

From DOTS Expansion to implementation of the Stop TB Strategy: challenges for NTPs

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Chair , DEWG

Outline

- DOTS to Stop TB Strategy – evolutionary steps
- Implementation of the Stop TB strategy – the challenges at the country level
- Proposes responses to the Stop TB Strategy implementation challenges
- Conclusions

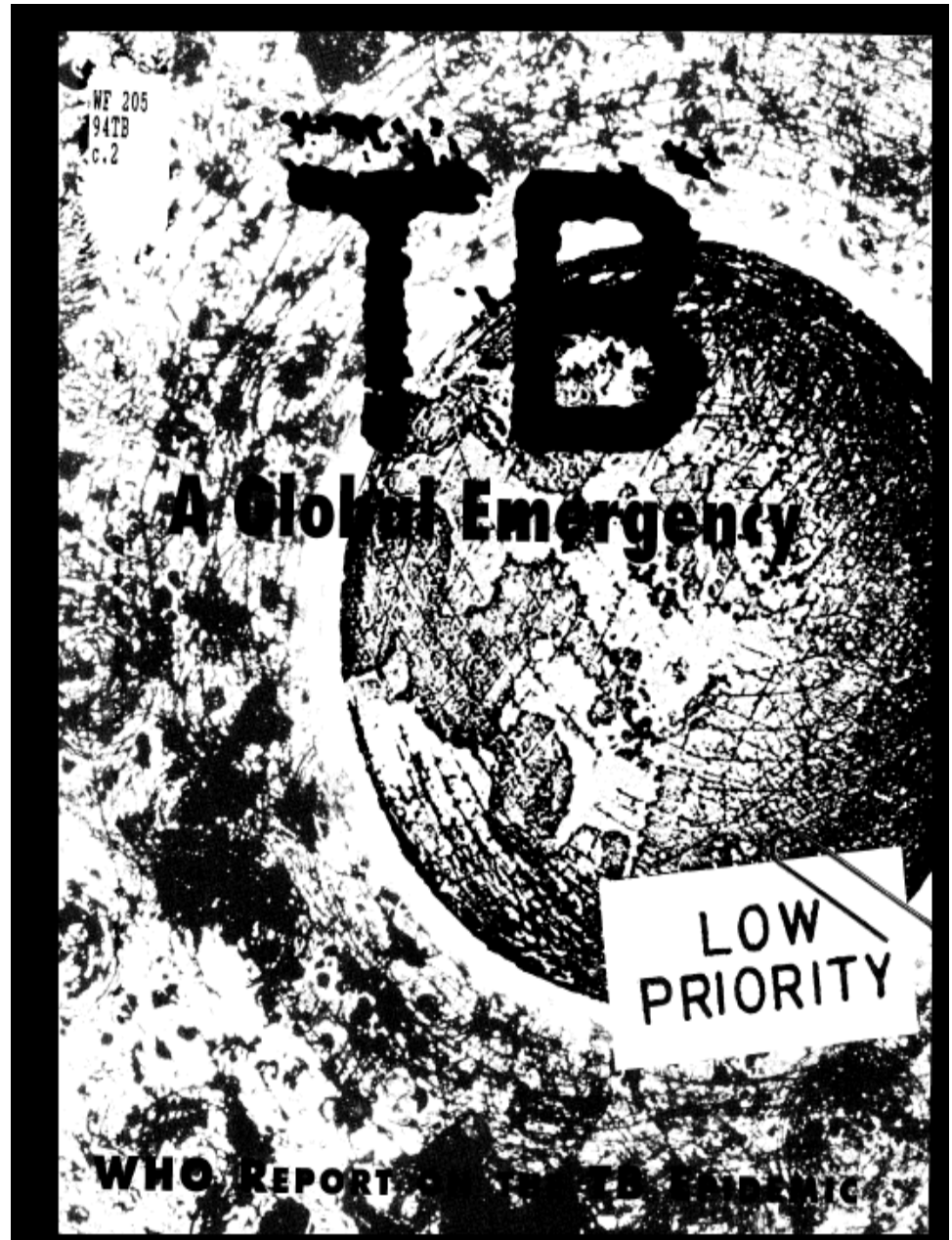
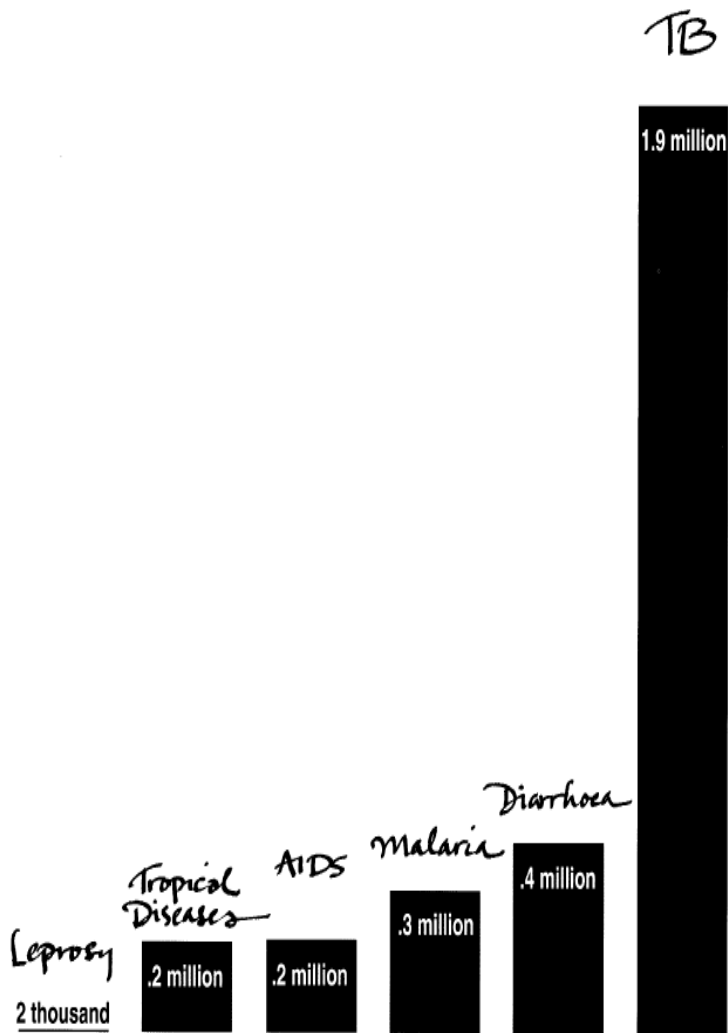
TB : A Global Emergency

