

# **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

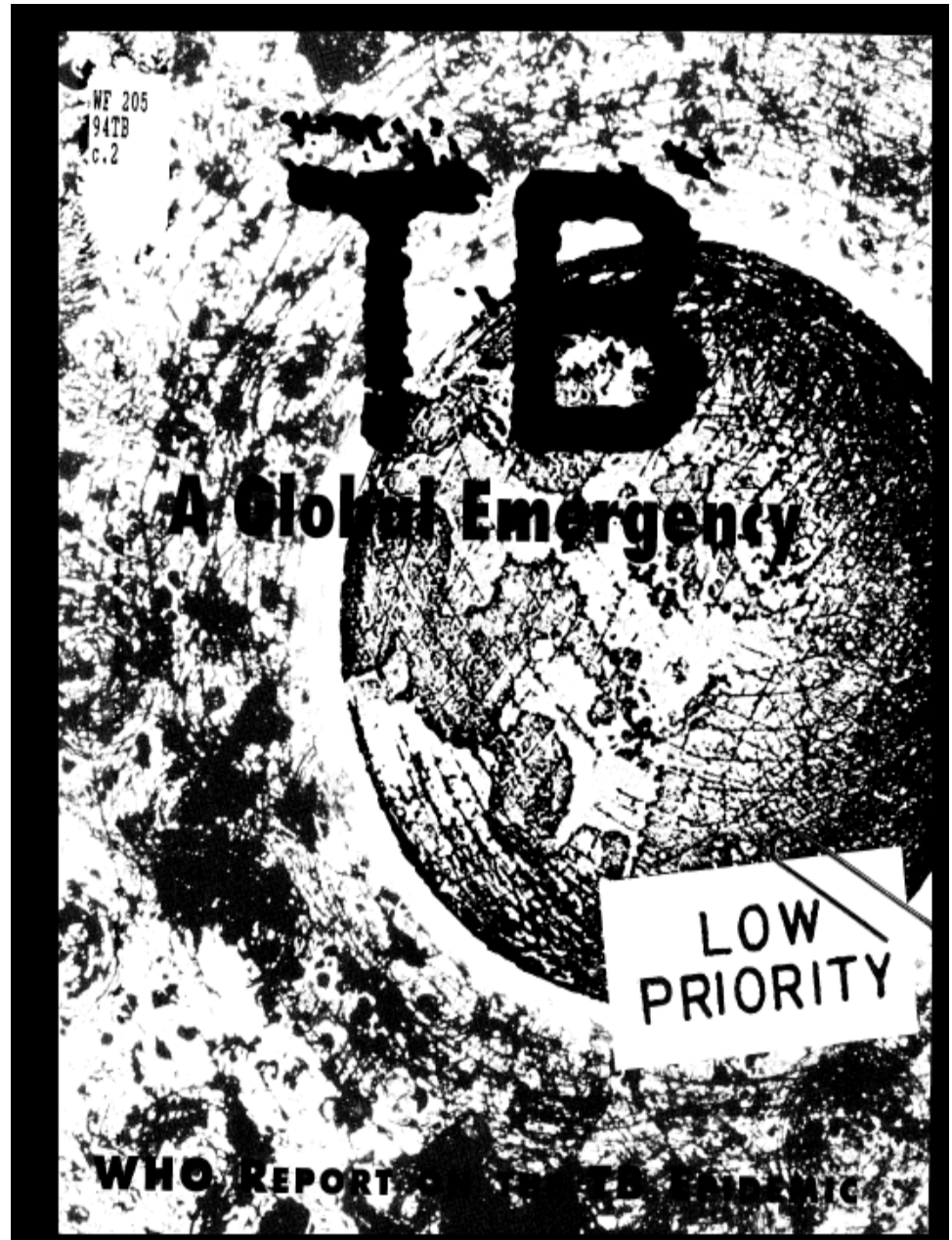
