出國報告（出國類別：國際會議）

赴法國里爾參加2011年「42nd Union World Conference on Lung Health」

服務機關：衛生署疾病管制局
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派赴國家：法國
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摘要

今年國際抗癆及肺健康聯盟年會的主題爲 partnership for scaling-up and care，希望透過強化所有與結核病控制有關的夥伴關係，透過互相了解和有技巧的合作來促進結核病和夥伴計劃目標的升級和關懷。 此次開會共計五天，內容有 workshops、symposia、poster discussion, and oral presentation 及 Union Scientific Working group meetings，在報告中對特定的議題有詳細的介紹。

STOP TB partnership 關注的婦女及孩童在 TB 嚴重被各國 NTP 以及各種研究所忽略, 故此次邀請與會者了解此議題的重要性, 並提出 zero death in childhood TB 等訴求。 明年的 324 slogan 爲 “I want no TB death in my life, zero!” 。其他重要的議題包括: 如何透過 operational study 來評估 national TB program (NTP) 及 non-government organization (NGO) 在 TB 的執行狀況, 發現問題, 了解問題, 解決問題; 高負擔國家的盛行率大調查, 以便了解是否真實地達到 WHO/Stop TB partnership 的 2015 年目標; 如何透過與 partners 的合作, 達到 active case finding 的目的; 繼續拓展 HIV/TB 的合作、接觸者追蹤的落實、以及感染控制的提升。

台灣今年在大會上有多篇海報發表及海報口頭報告，4 年來穩定地蓬勃發展，值得政府及民間攜手繼續努力；文末亦對政策、監視、診斷工具及學術研究給予建議，期待透過與會，能讓我們熟悉國際間對結核病控制的新知及共識，進而讓整體結核病控制繼續朝十年減半的目標前進。

目次

壹、目的

參加一年一度的國際抗癆聯盟年會，熟悉國際間對結核病控制的新知及共識，對於本國的結核病控制之政策、監視、診斷工具及學術研究四個方面，提供建議。與國際間友好的結核病夥伴齊聚一堂, 互相觀摩, 此次本局亦有海報及口頭報告於大會中報告。

貳、過程

行程

日期	工作日誌	地　　點	行　程　內　容
10/25	啓程	台北→法國	路程
10/26-30	抵達、開會	法國 Lille	開會
10/31-11/1	回程	法國→台北	路程

大會議程

	行程及會議內容	重點報告	Special Events
2011/10/25-26	出發及抵達法國巴黎 -> Lille		
2011/10/26	Opening & Registration	STOP TB symposium: Meeting the unmet needs of women and children for TB prevention, diagnosis and care: Expanding our horizons (Union, WHO Stop TB department, Stop TB Partnership)	New Diagnostic Working Group Meeting
2008/10/27	Workshop & post graduate course	今年共有 12 個 workshops, 9 個 post-graduate courses; 至各工作坊參加有興趣的主題 Plenary: How the private sector can	Side meetings: Meeting of the core Group of the New Diagnostics Working Group ・ 4th FIND scientific forum on recent advances in TB diagnostics ・ Making TB history:

		contribute to the scale-up of health services (Mikkel Vestergaard Frandsen)	community-based solutions for millions /Awards Ceremony /Welcome Cocktail
2008/10/28	Plenary/Symposia/poster discussion and oral presentation	1-18 不同主題的 symposia 1-20 海報口頭說明, 1-5 口頭報告, 分享及吸取經驗 (本局共 2 篇 poster discussion, 國內專家 2 篇 poster discussion) Plenary: The Global Fund: its role in improving and scaling-up health care (Lucica Ditiu, STOP TB partnership)	Union Scientific Working group meetings/ Sponsored satellite symposia/ Side meetings: Guidelines for evaluation of contacts to infectious cases of TB ・ Bill & Melinda Gates Foundation strategy presentation ・ Afghanistan-Pakistan partners forum ・ PETT’ s annual investigators meeting
2008/10/29	Plenary/ Symposia/poster discussion and oral presentation	19-36 不同主題的 symposia 21-39 海報口頭說明, 6-10 口頭報告, 分享及吸取經驗 (本局共 2 篇 poster discussion, 1 篇 oral presentation, 國內專家 9 篇 poster discussion, 國外專家(Dr. R. Bowerman from Alaska 發表 1 篇與台灣有關 poster discussion)	Union Region Meetings/Union Sub-Section Meetings/Union Scientific Section Meetings Side meetings: Annual RESIST-TB meeting

2008/10/30	Poster discussion, display and thematic slide presentation	37-54 不同主題的 symposia 40-58 海報口頭說明, 分享及吸取經驗 (本局共 3 篇 poster discussion, 1 篇與美國 CDC 合作之 poster discussion, 國內專家 5 篇 poster discussion) Plenary: Sir John Crofton Lecture: the use of clinical trials to find new and shorter treatment regimens (Andrew Nunn, UK)	
2008/10/31-11/1	離開法國 Lille ->巴黎 -> 抵達台灣		

STOP TB SYMPOSIUM

Wednesday, 26 October 2011 **08:30-18:00** Room Vauban

Meeting the unmet needs of women and children for TB prevention, diagnosis and care: Expanding our horizons

Although the exact magnitude of tuberculosis (TB) among women and children is not known, the evidence is growing that they are disproportionally affected [1, 2]. Recent studies have shown that TB is an important cause of maternal mortality, particularly in women with TB/HIV, and that there is an increased risk of transmitting TB and HIV to infants born to mothers with TB/HIV [3, 4].Confirmation of diagnosis of TB among young children is challenging. However, various initiatives around the world have come up with innovative approaches [5].

In addition, public health programmes, traditionally focusing on cutting transmission, have not given much attention to tuberculosis in children, as young children are not infectious. The purpose of the Stop TB Symposium 2011 is therefore to highlight the unmet needs of women and children and to advance TB prevention, diagnosis and treatment among women and children by ensuring mainstreaming of TB diagnosis and treatment in Mother and Child Health (MCH) services.

Specific objectives of the Stop TB Symposium include:

- To identify barriers and challenges including recording and reporting
- To share experiences and lessons learnt from MCH services diagnosing and treating tuberculosis
- To define the way forward to improve prevention, diagnosis and treatment of tuberculosis among women and children.

08:30-10:30	**I. GLOBAL TB CONTROL PROGRESS** **Chairs:** Nils E Billo (The Union), Mario Raviglione (WHO Stop TB Department)	
08:30–9:00	Welcome and opening	Nils E Billo (The Union) Mario Raviglione (WHO Stop TB Department) Lucica Ditiu (Stop TB Partnership Secretariat)
09:00-09:20	Global TB control: current status with particular attention to tuberculosis among women and children	Katherine Floyd (WHO Stop TB Department)
09:20–09:50	Decrease TB mortality by integrating maternal and child health services	Robert Gie (South Africa)
09:50-10:30	Discussion	
10:30-11:00	Coffee break	
11:00-12:30:	**II. WOMEN AND TUBERCULOSIS** **Chairs:** Nils E Billo (The Union), Mario Raviglione (WHO Stop TB Department)	
11:00-11:20	Diagnosis and treatment of TB in HIV-positive women	Amita Gupta (India)
11:20-11:40	Integrating TB case finding into maternal health services	Stacie Stender (South Africa)
11:40-12:00	Integrating TB prevention, diagnosis and treatment in family planning services: experience from Kenya	Lawrence Oteba (Kenya)
12:00-12:30	Discussion	
12:30-14:00	Lunch	
14:00-16:00	**III. CHILDREN AND TUBERCULOSIS** **Chairs:** Steve Graham (Australia) Claire Wingfield (USA)	
14:00-14:20	Improving TB case detection in children at community level	Khurshid Talukder (Bangladesh)
14:20-14:40	Improving case detection in children: TB REACH experience	Najla Al-Sonboli (Yemen), Luis E. Cuevas (UK)
14:40-15:00	Operational challenges in implementing isoniazid preventive therapy (IPT) in children	Mohammed Yassin (Ethiopia)
15:00–15:20	IPT in children in Brazil	Clemax Couto Sant´Anna (Brazil)
15:20–15:30	Call to action for childhood TB	Claire Wingfield (USA)
15:30-16:00	Discussion	
16:00–16:30	Coffee break	
16:30-18:00:	**IV. ADDRESSING THE UNMET NEEDS OF WOMEN AND CHILDREN FOR TB PREVENTION, DIAGNOSIS AND CARE: EXPANDING OUR HORIZONS** **Chairs:** Steve Graham (Australia), Claire Wingfield (USA)	
16:30-16:45	Use of Xpert Mtb/Rif to diagnose TB in children	Mark Nicol (South Africa)
16:45-17:00	Overcoming challenges in access to TB drugs for children	Gregory Kearns (USA)
17:00-18:00	Panel discussion Addressing the unmet needs of women and children for TB prevention, diagnosis and care: expanding our horizons	Panel members
18:00	Close	

References:
1. Getahun H, Gunneberg C, Granich R, Nunn P. HIV associated TB: the epidemiology and the response. Clin Infect Dis; 2010: 15;50 Suppl 3:S201-7
2. Hesseling A C et al. High incidence of tuberculosis among HIV-infected infants: evidence from a South African population-based study highlights the need for improved tuberculosis control strategies. Clin Infect Dis 2009
3. Gupta A et al. Maternal tuberculosis: a risk factor for mother-to-child transmission of human immunodeficiency virus. J Infect Dis. 2011
4. Gupta A et al. Postpartum tuberculosis incidence and mortality among HIV-infected women and their infants in Pune, India, 2002-2005. Clin Infect Dis.2007
5. Nicol M P, Zar H J New specimens and laboratory diagnostics for childhood pulmonary TB: progress and prospects. Paediatr Respir Rev.2011