Friday 23, April 1993

WHO

- **Declares TB a global emergency**
- **Warns that 30 million lives could be lost from TB in the next decade**

Deaths



Deaths from Infectious and Parasitic Diseases in 1990, Over Age 5

Source: WHO TB Report 1994

TB in 1993-1994

- At 3 million lives a year TB was the leading infectious killer of adults
- TB was resurging in wealthy countries
- Drug resistant TB was becoming more common and was killing people
- The TB-HIV co –epidemic was rapidly unfolding
- Short course chemotherapy was available and able to cure more than 95% of cases
- The World Bank Development Report (1993) had declared TB control among the most cost effective health interventions

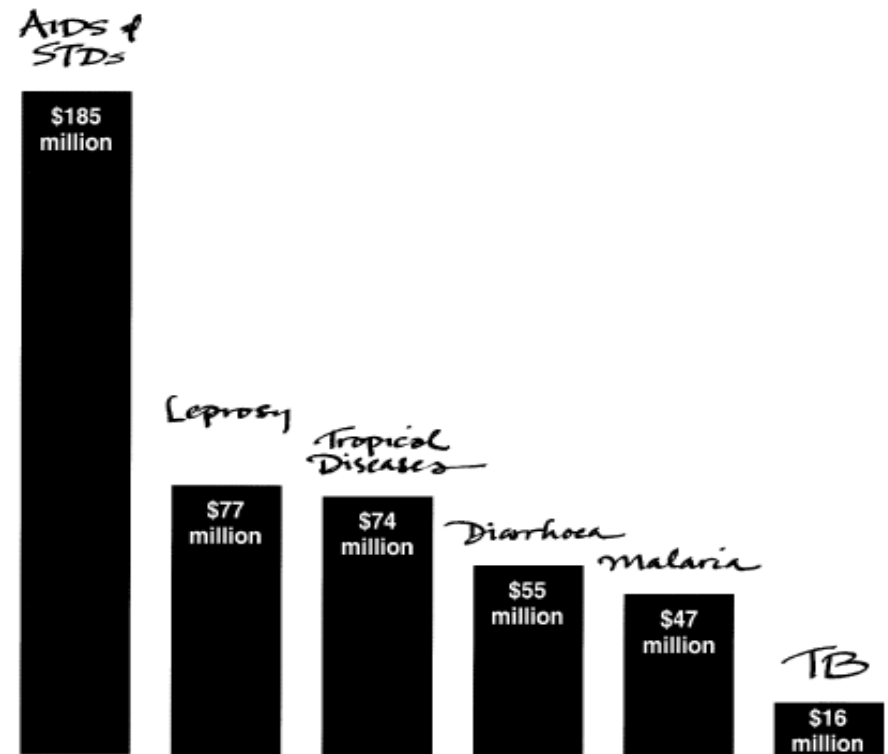
But ---

TB was a low priority disease (only one person was coordinating TB control activities at WHO in 1988)

Poor public policy

TB control programmes were considered too “vertical”

Funding



External Aid Flows for Infectious and Parasitic Diseases

The proposed TB control strategy

- Demonstrate to governments the economic and social consequences of ignoring TB
- Help nations establish effective TB programs
- Focus on worst affected countries
- Develop both the “vertical” and “horizontal” aspects of TB control
- Promote short course chemotherapy instead of long course
- Emphasize supervised treatment
- Treat existing cases before searching for new cases
- Funding should first emphasize treatment then research

