

Fighting TB in the last 20 years : did we fail? Yes, maybe.

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Back to basics – what did we learn in 20 yrs?

Münchenwiler, SWITZERLAND

24 March 2011



Learning Objectives

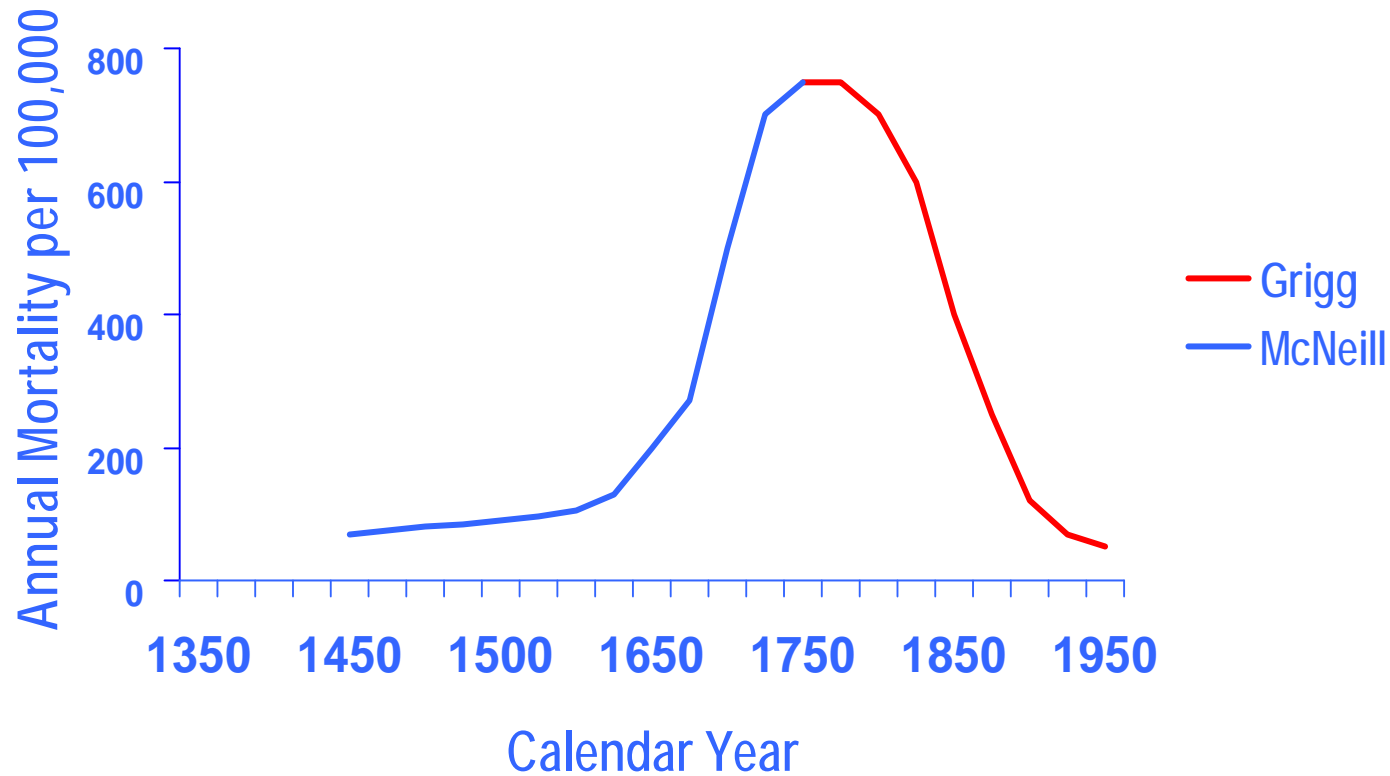
By the end of this session you will be able to:

- Describe progress in tuberculosis control
- Identify areas of challenge
- Understand aspects of the context that impedes our actions
- Explain administrative and political issues that need addressing



What is the context?

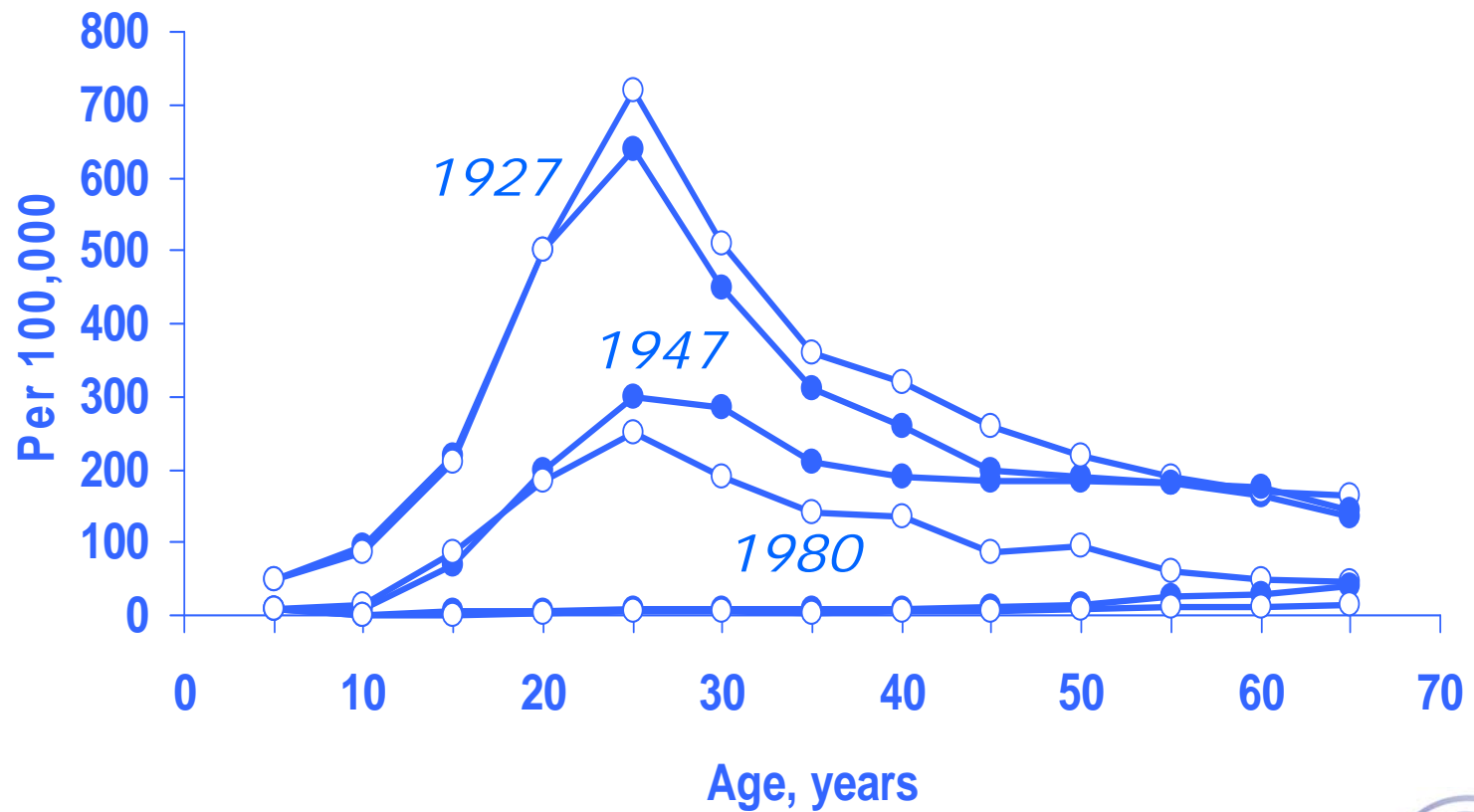
Trend in TB in Europe



Tuberculosis notification rate

Norway, by age and gender

Men in open, women in closed circles



Nor Fore Lunge 1986;30



Non-governmental Initiatives

1950s – 1970s

- ❖ Facilities for treatment
 - ✓ Expansion of vaccination
 - ✓ Owned and operated by NGOs
 - ✓ Establishment of chemotherapy
- ❖ Development of professional societies
 - ✓ Led by American Trudeau Society
 - ✓ Focus on laboratory
 - ✓ Development of clinical trials



Public Initiatives

1960s – 1980s

- ❖ 'Arden House' conference
 - ✓ Principal role of governments
 - ✓ Scientific basis
 - ✓ 'Consensus' approach
- ❖ Transfer from NGO network
 - ✓ 'Sale' of hospital properties
 - ✓ Establishment of epidemiological basis of services