第一天 STOP TB partnership 主辦了一個關心 TB 在婦女與孩童的現況的 1 day

program, UNAIDS 2011 報告估計共3300萬的女性HIV, 估計有50%被診斷;而WHO Global TB 2011 報告, 每年估計有 880 萬的女性 TB 新案, 但只有 36%被診斷, 事實上兩種疾病有交集, 而在充滿對此兩種歧視的世界, 婦女因爲弱勢, 更沒有診斷的機會。估計約有 32 萬婦女因爲沒有診斷或治療 TB 死亡, 一直談到孕婦及嬰幼兒週產期的死亡。講者們分享到，可以透過 pre- and post- natal care, 也就是產前檢查以及產後照護, 提早將 TB 病人找出來。在南非, 若使用症狀篩檢孕婦 (咳嗽>=2 週, 發燒, 帶痰咳嗽, 夜間盜汗, 或在進行 HIV pre-test consultation, 就已經有體重減輕的狀況), 在 HIV(+) 可以找到 0.6%的細菌學確診 TB, HIV(-)還是可以發現 0.2%。故現在 WHO 建議孕婦如果有任何咳嗽, 發燒, 夜間盜汗, 體重減輕, 都應該接受 TB 的評估留痰檢查。在結核病 5%, 敏感度 78%, 特異度 50%, NPV 可達 98%。雖然我們知道在台灣, 同樣的症狀篩檢, 特異度會非常差, 但可以知道在世界另一端的問題, 仍然需要要仰賴最便宜得症狀篩檢。演講中最令人印象深刻的莫過於介紹 TB/HIV program 如何整合 pre-natal care 的實例: 每年有 1.5 億的婦女懷孕, 但只有一半是婦女想要的; 由於在開發中國家, 缺乏醫師照顧孕婦, 所以最常提供照顧的第一線健康照顧者其實是產婆/助產士。故如果想改變週產期的 TB 診斷和治療, the entry of care 應該是針對這些 care providers (並非傳統的 TB care providers) 進行教育和宣導。於是這個計劃除了教育產婆/助產士, 有關結核病的相關知識, 包括基本可能的症狀, 要用驗痰才能診斷, 治療多長, 還提供有 TB/malaria/HIV 相關衛教的測量 fundal height 的布尺, 以便在每天的工作中, 協助傳染病控制, 讓整體健康照顧的水準提升。講者最後也說到, TB/HIV program 一年不應該只 highlight 3/24, 12/1 這兩天, 更應該 highlight 3/8(婦女節, women’s day) 以及 5/5 (助產士節, International Midwives' Day), 唯有如此, 整合才能改變婦女 TB 的問題。這是一個透過 partnership 來 scale up TB control 的最好例子。

至於兒童, 議題主要是繞著 WHO 對兒童 TB 的現況其實不了解，對於接觸者小於五歲以下兒童, 以及所有 HIV 的兒童, 雖然有指引建議要 Isoniazid prophylaxis therapy (IPT), 但是卻不受各國 NTP 重視，導致每年數以萬計的兒童死

於結核病兒童，更多的孩子因結核病的後遺症活著(今年領到 Union scientific award 的得獎人也是 TB 後遺症的受害者)。此外，兒童 TB 診斷的困難 (還在用 scoring system)，研究顯示 GeneXpert 可以幫忙增加診斷的敏感度和加快診斷的速度，所有被臨床確診的兒童 TB, 33%是 smear +，如果用一套 GeneXpert 可以達 57%，兩套可達 71%，如此可以加快治療的到位 (不過被某些印度的專家認爲不以爲然，甚至有人建議 X 光都比 GeneXpert 重要! 因爲兒童 TB 有很多是 extrapulmonary TB 或者 mediastinal lymph nodes，用 sputum/gastric juice 等其實無法診斷)。在依索匹亞進行 IPT，相當低的開始 IPT 率及高失落率，以及巴西分析多年的 IPT 經驗，遇到的困難和他們的新指引。我當場請教研究者 Clemax，爲何巴西 2011 年新的 guidelines for contacts in Brazil，要將 10mm 的臨界值調到歐美國家的 5mm? 他有或沒有足夠的証據支持政策改變 (有 5-9mm 的小孩，後來變成病人的呢?)? 結果是他們沒有足夠的資料回答問題，是跟著西方國家的建議修定的。從 Alaska 來參加的 Dr. Bowerman，也提問是否考慮用什麼手段讓只有 17%的完成率提高? 可惜每年上萬人次兒童接觸者的巴西，因爲沒有好的資料庫，所以一直搞不清楚是 program 本身不好，還是病人真的無法完成治療。此外兒童在治療上遇到藥物濃度偏低的問題，在後來幾天的諸多場合 (symposia 及 oral abstract session)，都討論到 8-10 歲 (25-30 公斤) 以下的兒童應該要使用 WHO 對兒童 anti-TB 的劑量，來自印度，和德國的研究顯示，由於兒童在診斷 TB 時, 50%以上的體重是該年齡<5 percentile 的體重，故建議劑量都相對高 (INH:10mg/kg; RMP: 15 mg/kg; PZA: 30-35 mg/kg)，除了劑量，哪個年齡層以上的兒童應該推薦 4 combined (HERZ)，而不是 3 combined (HRZ)，也是個沒答案的問題，但是兒童已經有 MDR/XDRTB 的流行了，4 combined 的使用相形重要了起來。

Workshop 03 **9:00-17:00** Room Pasteur

Operational research skills in one day

Sections
Tuberculosis | HIV

Duration
Full-day

Meeting open to all delegates

Maximum number of attendees
100

Coordinators
Anthony D Harries (UK)
Rony Zachariah (Luxembourg)

Chairs
Karen Bissell (New Zealand)
Sven G Hinderaker (Norway)

Target audience
The workshop is for any individual working in the field of tuberculosis, HIV or lung health who is interested in operational research.

Description
This is a one-day workshop on operational research, providing an overview of the topic, how to develop a protocol, the ethics of operational research, how to undertake data collection and analysis, how to write a paper and get it accepted for publication and 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.

Relation to Conference theme
The theme of the conference is partnerships for scaling-up, and good quality research is about forming good partnerships. This workshop will demonstrate to participants how operational research is undertaken, illustrate the capacity building that needs to take place for operational research to be conducted and show how operational research can lead to a change in policy and practice.

Objectives
- To provide an overview of operational research and how this can lead to changes in policy and practice
- To demonstate the principles of developing a research protocol
- To understand why ethics is important and useful
- To organise data collection and using EpiData
- To understand the principles of writing a paper and moving the research paper to policy and practice

Expected Outcome
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.

Presentations
1. Overview: operational research, what, why and how?
2. Overview: operational research to policy and practice
3. Overview: barriers and solutions to operational research
4. Developing the protocol: the principles of developing a research protocol
5. Ethics: why ethics is important in operational research
6. Data collection and analysis: how to organise and collect data, do simple reporting of data using tables and how to analyse data
7. Writing the paper and getting it accepted for publication: how to keep the editor happy and how to structure your paper
8. Writing the paper and getting it accepted for publication: using research to change policy and practice – the practical steps

今天有一整天的 workshop，我選擇參加<operational research skills in one day>，大家可以參考以下的課程內容，不再用文字贅述。幾個在 NTP 的層次要思考的重點是，不論 operational research 的 funding 來自哪裡，最常見的問題是，希望由有空且對執行研究的學術單位來執行，但因爲執行單位對 NTP 沒有權力指揮其制定政策，所以當研究結果顯示怎麼做對 TB 防治可能更好，所有的改善步調都會非常緩慢。所以講者建議，在開始設計 operational research 前就要讓 NTP 加入，依然他們的需求，以改善 TB 控制，並且在過程中邀請他們了解執行的困難，也盡可能得到他們的支持。當 operational research 有結果後，如果跟第一線醫療人員或公衛人員有關，應該要將結論讓每個 TB control 的 level 了解，才有意義，不然前線的人員就只有”做牛做馬”的感覺，下次再聽到 operational research，會直覺地像排斥學術研究一樣地排斥。

Union 有一個特別的 operational research fellowship, 2008-2010 的經驗，將 3 個 modules 變成 2 個 modules，第一次是基礎訓練，第二次就是要閉關將 paper 的草稿

寫出來才能畢業。 在結束的 12 個月必須要完成 2 篇 journal 的投稿, 不然就拿不到這個訓練的 credit。 這一個課程花 Union 64000 US, 囊括學員的旅費和住宿費, 只訓練 12 個人, 故計劃要 decentralized 才會降低費用。2012 的 World health report 已經將主題叫作”No health without research”, 我們如何透過 operational research, 有效地了解 NTP 的策略是否成功之前, 應該還是要思考, 如何訓練和維持人力, 以及穩定經費的來源, 一旦有穩定的 operational research 進行並有結果, 怎麼樣緊密地給 NTP 建議, 並依結果執行 NTP 的改善, 用 TB control 不同層次聽得懂的語言, 把訊息傳達出去。

Mikkel Vestergaard Frandsen, developer of LifeStraw® and other innovative products to fight disease, to give Inaugural lecture

同日, 還有一場非常有意思的 plenary lecture, 是由 Mikkel Vestergaard Frandsen 主講的 How the private sector can contribute to the scale-up of health services. Mikkle 本人的公司是專門製造 LifeStraw® 這個簡單濾水器的公司, 他透過公益行動, 將自家產品, 免費地推銷到肯亞的家戶中, 改善了當地因爲不潔飲水造成的腸胃道感染及兒童相關死亡, 甚至, 減少需要燒開水所要用的樹枝的使用量,以及連帶產生出來的煤煙, 進而減少造成室內空氣污染, 使得兒童的呼吸道疾病下降, 並且對環保盡一份力。他成功的飲水改善計畫, 以及靈活的 marketing skill, 對健康及疾病控制提出 4 個策略: 1. Fine a strategy and stick to it 2. innovate on financing 3.innovate on technology support 4. integrate。他舉了一個例子, 是在肯亞的 Kakamega, 透過提供免費的 CarePack , 內含 LifeStraw®, 浸過殺蟲劑的蚊帳 (也是他們的產品, 可 3 年免泡藥), condom, 並結合當地藝文活動, 讓 82% 當地民眾完成志願性 HIV test. CNN 專題報導這件事, 成功地找出 4.3% HIV (+)。最大的啓示也許是, 有用的 NGO, 不一定要是 TB NGO; 防疫單位, 要試著學習用市場運作的方式來有效教育民眾或幫助民眾, 甚至協助 NTP 進行政府做不到的事。

2011/10/28

Symposium 01 8:00-10:00 Room Vauban

eHealth for tuberculosis: integrating information and communications technology into tuberculosis care

Section
Tuberculosis | Nurses & Allied Professionals

Coordinator
Alvin Marcelo (Philippines)

Chairs
Jennifer Wi (Philippines)
Alvin Marcelo (Philippines)

Target audience
Health professionals and ICT professionals who have an interest in information management and use of technology for health