DOTS – the Strategy

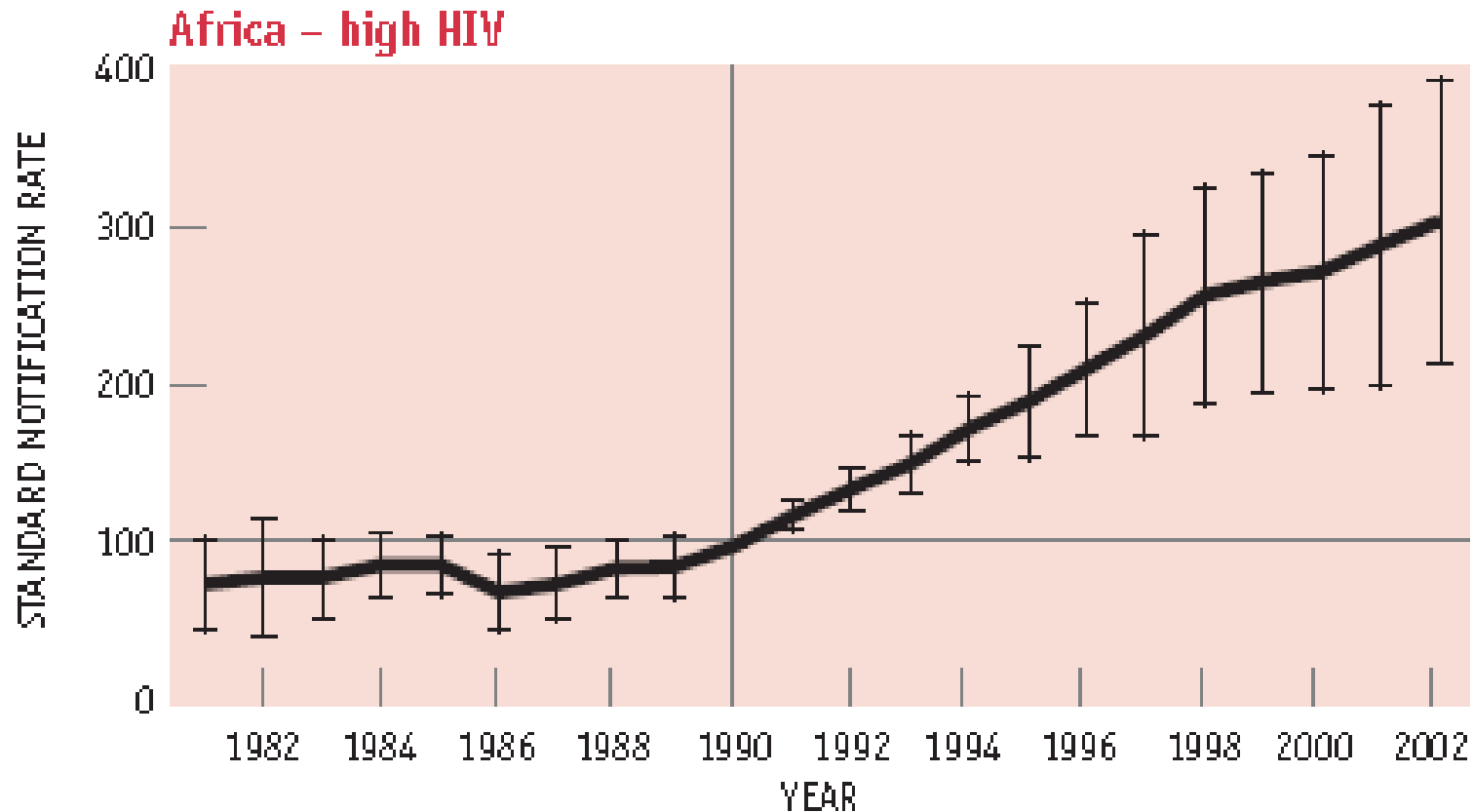
- Political commitment
- Passive case detection of smear positive PTB using sputum smear microscopy
- Standardized short course (6-8 months) treatment with direct observation of treatment
- Regular and uninterrupted supply of anti- TB drugs
- Standardized recording and reporting system

DOTS Expansion

- **Key elements of the first Global DOTS Expansion Plan of 2000**
 - Development of five year plans at country level
 - Increased political commitment
 - Enhanced national and international partnerships
 - Social mobilization
 - Human resource development
 - Improved TB drug procurement
 - Quality assurance of smear microscopy
 - Operations research

Ten years of DOTs Implementation (2004 -2005)

Escalating TB Disease Burden Despite in Africa



Source: WHO Global TB Report 2004

Will DOTS do it? A reappraisal of tuberculosis control in countries with high rates of HIV infection