Public Initiatives

1970s – 1980s

❖ Role of TSRU

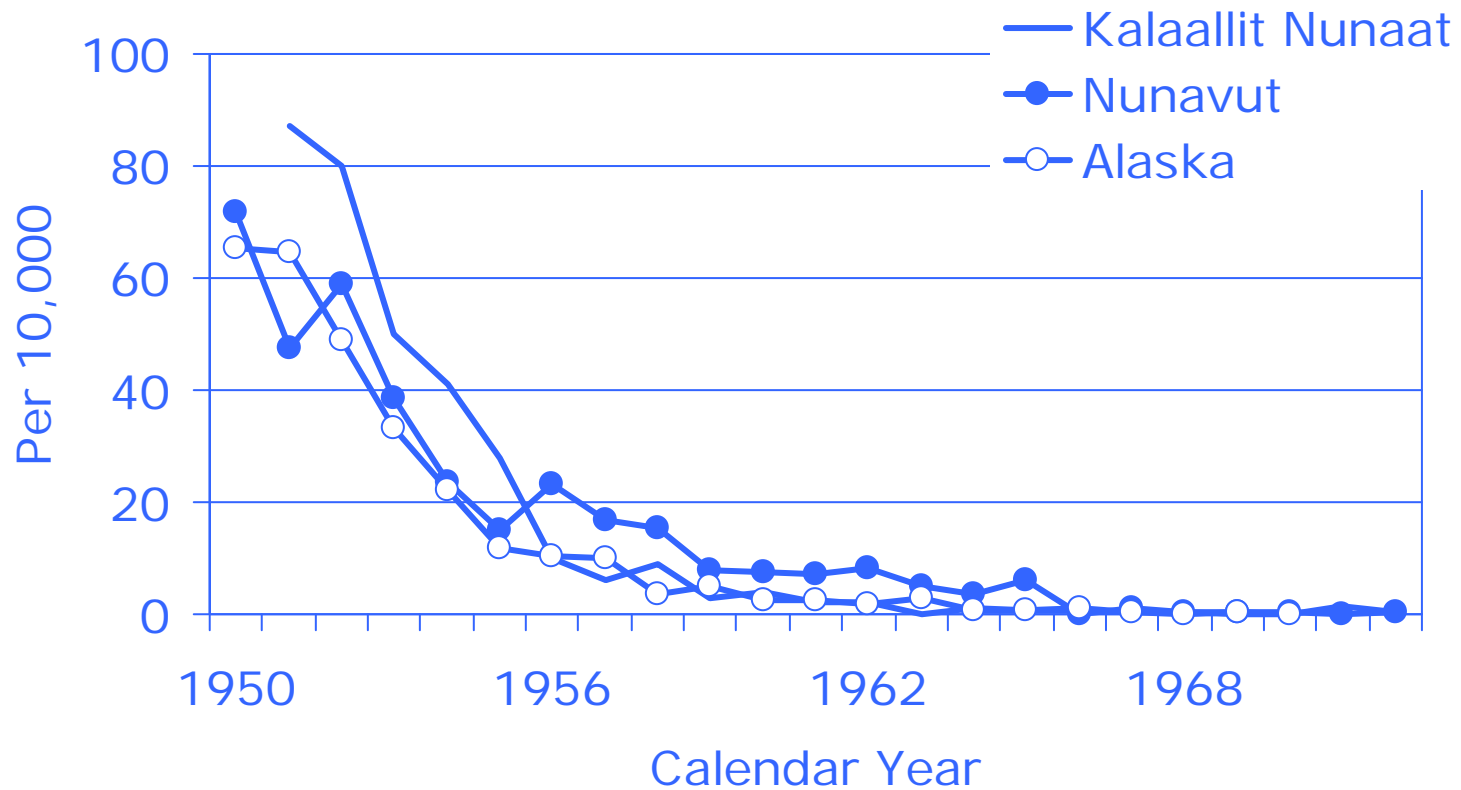
- ✓ Epidemiological evaluations
- ✓ Critical evaluation of public health failures

❖ 'Tanzania test case'

- ✓ Key role of Minister of Health
- ✓ Transfer of 'missionary' services to public responsibility
- ✓ Focus on monitoring of treatment outcome



