutions for the poor.

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BENEFITS

• Benefit from a worldwide network, active in over 140 countries
• Share knowledge and expertise with colleagues
• Link up with an international network of members through the online Members Directory
• Stay up to date with the latest policy and research
• Gain unique regional insight into issues faced on the ground – and be involved in finding solutions
• Access a collection of dedicated resources and materials put together by experts
• Take advantage of professional opportunities and training
• Participate in Union conferences at a discounted rate
• Obtain voting rights in the governance of The Union
• Get a discounted rate for selected IMDP and Union technical courses

"I am always inspired by knowing that each day, as I do my research, care for my patients and teach my students, other Union members committed to the same mission are at work around the world."

Dr E Jane Carter
President
International Union Against TB and Lung Disease

JOIN THE UNION

Find out more at theunion.org  @TheUnion_TBLH  facebook.com/TheUnionLungHealth
ACKNOWLEDGEMENTS

SUPPORTERS

The Union gratefully acknowledges the following governments, agencies, foundations and corporations for their support of this year’s conference:

CORPORATIONS
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- Janssen
- Otsuka
- Qiagen
- Sanofi

GOVERNMENT AGENCY
- US Department of Health and Human Services Centers for Disease Control and Prevention (CDC)

PARTNERS (AD / EXCHANGE)

- American Thoracic Society, ATS (USA)
- DNA Genotek (Canada)
- Elsevier - The Lancet (UK)
- Q² Solutions (USA)
- S. Karger AG (Switzerland)

A story of successful private-public partnership

Introduction of bedaquiline into the National TB Programme of South Africa

Chairs
Graeme Ayton Meintjes (South Africa)
graemein@mweb.co.za
Rodolfo Romero Leyet (South Africa)
romeroleyet@mweb.co.za

International Union Against Tuberculosis and Lung Disease

07:30 – 07:35
Opening remarks - Norbert Ndjeka (South Africa)

07:35 – 07:55
Early clinical outcomes of bedaquiline patients and lessons learnt - Iqbal Master (South Africa)

07:55 – 08:15
Launch of the framework for the “Introduction of new drug and new drug regimen for the treatment of drug-resistant TB” - Yogan Pillay (South Africa)

08:15 – 08:30
Focus on patient selection for bedaquiline and other new drugs - Francesca Conradie (South Africa)

08:30 – 08:45
Bedaquiline resistance monitoring - Nazir Ismail (South Africa)

There is an urgent need to improve the outcomes of M/XDR TB treatment. For the first time in decades, there are a number of new and repurposed drugs now available that have the potential to improve the outcomes. These include bedaquiline and linezolid. Randomised controlled clinical trial data is eagerly awaited as to how to incorporate these drugs into effective regimens.

However, there is a need to urgently provide access to these drugs, to patients with few treatment options remaining. Adequate measures need to be taken to assess both safety and efficacy. In addition, injudicious use of the new drugs without an optimised background regimen may result in resistance. With a HIV prevalent background of at least 10% in most provinces of South Africa, the new drugs would need to be combined with antiretrovirals in many patients.

Following a successful clinical access programme, with careful attention paid to the regulatory framework and ethical consideration, the National Department decided to embark on an access programme. In a collaboration led by the National Department of Health of South Africa, Janssen Pharmaceutica and other partners including Right to Care and Médecins Sans Frontières, access was provided to bedaquiline to over 200 patients prior to registration.

Following registration in October 2014, a bold decision was made to provide access as broadly as possible within South Africa. Input from experts in South Africa was used to decide on a framework for introduction of new drug and new drug regimens, as well as the mechanism adopted to ensure the ongoing protection of the drug and monitoring for resistance.
The most accurate test for TB infection

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QFT®-Plus is an improved version of the market-leading IGRA, QuantiFERON®-TB Gold. The test uses the same principle, test procedures, and reliable technology, but it is now optimized with innovative tuberculosis-specific antigens that elicit both CD8+ and CD4+ T-cell responses – enabling a more accurate assessment of cell-mediated immune response to TB infection (1).

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The Union would like to express its gratitude and thanks to all reviewers for their contribution in reviewing the abstracts submitted for presentations at the conference.
The Union would like to express its gratitude and thanks to all reviewers for their contribution in reviewing the abstracts submitted.

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• Navugona M (Fiji)
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• Nair D (India)
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• Nachman S (USA)
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• Mulder C
• Msellati P (France)
• Moyo S (South Africa)
• Morris S (USA)
• Moreno S (Spain)
• Moore D (UK)
• Moonan P (USA)
• Molinari M (Mexico)
• Mohamed-Hussein A
• Moganeradj K (UK)
• Modi S (USA)
• Mladenkov S (Canada)
• McElroy L (Canada)
• McHardy M (Canada)
• Mchan J (Bangladesh)
• Makwaza M (Zimbabwe)
• Mafawo M (Zambia)
• Magalhaes M (Brazil)
• Marinho L (Brazil)
• Manhiça I
• Mann B (UK)
• Mather A (UK)
• Mathad J (USA)
• Mathad P (South Africa)
• Mcdonald J (USA)
• McPherson D (Canada)
• McInerney L (Canada)
• McPherson J (Canada)
• McKeown J (Canada)
• McElroy L (Canada)
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**HISTORY OF THE UNION WORLD CONFERENCE**

The first international conference on tuberculosis was held in 1867, well before the cause of TB was discovered by Prof Robert Koch in 1882.