K. M. De Cock,*† R. E. Chaisson†

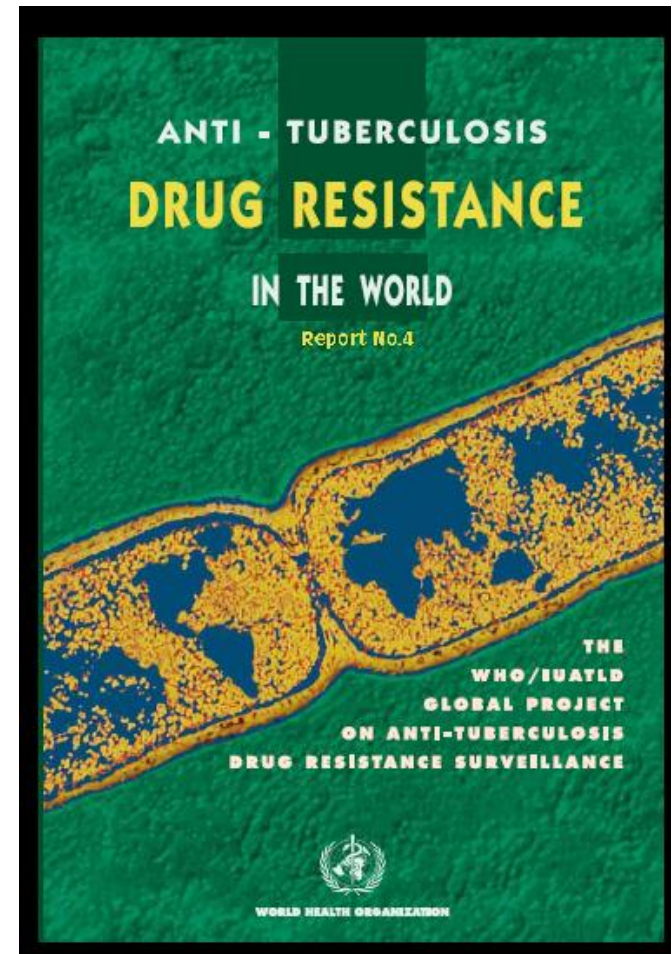
The problems with DOTS

- Targets :
 - 70% CDR in the face of an uncertain denominator**
 - 85% Cure Rate without ART considered not feasible**
- Focus on smear positive PTB while PLHIV had proportionately higher smear negative PTB and EPTB
- Inferior drug regimen – Adverse effects with TH and poorer outcomes with EH

Escalating MDRTB Problem

Global Burden of MDRTB
estimated at about
500,000

Increasing demand for
more comprehensive
approaches to
prevention, identification
and treatment of MDRTB



Doubts about efficacy of DOT for improving adherence

REVIEW

Review

Directly observed therapy and treatment adherence

Jimmy Volmink, Patrice Matchaba, Paul Garner

Direct observation of patients taking their medication is a strategy to improve completion rates for tuberculosis treatment, but the programmes to implement this approach consist of a complex array of inputs aimed at influencing adherence. Policy makers need a clear understanding of these inputs to succeed. We systematically identified and reviewed published reports of direct observation therapy (DOT) programmes and compared inputs with WHO's short-course DOT programme. DOT programmes frequently consist of more than the five elements of WHO's strategy, including incentives, tracing of defaulters, legal sanctions, patient-centred approaches, staff motivation, supervision, and additional external funds. Focusing on direct observation as a key factor in the promotion of adherence seems inappropriate. Multiple components might account for the success of DOT programmes, and WHO should make these explicit.

Lancet 2000; 355: 1345 - 1350

Summary of the “weaknesses” of the DOTS strategy

- **DOTS was a largely public Health approach**
 - Focus on infectious smear positive PTB (Cat 1)
 - Less emphasis on other forms of TB (Cat 2, 3 and 4)
 - Not patient centered
 - Inadequate to control TB where the driver was HIV
 - Ignored MDRTB
 - DOT was offensive to “communities”

However---

- Between 1995 -2010
 - 55 million TB patients were treated in TB programmes adopting DOTS/Stop TB Strategy, 46 million of them successfully with 6.8 million lives saved

Source : WHO Global TB Report 2011

The DOTS Strategy

Political commitment

Passive case detection of smear positive PTB using sputum smear microscopy

Standardized short course (6-8 months) treatment with direct observation of treatment

Regular and uninterrupted supply of anti- TB drugs

Standardized recording and reporting system



THE STOP TB STRATEGY

VISION

A TB-FREE WORLD

GOAL

To dramatically reduce the global burden of TB by 2035 in line with the Millennium Development Goals and the Stop TB Partnership targets

OBJECTIVES

- Achieve universal access to high-quality care for all people with TB
- Reduce the human suffering and socioeconomic burden associated with TB
- Protect vulnerable populations from TB, TB/HIV and multidrug-resistant TB
- Support development of new tools and enable their timely and effective use
- Protect and promote human rights in TB prevention, care and control

TARGETS

- HDG 6, Target B: halt and begin to reverse the incidence of TB by 2035
- Targets linked to the HDGs and endorsed by Stop TB Partnership:
 - 2035: reduce prevalence of and deaths due to TB by 50%
 - 2050: eliminate TB as a public health problem

