

TB RESISTANCE RESPONSE

Newsletter of the GDI

Issue 1 - August 2014



The GDI is a Working Group of the Stop TB Partnership with the secretariat provided by the Global TB Programme of the World Health Organization

About the GDI

The GDI serves as a multi-institutional multi-disciplinary platform organizing and coordinating the efforts of stakeholders to assist countries to build capacity for programmatic management of DR-TB (PMDT) in the public and private sector.

Strategic priorities

1. Develop targeted advocacy strategies and resource mobilization for DR-TB management scale-up
2. Facilitate integration and coordination of efforts to align diagnostic services for patients with access to high-quality care
3. Build global consensus on the management of DR-TB for patient centred care delivery ("care for cure")
4. Promote strategies to facilitate patient access to high-quality DR-TB care, through a long-term, in-country capacity building approach targeting both the public and private sector
5. Facilitate effective knowledge sharing among partners and harmonise coordination with existing TA mechanisms to ensure quality support to PMDT
6. Support prioritization of research to generate evidence for PMDT scale-up.

The GDI Core Group

Core Group members and represented constituency

Raimond Armengol, The Union, France. Chair, Regional Green Light Committee (rGLC) of the Americas

Amy Bloom, USAID, USA. Donor/ funding agencies

Chen-Yuan Chiang, The Union, France. Technical agencies and implementation partners assisting NTPs of high burden DR-TB countries

Daniela Cirillo, Fondazione Centro San Raffaele, Italy. Technical agencies and implementation partners assisting NTPs of high burden DR-TB countries

Charles Daley, National Jewish Health, USA (Chair). Academic institutions, institutions of high scientific and technical standing having attained international recognition in the area of DR-TB management

Dalene von Delft, TB Proof, South Africa. Civil society, patients and affected communities

Essam Elmoghazy, National TB Programme, Egypt. Chair, Eastern Mediterranean rGLC

Agnes Gebhard, KNCV, The Netherlands. Non-governmental sector partners

Saira Khawaja, Interactive Research and Development, Pakistan. Private for profit sector

Andrey Olegorich Maryandyshev, Northern State Medical University, Arkhangelsk, The Russian Federation. Chair, rGLC for the European Region

Lee B. Reichman, New Jersey Medical School Global Tuberculosis Institute, The United States of America. Chair, Western Pacific Region rGLC

Kuldeep Singh Sachdeva, NTP, India. National TB programmes of high DR-TB burden countries

Rohit Sarin, LRS Institute of TB and Respiratory Diseases, New Delhi, India. Chair, South East Asian Regional Advisory Committee on MDR-TB (rGLC SEAR)

Hind Satti, Partners In Health, Boston, The United States of America. Chair, rGLC for the African Region

KJ Seung, Partners In Health, USA. Technical agencies and implementation partners assisting NTPs of high burden DR-TB countries

Gini Williams, International Council of Nurses, Switzerland. National/international/scientific/professional medical associations and nursing associations

GDI Secretariat

Vineet Bhatia and Fraser Wares, Global TB Programme, World Health Organization

TB RESISTANCE RESPONSE

Newsletter of the GDI

Issue 1 - August 2014

About the GDI

Strategic priorities | GDI Core Group

A message from Dr. Charles Daley
Chair of the GDI

The Union
MDR-TB activities

KNCV and TB CARE I
In the fight against MDR-TB

Fondazione Centro San Raffaele
SRL providing technical assistance to
high-burden countries

RNTCP India
Programmatic Management of drug-
resistant TB in India

Partners In Health
Community-based strategies for
combating DR-TB

International Council of Nurses
The *Leading Lights* initiative

TB Proof
A panel discussion with healthcare
students: Finding innovative solutions to
tackling TB

Contributors

Thank you to GDI Core Group members who have
contributed to this issue.

Photo cover page: TB Proof

© WHO 2014



A Message from the Chair - Transitions

Welcome to the first newsletter of the Global Drug-Resistant TB Initiative (GDI)! The purpose of the Newsletter is to communicate updates to the many Partners and Stakeholders involved in the care and control of patients with drug-resistant TB.



In this inaugural issue, Core Group Members share some of their organizations' activities in the scale-up of the programmatic management of drug-resistant tuberculosis. While these activities represent a small fraction of the work done by Partners globally they provide a glimpse into activities occurring within the global framework to combat drug resistant TB, a framework that has undergone a number of transitions over the past decade. From the Green Light Committee Initiative to the new Global Drug-Resistant TB Initiative, each transition has attempted to update and improve scale-up activities.