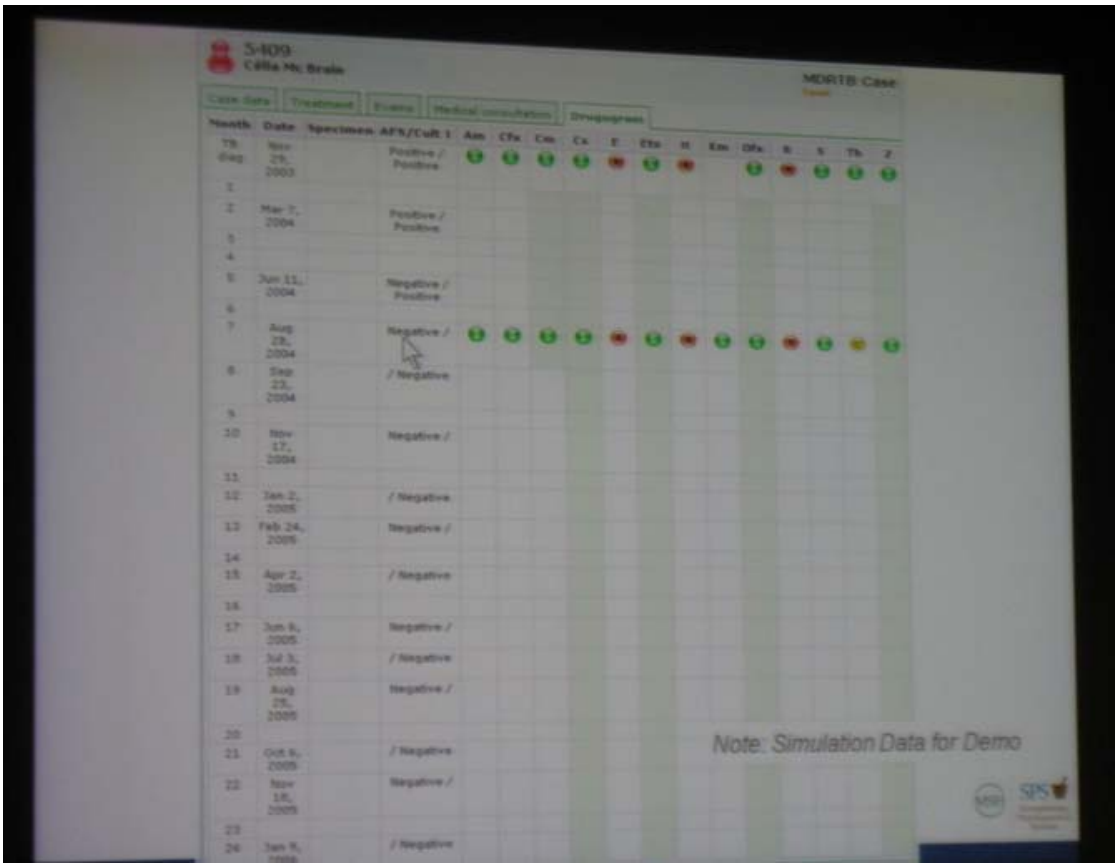
Description
eHealth or the use of information and communications technology (ICT) for health has been formally recognised by the World Health Organization as an effective tool for health systems strengthening. In many parts of the world, researchers have developed ICT-based solutions for the care of tuberculosis. Some of these have remained at the pilot while others have succeeded in reaching programmatic stage. This session aims to bring together advocates of eHealth and tuberculosis and allow them to share their experiences.

Relation to Conference theme
The TB-HIV problem can't be solved without partnerships. A multi-sectoral approach to problem solving offers the best possibility for resolution. Because of the need for many partners to work on various aspects of TB-HIV care, information and communications technologies (ICT) become important tools for collaboration and coordination. This session on 'eHealth for TB' will discuss the important steps towards how ICT can be used to improve TB-HIV care in resource-strapped countries.

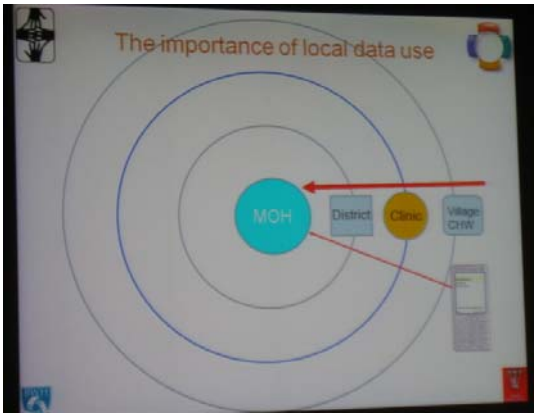
Objectives
- List the various global initiatives that employed ICT in tuberculosis care
- Enumerate the issues that surround the use of ICT in tuberculosis care
- Share best practices and lessons learnt

Presentations
08:00-08:20 Electronic tuberculosis diagnostic committees in the Philippines and Pakistan - *Alvin Marcelo (Philippine)*
08:25-08:45 Cost and financing tool (TB COSFIT): a software for estimating cost of TB programme in the Philippines - *Dennis Batangan (Philippines)*
08:50-09:10 Touchscreens systems for tuberculosis care: experiences in Malawi - *Soyapi Mumba (Malawi)*
09:15-09:35 Use of OpenMRS to support tuberculosis, MDR-TB and HIV management in resource-poor environments - *Hamish SF Fraser (USA)*
09:20-09:35 Implementation of web-based e-TB manager: lessons learnt - *Joel Keravec (Brazil)*
09:40-10:00 Discussion

在eHealth 的symposium中，來自菲律賓，馬拉威，美國和巴西的講者分享，web2.0的世界，防治TB可以很酷，可以簡單些，可以減少第一線人員重覆的工作，也可以透過設計過的系統功能進行除錯，減少人爲的錯誤，也可以設定提醒，讓繁忙的工作不至於漏掉特別應該要留意的病人。下圖是一個舉例:

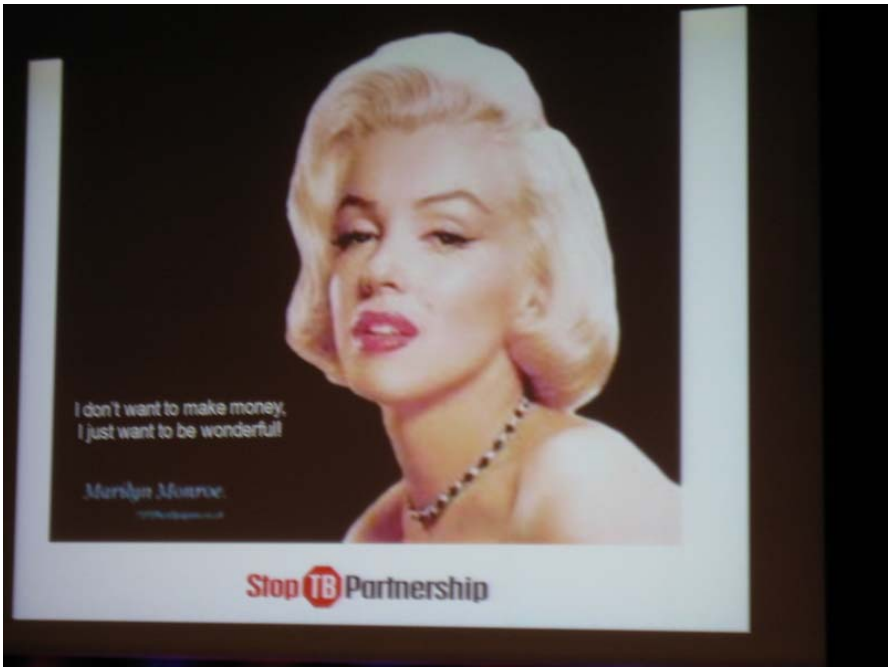


如果只是文字去表示藥敏結果是 S 或 R, 難免有人會看錯, 藥敏, 用藥和培養日期放在不同頁面, 常常讓工作人員不停地瀏覽頁面, 但又記不起來! 所以他們把頁面改成在同一面!!! 只要做過 TB 都知道, 這其實就是像手寫的個案管理表, 你可以把所有重要的個管資訊放在同一頁, 不論是 e TB manager 或者 Open MRS, 都讓人覺得工作愉快, 事半功倍。這些軟體都是免費的, 由於要克服第三世國家的現實環境, 他們的系統, 做到最少的資訊空間, 最不怕斷電, 可以隨時同步化, 還依照 WHO 年報, 只要你輸入需要的資料, 就可以產生 WHO 年報。提到一個比較重要的 data quality assurance 的問題, 講者建議, 資料必須由每一個 TB control level 能夠了解並方便檢視, 因爲方便使用, 所以各層次會重視資料的完整性, 此時, 同時提供除錯及 QA 的功能, 各層次會主動去了解錯誤發生的原因, 會比資料跳過個層次直達中央衛生部門的資料精確性好很多。以下圖示:



Lucica Ditiu, Stop TB Partnership 的秘書長, 當天針對 The Global Fund: its role in improving and scaling-up health care 進行演說, 看起來是 PR 出生的她, 熱力四射地發表對於 2015 年的 Global fund 目標的不滿意: 比起愛滋病的 slogan, not sexy, not attractive, not charming !她大聲疾呼要大家想一想, 爲什麼 TB 的發生率只能達到高原期, 爲什麼不能下降? 當我們面對 donors (出錢的政府和財團), 要能夠說出一個可以改變現在困境的解答! 不可能用 100 年前的疫苗, 60 年前的診斷工具, 50 年前的藥物, 就能戰勝幾千年的老敵人!!! 最後她用一個很漂亮的 ppt 結尾

“我不想賺錢, 我只想要美好!”



Symposium 10 14:30-16:30 Room Vauban

TB REACH: Innovations and partnerships for early and increased TB case finding amongst the poor and vulnerable

Sponsor
TB REACH

Section
Tuberculosis

Coordinator
Suvanand Sahu (Switzerland)

Chairs
Nathalie Garon (Canada)
Lucica Ditiu (Switzerland)

Target audience
Policy-makers, researchers and implementers at national, regional and international levels; national TB and AIDS programmes, civil society organisations, community representatives, international and national technical support agencies

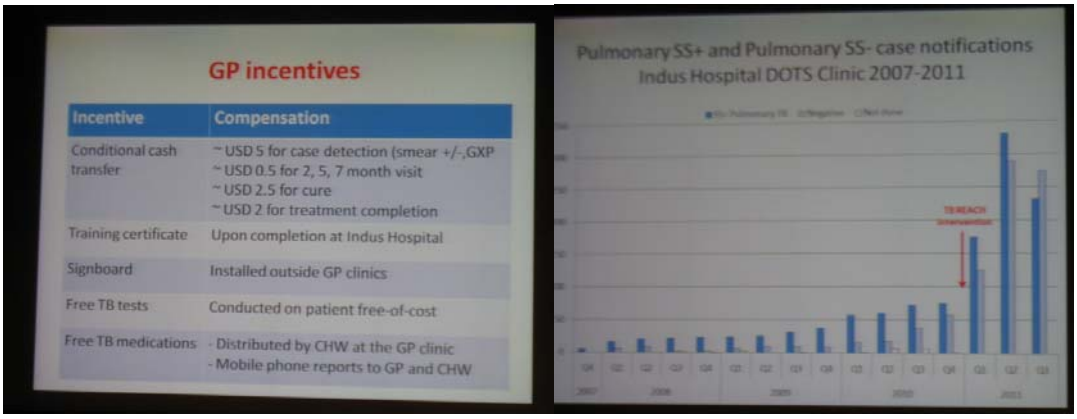
Description
TB REACH is a funding initiative for supporting innovative approaches to early and increased TB case detection, especially targeting the poor and vulnerable, and people with limited access to care. In the Wave-1 funding, 30 projects with a total budget of US$ 18.4 million were approved in 19 low-income countries. Preliminary results and experiences from these projects will be summarised, highlighting the outputs, processes and partnerships involved. Innovative models for TB case finding approaches will be discussed in a variety of settings.

Relation to Conference theme
TB REACH is an initiative of the Stop TB Partnership. This symposium will highlight how the TB REACH initiative has triggered a variety of partnerships between the donor, WHO, the TB REACH M&E agency – HLSP&KIT, various technical partners, implementing agencies in low-income countries, communities and civil societies, academia and researchers and how such partnerships are playing an important role in developing locally appropriate innovative approaches.