THE 6 COMPONENTS

- 1 PURSUE HIGH-QUALITY DOTS EXPANSION AND ENHANCEMENT**
 - a. Secure political commitment, with adequate and sustained financing
 - b. Ensure early case detection, and diagnosis through quality-assured bacteriology
 - c. Provide standardized treatment with supervision, and patient support
 - d. Ensure effective drug supply and management
 - e. Monitor and evaluate performance and impact
- 2 ADDRESS TB-HIV, MDR-TB, AND THE NEEDS OF POOR AND VULNERABLE POPULATIONS**
 - a. Scale-up collaborative TB/HIV activities
 - b. Scale-up prevention and management of multidrug-resistant TB (MDR-TB)
 - c. Address the needs of TB contacts, and poor and vulnerable populations
- 3 CONTRIBUTE TO HEALTH SYSTEM STRENGTHENING BASED ON PRIMARY HEALTH CARE**
 - a. Help improve health policies, human resource development, financing, supplies, service delivery and information
 - b. Strengthen infection control in health services, other congregate settings and households
 - c. Upgrade laboratory networks, and implement the Practical Approach to Lung Health (PAL)
 - d. Adapt successful approaches from other fields and sectors, and foster action on the social determinants of health
- 4 ENGAGE ALL CARE PROVIDERS**
 - a. Involve all public, voluntary, corporate and private providers through Public-Private Mix (PPM) approaches
 - b. Promote use of the International Standards for Tuberculosis Care (ISTC)
- 5 EMPOWER PEOPLE WITH TB, AND COMMUNITIES THROUGH PARTNERSHIP**
 - a. Pursue advocacy, communication and social mobilization
 - b. Foster community participation in TB care, prevention and health promotion
 - c. Promote use of the Patients' Charter for Tuberculosis Care
- 6 ENABLE AND PROMOTE RESEARCH**
 - a. Conduct programme-based operational research
 - b. Advocate for and participate in research to develop new diagnostics, drugs and vaccines

Focus on Early and Full Case Detection

Conceptual framework for improved and early case notification/detection

TB and Poverty

DOTS / MDR/HIV Expansion

PPM

HSS/HR

ACSM

Community engagement

Health education

Minimize access barriers

Effective TB screening in health services, on broader indication

Paediat. TB
PAL

Symptoms recognised

Patient delay

Health care utilisation

Health system delay

Improve diagnostic quality, new tools

Lab Srtength

Short-cut

Active TB

Active case finding

Diagnosis

Improve referral and notification systems

Infected

Contact investig	Clinical risk groups	Risk populations
-Children	-HIV	-Prisons
-Other risk groups	-Previous TB	-Urban slums
-All household	-Malnourished	-Poor areas
-Workplace	-Smokers	-Migrants
-Wider	-Diabetics	-Workplace
	-Drug abusers	-Elderly

Notification

New diagnostic tools
Infection control

Source : Leopold Blanc

TB determinants

TB/HIV

A patient centered approach

Patient

- Onset of symptoms (or desire to check my health) to first contact with a health provider (who , where , when – my choice

Patient/HP

- Clinical evaluation of symptoms (telling my story, submitting to a physical examination, accepting tests, receiving test results, accepting treatment, adhering to treatment)
- Listening to story, doing a physical examination, to refer or not , to request tests or not , to discuss test results , to prescribe treatment , to support patient with treatment issues (including side effects monitoring) , the NTP work of recording and reporting

The end

- The outcome – cure or no cure, acquired resistance, death, default, chronic disease etc