The Green Light Committee Initiative

In 2000, the Green Light Committee (GLC) Initiative was created in response to the emerging epidemic of multidrug-resistant TB. A critical component of the initiative was the Green Light Committee, a sub-group of the MDR-TB Working group in the Stop TB Partnership and advisory body to the World Health Organization. The GLC, GLC secretariat, and Global Drug Facility (GDF), the procurement partner of the GLC Initiative,

worked together to help projects and programmes begin MDR-TB programmes by providing access to quality assured second-line drugs and through the provision of technical assistance. Over the next decade the number of projects or programmes approved through the GLC mechanism increased and by the time of the last GLC meeting (in June 2011) 138 projects had been approved in 90 countries for a cohort of 131,262 patients. The GLC projects showed proof-of-principle that MDR-TB patients could be treated successfully across a variety of settings. Nevertheless, the 'project approval' approach of the original GLC mechanism was felt to be a limiting factor in the scale-up of national PMDT services as the years progressed and lead to changes in 2011.

Global and Regional GLCs

In 2011, after broad consultation with Stakeholders, it was decided to transition from what was felt by some to be a controlling framework to a more supportive one. One of the primary goals of the new Framework was to decentralize technical support to countries through the creation of regional GLCs. In order to accomplish this, six regional GLCs (rGLC) were established with the secretariats housed in the regional WHO offices. A Global GLC (gGLC) was created in order to oversee the establishment of the rGLCs and provide strategic direction. After two years, all six rGLCs had been created and were addressing scale-up in their regions of interest.

Global Drug Resistant TB Initiative

In April of 2013, the gGLC and Core Group of the MDR-TB Working Group met to discuss the status of scale-up

activities. Committee members thought that it was time for another transition in order to restructure and revitalize the current functioning of the Working Group and its sub-groups to make it more responsive to current needs. The idea of the Global Drug Resistant TB Initiative (GDI) was born.

The GDI Core Group was selected through an open application process in March 2014 and the Chair elected soon thereafter. The Core Group met for the first time in Geneva, 1-2 May, 2014. During this initial meeting the Core Group identified six high-priority strategic areas listed on page 2.

Task Forces are being created to address each priority with progress to be reported at the next Core Group meeting to be held at the Union Conference in Barcelona. Plans are underway to have the first annual GDI Forum in conjunction with the Annual GDI meeting planned for April 2015. We hope that the linkage of these meetings will be a positive step towards finding ways to link diagnostic and treatment services.

The GDI Newsletter is proffered with the hope of communicating some of what is being done to combat drug resistant TB and remind us of what needs to be done.

Unfortunately there is not enough funding to accomplish all that needs to be done to diagnose and treat our patients with drug resistant TB. However, this should not be an excuse for inaction but rather a call to action.

Sincerely,

Charles L. Daley, MD
Chair, GDI Core Group

STREAM clinical trial of 9-month regimen for MDR-TB

STREAM, which stands for Standardised Treatment Regimen of Anti-Tuberculosis Drugs for Patients with MDR-TB, is a clinical trial assessing a nine-month standardised treatment regimen for multidrug-resistant tuberculosis (MDR-TB). The trial is being conducted by TREAT-TB, an initiative managed by the International Union Against Tuberculosis and Lung Disease (The Union), and will involve 400 patients in Africa and Asia.

The regimen to be tested is modeled on one used in a non-randomised observational study in Bangladesh, which demonstrated excellent outcomes, including an 87% cure rate. The trial is designed to determine whether comparable results can be achieved in different settings. The aim is to show that this shorter treatment regimen is at least as effective as the current lengthier treatments used throughout the world to treat MDR-TB.

The participating countries were selected based on their disease burden, as well as other criteria, such as their ability to provide close supervision of patients, the quality of their laboratory facilities and the support of their national tuberculosis programmes.

Patients treated with the STREAM regimen will receive moxifloxacin, clofazimine, ethambutol and pyrazinamide for nine months, supplemented by prothionamide, kanamycin and isoniazid during an intensive phase of four months. Once the full complement of patients has been enrolled, the trial is expected to run for two years, with results available in 2016.

75% of the patients enrolled

STREAM started enrolling in 2012 and will involve 400 patients in Africa and Asia. As of July 2014, over 300 patients had been enrolled at sites in Ethiopia, South Africa and Viet Nam. Mongolia is expected to begin recruitment to the trial this summer.

More about STREAM

<http://www.treattb.org/index.php/Project-Priorities/>

Multidrug-resistant tuberculosis (MDR-TB) activities at The Union

Addressing the MDR-TB crisis is a major priority for The Union with activities ranging from clinical research to education and outreach aimed at improving prevention, control and treatment of drug-resistant tuberculosis.

Research highlights: Two major projects are testing 9-month treatment regimens for MDR-TB: the standardised treatment regimen of anti-tuberculosis drugs for patients with MDR-TB or STREAM clinical trial and an observational cohort study in 9 countries of francophone Africa. Both hope to show that the shorter regimen, which demonstrated an 87% success rate in a non-randomised study in Bangladesh, is at least as effective as the current lengthier treatments. In addition, a Union-related research has shown that an important part of clinically relevant rifampicin resistance can be missed by conventional drug susceptibility tests, particularly rapid methods such as MGIT (mycobacterial growth indicator tube).