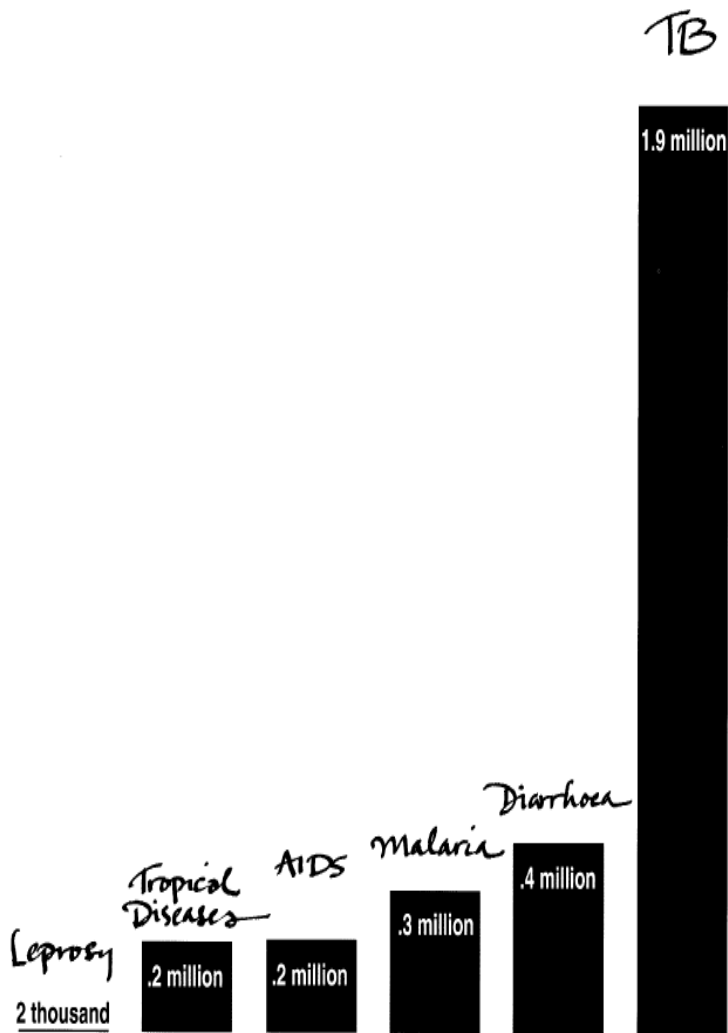
# TB : A Global Emergency

