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# **TB and HIV/AIDS epidemics in South Africa: An overview**

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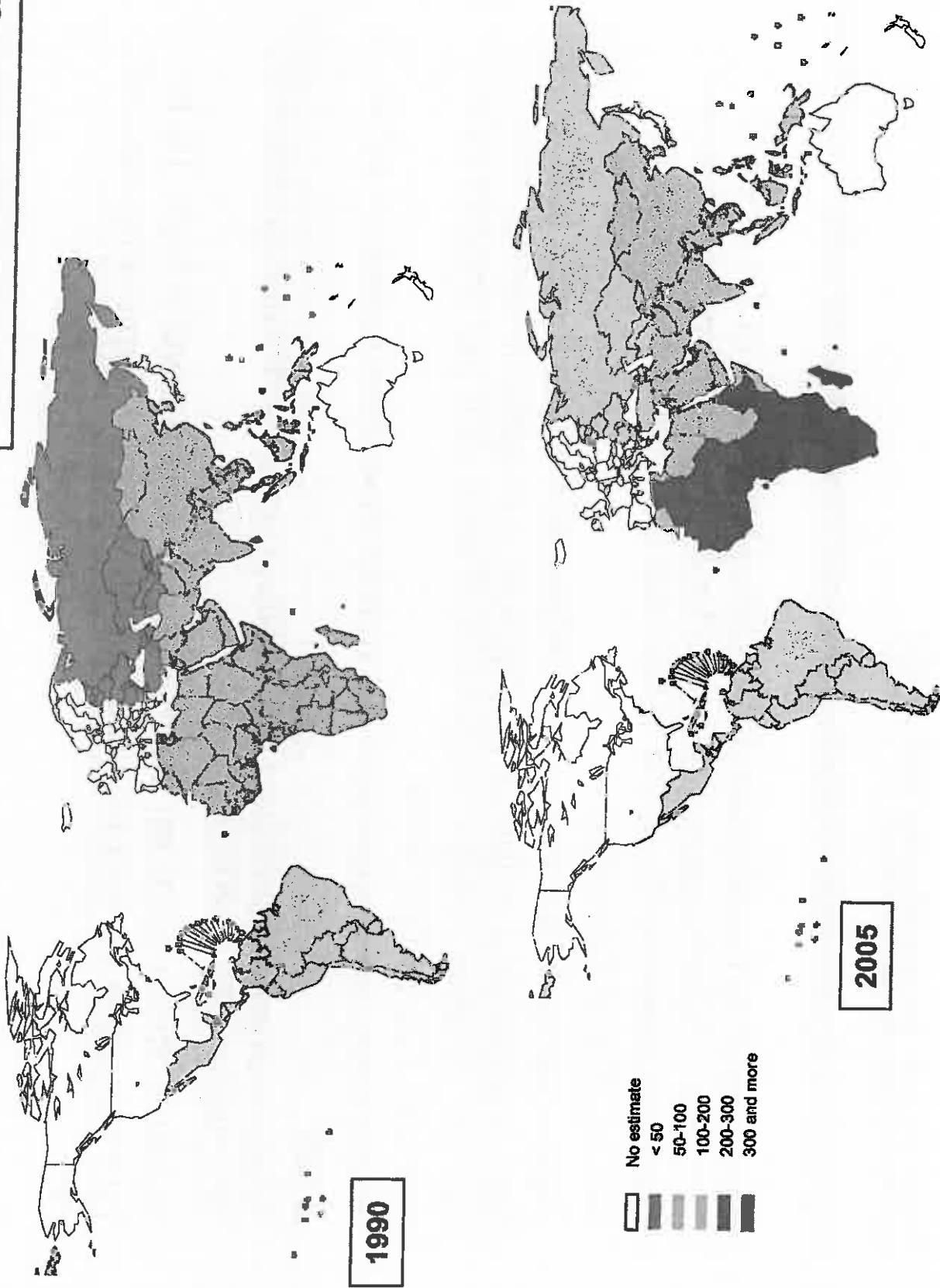
# **In this presentation**

- **Global and regional burden of TB**
- **The burden of TB and HIV/AIDS epidemics in South Africa**
- **Prevention interventions for TB/HIV/AIDS**