Education & training highlights: The Union offers courses in clinical and operational management of MDR-TB in several languages and formats each year. In addition, The Union and its partners in the structured operational research training initiative (SORT IT) recently offered an operational research course focused on MDR-TB to participants from 8 countries in Eastern Europe.

Technical assistance highlights: The Union assists national tuberculosis programmes in Africa, Asia, Latin America and the Middle East, at their request, to review their strategic planning and policies, budgets, programmatic management of MDR-TB, laboratory networks, procurement plans, monitoring and evaluation and other issues.

TB case finding and outreach/education projects include Project Axshya (India), PICTS (Myanmar), TB CARE (Zimbabwe) and SPARK-TB (Uganda). In addition, The Union has begun providing direct patient care for 800 MDR-TB patients in 15 townships in Myanmar, in conjunction with services to patients with TB and HIV currently provided through the Integrated HIV Care (IHC) programme.

<http://www.theunion.org/>

The Union brings innovation, expertise, solutions and support to address health challenges in low- and middle-income populations.



An MDR-TB patient supported by his community DOTS provider in Nigeria.
(Photo FHI 360)

KNCV and TB CARE I – In the fight against MDR-TB

KNCV is an international non-profit organization based in The Hague, The Netherlands, which is exclusively dedicated to fighting TB worldwide. The organization’s main priorities for accelerating scale-up of programmatic management of drug-resistant TB (PMDT) are to strategically step up the deployment of the Xpert MTB/RIF test and bridge the gap between diagnosis and treatment, while improving treatment results by supporting the introduction of shorter regimens and new drugs. Further information on KNCV and our activities can be accessed at <http://www.kncvtbc.org>.

TB CARE I is a global programme funded by the United States Agency for International Development (USAID) and led by KNCV. The programme supports PMDT efforts globally, regionally and through projects in 16 countries. Each country project works closely with the national TB programme (NTP) to strengthen PMDT services in both the public and private sector.

TB CARE I activities range from scaling up GeneXpert (14 countries), expanding treatment services and infection control (15) to providing patient support (10) and developing DR-TB monitoring systems (11).

The diagnosis and treatment of MDR-TB is ramping up in TB CARE I countries. Based on preliminary NTP data, diagnosis of MDR-TB in TB CARE I countries increased by 42% in 2013 (14,600 cases detected) compared to 2010. Progress in second-line drug (SLD) treatment initiation was even more impressive with an

increase of 85% in MDR-TB patients started on treatment (14,807) compared to 2010. Initial reporting from January-March 2014 projected a continued increase in both diagnosis (23%) and treatment initiation (6%) compared to preliminary 2013 levels. Although data vary from country to country, for the first time ever, the number of MDR-TB patients put on treatment in 2013 was higher than those who were diagnosed. This indicates that the backlog of diagnosed MDR-TB cases is beginning to be addressed and the capacity of countries to treat patients is improving.

TB CARE I has contributed to these successes and will continue to invest heavily in PMDT to further accelerate diagnosis and treatment initiation and to ensure quality treatment with effective patient support. Furthermore, TB CARE I will improve reporting and data quality so that these gains can be accurately captured.

TB CARE I has recognized the importance of sustainable and accurate planning, costing and budgeting for MDR-TB control and has invested in several tools and studies to assist NTPs and the global TB community (<http://www.tbcare1.org/publications/toolbox/costing/>). Results from a recent costing study in Ethiopia, Kazakhstan and Indonesia revealed that median (pre) diagnosis and treatment costs for MDR-TB patients ranged from \$1,838 in Ethiopia to \$2,342 in Indonesia and \$3,125 in Kazakhstan. The inability to work and consequent job loss had the greatest socio-economic impact on MDR-TB patients.

A situational analysis tool to assess the engagement of the private sector in the control of MDR-TB was also published: *PPM PMDT Linkage – A Toolkit* <http://www.tbcare1.org/publications/toolbox/pmdt/>.

EMERGING BACTERIAL PATHOGENS UNIT

TB Supranational Reference Laboratory
WHO Collaborating Centre in TB Laboratory Strengthening (ITA-98)



HEAD: CIRILLO DM, MD, PhD



HOME

ABOUT

COURSES

TB SUPRANATIONAL REFERENCE LABORATORY

TOOLS & PUBLICATIONS

FORUM

RESTRICTED AREA



Fondazione Centro San Raffaele Milano, WHO Collaborating Centre for TB laboratory Strengthening and Supranational Reference Laboratory

The Ospedale San Raffaele with the Fondazione Centro San Raffaele and the University Vita-Salute San Raffaele is the largest scientific park in Italy and one of the biggest in Europe. In recognition of its investments and leadership in the research area of molecular medicine, in 2001 the Italian Ministry of Health granted San Raffaele the status of Research Hospital (IRCCS) in Molecular Medicine.