Tuberculosis Mortality in Inuit By Location, 1950-1970

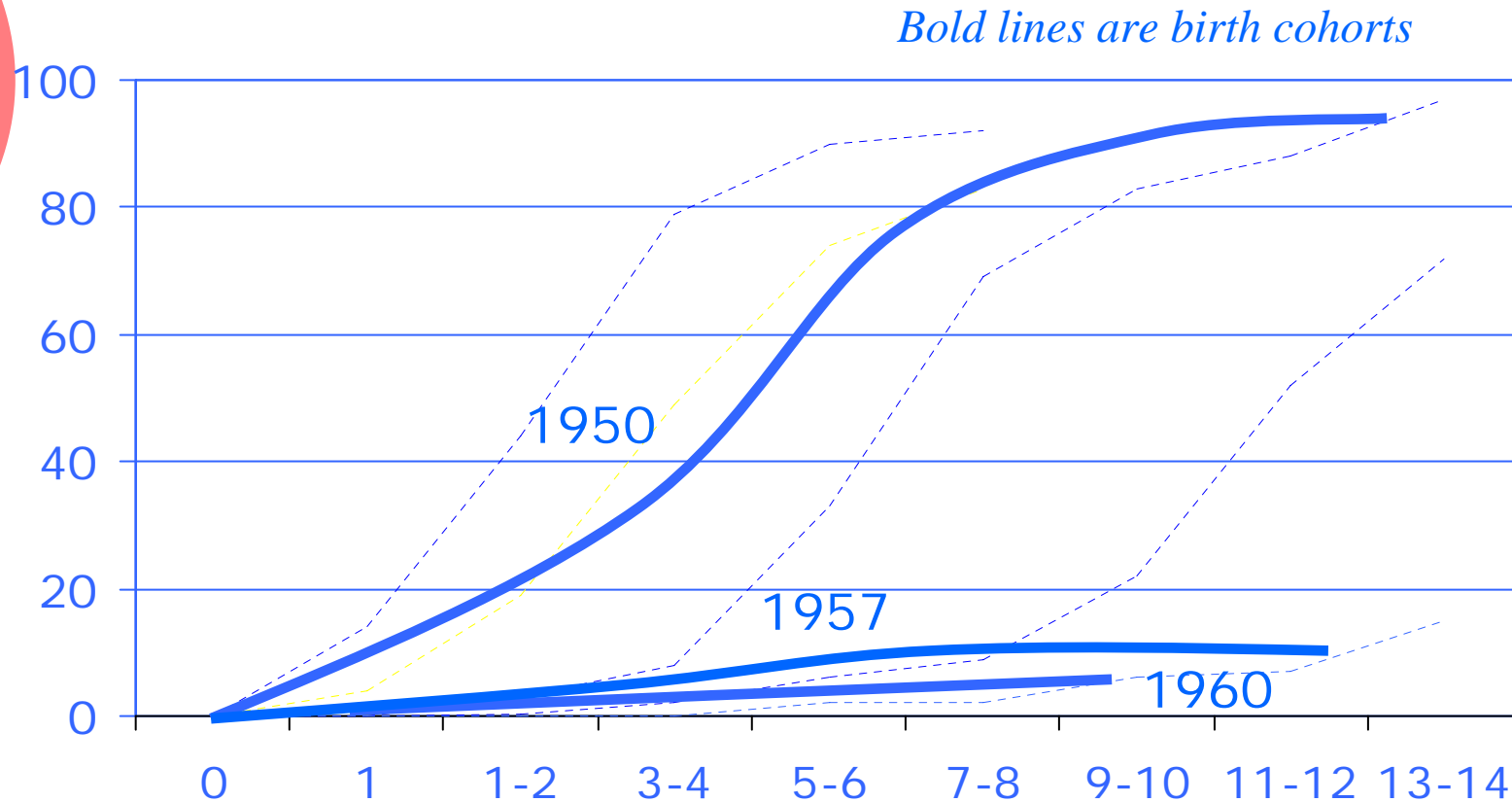


Tubercle 1976; 57: S1



Trend in Tuberculin Sensitivity

Inuit of Yukon / Kuskomin, 1949-1970

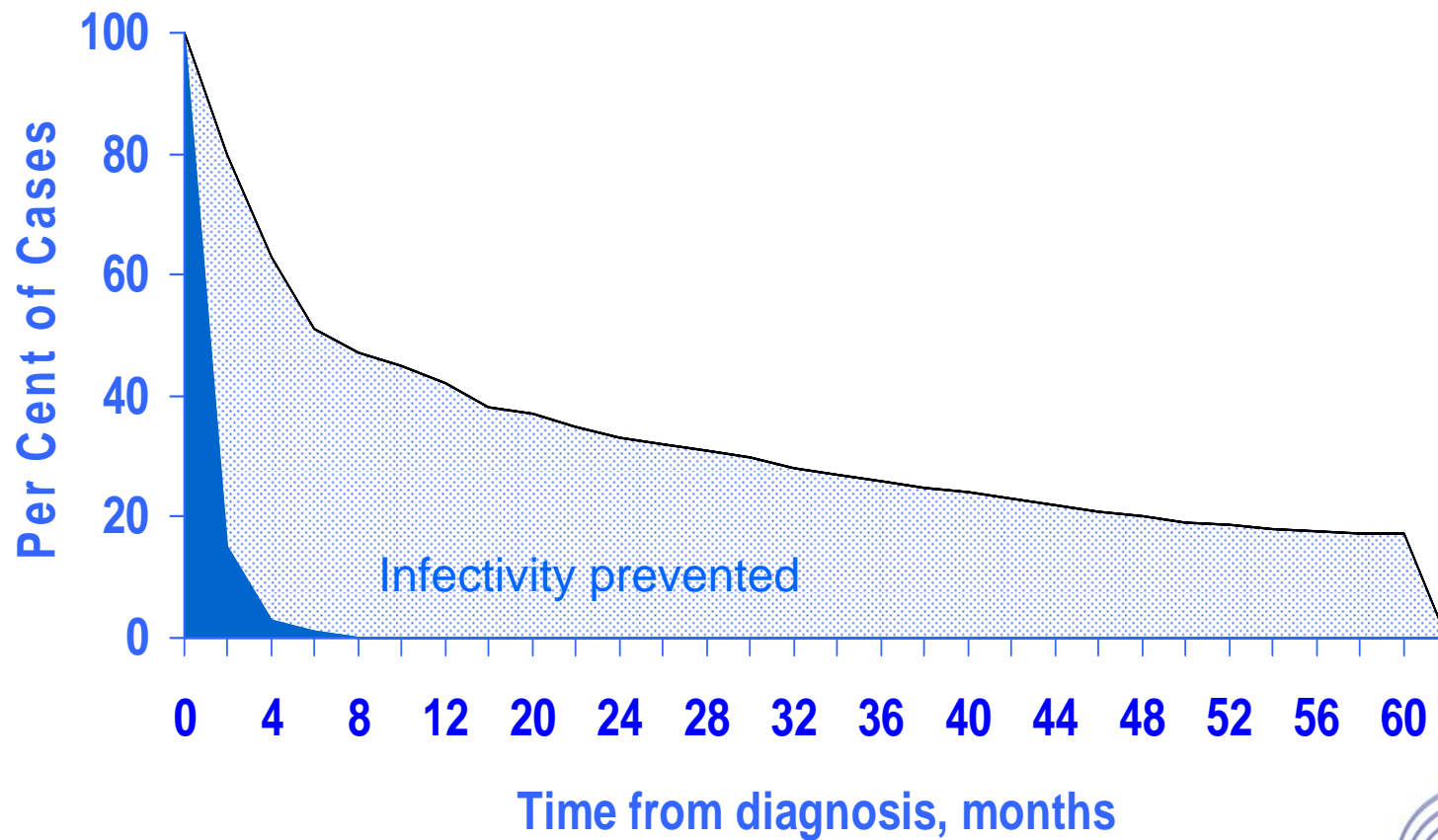


Am Rev Respir Dis 1972;105:920



Reducing Duration of Infectivity

Pulmonary Cases by Treatment



Making a Global Partnership

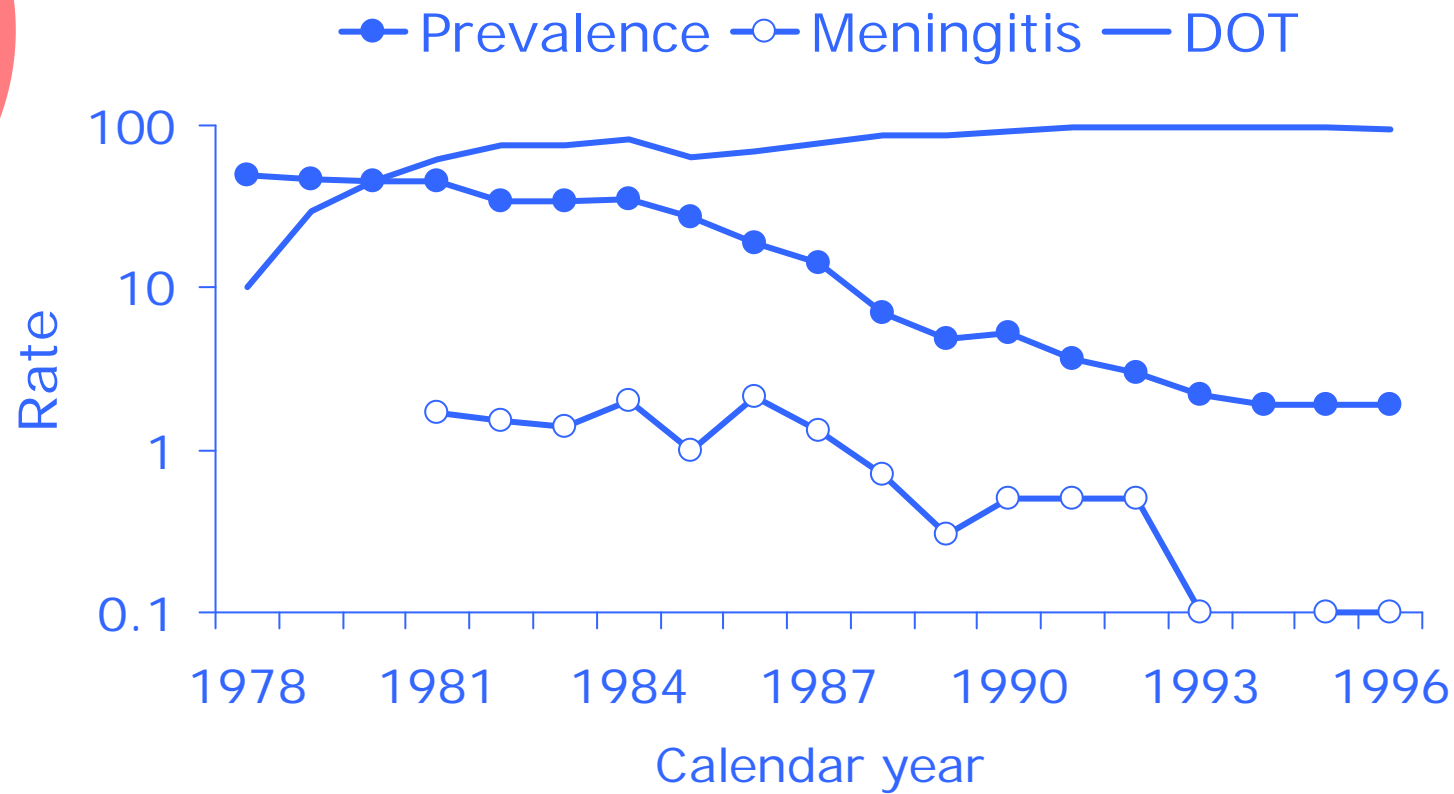
1980s – 1990s

- ❖ Development of a 'model'
 - ✓ Cooperative partnerships
 - ✓ Government / non-government – NTPs
- ❖ Engagement of key stakeholders
 - ✓ Evaluation by World Bank
 - ✓ Participation of WHO
- ❖ Elaboration of a global strategy
 - ✓ Summary of The Union's work 1991
 - ✓ Adoption by WHO 1993



Outcome of services

Tuberculosis in Beijing 1978-1996





Global Operational Targets

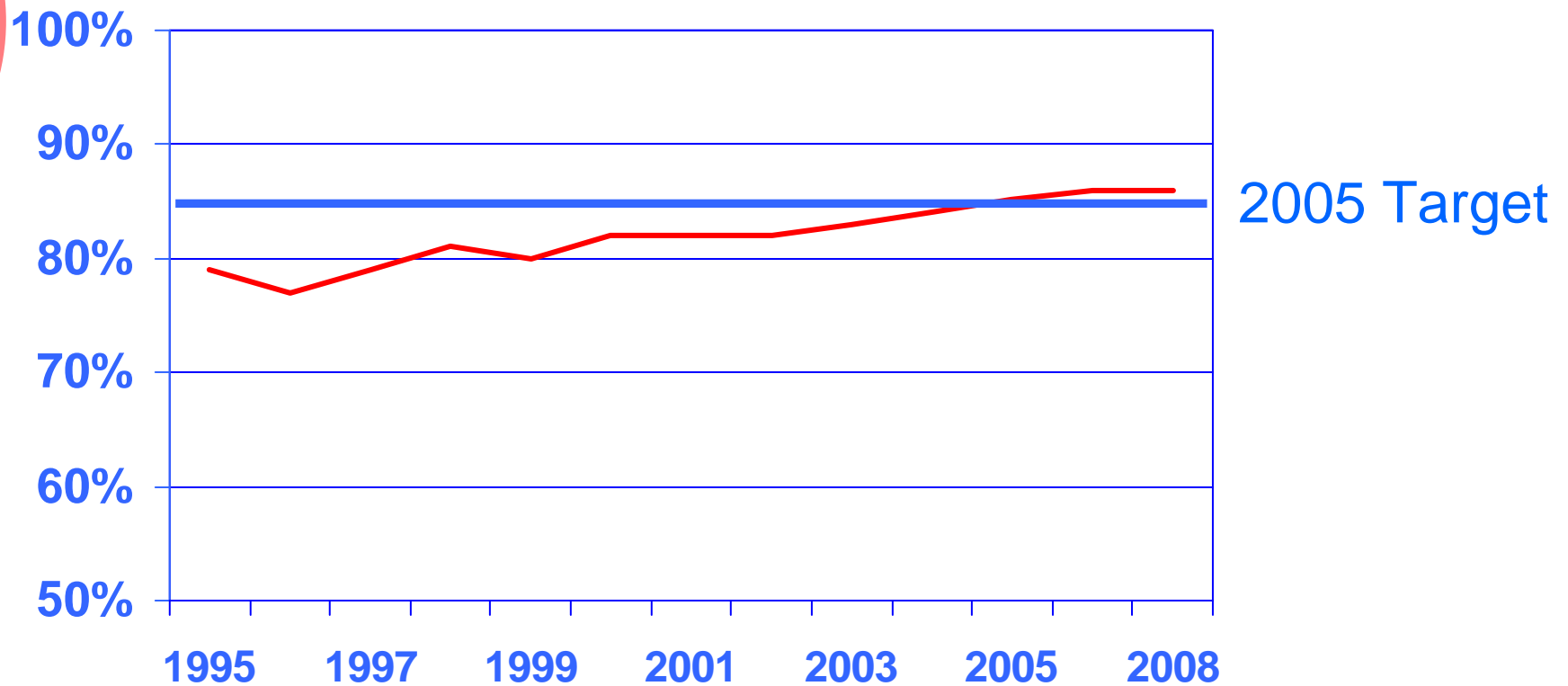
For beginning to control TB

- ❖ All countries implementing global strategy (DOTS);
- ❖ 85% of detected cases cured;
- ❖ 70% of estimated cases reported.