Objectives
- To share and discuss the lessons learnt and the preliminary results of the TB REACH first wave projects on early and increased TB case finding in settings with low-income and limited access to care.
- To discuss TB case finding interventions that are likely to increase case detection in vulnerable populations

Presentations
14:30-14:45 Transforming the fight in TB: reaching the unreachable - *Knut Lonnroth (Switzerland)*
14:50-15:05 TB REACH Wave-1 projects: experiences and preliminary results – *Suvanand Sahu (Switzerland)*
15:10-15:25 Overview of case finding approaches used by TB REACH Wave-1 projects – *Robert Stevens (Spain), Lucie Blok (Netherlands)*
15:30-15:45 Providing access to new diagnostic technology for a rural remote community in Tanzania – *Michael Hoelscher (Tanzania)*
15:50-16:05 Innovations, incentives and mobile phones in TB case detection – *Aamir Khan (Pakistan)*
16:10-16:25 Partnership and innovations with a local university to improve detection of childhood TB – *Najla Al-Sonboli (Yemen), Luis Cuevas (USA)*

下午有一場分享如何找到對的 anti-TB partner，與之建立 partnership 的 symposia，內容細節不贅述，請參考下圖。來自 WHO 的 Dr. Admir Kuan，介紹這些年來他們在戰火頻傳的巴基斯坦 Karagi 地區，如何與 general practitioner (GP)建立關係，提供誘因 (每一個步驟, GP 可以拿到一點點現金)，請他們將疑似 TB 病人轉介到 Indus hospital 進行驗痰和評估，再加上對社區進行看版廣告，在 GP 門口掛上這是有認證的標示，一舉將 case detection 數目上升到 300% 以上。由於同時有對照組，可以確定是因爲他們的計劃，造成通報和確診個案的大幅增加，而且是細菌學確診的個案，不是 X 光篩檢而造成 smear- culture-的增加。



用少少的獎賞，讓在第一線會看到病人的 GP，願意一步一步地將病人轉介到有驗痰及 CXR 甚至 CT 的 Indus hospital；由於 Indus hospital 照顧病人的水準很高，民眾對於與 Indus hospital 合作的 GP，也有加分作用。細菌學診斷的病人大幅度增加，比起以往多出 300%，兒童更是>500%的增加。

增加的個案都來自 intervention area，同樣是 Indus hospital cover 的其他非 intervention 區域，個案數沒有增加。

Symposium 14 **14:30-16:30** Room Rotterdam

Partnerships to accelerate TB vaccine development

Section
Tuberculosis

Coordinators
Jennifer Woolley (USA)
Nathalie Mielcarek (France)

Chairs
Camille Locht (France)
Lucy Ghati (Kenya)

Target audience
Tuberculosis researchers, epidemiologists, policy-makers, programme staff, and civil society representatives interested in the development of new tuberculosis vaccines to address TB and the potential impact of new vaccines on the TB epidemic.

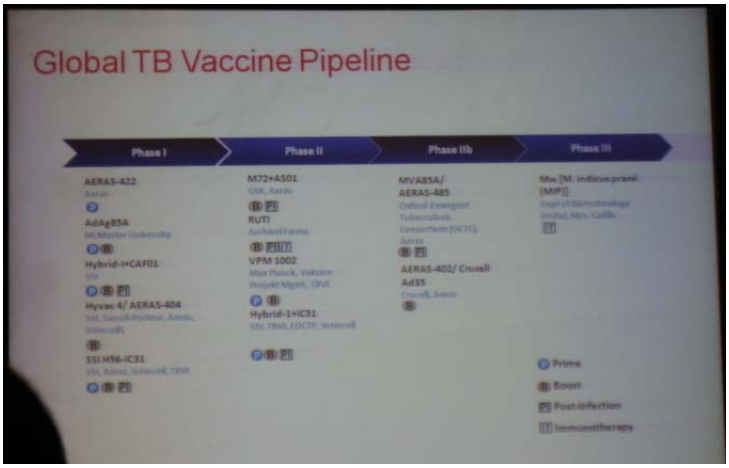
Description
There has been exciting progress in the field of TB vaccine development over the past decade. This symposium will inform the audience about the role of new vaccines in combating TB and provide an update on global efforts to develop new TB vaccines. Presenters will address all aspects of TB vaccine development from basic research to clinical trials and will discuss the complexity of conducting large-scale clinical trials for TB vaccines. The critical role of partnerships to coordinate and accelerate progress will be emphasised.

Relation to Conference theme
To advance the field, we must address scientific challenges to expand the TB vaccine pipeline and ensure that there is sufficient capacity to move vaccines through clinical trials to licensure.
As a growing number of vaccine candidates enter clinical trials, partnerships and coordination will become increasingly important to ensure that capacity can be scaled up to meet the demands of large-scale trials and the distribution of new vaccines, and to identify opportunities to accelerate progress.

Objectives
- Participants will understand the role of new TB vaccines in combating TB
- Participants will learn about the multiple aspects of TB vaccine development and the progress that has been made to date
- Participants will learn about the important role of partnerships and collaborations in all aspects of TB vaccine development

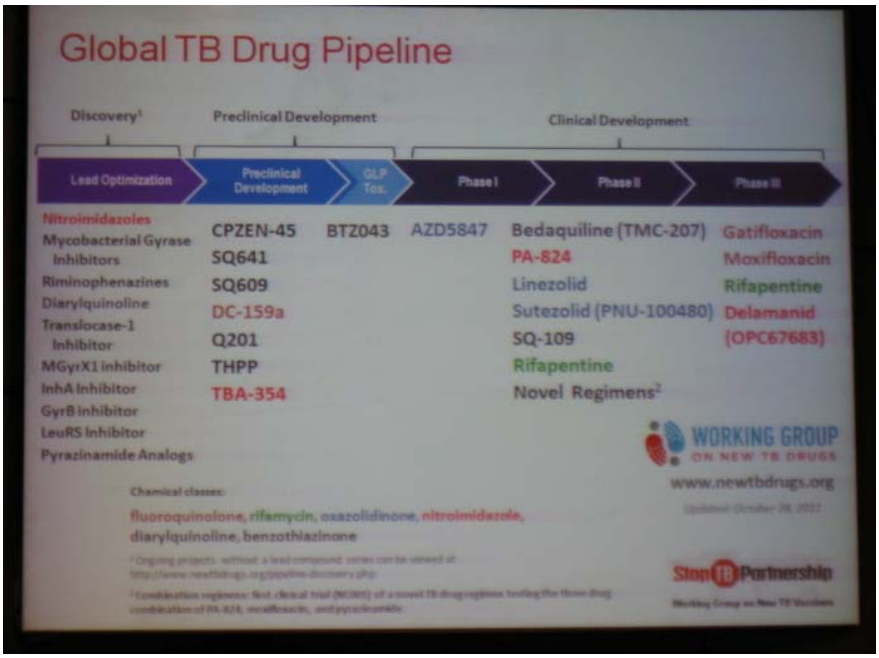
Presentations
14:30-14:45 Expanding the TB vaccine pipeline – *Jelle Thole (Netherlands)*
14:50-15:05 From Calmette and Guerin to HBHA vaccine candidate: role of partnerships in TB vaccine discovery – *Camille Locht (France)*
15:10-15:25 New tuberculosis vaccines in clinical development – *Jim Connolly (USA)*
15:30-15:45 Global partnerships: a key factor in the successful clinical development of vaccine candidate MVA85A – *Helen McShane (UK)*
15:50-16:05 Ensuring site capacity for large-scale and multicentre vaccine trials – *Videlis Nduba (Kenya)*
16:10-16:30 Discussion

同一時間還有 vaccine 的部份，疫苗目前有 14 支進入臨床試驗, 2 支進行 efficacy trial，其中一支就是 MVA 85A，之前在 Gambia 已進行 phase II b 與 EPI



non-interference 的 trial，目前已在南非進行 double blinded placebo control, MVA 85 A booster based infant phase IIb，估計含 placebo arm 共 2784 個小孩的 trial，若 accumulative TB incidence of 10 years 爲 3%，則有 90%的 power 可以 detect 60% higher protection rate compared to BCG only。但是因爲收案還未達數目，也還在評估收案是否足夠，所以尚未 un-blinded。至於 HIV(+)的成人, 2 doses MVA85A, 6-9

months apart 的 booster based, phase II b trial 也已經在 2011/8 開始在南非和達卡進行目標 1400 人的 trial, 以一年發生率 2.5%來估計。然而與會專家都提到, 透過對 BCG 接種和追加的兒童對 TB 的保護力之體外實驗可知, 我們對於如何的免疫力叫作對 TB 有保護力, 可能需要更多研究才有辦法了解, 這也會牽涉到 2050 年到底是否能 eliminate TB, 因爲 new diagnosis, new drug 和 new vaccine 其實是缺一不可的。



Symposium 22 8:00-10:00 Room Eurotop

Use of new molecular techniques for tracking transmission of *M. tuberculosis* and detecting drug resistance

Section
Tuberculosis | Bacteriology-Immunology

Coordinators
Lori Armstrong (USA)
Shama Ahuja (USA)

Chairs
Sarita Shah (USA)
Patrick Moonan (USA)

Target audience
TB programme managers, public health professionals, laboratorians, clinicians, epidemiologists, national HIV/AIDS programme staff, policy-makers and surveillance coordinators

Description
Molecular techniques to identify and better understand the transmission of *Mycobacterium tuberculosis* (*Mtb*) are being incorporated into TB control programmes for routine case finding. In addition, rapid and accurate detection of drug resistance in *Mtb* clinical isolates are becoming widely available. This symposium will discuss successful strategies for implementing molecular epidemiologic tools in resource-limited, high-burden settings and explore the practical application of molecular technologies to rapidly detect mutations associated with anti-tuberculosis drug resistance.

Relation to Conference theme
Use of molecular epidemiology and rapid detection of drug resistance are essential for understanding TB transmission, increasing case detection and ensuring appropriate treatment of TB worldwide. Yet, use of these tools may be labor-intensive, resource-intensive and technically complex. Meeting this challenge requires partnerships among laboratorians, clinicians and TB control programme managers who must promote, understand and interpret molecular results for the detection of drug-resistant TB.