The Challenges

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EDITORIAL

**The critical challenge in tuberculosis programmes:
are we thinking critically?**

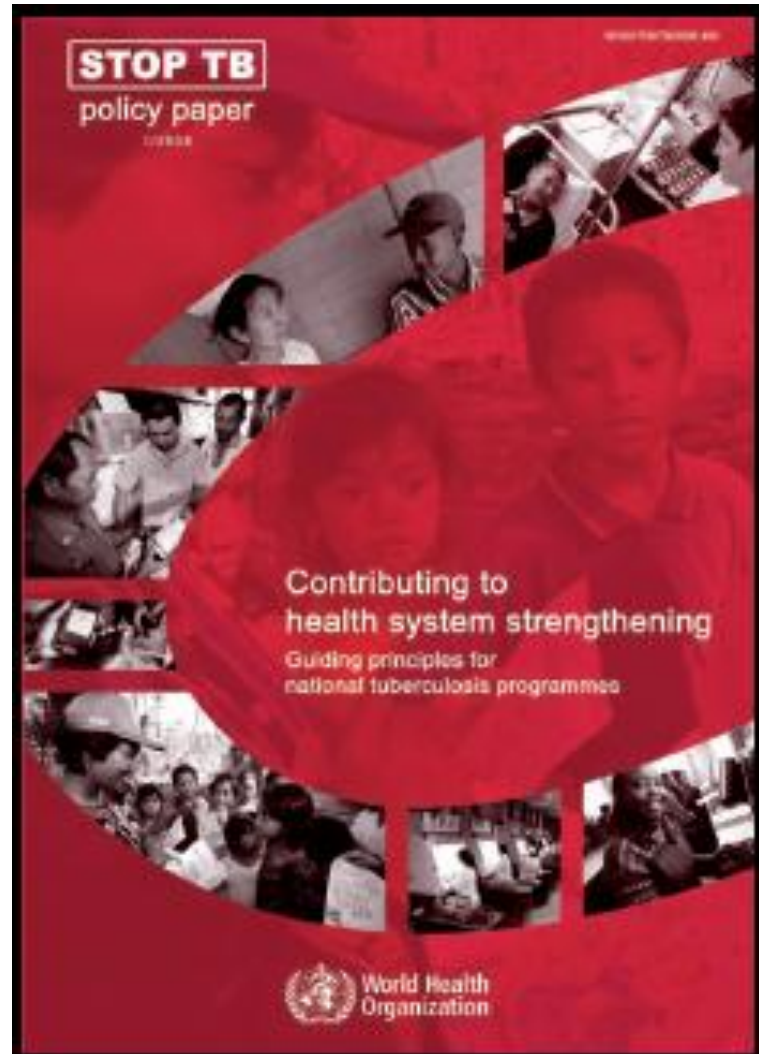
- Blind adoption of the Stop TB strategy by NTPs
- Risk of complacency when a CDR of 70% and TS of 85% is achieved
- Insufficient analysis of routine surveillance data by NTPs

Are NTPs overwhelmed by the Rapid evolution of global policies?

- Programmes not being given time to soak in new approaches and tools?
 - 2007 Liquid Culture
 - 2007 New case definition of S+PTB
 - 2007 Reduction in # smears
 - 2008 Molecular LPA
 - 2009 LED microscopy
 - 2009 Non commercial culture and DST
 - 2010 Automated NAAT

Dealing with Health System Issues

- Human Resource Development
- Commodity Management
- Health Management Information Systems
- Focus on broader health issues
 - Disease Prevention



Health Systems Issues including Human Resource Constraints

- Can the Stop TB Strategy be delivered effectively in the face of the current HRH Crisis?
- What Health System/Services Research needs to be done to address HR shortfalls?
- How should TB take advantage of the NCD wave?

Sustaining TB as a national health priority

- **Weak advocacy capacity**
 - Inadequate number and skills of advocates
 - Inadequate ability to turn routine surveillance data into advocacy “punch lines”

Is the Stop TB Partnership WG Structure a Problem?

- WG Structure of the Stop TB Partnership closely mimics the Stop TB Strategy
- Sub optimal coordination at the global level
- Is this a problem at the Country level?
- Could this structure be interfering with patient care?

Conclusion

- Although the Stop TB Strategy is comprehensive and saves lives its application at country (sub national level) level should be based on local epidemiology of the disease
- **Know your epidemic and act appropriately**