Trend in Treatment Success

Proportion of Cases Reported

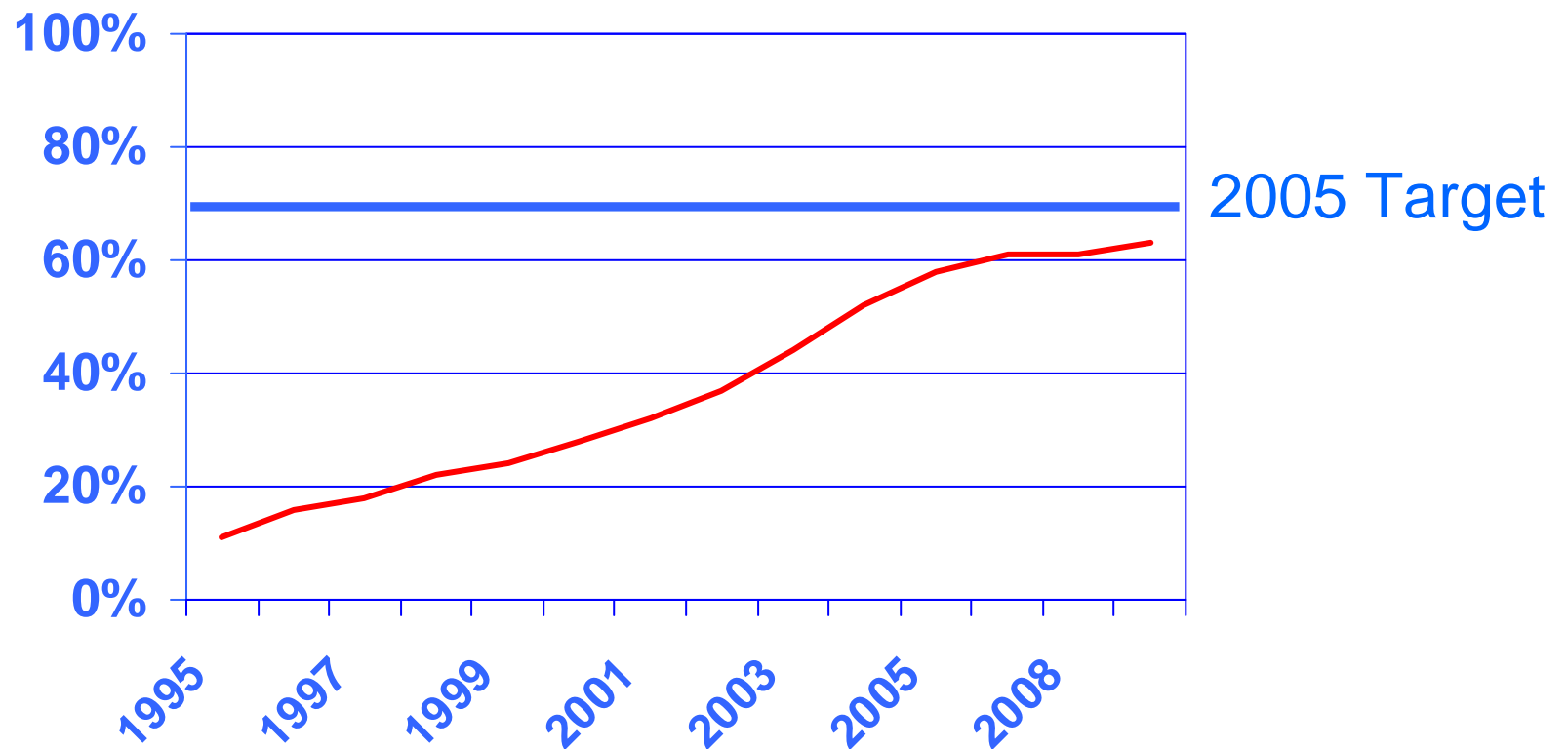


Source: WHO Annual Reports



Trend in Case Detection

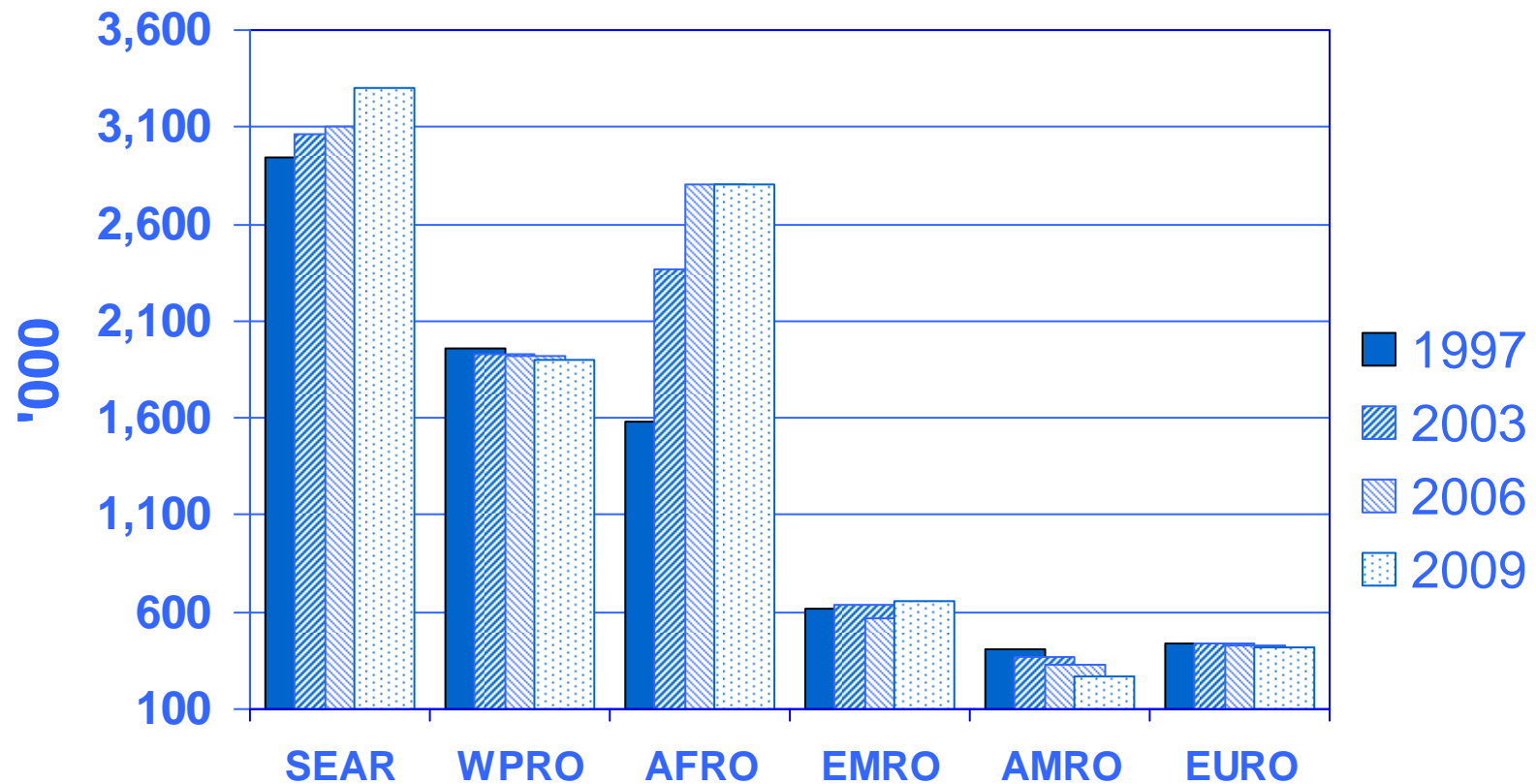
Cases reported from total estimated



Source: WHO Annual Reports



Estimated Trend in New Cases

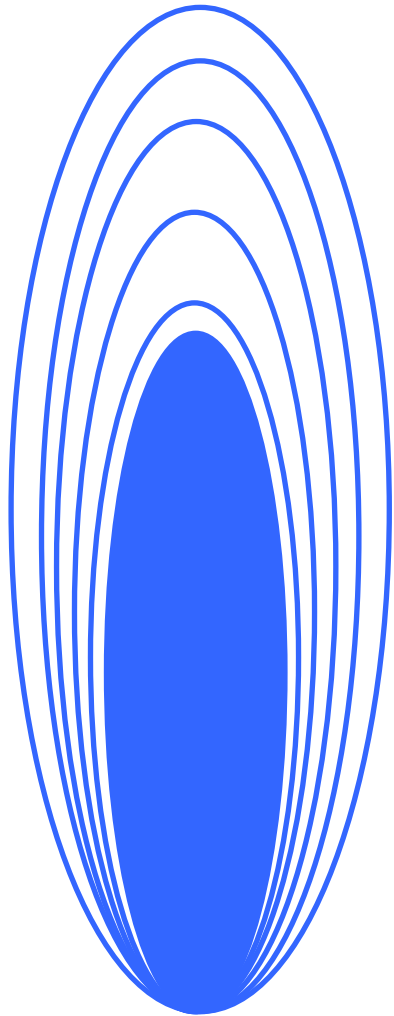
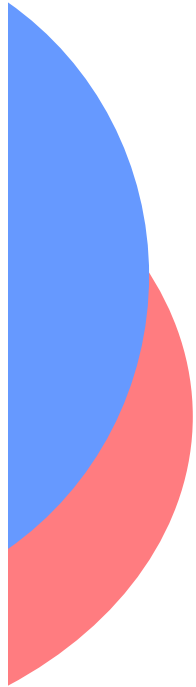


Source: WHO annual reports



Universe of TB Cases

Where are the missed cases?