Objectives
- To examine the utility of genotyping methods in high-burden TB control settings
- To explore and discuss the use of molecular tests to detect drug-resistant TB in high- and low-burden settings
- To explore clinical interpretation of molecular tests to detect drug resistance when conventional tests and molecular tests are discordant
- To discuss successful strategies for implementing molecular epidemiology tools into routine resource-limited, high-burden settings

Presentations

08:00-08:15 Industrialised country perspective on the use of rapid molecular methods to detect drug resistance – *Beverly Metchock (USA)*

08:20-08:35 Application of rapid molecular tests to detect drug resistance in a high-burden country – *Martie Van de Walt (South Africa)*

08:40-08:55 Clinical management using molecular tests to detect drug resistance – *Ignacio Monedero (Spain)*

09:00-09:15 Implementing genotyping in high TB-burden control settings: the laboratory perspective – *Barry Kreiswirth (USA)*

09:20-09:35 Incorporating genotyping in a high-burden TB control setting: the programme perspective – *Rein Houben (Malawi)*

09:40-09:55 Incorporating TB genotyping into routine TB control: the US perspective – *Bianca Perri (USA)*

在中午海報報告與口頭報告之前，參加了如何利用分子診斷幫助結核病控制，大家都耳熟能詳的 GeneXpert 大概是今年最紅的新診斷工具，這個適合在 point of care 的 rapid test for MTB complex + RMP resistance detection，大規模地被用在第三世界國家，但是所有的診斷工具都還是要 follow 應用在 high prevalence 的情況下才會有好的 PPV 和 NPV，所以我就不錦上添花了。個人認爲已經有 liquid culture 的 TB control，不會因爲 GeneXpert 有太大的進步，要思考的是現有的系統，turn around time 到底有沒有因爲人的關係而拖延，或者報告在 logistic 上被技術層面以外的問題延後報告的取得。

美國 NYC 的專家來報告他們在 EID2011, Mar. 發表的一個 2003-2009 在紐約的 IVDU TB cluster，透過 50 株相同 MIRU 12 loci 但有兩種 phenotype (all susceptible, INH resistance)，決定在 2007-2009 進行>1400 人的 contact investigation，結果找不到

一個 secondary case，此外也無法了解爲何每一個在 INH resistance 跑出來之前的病人都 successfully treated，卻出現 INH resistance strain。目前我們對於如何大規模地利用基因分型還不很清楚它的效益，諸多的文獻報告 genotyping 在社區有 clustering 的狀況，卻無法在公衛上有很顯著的幫助，是否暗示著目前的分型方式，在分辨菌株上有其限制，並沒有把真正不同的部份迅速地找出來。美國與澳洲都是 every strain genotype 的國家，對於這方面的應用，還需要更好的 logistic flow 來協助 NTP 評估，到底用途在哪裡。

Symposium 29 🎧 **14:30-16:30** Room Pasteur

Tuberculosis in health care workers: the response

Sections
HIV | Tuberculosis

Coordinators
Bess Miller (USA)
Daniel Chemtob (Switzerland)

Chairs
Bess Miller (USA)
Daniel Chemtob (Switzerland)

Target audience
National TB and AIDS control programme managers, country hospital and health facility doctors, nurses and administrators. TB and HIV programme implementing partners, researchers and others interested in surveillance, monitoring and evaluation

Description
Health care workers (HCW), including laboratory and community-based workers, have a substantially increased risk of acquiring tuberculosis (TB). The revised WHO Policy on TB Infection Control emphasises prevention and treatment of TB and HIV infection in HCW. This symposium will address conducting TB surveillance and providing TB and HIV occupational health services for HCW. Presentations will include experience of partners at country level.

Relation to Conference theme
Providing occupational health services and conducting surveillance for TB in HCW are both at the early stages of implementation in many resource-constrained settings. HIV and TB 'partners' assisting with implementation of these services are critical as ministries of health begin to build capacity in these areas.

Objectives
- Learn about evidence for increased risk of TB in health care workers (HCW) in resource-constrained settings
- Learn about country level efforts to provide TB and HIV occupational health services for HCW
- Learn about programmes conducting TB surveillance among HCW

Presentations

14:30-14:45 TB surveillance among health care workers: state of the art – *Richard Menzies (Canada)*
14:50-15:05 TB infection among health care workers in Vietnam and Rwanda: survey results – *John Oeltmann (USA)*
15:10-15:25 TB among healthcare workers in inner Mongolia, China: risk factors, knowledge and practices – *Guangxue He (China)*
15:30-15:45 Occupational risk factors for TB among health care workers in KwaZulu-Natal, South Africa – *Carrie Tudor (USA)*
15:50-16:05 Country experience with TB in health care workers in Peru – *Oswaldo Jave (Peru)*
16:10-16:25 Monitoring tuberculosis incidence among health care workers: the way forward – *Daniel Chemtob (Switzerland)*

🎧 Simultaneous English/French/English translation is provided for these sessions / Une traduction simultanée anglais/français/anglais est assurée pour ces séances

Health care worker (HCW)的 working group 討論要如何一步一步地幫助 HCW 免於較一般民眾還高的 TB risk。長期以來就知道 HCW 是 high risk group，也知道怎麼透過 administration, environment control 以及 PPE 來幫助 HCW，但是由於勞安和職災對資方是有害的，身爲勞方的 HCW 長期沒有辦法得到適當的保障和賠償。從各國資料分享可知，不論哪一個國家，都需要落時勞安的通報和 HCW TB 發生的監視，進而才有機會改善目前的困境。故 Union HCWs infection control 明年的目標是要求 HCWs 的 TB rate 進入指標，促使各國針對此一威脅重視。會中

也提到，並不會針對 LTBI 的部份進行診斷和 IPT 的推薦，此時就看到 New Jercy 的 Global TB Institute 的 Dr. Rich 起來反對，認爲 IPT 可以解決的問題，爲何一直拖延。在此會議中，中國 CDC 代表報告了在內蒙由美國 CDC sponsor 的 HCW 研究，顯示有 68%的 HCW 的 QFT 是陽性的，討論時也提到沒有足夠的 M95 可以保護 HCW(據說中國只認可一種廠牌)，以及多數的 HCW 以爲在一般醫院的風險比在呼吸特別醫院低，但 LTBI 的比例証明，經過 SARS 洗禮的呼吸特別醫院(當初可沒聽過連內蒙都有 SARS)，其實在 infection control 上是遠比一般醫院要來得好多了。

2011/10/30

Symposium 41 **9:15-11:15** Room Rotterdam

National TB prevalence surveys: global progress, results and lessons learnt

Section
Tuberculosis

Coordinator
Ikushi Onozaki (Switzerland)

Chair
Nobukatsu Ishikawa (Japan)

Target audience
Staff of national governments, national TB programmes, international and national technical and financial agencies and research institutions

Description
The WHO Global Task Force of TB Impact Measurement has made major efforts to facilitate national TB prevalence surveys in Asia and Africa since 2008. By 2010, substantial progress was evident. The symposium will include an overview of global progress in the design and implementation of prevalence surveys and presentation of results and lessons learnt from major national surveys completed in 2010 and 2011; examples of how the results from prevalence surveys have been used to re-estimate the burden of disease and the impact of TB control at country level will also be presented.

Relation to Conference theme
TB prevalence surveys can only be successfully implemented if strong partnerships within and among national governments, the community, funding agencies and technical partners exist. Multidisciplinary teams are also needed. Survey results can also illustrate where new partnerships are needed to improve TB control. All presentations will highlight the role of partnerships in prevalence surveys, and in the practical application of results to improve TB care and control.

Objectives
- To review global progress in the design and implementation of prevalence surveys
- To present results and lessons learnt from national surveys completed in 2010 and 2011
- To discuss the re-estimatimation of the TB burden and the impact of TB control at country level

Presentations

09:15-09:30 National TB prevalence surveys: an overview of global progress 2008-2011 – *Ikushi Onozaki (Switzerland)*

09:35-09:50 The third national TB prevalence survey in Myanmar, 2009-2010: results and lessons learnt – *Lwin Thandar (Myanmar)*

09:55-10:10 The first national TB prevalence survey in Ethiopia, 2010-2011: results and lessons learnt – *Zeleke Alebachew (Ethiopia), Amha Kebede (Ethiopia)*

10:15-10:30 The national TB prevalence survey in China, 2010: results, evaluation of the impact – *Hui Zhang (China), Shiwen Jiang (China)*

10:35-10:50 Using the results of national TB prevalence surveys to better estimate the burden of TB – *Philippe Glaziou (Switzerland)*

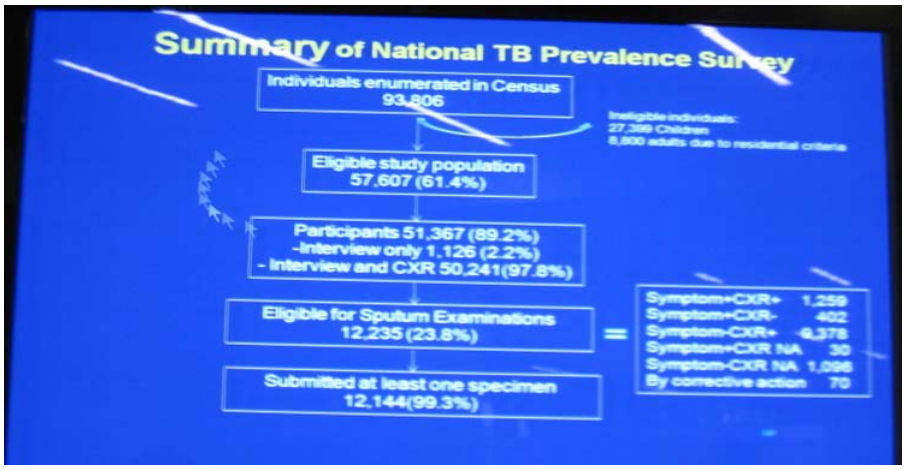
10:55-11:15 Discussion

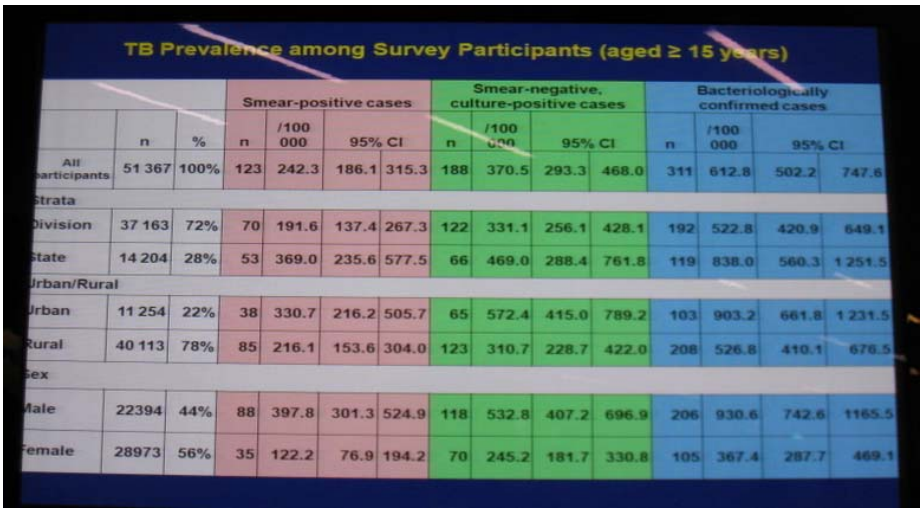
盛行率大調查從去年開始將在數年內擴張到 21 個目標國家，通常這些國家是 high burden，而 WHO 有興趣了解，每年所估算的 prevalence, incidence, case burden, 是否與現實相近還是所去甚遠？由於 MDG goal 是要 reverse TB incidence by 2015, Stop TB 的 goal 則是與 1990 年相比, 2015 年 prevalence 與 mortality 要減半。負責