As a member of the WHO/GLI Supranational Reference Laboratory (SRL) network and a WHO Collaborating Centre for Tuberculosis Laboratory Strengthening, the Emerging Bacterial Pathogens Unit (EBPU) of Fondazione Centro San Raffaele has active technical assistance projects in the TB diagnostic area in several high- and medium-burden countries.

Activities of EBPU include supporting TB National Reference Laboratories in the GLI Stepwise Process Toward TB Laboratory Accreditation, establishing panel-based External Quality Assessment (EQA) for microscopy, proficiency testing for culture, identification, and DST. EBPU is also supporting countries in the preparation of laboratory strategic plans. Technical support is currently being provided to ten countries for the implementation of tools to improve MDR-TB diagnosis and for operational research projects in the area of new diagnostics. On average, we perform 8 to 12 technical assistance missions per year with English and French speaking dedicated staff.

Laboratory training courses in English and French are organised annually in Milan or in high TB burden countries with a focus on increasing the capacity to perform diagnosis of MDR-TB and/or research in the field of molecular diagnostics.

A publicly accessible web platform has been established with the specific aim to increase communication and to discuss diagnostic-related issues. Policies, research papers and news are posted and updated regularly.

<http://whocctblab.fondazioneosanraffaele.it/index.html>

SRL Milan: Supporting seven high MDR-TB burden countries

2014 marks the 20th anniversary of the WHO/Global Laboratory Initiative (GLI) TB SRLN. Fourteen laboratories contributed to the creation of the SRL network which now comprises 33 laboratories distributed in all regions of the world consisting of 30 member SRLs, 2 Candidate SRLs and 1 National Centre of Excellence. These laboratories serve as focal points for coordination of technical assistance to strengthen National TB Reference Laboratories (NRLs) and laboratory networks. Collaboration agreements have been established between the SRLs and NRLs in all high TB and MDR-TB burden countries.

Each SRL is linked to at least 2 National Reference Laboratories (NRLs) and hence represents the preferred technical partner for laboratory scale-up and capacity development in countries, playing a critical role in strengthening national laboratory networks as well as surveillance systems to monitor drug resistance. Improved coordination of technical assistance provided by the SRLs remains a key priority for the network.

As a member of the WHO/GLI SRL network, the Emerging Bacterial Pathogens Unit of Fondazione Centro San Raffaele conducts active technical assistance projects in Burkina Faso, Cote d'Ivoire, Djibouti, Ethiopia, Kosovo, Mozambique, Nigeria, and Turkey.

New initiatives under Programmatic Management of Drug-Resistant Tuberculosis in India

MDR-TB patients in India receive second-line DST at baseline

Diagnosing extensively drug-resistant tuberculosis (XDR-TB) is a challenge. Firstly, it requires laboratories with facility for quality assured solid/liquid second-line drug susceptibility testing (DST). Secondly, the first-line DST laboratories must be linked to the second-line DST laboratories for transportation of culture isolates. Liquid culture and DST (MGIT 960) is preferred over solid culture DST for faster results and early management of cases. Sub-national surveys in India have shown that approximately 5% of MDR-TB cases could have XDR-TB. Annual estimated MDR-TB burden among notified pulmonary TB cases is 64,000 (source: WHO Global Tuberculosis report 2013).

India is fast scaling up its laboratory network for first- and second-line DST. In 2010, there were only 19 first-line CDST laboratories which were scaled up to 55 in 2013. In 2013, only 3 National Reference Laboratories had the capacity for second-line DST. Till April 2014, four more laboratories at provincial level were added to this list. This has enabled the country to take a policy decision about offering second-line DST to MDR-TB patients at the time of diagnosis of MDR-

TB. On April 16th 2014, six provinces (states) were given permission to start second-line DST at base line. Thus Delhi, Gujarat, Karnataka, Kerala, Maharashtra and Tamil Nadu, together catering for a population of 336 million out of a total of 1,247 million across the whole country, have started doing second-line DST at baseline. Ten more second-line DST laboratories are being developed at a fast pace to start service delivery by the end of the current year.