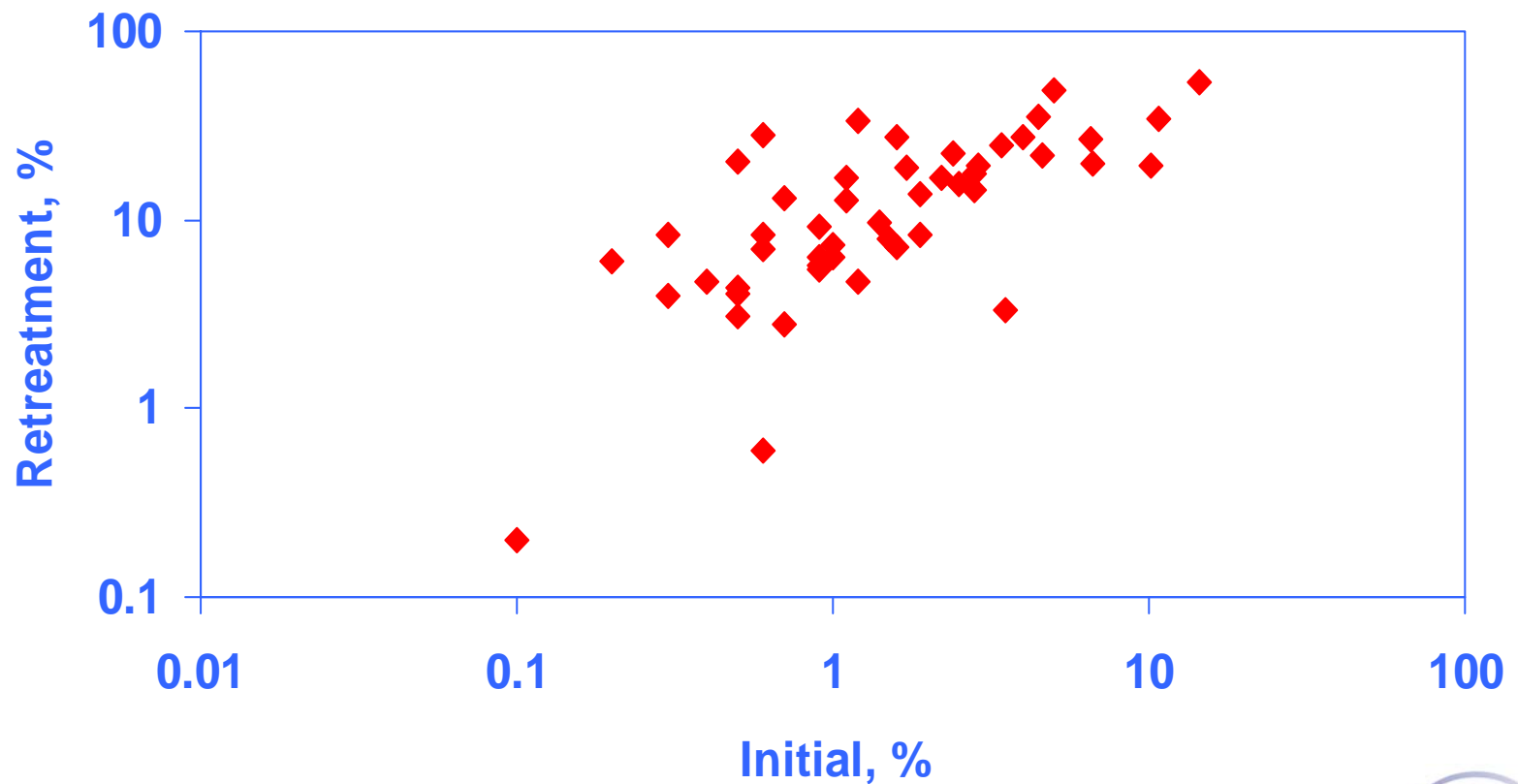


- ❖ All cases – 100%
- ❖ Accessing services – not coming 7%
- ❖ Recognized – not examined 5%
- ❖ Diagnosed – initial default 13%
- ❖ Treated – in other sectors 10%
- ❖ Recorded – unreported 4%
- ❖ Reported – 61%