The Union traces its origins to these gatherings of experts from around the world who were determined to collaborate and find a common solution to “the White Plague” – tuberculosis.

The International Union Against Tuberculosis (IUAT) was formed by 31 national lung associations at the first meeting after World War I, held in Paris in 1920. This is known as the Constitutional Conference.
## SCIENTIFIC SECTIONS, SUB-SECTIONS AND WORKING GROUPS

### TUBERCULOSIS SECTION

**Chair:** CN Paramasivan  
(Switzerland)  
**Vice Chair:** Paul Nunn  
(United Kingdom)  
**Programme Secretary:** Kevin Schwartzman  
(USA)  
**Secretary:** Wendy Wobester  
(Canada)

**Working Groups**

- **TB and migration:** Gilles Cesari  
(Switzerland), Poonam Dhavan  
(Philippines)  
- **TB Infection Control:** Grigory Volchenkov  
(Russia), Rose Pray  
(USA), Matsie Mphahlele  
(South Africa)  
- **Global Indigenous Stop TB Initiative:** Anne Fanning  
(Canada)  
- **TB and Mental Health:** Annika Sweetland  
(USA), Adam Karpati  
(USA)

### TUBERCULOSIS SUB-SECTIONS

#### BACTERIOLOGY AND IMMUNOLOGY

**Chair:** Thomas Shinnick  
(USA)  
**Programme Secretary:** Stella Van Beers  
(Netherlands)

#### ZOONOTIC TB

**Chair:** Adrian Muwonge  
(Uganda)  
**Programme Secretary:** Alejandro Perera-Ortiz  
(Mexico)

### NURSES AND ALLIED PROFESSIONALS (NAPs)

**Chair:** Carrie Tudor  
(USA)  
**Programme Secretary:** Linette McElroy  
(Canada)

**Working Groups**

- **Best practice for patient-centred care:** Inge Schreurs  
(Netherlands)  
- **Regional Mobilisation of NAPs:** Tiemi Arakawa  
(Brazil)  
- **TB Education and training:** Allison Mairui  
(USA), Linette McElroy  
(Canada)

### ADULT & CHILD LUNG HEALTH SECTION

**Chair:** Simon Schaaf  
(South Africa)  
**Vice Chair:** Jean-William Fitting  
(Switzerland)  
**Programme Secretary:** Andrew Steenhoff  
(USA)  
**Secretary:** James Seddon  
(USA)

**Working Groups**

- **TB control in prisons:** Jean-William Fitting  
(Switzerland), Karen Bissell  
(New Zealand)  
- **Maternal-child TB:** Surbhi Modi  
(USA), Lisa Cranmer  
(USA)

### HIV SECTION

**Chair:** Jeroen Van Gorkom  
(Netherlands)  
**Vice Chair:** Amy Bloom  
(USA)  
**Programme Secretary:** Keren Middelkoop  
(Netherlands)  
**Secretary:** Katharina Kranzer  
(starting mandate in Liverpool)

### TOBACCO CONTROL SECTION

**Chair:** Kamran Siddiqi  
(UK)  
**Vice Chair:** Mira Aghi  
(India)  
**Programme Secretary:** Md. Akramul Islam  
(Bangladesh)  
**Secretary:** S Berati Squire  
(South Africa)  
**Working Groups**

- **Countering Tobacco Industry interference in public health policies:** Anne Jones  
(Australia), Matthew Allen  
(New Zealand), Thomas E. Novotny  
(USA), Kamran Siddiqi  
(UK)

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### COORDINATING COMMITTEE OF SCIENTIFIC ACTIVITIES

**SUBGROUP 1**

- **Chair:** CN Paramasivan  
(Switzerland)  
- **Vice Chair:** Paul Nunn  
(United Kingdom)  
- **Programme Secretary:** Kevin Schwartzman  
(USA)  
- **Secretary:** Wendy Wobester  
(Canada)

**Working Groups**

- **TB control in prisons:** Masoud Dara  
(Denmark), Sarabjit Chadha  
(India)

**SUBGROUP 2**

- **Chair:** Stacie C Stender  
(Chair)  
- **Vice Chair:** Kevin Schwartzman  
(TB Section Programme Secretary)  
- **Programme Secretary:** Stella Van Beers  
(Bacteriology and Immunology Sub-Section Programme Secretary)  
- **Secretary:** Wendy Wobester  
(Canada)

**Working Groups**

- **Creating Global Awareness of Zoonotic TB:** Francisco Oliea-Popelka  
(USA), Alejandro Perera-Ortiz  
(Mexico), Adrian Muwonge  
(Uganda)

**NURSES AND ALLIED PROFESSIONALS (NAPs)**

- **Chair:** Carrie Tudor  
(USA)  
- **Programme Secretary:** Linette McElroy  
(Canada)

**Working Groups**

- **Regional Mobilisation of NAPs:** Tiemi Arakawa  
(Brazil)  
- **TB Education and training:** Allison Mairui  
(USA), Linette McElroy  
(Canada)

**DRUG-RESISTANT TB**

**Leaders:** C. Robert Horsburgh, Jr.  
(USA), Arnaud Trébucq  
(France), Chen-Yuan Chiang  
(Taiwan)
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