Accelerating access to quality TB diagnosis for paediatric cases in four major cities in India

The Revised National Tuberculosis Control Programme (RNTCP) of India deploys sputum smear microscopy as the primary tool for diagnosis of childhood tuberculosis. Chest radiograph and Tuberculin Skin Test are deployed for children who remain smear negative on repeated microscopy of additional sputum samples after a course of antibiotics. However, this strategy gives three challenges. Firstly, very young children may not be able to bring out sputum. Secondly, it cannot address diagnosis of extra pulmonary TB, which accounts for a significant proportion among childhood TB. Thirdly, the diagnosis of TB may get delayed in this vulnerable group. These

result in missing significant proportions of childhood TB cases as there is no bacteriological evidence. Currently in India, the proportion of children who are 14 years old or less among the notified TB cases of all types is 7%.

To accelerate access to quality diagnosis of childhood TB, a project has been launched in 4 pilot cities (Chennai, Delhi, Hyderabad, and Kolkata) in April 2014. The project is implemented in collaboration with FIND India. The project caters to 15 million population. Under the project, presumptive paediatric TB cases will be subjected to rapid molecular diagnosis (Xpert MTB/RIF), thereby increasing the proportion of paediatric cases diagnosed with bacteriological evidence. Additionally, the project will contribute to early diagnosis of Rifampicin resistant TB cases among children. Biological samples other than direct sputum (induced sputum, gastric lavage, broncho-alveolar lavage, lymph node, stool or any other sample) will be subjected to Xpert MTB/RIF. System for specimen transportation within 6 hours of collection is established under the project. During two months, the project sites have subjected 811 presumptive childhood TB cases to testing using Xpert MTB/RIF and have diagnosed 107 TB cases, of which 7 were resistant to Rifampicin.

The Revised National TB Control Programme

India's RNTCP is the world's largest programme for the management of TB and DR-TB. It started as a pilot in 1997 and was subsequently expanded across the country, with the entire population being covered by March 2006. The application of the DOTS strategy resulted in significant reductions of morbidity and mortality. Today the programme reaches over a billion people in 632 districts and reporting units.

In 2010, the programme moved to a new objective of Universal Access to quality diagnosis and treatment of all TB patients. The revised RNTCP targets (2012-2017) involve extending the reach of RNTCP services to all people diagnosed with TB, as well as improving the quality of existing services.



(Photo FIND)

The ICN TB/MDR-TB Project

Part of the Eli Lilly MDR-TB Partnership since 2005, the project aims to build global nursing capacity in the prevention, care and treatment of TB. This is achieved by training experienced nurses to cascade information to nursing colleagues and other health workers with the purpose of making improvements to patient care delivery. From 2005 to 2008, in Phases 1 and 2 a transformational training methodology was developed along with regularly updated training materials including an e-learning tool. The practice-oriented nature of the training programme enables nurses to improve the implementation of policies and guidelines relating to TB and MDR-TB using a patient-centred approach.

The training courses are run in countries with a high burden of TB and MDR-TB where ICN has a strong working relationship with the National Nurses Association (NNA). This is essential as it is the TB focal point in the NNA who makes all the local arrangements to make the courses run as efficiently and cost-effectively as possible. Using this approach ICN has prepared 1,500 nurses in 18 countries in Africa, Asia, and Eastern Europe since 2005. These nurses have in turn rolled out the training to over 80,000 nurses and allied health workers.

One of the key outcomes to date has been the identification of the day-to-day challenges faced with regard to delivering good quality care and the barriers that affect access to treatment. As a result nurses who have been involved in the training have already started working on local research projects to address these issues. In Phase 3, which runs until 2017, ICN hopes to further contribute to improving patient outcomes by:

- a. Continuing to build the capacity of nurses using the transformational training methods developed in Phase 2
- b. Publishing the results of the training evaluation data collected in 2012 and 2013
- c. Contributing to strategies which identify and address the bottlenecks to providing patient centred care which are demoralising for staff and lethal for patients through nurse-led research and advocacy.

ICN TB Project webpages

<http://www.icn.ch/tb-mdr-tb-project/welcome-to-the-icn-tb-mdr-tb-project.html>

International Council of Nurses: Launching *Leading Lights*

Gini Williams is TB/DR-TB Project Director at the International Council of Nurses (ICN) and represents the constituency of 'National/international/scientific/professional medical associations and nursing associations' on the GDI Core Group.

ICN is a federation of more than 130 national nurses associations (NNAs), representing the more than 16 million nurses worldwide. In the 9 years since the ICN joined the Lilly MDR-TB Partnership over 1,500 nurses have been trained in the prevention, care and management of TB and DR-TB in 18 different countries with a high burden of the disease. These nurses have in turn trained over 80,000 additional nurses and health care workers and through their efforts, have made important changes in practice. Post-training evaluation has shown improvements in case detection, treatment adherence and overall quality of care as well as reduction in stigma related to TB and safer working environments. In addition to on-going training, the current phase of the ICN TB/DR-TB project is building the capacity of nurses to undertake practice-based research and present as well as publish their work on a local, national and international stage.