MDR Tuberculosis

Initial vs Retreatment Prevalence

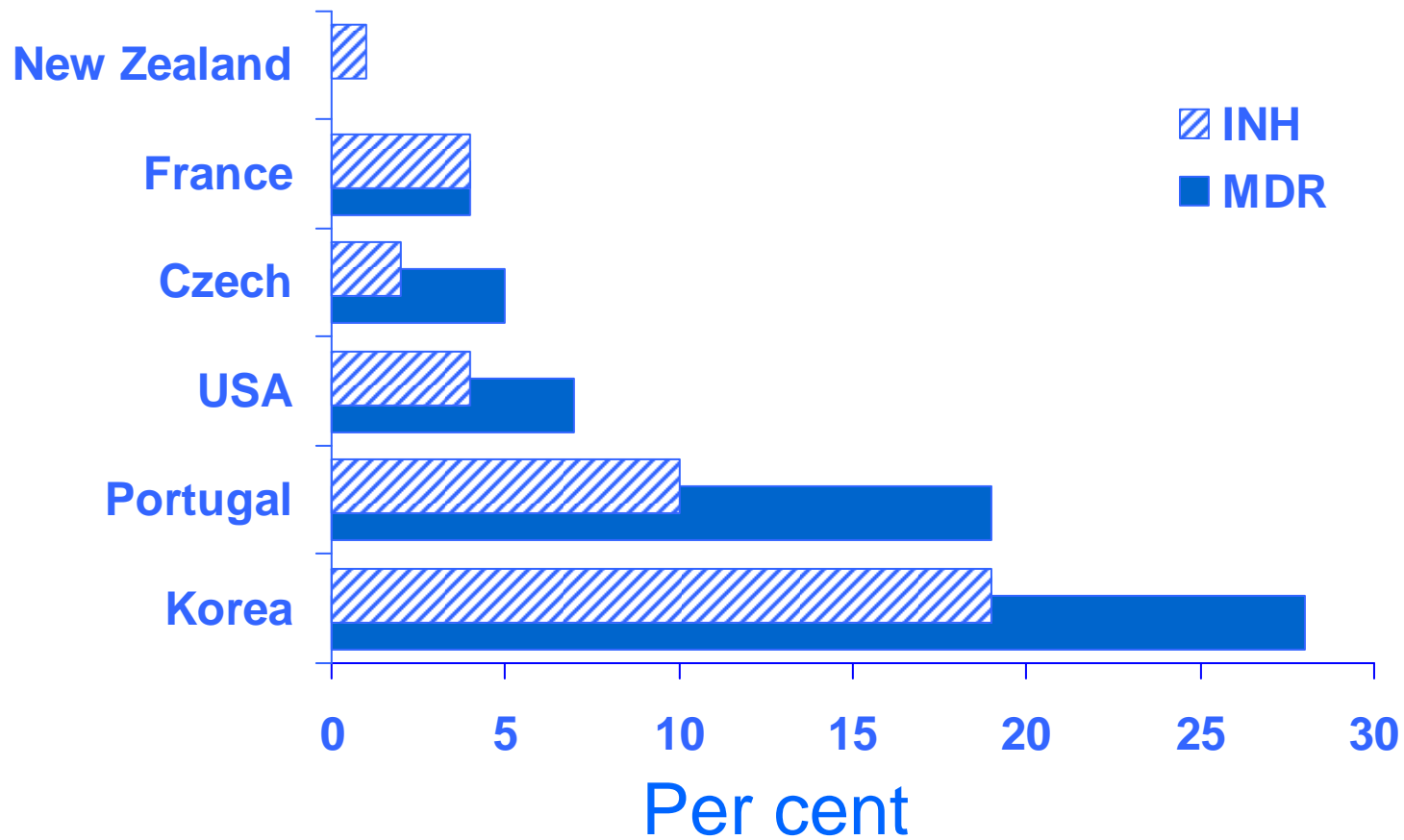


Data from Global Project on Drug Resistance Surveillance



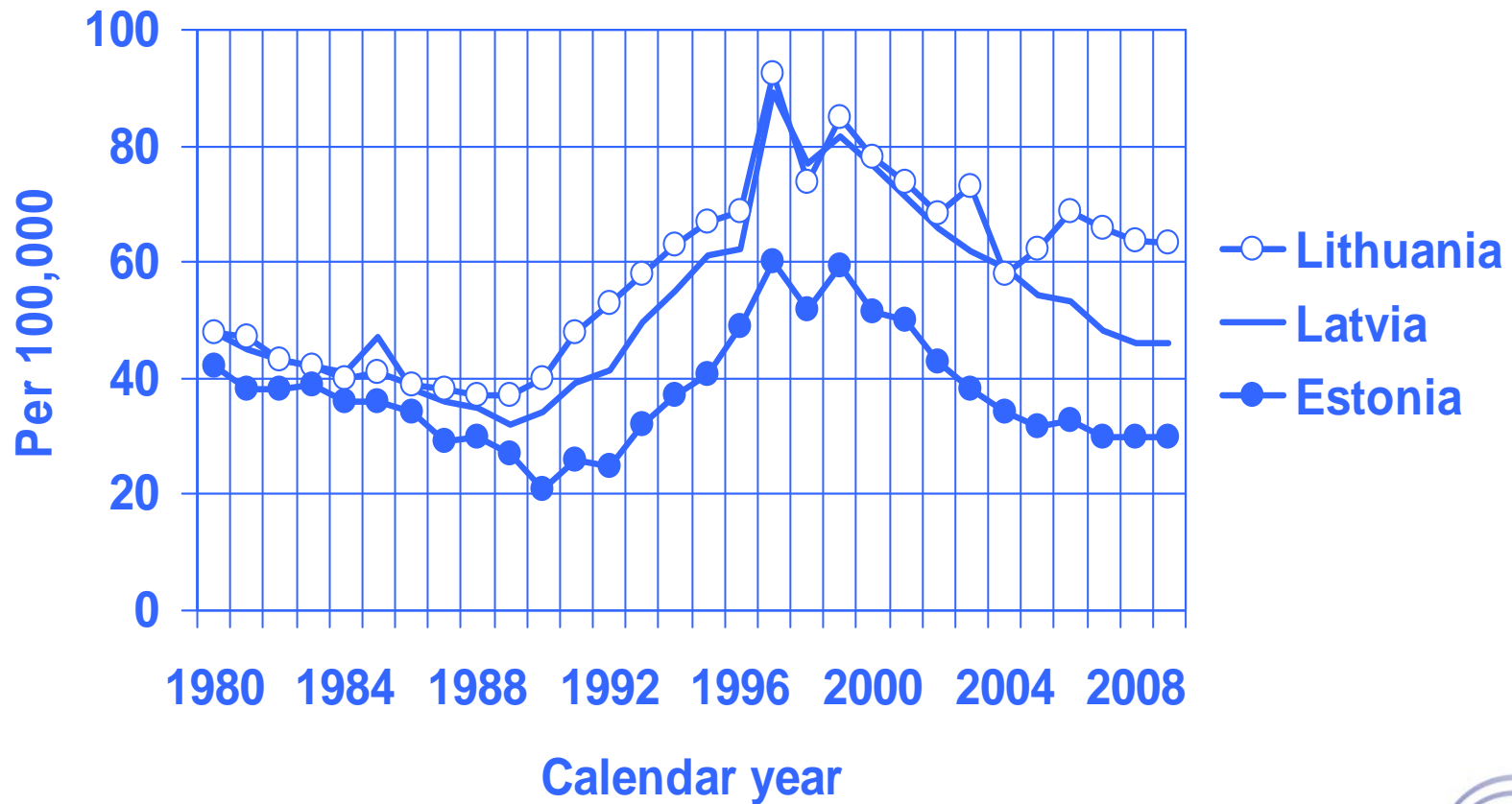
Resistance to TB Medications

INH in 1970, MDR 1993

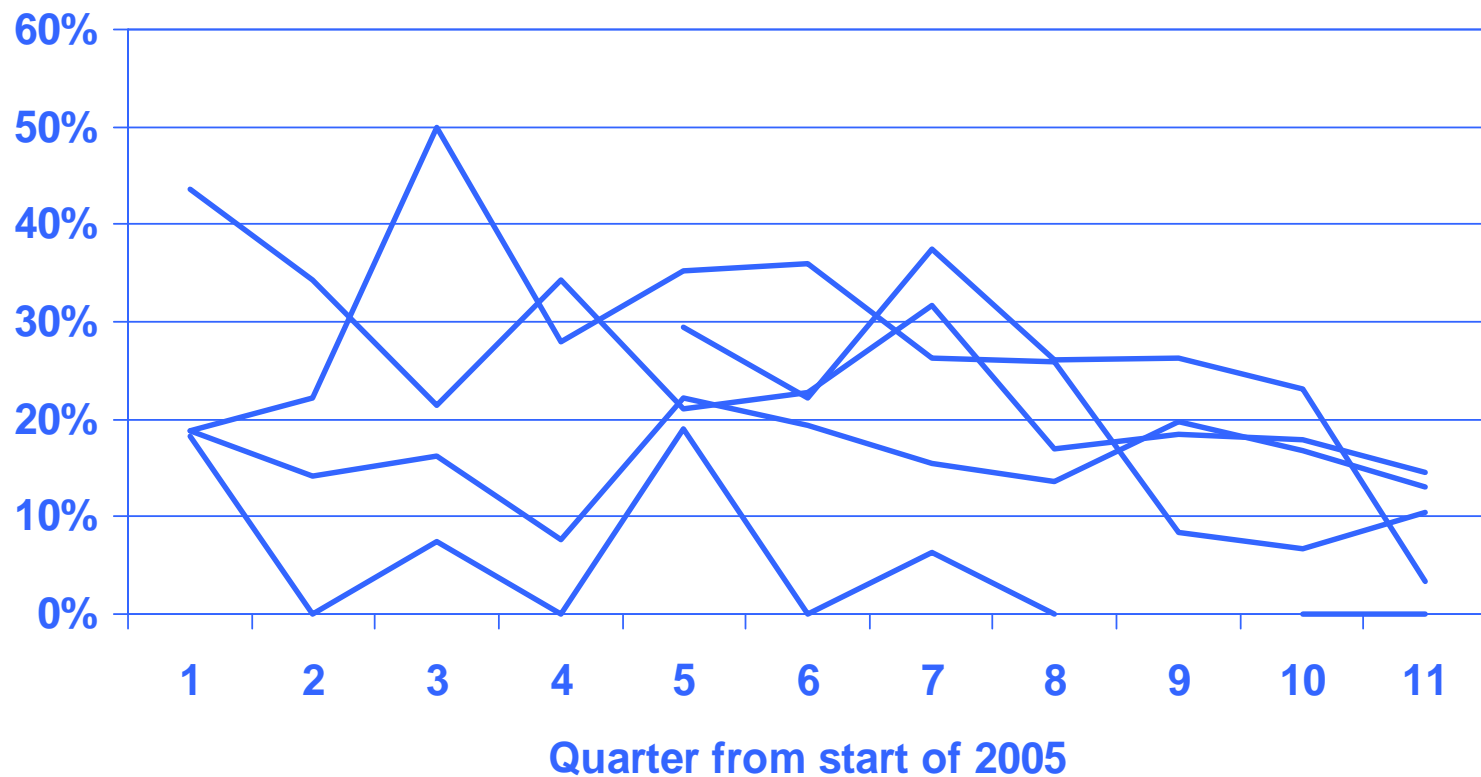


Impact of Political Commitment

Baltic Republics, 1980-2009



Patients Still Don't Complete Treatment *Selected Facilities in South Africa*



Data from a program review

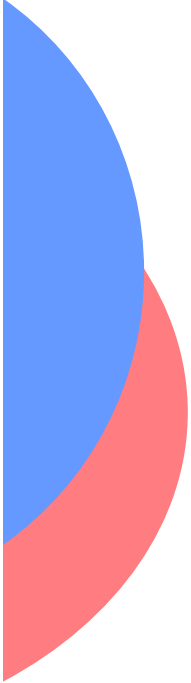




Missing Cases at the Front Door

- ❖ The proportion of cases detected who never start treatment is unexpectedly high
 - ✓ Observed in a high proportion of the HBCs.
 - ✓ Rates vary from 1 in 20 as high as 1 in 3.





Key Elements

General Principles

- ❖ Target of the intervention
 - ✓ A generation free of infection
- ❖ Role of key stakeholders
 - ✓ Crucial role of public sector
 - ✓ Aim for national self-sufficiency
- ❖ Quality of management
 - ✓ Indicators of quality must be tracked
- ❖ Principles of sustainability
 - ✓ Economic argument is key