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

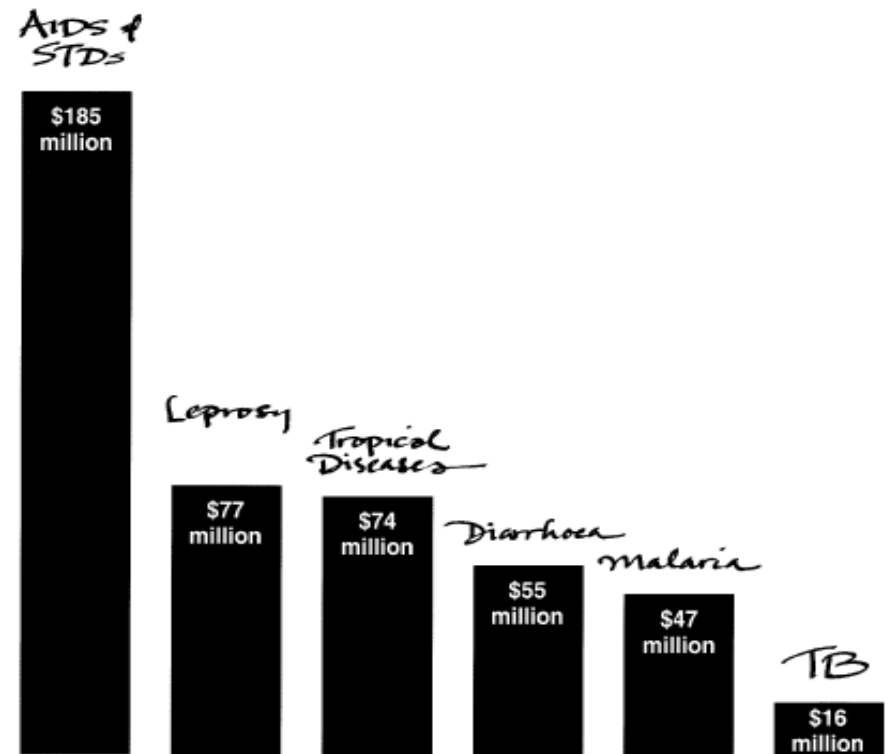
But ---

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

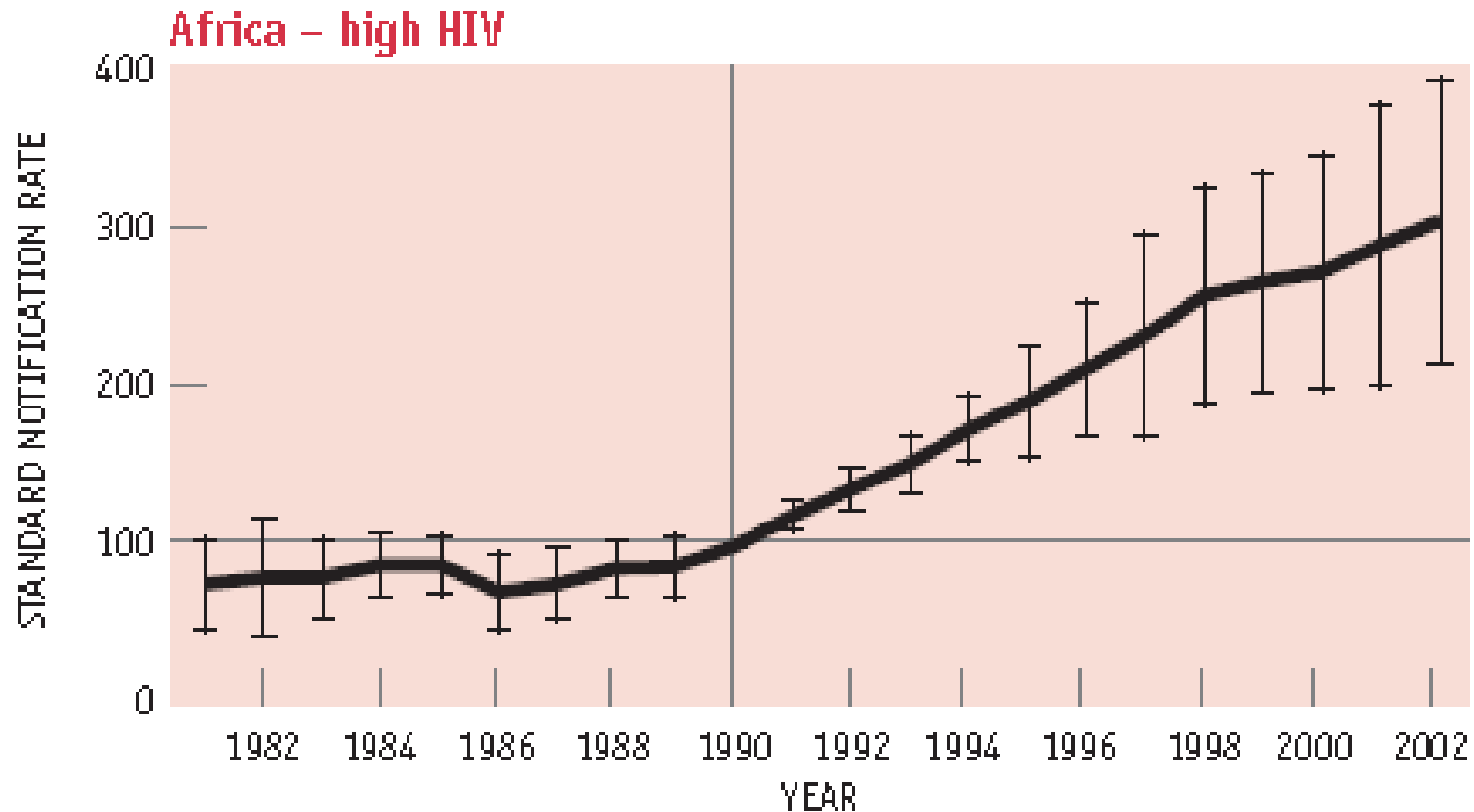
- Political commitment
- Passive case detection of smear positive PTB using sputum smear microscopy
- Standardized short course ( 6-8 months) treatment with direct observation of treatment
- Regular and uninterrupted supply of anti- TB drugs
- Standardized recording and reporting system