盛行率調查的是來自日本的 WHO 的專家 Ikuchi Ozonaki，而 Japan Institute of Tuberculosis 和 JATA 負責 international 的 JICA，都扮演執行和 donor 的角色，與會的 Myanmar, Ethiopia, China 都在 2007-2010 年之間完成盛行率調查的壯舉，其中 Ethiopia 是非洲 50 年來的第一次盛行率調查，而中國是既 1990, 2000, 的第三次，光是聽到他們報告都快流淚了，你可以想一想，挨家挨戶地拜訪民眾，一個村一個村經過 proportional sampling，三個國家都做到超過 90%的完成率。

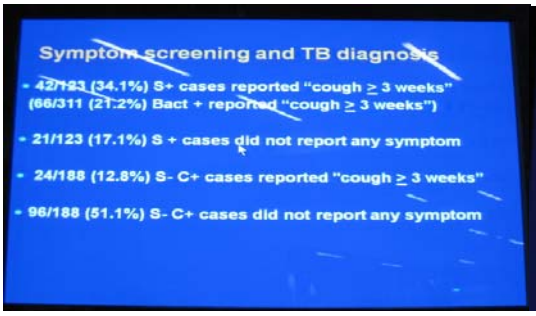
會中除了討論 sampling 的過程是否有遭遇到困難(女性的接受率較男性高，鄉下比城市高，流動的人口和戶口不實的情況下，其實是沒辦法確定 sampling 是否不偏)，以及 15 歲以下被排除是否合理(在非洲，兒童得 TB 盛行率一直不清楚，沒道理因爲中國 2000 年做出來的盛行率只有 10/100000，就覺得 sample size 太大，不 cost-benefit，而一再忽略非洲兒童 TB 的問題)，篩檢的方式無法統一 (每個受訪者都必做症狀篩檢和 CXR，任一有問題者，都必須留痰做檢查，但是痰塗片是送 direct smear 或者 concentration fluorescence smear 也是各有擁護者，痰培養是送 LJ 還是 MGIT 也是略有不同)，篩檢後的診斷和治療不統一 (中國傾向有 CXR 懷疑是 TB，即使 smear- 也會開始治療，事後可能培養也是陰性，還是完成治療和管理，所以 active TB case load 遠高於 bacterology confirmed TB case)，

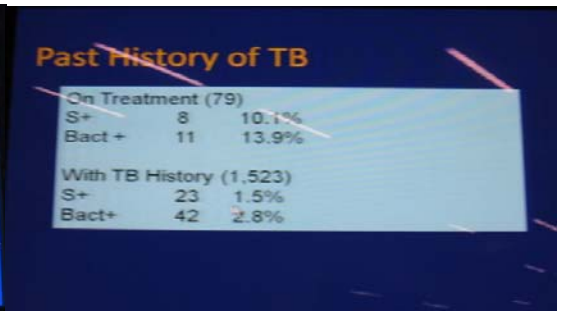
Myanmar

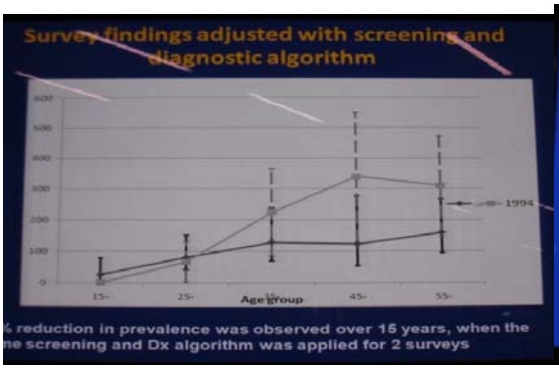


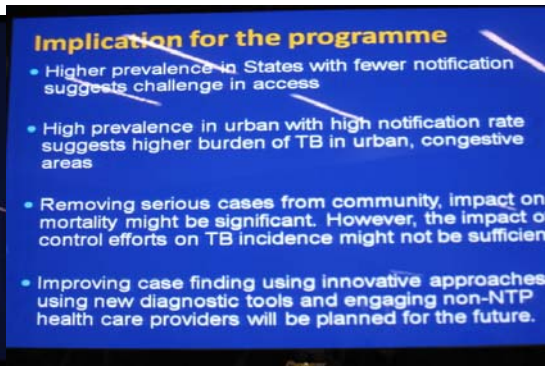


			Smear-positive cases				Smear-negative, culture-positive cases				Bacteriologically confirmed cases			
	n	%	n	/100 000	95% CI		n	/100 000	95% CI		n	/100 000	95% CI	
All participants	51 367	100%	123	242.3	186.1	315.3	188	370.5	293.3	468.0	311	612.8	502.2	747.6
Strata														
Division	37 163	72%	70	191.6	137.4	267.3	122	331.1	256.1	428.1	192	522.8	420.9	649.1
State	14 204	28%	53	369.0	235.6	577.5	66	469.0	288.4	761.8	119	838.0	560.3	1 251.5
Urban/Rural														
Urban	11 254	22%	38	330.7	216.2	505.7	65	572.4	415.0	789.2	103	903.2	661.8	1 231.5
Rural	40 113	78%	85	216.1	153.6	304.0	123	310.7	228.7	422.0	208	526.8	410.1	676.5
Sex														
Male	22394	44%	88	397.8	301.3	524.9	118	532.8	407.2	696.9	206	930.6	742.6	1165.5
Female	28973	56%	35	122.2	76.9	194.2	70	245.2	181.7	330.8	105	367.4	287.7	469.1

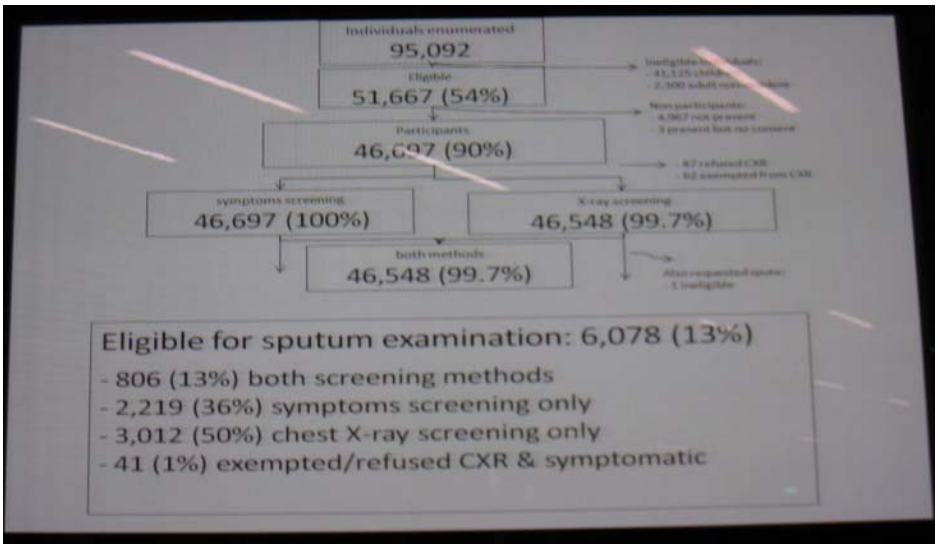


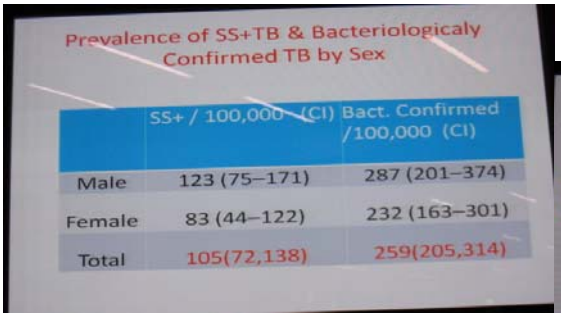


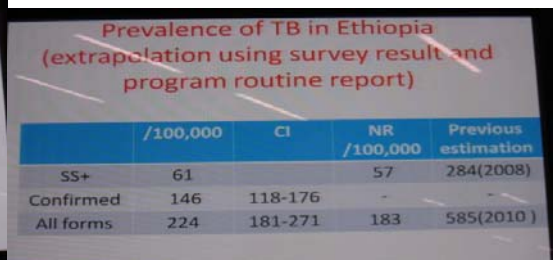


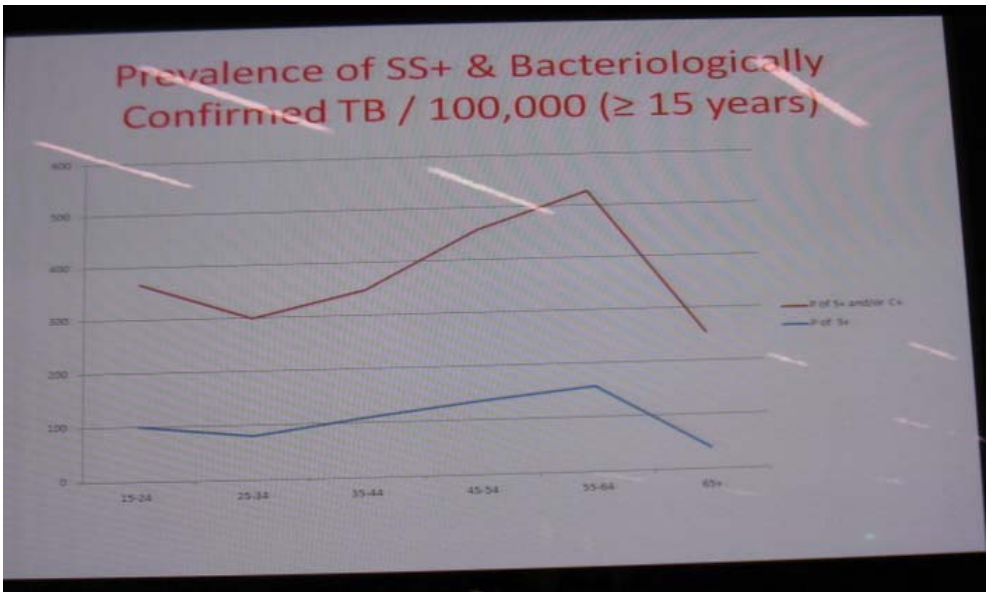


Ethiopia


Individuals enumerated
95,092
Eligible
51,667 (54%)
Participants
46,697 (90%)
symptoms screening
46,697 (100%)
X-ray screening
46,548 (99.7%)
both methods
46,548 (99.7%)
Eligible for sputum examination: 6,078 (13%)
- 806 (13%) both screening methods
- 2,219 (36%) symptoms screening only
- 3,012 (50%) chest X-ray screening only
- 41 (1%) exempted/refused CXR & symptomatic


Prevalence of SS+TB & Bacteriologicaly Confirmed TB by Sex
SS+ / 100,000 (CI)
Bact. Confirmed /100,000 (CI)
Male
123 (75–171)
287 (201–374)
Female
83 (44–122)
232 (163–301)
Total
105(72,138)
259(205,314)