Key Elements

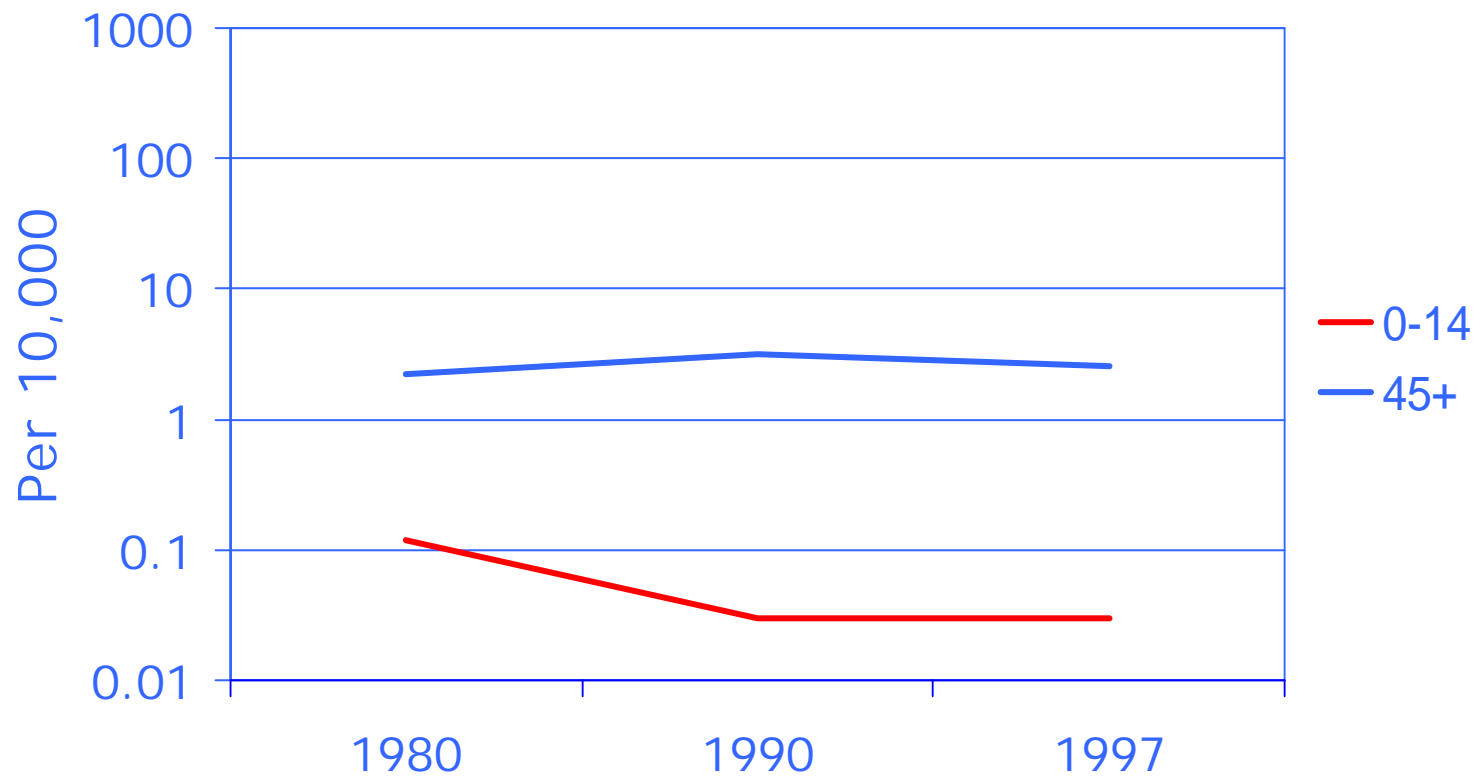
How are we faring? Infection

- ❖ Focus has shifted to operational targets
 - ✓ Operational targets are only 'starters'
 - ✓ Real targets are 'infections prevented'
- ❖ Tools for measurement are inadequate
 - ✓ Measurement of infection is difficult
 - ✓ New tools are no better than old ones