On 17th June ICN launched its *Leading Lights* initiative which aims to showcase the work of exceptional nurses and other health workers who have been reached by the ICN TB/MDR-TB project. These people have all made a valuable contribution to TB prevention, care and management in their local facility and/or community. ICN will be inviting all the ICN TB project partners to nominate nurses and allied health workers who have demonstrated excellence in their efforts to teach their colleagues about TB, improve patient care or make changes to reduce transmission of TB. The winners will be highlighted on the ICN's TB Project webpages and will be presented with a certificate and a special pin by their national nurses association. The aim is to highlight success stories from the project and demonstrate the important work of nurses in solving problems at a local, and often unseen, level.



A TB nurse at Mandalay General Hospital in Myanmar. (Photo UNITAID/Gerhard Jörén)



PIH is combating MDR-TB in some of the poorest and most vulnerable communities in the world

For more than a decade, Partners In Health (PIH) and its partners at the Division of Global Health Equity at Brigham and Women's Hospital, and the Department of Global Health and Social Medicine at Harvard Medical School have been developing and demonstrating the effectiveness of community-based strategies for combating DR-TB in resource-poor settings.

PIH works closely with National TB Programmes in different regions of the world assisting in the scale-up and improvement of DR-TB treatment, and most recently, is the recipient of a UNITAID grant to accelerate the uptake of the newly released DR-TB drugs, bedaquiline and delamanid. The END-TB project will be implemented jointly with Médecins Sans Frontières (MSF) and Interactive Research & Development (IRD) in collaboration with National TB Programmes in 17 high-burden MDR-TB countries. The project aims to establish the use of new TB drugs and regimens in a rapid and controlled manner that evaluates safety and efficacy, and results in a long-term affordable plan for new TB drug access in simpler and user-friendly regimens, consolidating the MDR-TB medicines market and improving access to effective treatment. (More on END-TB below.)

Over the past decade and a half PIH provided technical and financial assistance on scaling up the comprehensive programme to combat M/XDR-TB in Tomsk Oblast, Russia. Since the start of the MDR-TB project in 2000, more than 2,200 patients at both civilian and prison services received access to quality-assured treatment with MDR-TB regimens with a treatment success of over 70%. Comprehensive Interventions in Tomsk resulted in tremendous decrease in TB mortality from 21.9 per 100,000 population in 2002 to 5.6 in 2012, and TB incidence from 116.7 per 100,000 population to 67.2 respectively.

« The idea that some lives matter less is the root of all that's wrong with the world. »

Dr. Paul Farmer
Chief Strategist &
Co-founder, PIH

END-TB: A New Partnership to Change MDR-TB Treatment around the World

UNITAID (www.unitaid.org) has awarded Partners In Health a grant that will change how MDR-TB is treated throughout the world. Partnering with MSF and IRD, PIH will use the four-year, \$60 million grant to bring the new drugs bedaquiline and delamanid to 17 countries in which MDR-TB poses a significant burden. END-TB is designed to dramatically expand access to these new drugs globally. It will hopefully lead to the development of new treatment regimens for MDR-TB and ultimately improve the quality of life for countless patients.

Patients from 17 different countries will be enrolled in the program. In some countries, only patients from the END-TB partner site will be enrolled initially, to gain "in-country experience." In other countries, patients will be enrolled countrywide from the start. The 17 countries are: Armenia, Bangladesh, Belarus, Ethiopia, Georgia, India, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Lesotho, Myanmar, Nepal, North Korea, Pakistan, Peru, and Swaziland. These are all countries where the END-TB partners have active projects and established systems for treatment delivery and monitoring and evaluation.

<http://www.pih.org/blog/a-new-partnership-to-change-mdr-tb-treatment-around-the-world>

Finding innovative solutions to tackling TB: A panel discussion organized by the Stop TB Partnership and TB Proof

On Saturday 1st February 2014, members of the Stop TB Partnership Coordinating Board participated in an interactive panel discussion with healthcare students organized in Cape Town by the Stop TB Partnership and TB Proof. The discussion focused on the role of health workers and on finding innovative solutions to tackling TB.

This two-hour event was organized jointly by TB Proof (www.tbproof.org) and the Stop TB Partnership (www.stoptb.org) after the conclusion of the annual Stop TB Coordinating Board Meeting. More than 60 students and their mentors listened to the moving opening testimony of Winky Ngubo, a participant in a randomized MDR-TB phase 3 trial of the promising new TB drug, delamanid.

“What does the Fox say? And what does the TB world say about the most devastating infectious disease known to mankind?” Dr. Lucica Ditiu, Executive Secretary of the Stop TB Partnership, gave a thought-provoking presentation outlining the magnitude of the problem facing us, before introducing the all-star panel, who were more than willing to field some very challenging questions about TB prevention, diagnosis and management.