Prevalence of TB in Ethiopia (extrapolation using survey result and program routine report)
/100,000
CI
NR /100,000
Previous estimation
SS+
61
57
284(2008)
Confirmed
146
118-176
-
-
All forms
224
181-271
183
585(2010)


Prevalence of SS+ & Bacteriologically Confirmed TB / 100,000 (≥ 15 years)
600
500
400
300
200
100
0
15-24
25-34
35-44
45-54
55-64
65+

China

Sampling

- Principle of sampling: a national representative sample
  - ➢31 provinces were included
  - ➢Sample population was 264,000
  - ➢Number of survey sites/cluster was 176
  - ➢Population in each survey site/cluster was about 1,500

Attendance Rate

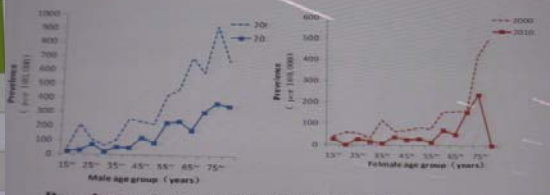
- The attendance /respond rate was 96.1%
  - ➢ The rate was 95.8% in urban
  - ➢ The rate was 96.3% in rural
  - ➢ The lowest rate was in the age group above 80 years old
  - ➢ The rate was also low in the age group below 35 years old
  - ➢ The rate was higher in Female than male (because more young men went out for work)

TB Prevalence of population aged 15 years old and above

Category	Number of patients detected during the survey	Prevalence 1/100,000 (95% CI)	Estimated number of TB patients in whole population over 15 yrs old Million (95% CI)
acitve TB	1,310	459 (433, 484)	5.0 (4.7, 5.3)
Smear positive TB	188	66 (53, 79)	0.7 (0.6, 0.9)
Bacteriologically confirmed TB	347	119 (103, 135)	1.2 (1.1, 1.5)

- Around 14.4% of detected TB patients during the survey were smear positive and 26.5% were bacteriologically confirmed TB

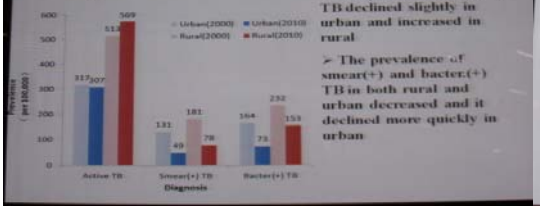
Prevalence by age and gender (VII)



Prevalence of smear-positive TB both male and female by age declined in 2010 than 2000

Prevalence in different areas (II)

- TB prevalence in urban and rural in 2010 compared with 2000

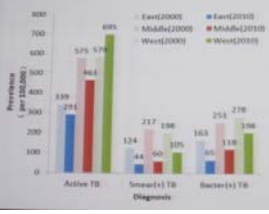


➢ The prevalence of acitve TB declined slightly in urban and increased in rural

➢ The prevalence of smear(+) and bacter.(+) TB in both rural and urban decreased and it declined more quickly in urban

Prevalence in different areas (IV)

- TB prevalence in eastern, middle and western areas of China in 2010 compared with 2000



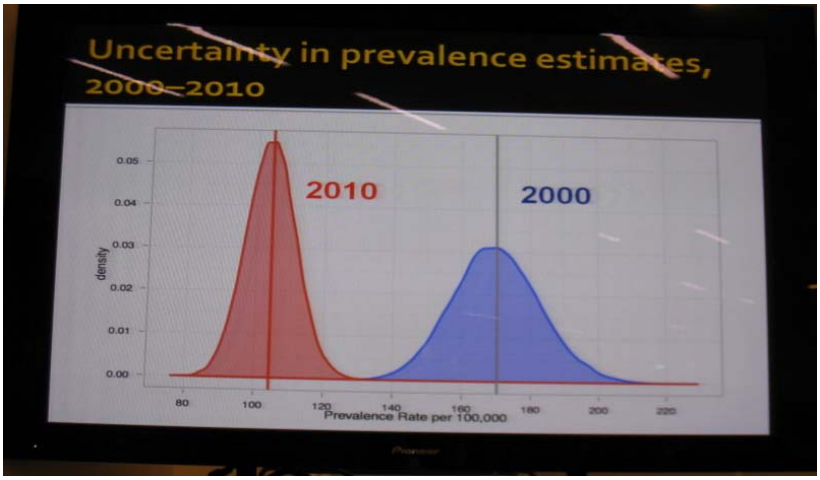
➢The prevalence of acitve TB in eastern and middle areas declined slightly in 2010, however it increased in western

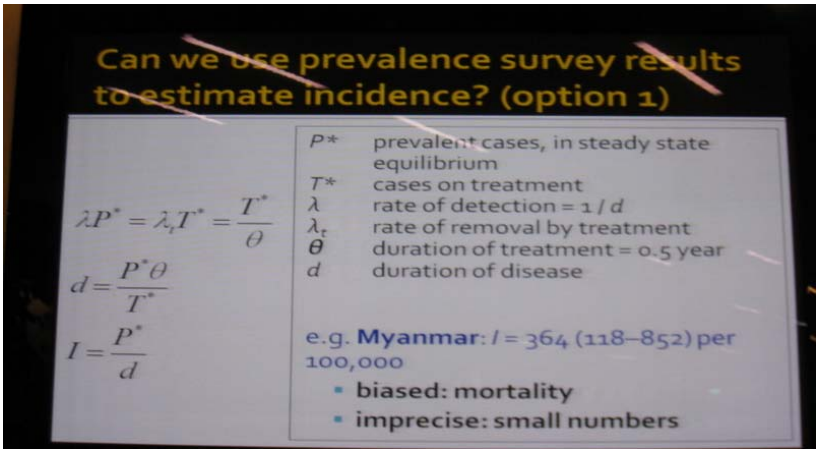
➢Both smear(+) and bacter.(+) TB prevalence in three areas in 2010 were lower than 2000 and it declined more quickly in eastern and middle areas than western

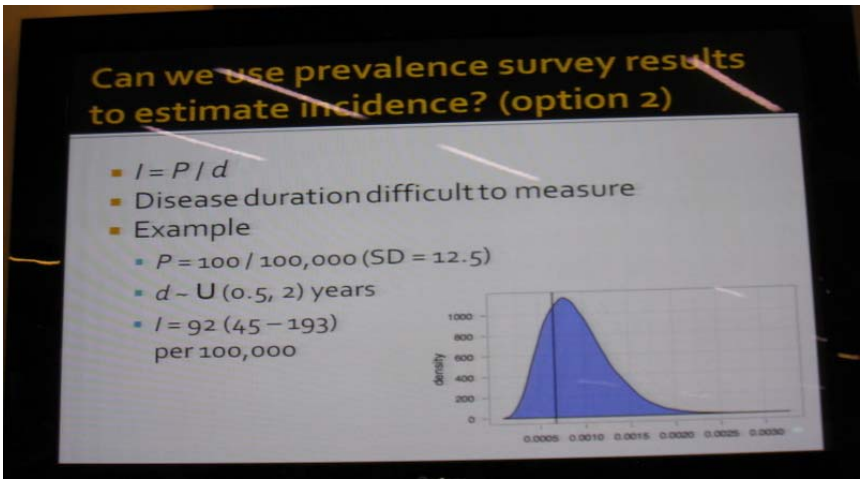
Interpretation for the slight decline of active TB prevalence

- In 2000, chest fluoroscopy was used for screening to all the subjects of the survey, only the people with abnormal fluoroscopy were performed chest X-ray. In 2010, chest X-ray radiography was provided to all subjects of the survey. bIt resulted in the increased sensibility of case detection.
- In addition, the new TB diagnostic criteria which issued in 2008 were used so that the TB pleurisy were included

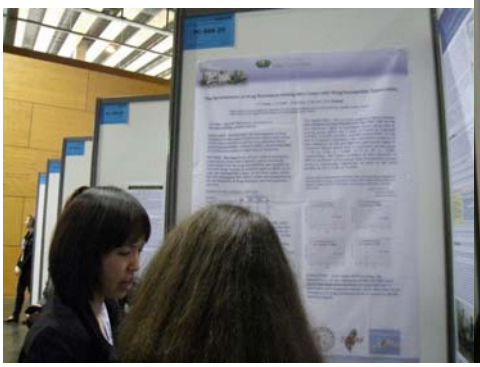
會中亦討論使用兩種方式去計算 incidence 的推估，以中國爲例，不論哪一種方式，都會有如下圖一般，太寬的 95% 信賴區間，造成溝通上的困難。大規模的盛行率調查其時就是要了解田野中存在的結核病個案，對推估 TB 負擔是本一定要的 若能提早找到，就減少傳播，讓 duration of disease 變短，然而這一切對 incidence，短期內沒有太大的影響，盛行率調查不是設計來估計 incidence 的。

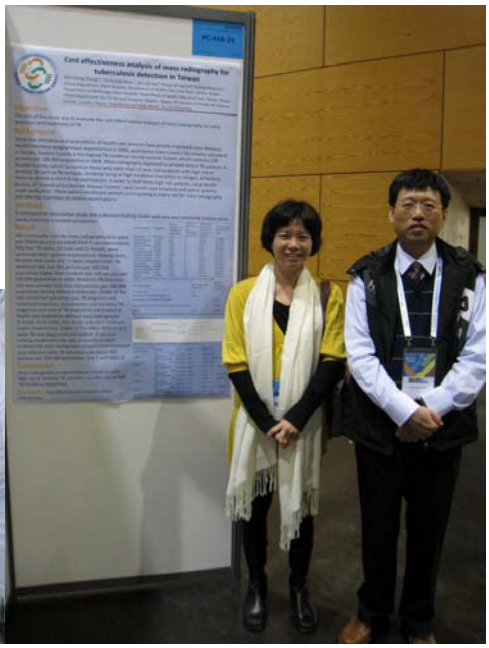




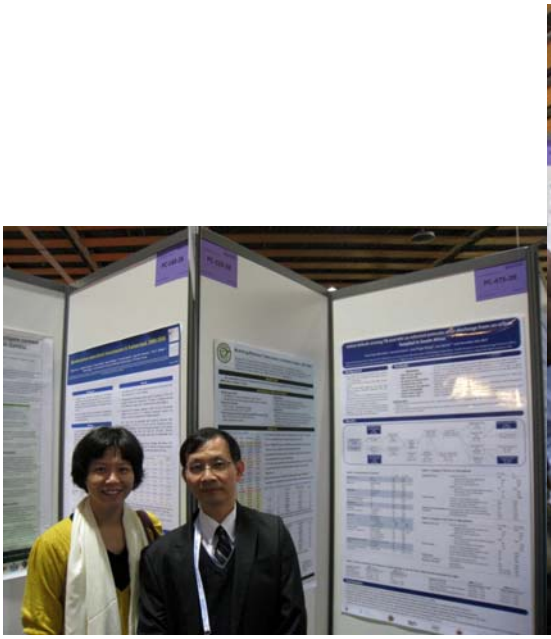


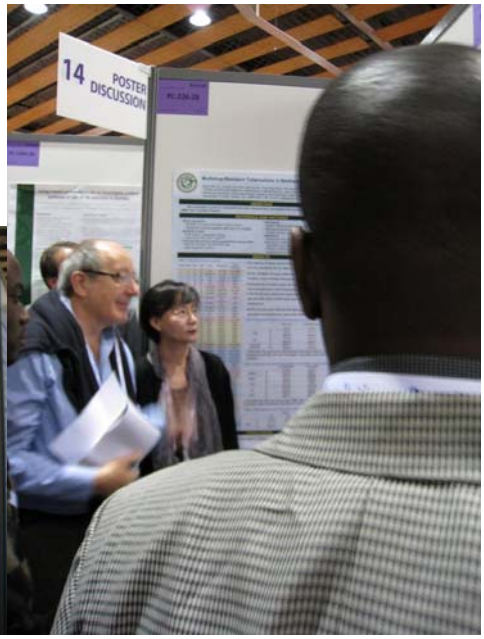
以下是台灣的代表在海報的剪影, 分享給大家, 共計 24 篇海報報告, 和 1 篇口頭報告:






Agenda

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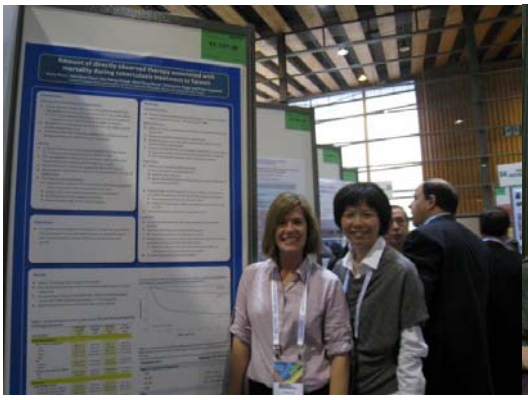
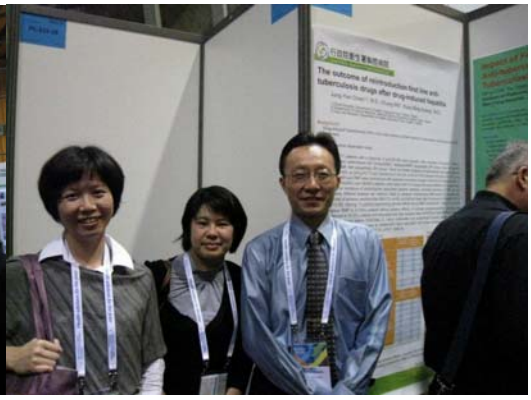
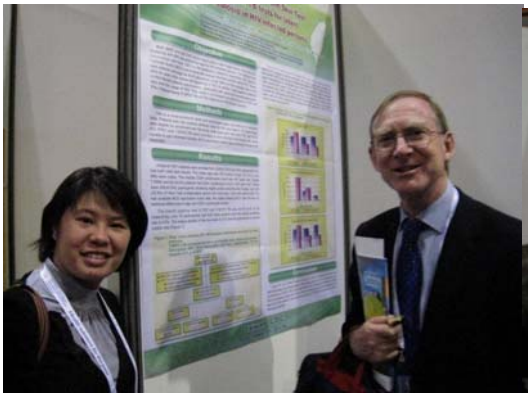
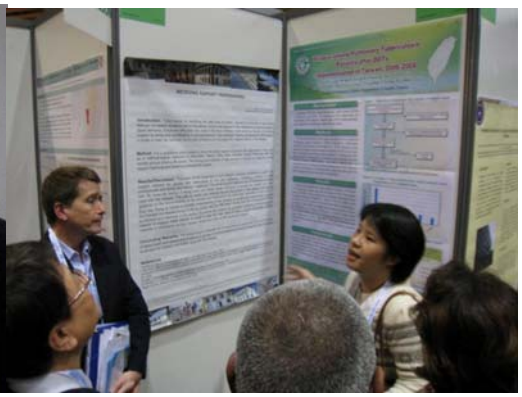
POSTER
DISCUSSION

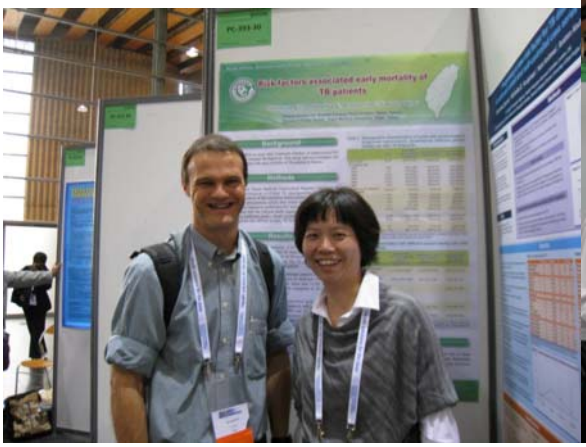


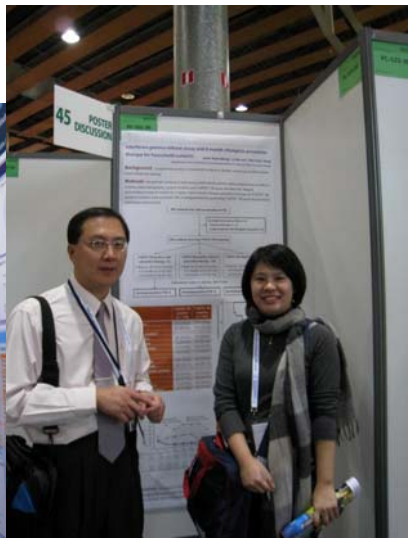



R. O'BRIEN
K. CASTRO





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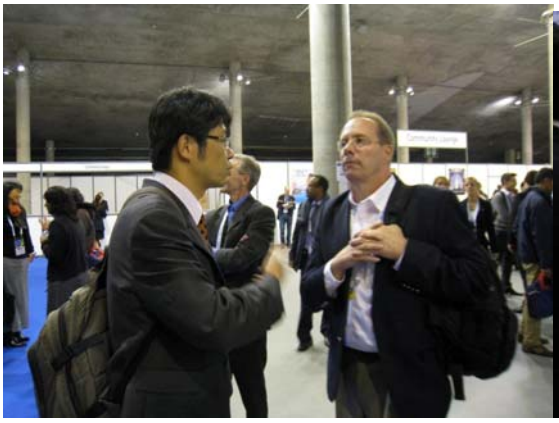
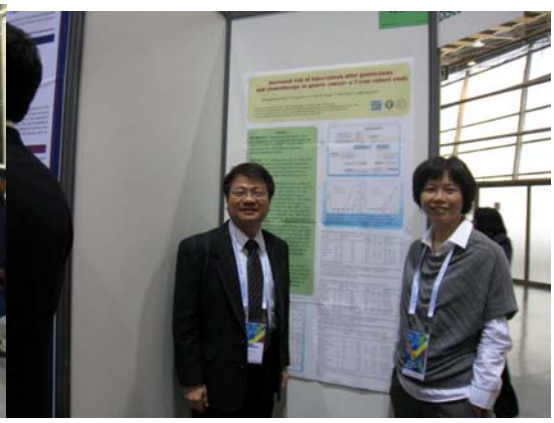
POSTER
DISCUSSION






The Union in North America
The Union
Exhibition
Poster Area


Join The Union

叁、心得及建議

1. 企業有其社會責任, 政府如何結合企業, 讓企業用市場運作的方式來有效教育民眾或幫助民眾, 甚至協助 NTP 進行政府做不到的事, 從 eHealth 和 Mikkel Vestergaard Frandsen 以及 Amir Khan 的演講, 都告訴我們, 時代已經走到大量使用網路, 以及手持上網電話的趨勢, 公衛應透過與電信業者及願意貢獻的企業, 讓無線網路及手機能夠協助疾病的控制
2. 新的診斷工具以及研究的方法, 應該要能夠實際幫助公共衛生在田野間的業務: 由美國的研究告訴我們, genotyping 若非用在已知 epi-link 的 outbreak 之上, 常會有不知如何解釋的窘態, 由於不是 real time 可以得到足以參考的結果, 在使用上, 如何克服技術上的困難, 能夠縮短 turn around time, 即時 feedback 到第一線工作人員手上, 讓實質的幫助加分, 減少媒體事件甚至早一點偵測實驗室污染或社區群聚。
3. 了解中國疫情: 中國的掘起, 在近年來的 IUATLD 年會上, 是越來越清楚, 雖然 global fund 似乎與中國有不同的意見, 導致今年停止 funding 的局面; 但龐大的 TB 人口和 MDRTB 的比例, 還是不得不注意。今年上台報告的代表, 英文明顯進步, 甚至北京 CDC 雇用 ABC 來幫忙口頭報告。 2010 年的 prevalence surveillance 報告顯示, 細菌學確診個案(含培養) 過去十年以 5.8% 的速度在下降, 估計爲 100/100000。要小心的是, 用 X 光判斷但細菌學陰性的 TB 達每年通報的 3 倍, 人口老化可能是主因外, 臨床診斷和治療是否還在台灣 20 年前的狀態, 可能會導致 over-diagnosis and treatment, 衍生出更多的 drug resistance。 此次在 drug resistance 上的討論較少, 但是我們都知道中國 drug resistance 嚴重及用藥浮濫及沒有持續 DOT 的問題, 在台灣有超過百萬人口在中國經商就業就學的今天, 值得我們思考配套的方式。

4. 以下有三點建議:

    1. 將通報和個案管理的 web-based 界面升級, 盡可能的 user friendly 及視覺導向, 將有限的人力改用在非用人來做不可的事情上(個案訪視, 醫療的聯繫, 接觸者追蹤), 讓已經一日千里的科技使百年來控制 TB 的公衛, 跟上腳步, 而不是原地踏步
    2. operational research: 台灣的 TB control strategy 相當落實, 也一直透過 operational research 發現問題, 並嘗試解決問題, 具有國際 TB control 的水準。人才的培育和繼續進行常規的 operational research, 需要經費的支持, 經費短缺或挪移至”非” operational research, 會造成未來對於自己的 TB control strategy 不清楚的局面。若能夠逐年增加人才的培育和強調科技計劃中 operational research 所扮演的角色, 將有助於防疫手段的評估和未來政策的決定, 不只是維持 TB policy making 的水準, 也能帶動其它防疫甚至健康相關疫體評估的能力, 繼續保持國際水準。
    3. 了解特殊族群疫情: 因爲醫護人員以及原住民的 TB 高發生率, Union 成立新的 working group 來討論控制的手段和執行面的修正, 前者要求各國開始進行醫護人員的 TB 發生率監視, 務必提出數據以及勞安狀況; 後者則將在明年討論各國現況, 來思考改善的方案; NTP 可多鼓勵學術單位在這兩個 fields 的發展, 並進行定期的報表產出。