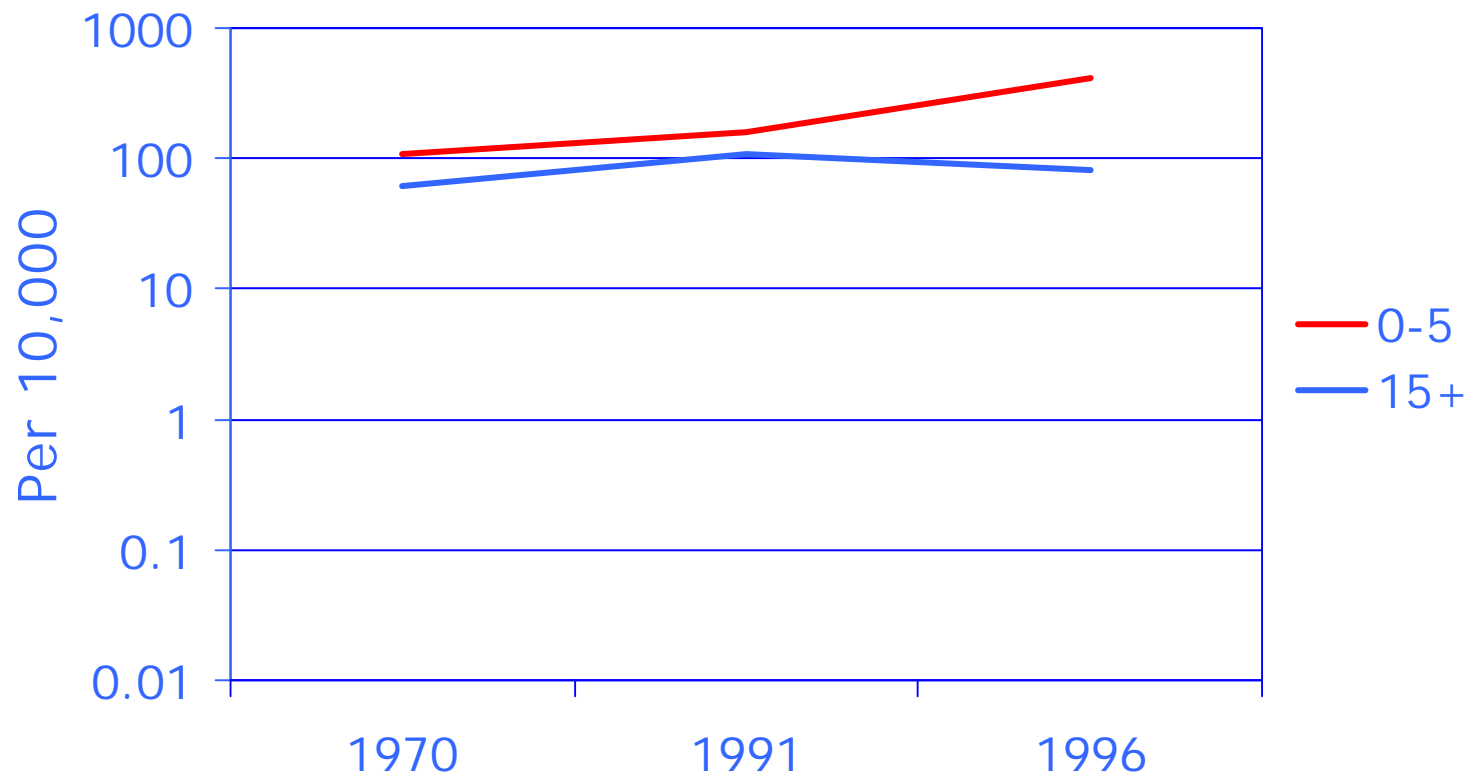
Tuberculosis Notification

Rate by Age Group and Period, Beijing



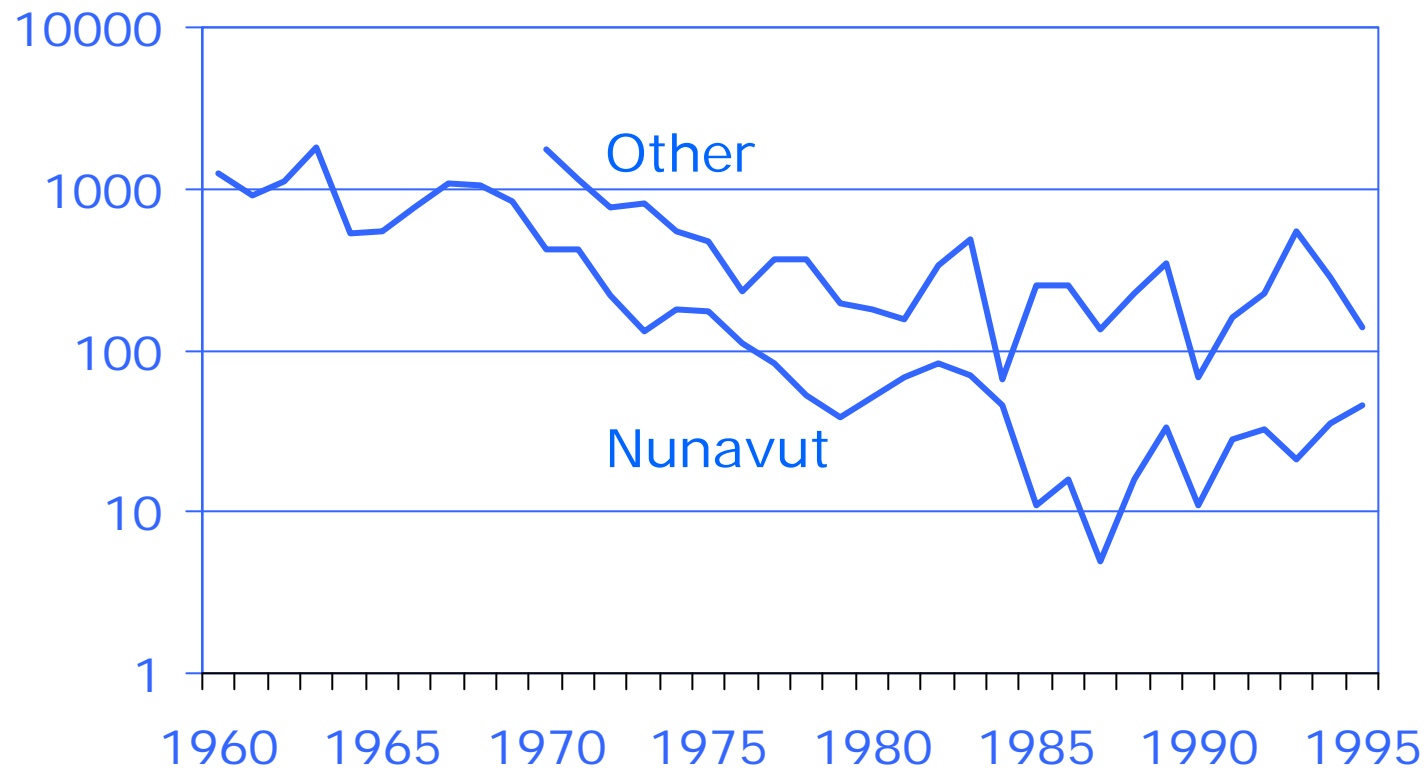
Tuberculosis Notification

Rate by Age Group and Period, Cape Town



Trend in Bacillary Tuberculosis

Inuit in Canada by Residence

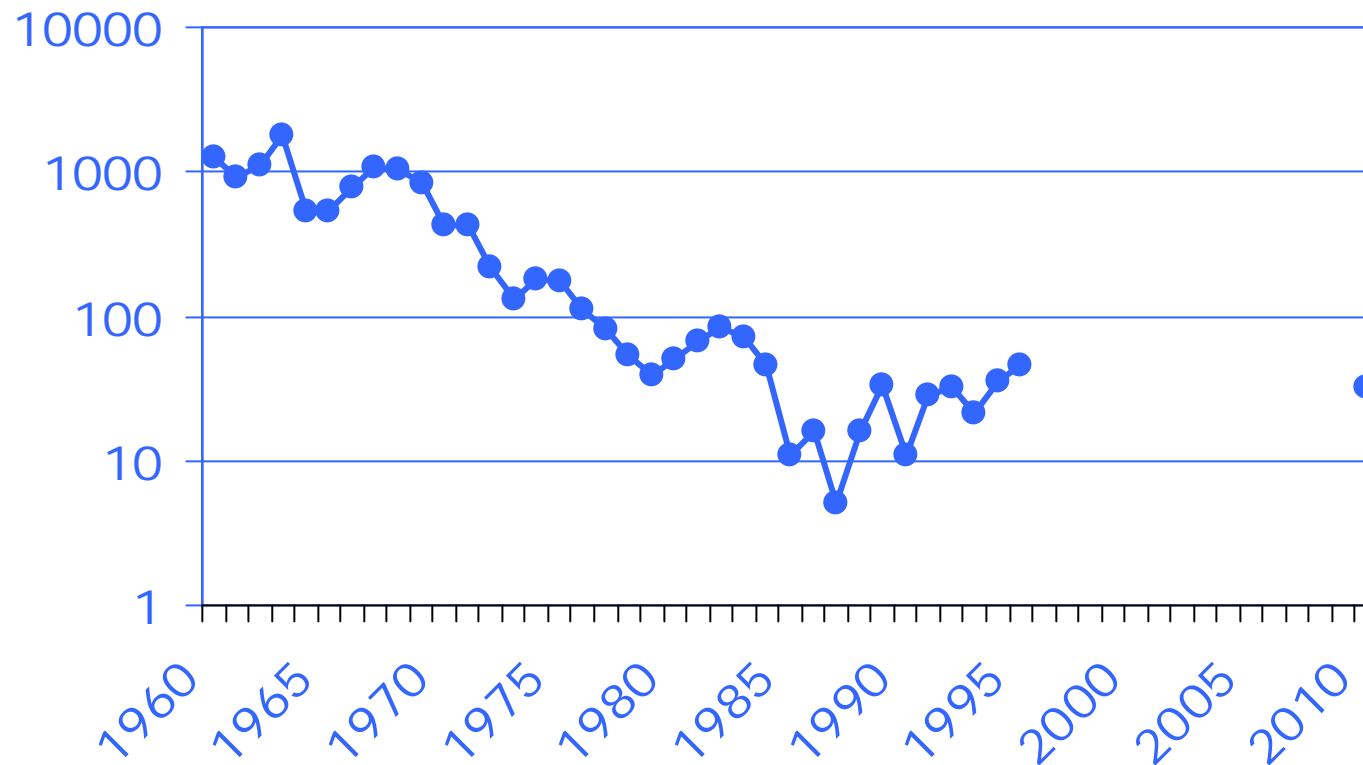


Int J Tuberc Lung Dis 1998;2:S16



Trend in Tuberculosis

Inuit in Nunavut



Int J Tuberc Lung Dis 1998;2:S16; CMAJ 2011



Key Elements

How are we faring? Management

- ❖ Providing an uninterrupted supply of medications is crucial
 - ✓ One of the major faults before the global strategy was developed
- ❖ Many programs have had a rupture of stock of medications within the past 5 years
 - ✓ This will be a major factor in poor care and promotion of drug resistance



Key Elements

How are we faring? Stakeholders

- ❖ 'Ownership' by global players
 - ✓ The 'problem' is now 'our' problem
 - ✓ The community no longer 'owns' it
- ❖ Abrogation of responsibility by governments
 - ✓ Virtually no government of poor countries has a substantial budget from local sources
 - ✓ Even at global level, investments are from 'special' budgets



Key Elements

How are we faring? Sustainability

- ❖ Overall cost per case cured is rising
 - ✓ Previously no government could afford not to do,
 - ✓ Soon governments can no longer afford
- ❖ Focus on priority cases is lost
 - ✓ Humanitarian approach
 - ✓ Epidemiological optic is no longer key





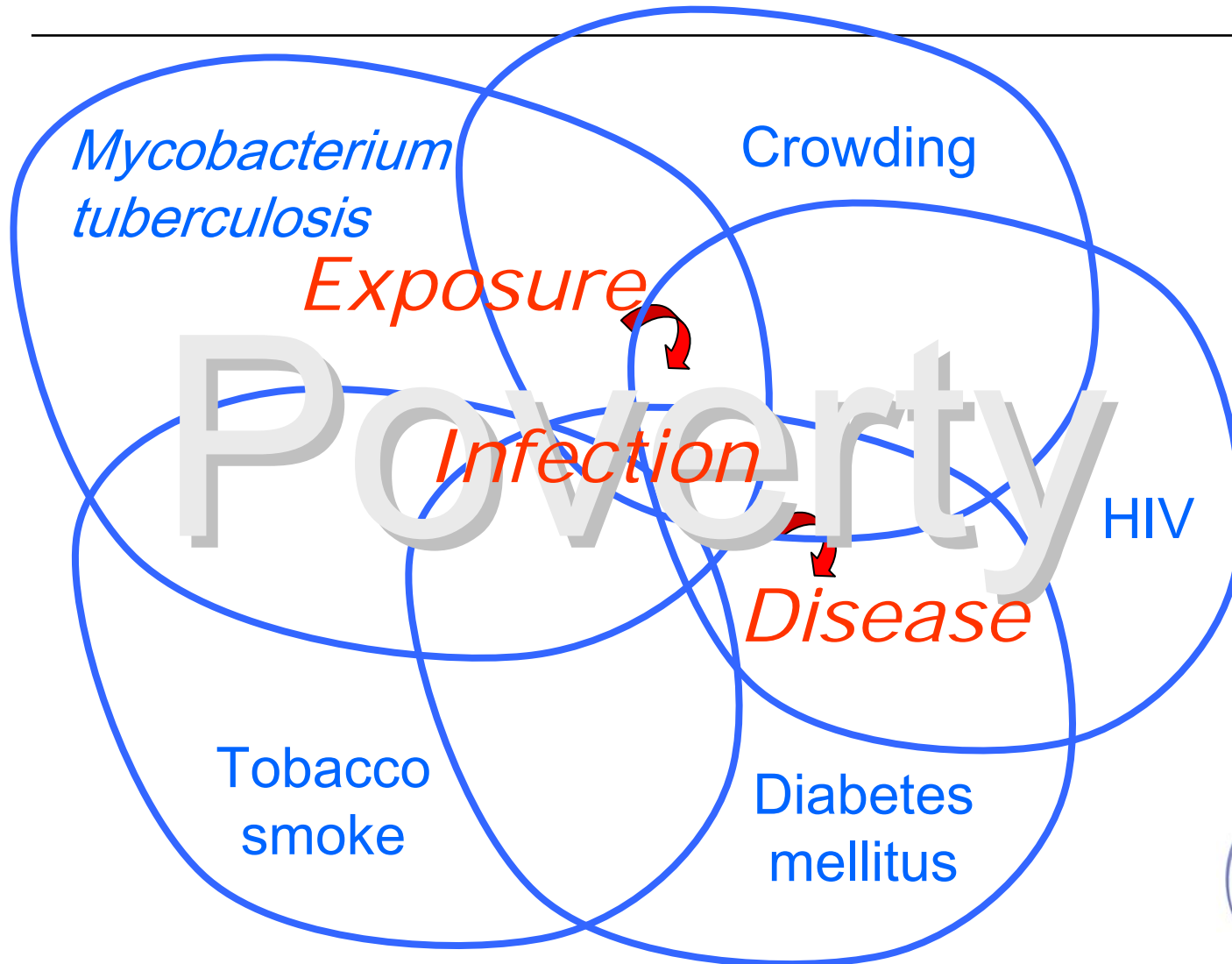
Key Message

- ❖ Tuberculosis is not eliminated anywhere until it is eliminated everywhere
- ❖ Prevention based on case management alone is fraught with challenges



Transitions in Tuberculosis

Web of causation



TB: the flip side of poverty