An all-star panel answered challenging questions by healthcare students

Dr. Mario Raviglione, Director of the Global TB Programme at the World Health Organization (WHO), explained that “We need to continue building a curve for TB elimination. Our interven-

tions need to be simplified and then maximized over the next decade, and accompanied by universal coverage and social protection, i.e. making sure that these patients don't become poor because if they do, then they stop taking their meds. We also need new vaccines which implies investments for research now, not ten years from now”.

RADM Kenneth Castro, Acting Director of the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention at CDC, USA, picked up on Mario's point, by stating categorically that “Globally, we are not investing sufficiently in TB research. I think we need to be outraged about the fact that we are still dealing with a disease that can be cured and that we ought to aim to eliminate it. At the end of the day every person counts and TB is only going to be eliminated one person at a time.”

Dr. Joanne Carter, Executive Director, Results Educational Fund, USA, and vice-chair of the Stop TB Coordinating Board, agreed, emphasizing that “It's a human right to get treatment. One other point I would like to make is that the economic data also makes the case that TB is not

just a public health problem, it is not just a consequence of poverty, it is a driver of poverty. In Bangladesh, BRAC found that of those women who couldn't pay back their loans, the major reason was that they were sick with tuberculosis. TB is a huge driver of poverty everywhere in the world it exists.”

Dr. Michael Kimerling, Senior Program Officer Tuberculosis, Bill & Melinda Gates Foundation, highlighted this fact by outlining the potentially crippling costs of trying to deal with a growing drug resistant TB epidemic: “South Africa spends about 40% of its resources to pay for drugs to treat MDR-TB alone. That represents a fraction of the cases in the country but from an economic position it's quite a drain on your national treasury just to treat those few patients. So 40% of the TB budget is spent on about 3% of the TB patients.”

Lucica quoted an even more startling statistic: “It is estimated that 1/3 of the world's population is infected with TB. Out of that pool 10% will get sick. Donors will come and go and put money where it is needed, but unless the problem is really understood in the countries, the effects will not be sustained.”



(Photo: TB Proof)

« I'd truly want to be part of the global community working on change and combating TB. It is a great need for the whole world to work together. »

Healthcare student

Increasing cases of occupational TB

Many participants, healthcare students and workers alike, voiced concern over the growing number of occupational TB cases, particularly drug-resistant TB, with poor cure rates and high levels of morbidity and even mortality. The panel acknowledged that healthcare workers are a scarce and valuable resource, and encouraged greater participation in TB infection prevention and control as well as broader advocacy. Ken Castro added: "TB Proof is trying to raise awareness of the need to be cognizant of implementing infection control precautions. An area we have neglected throughout the world."

Aaron Oxley, Executive Director of RESULTS UK, gave practical advocacy advice using the EPIC framework: Engage, state the Problem, provide Information and a Call to action. He reminded that politicians and policymakers are accountable to us: "Make sure you are working with the people who represent you in government, make sure you are talking about the change you want to see happen in terms of policy and practice and healthcare in this country. It's your right to demand that of them and do it constructively and do it friendly. You will find doors opening that you thought were completely impossible and closed to you. Please try it, you might be surprised at how effective it can be." He also added: "And you will find that when you take a message to them that is grounded in good science and makes a good argument, with the practicality of a very specific change you want to see happen."

Victor Ramathesele, Advisor to South Africa's Health Minister Aaron Motsoaledi, then shared his moving testimony of exactly how one can beat the odds. Through self-belief, hard work and sacrifice, and recognising the importance of fostering relationships early on, he achieved his dream of being the national team doctor at the 1st soccer World Cup following the downfall of apartheid.

There was a reception afterwards where students could meet with the experts and ask specific questions. The response by the students were very passionate and enthusiastic: "I am very passionate about this because it is a huge problem in our country, so we need to make sure we can be confident in the diagnosis, management and prevention of TB."

"Unmask stigma": A new global initiative to fight TB stigma, an unseen and unfair factor

It was highly unusual to see a discussion about tuberculosis charged with such energy and enthusiasm. The session was concluded on a high point, when Dalene von Delft, MDR-TB survivor and member of the GDI Core Group, suggested that everybody put on Zero Stigma masks to support a new global initiative: "Unmask stigma".

<http://www.unmaskstigma.org>

The idea centers around members of the general public gaining more insight into the specific challenges people face when living (and working) with a contagious airborne disease. The students and Panel all enthusiastically put on their masks afterwards and showed their commitment to zero TB.

TB behind the numbers: Breaking the record

With Dr. Bart Willems

The healthcare students and participants in the panel could view an inspiring short film by Jonathan Smith (Visual Epidemiology) and the Treatment Action Group (TAG), 'Behind the Numbers: Breaking the Record with Dr. Bart Willems'. The video projection was followed by a message of hope from the national free diving record holder, who could be successfully cured after getting TB as a medical student. He explained how students can, and should, become agents of change themselves.