# 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†

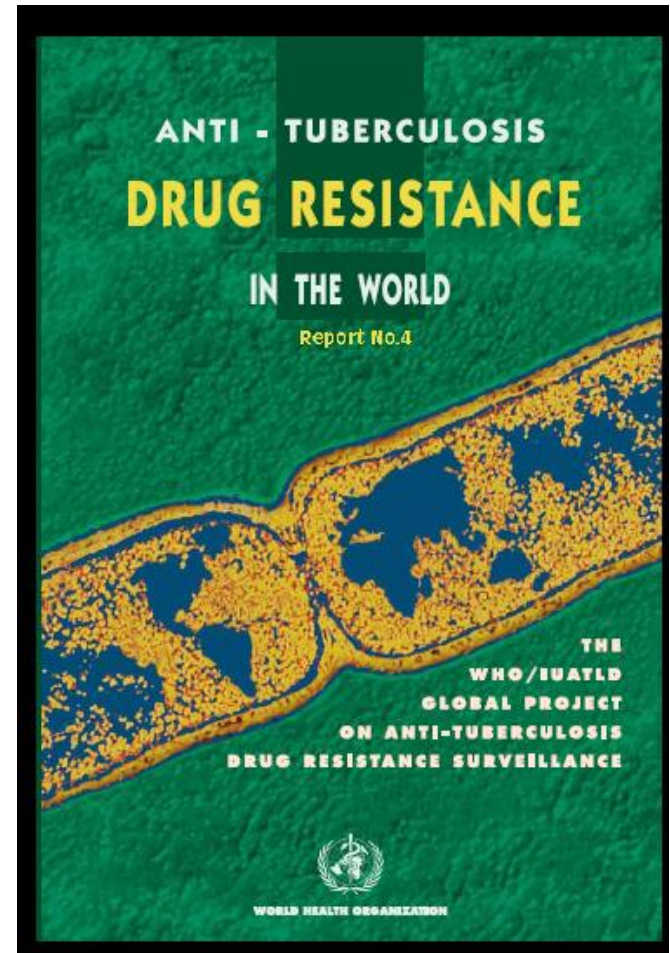
### **The problems with DOTS**

- 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

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Review

## Directly observed therapy and treatment adherence

*Jimmy Volmink, Patrice Matchaba, Paul Garner*

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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.

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***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**



# 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?**

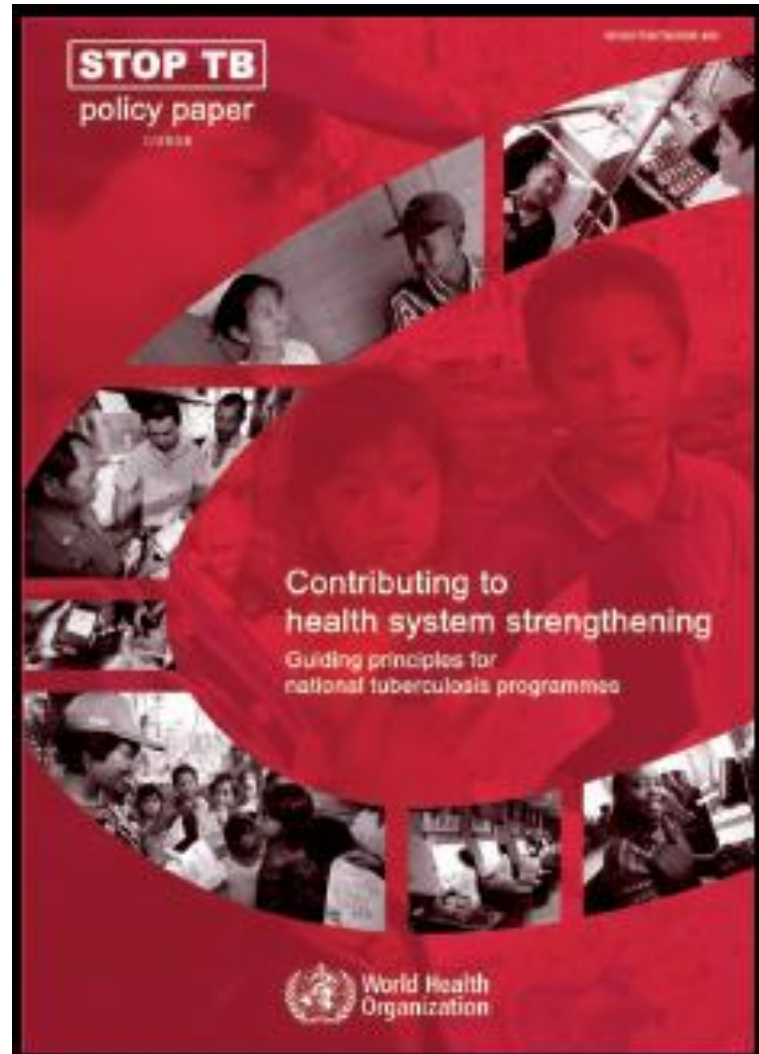
- Blind adoption of the Stop TB strategy by NTPs
- Risk of complacency when a CDR of 70% and TS of 85% is achieved
- Insufficient analysis of routine surveillance data by NTPs

# 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**