The short film «TB behind the numbers» can be viewed at <http://vimeo.com/67217385>

« We all know TB is a major problem in South Africa. Not only are patients dying from this potentially preventable and curable disease, but healthcare workers place themselves at risk every day when going to health facilities. Nobody should be allowed to work in such circumstances.»

Healthcare student



News

Upcoming Events

2nd GDI Core Group Meeting
(closed meeting)

27 October 2014, Barcelona,
Spain

For information please contact:
gdi_secretariat@who.int

45th Union World Conference
on Lung Health

28 October - 1 November 2014,
Barcelona, Spain

Conference website: [http://
barcelona.worldlunghealth.org/](http://barcelona.worldlunghealth.org/)

Upcoming Publications

*Companion handbook to the
WHO guidelines for the pro-
grammatic management of
drug-resistant tuberculosis.*
2014 (in production)

Resources

For additional resources from
partners, please visit:

[http://www.stoptb.org/wg/mdrtb/
resources/home.html](http://www.stoptb.org/wg/mdrtb/resources/home.html)

Contact

gdi_secretariat@who.int
www.stoptb.org/wg/mdrtb/

Recent publications

Bantubani N, Kabera G, Connolly C, Rustomjee R, Reddy T, Cohen T, Pym AS. High Rates of Potentially Infectious Tuberculosis and Multidrug-Resistant Tuberculosis (MDR-TB) among Hospital Inpatients in KwaZulu Natal, South Africa Indicate Risk of Nosocomial Transmission. *PLoS One*. 2014 Mar 13;9(3):e90868.

Blaya JA, Shin SS, Yagui M, Contreras C, Cegielski P, Yale G, Suarez C, Asencios L, Bayona J, Kim J, Fraser HS. Reducing communication delays and improving quality of care with a tuberculosis laboratory information system in resource poor environments: a cluster randomized controlled trial. *PLoS One*. 2014 Apr 10;9(4):e90110.

Dheda K, Gumbo T, Gandhi NR, Murray M, Theron G, Udwadia Z, Migliori GB, Warren R. Global control of tuberculosis: from extensively drug-resistant to untreatable tuberculosis. *Lancet Respir Med*. 2014 Apr;2(4):321-338.

Jenkins H, Gegia M, Furin J, Kalandadze I, Nanava U, Chakhaia T, Cohen T. Geographical heterogeneity of multidrug-resistant tuberculosis in Georgia, January 2009 to June 2011. *Euro Surveill*. 2014 Mar 20;19(11).

Velásquez GE, Becerra MC, Gelmanova IY, Pasechnikov AD, Yedilbayev A, Shin SS, Andreev YG, Yanova G, Atwood SS, Mitnick CD, Franke MF, Rich ML, Keshavjee S. Improving outcomes for multidrug-resistant tuberculosis: Aggressive regimens prevent treatment failure and death. *Clin Infect Dis*. 2014 Apr 11. [Epub ahead of print]

Zelner JL, Murray MB, Becerra MC, Galea J, Lecca L, Calderon R, Yataco R, Contreras C, Zhang Z Ms, Grenfell BT, Cohen T. Bacillus Calmette-Guérin and isoniazid preventive therapy protect contacts of tuberculosis patients. *Am J Respir Crit Care Med*. 2014 Mar 4.

Zumla A, Rao M, Parida SK, Keshavjee S, Cassell G, Wallis R, Axelsson-Robertsson R, Doherty M, Andersson J, Maeurer M. Inflammation and tuberculosis: host-directed therapies. *J Intern Med*. 2014 Apr 10.

Jenkins HE, Crudu V, Soltan V, Ciobanu A, Domete L, Cohen T. High risk and rapid appearance of multidrug resistance during tuberculosis treatment in Moldova. *Eur Respir J*. 2014 Feb 20. [Epub ahead of print].

Lessem E, Keshavjee S. Russia: Drug-resistant TB can be contained. *Nature*. 2014 Feb 20;506(7488):295.

Brigden G, Nyang'wa BT, du Cros P, Varaine F, Hughes J, Rich M, Horsburgh CR Jr, Mitnick CD, Nuermberger E, McIlleron H, Phillips PP, Balasegaram M. Principles for designing future regimens for multidrug-resistant tuberculosis. *Bull World Health Organ*. 2014 Jan 1;92(1):68-74.

Hwang TJ, Dotsenko S, Jafarov A, Weyer K, Falzon D, Lunte K, Nunn P, Jaramillo E, Keshavjee S, Wares DF. Safety and availability of clofazimine in the treatment of multidrug and extensively drug-resistant tuberculosis: analysis of published guidance and meta-analysis of cohort studies. *BMJ Open*. 2014 Jan 2;4(1):e004143.