# Global burden of TB

- There were an estimated 9.2 million new cases of TB in 2006 (139 per 100 000 population), including 4.1 million new smear-positive cases (44% of the total) and 0.7 million HIV-positive cases (8% of the total).
- India, China, Indonesia, South Africa and Nigeria rank first to fifth respectively in terms of absolute numbers of cases. The African Region has the highest incidence rate per capita (363 per 100 000 population).
- There were an estimated 14.4 million prevalent cases of TB in 2006.
- There were an estimated 0.5 million cases of multidrug-resistant TB (MDR-TB) in 2006.
- In 2006, there were an estimated 1.5 million deaths from TB in HIV-negative people and 0.2 million among people infected with HIV.

# TB incidence rate

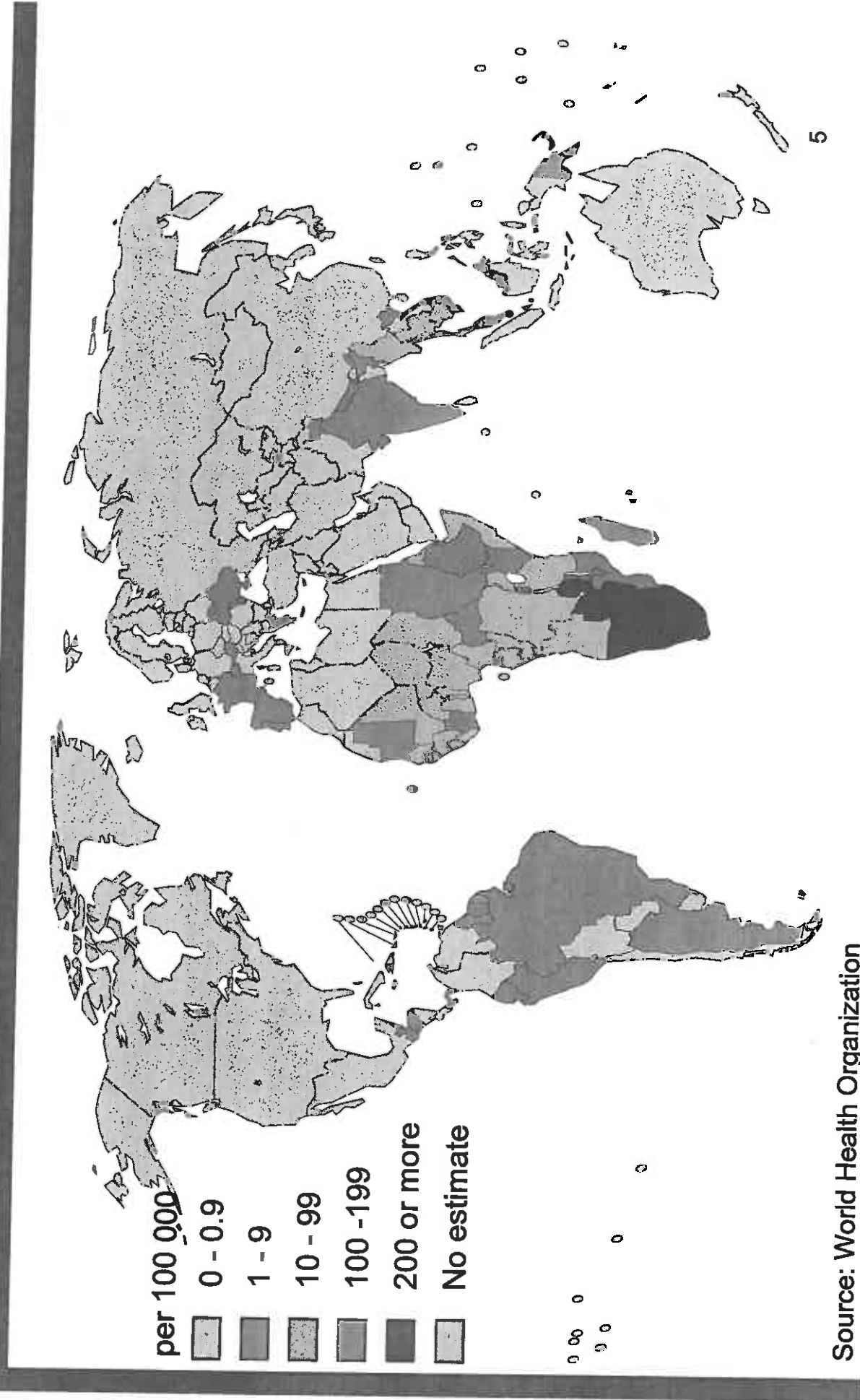


1990

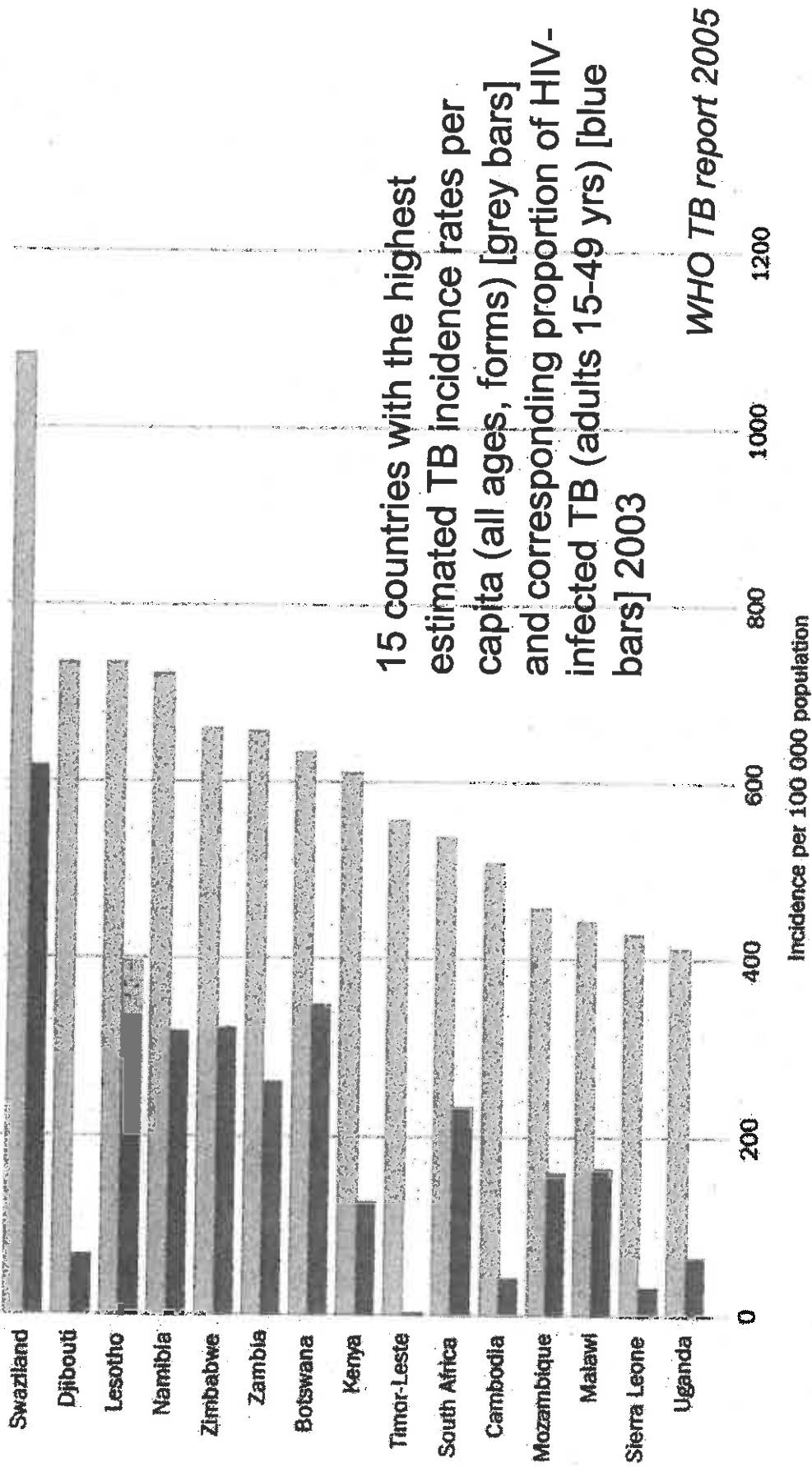
2005



# Estimated Incidence of HIV positive TB Cases, 2000

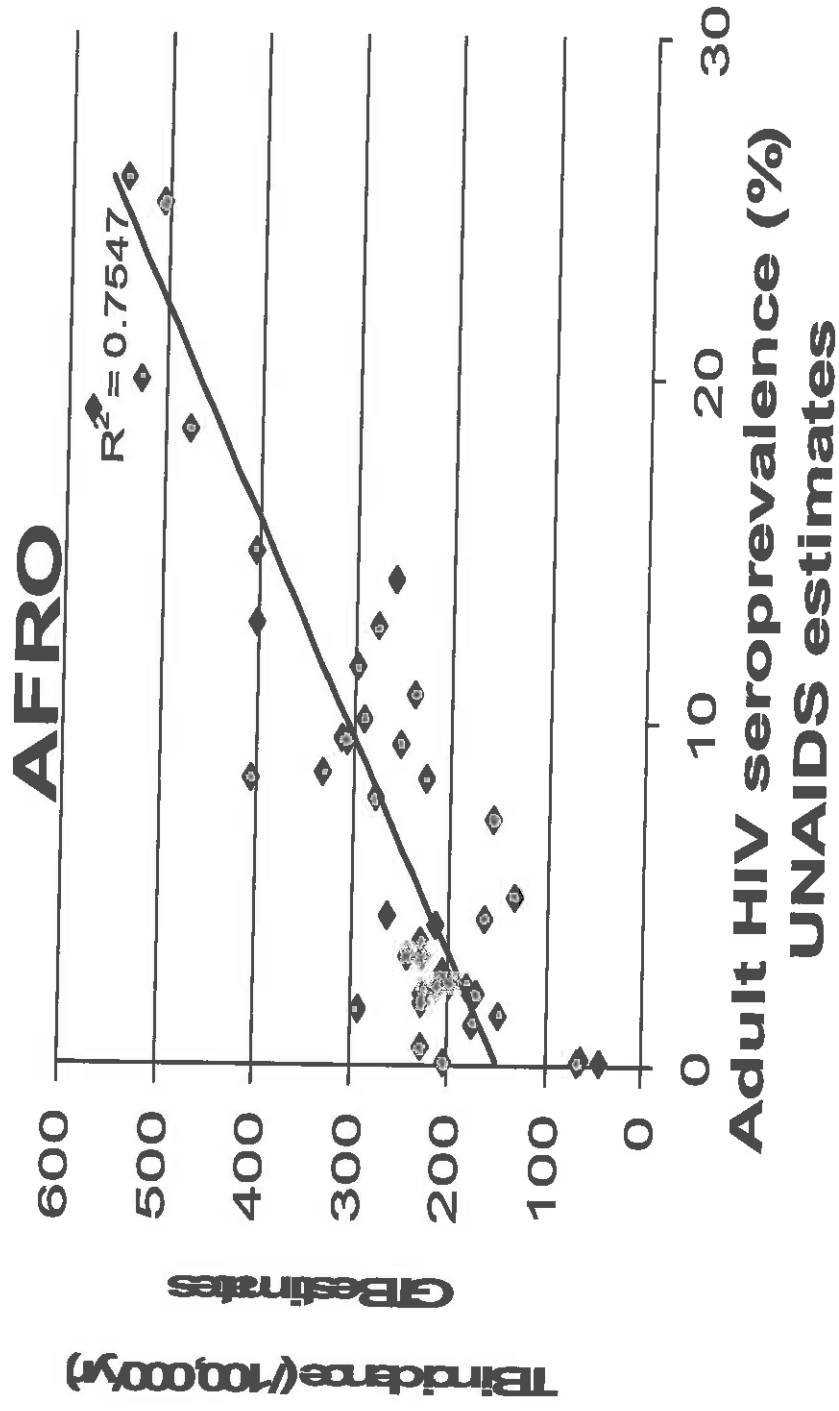


# Incidence of TB in HIV-infected adults



# TB incidence and HIV prevalence in Africa

## TB incidence and HIV seroprevalence in AFRO



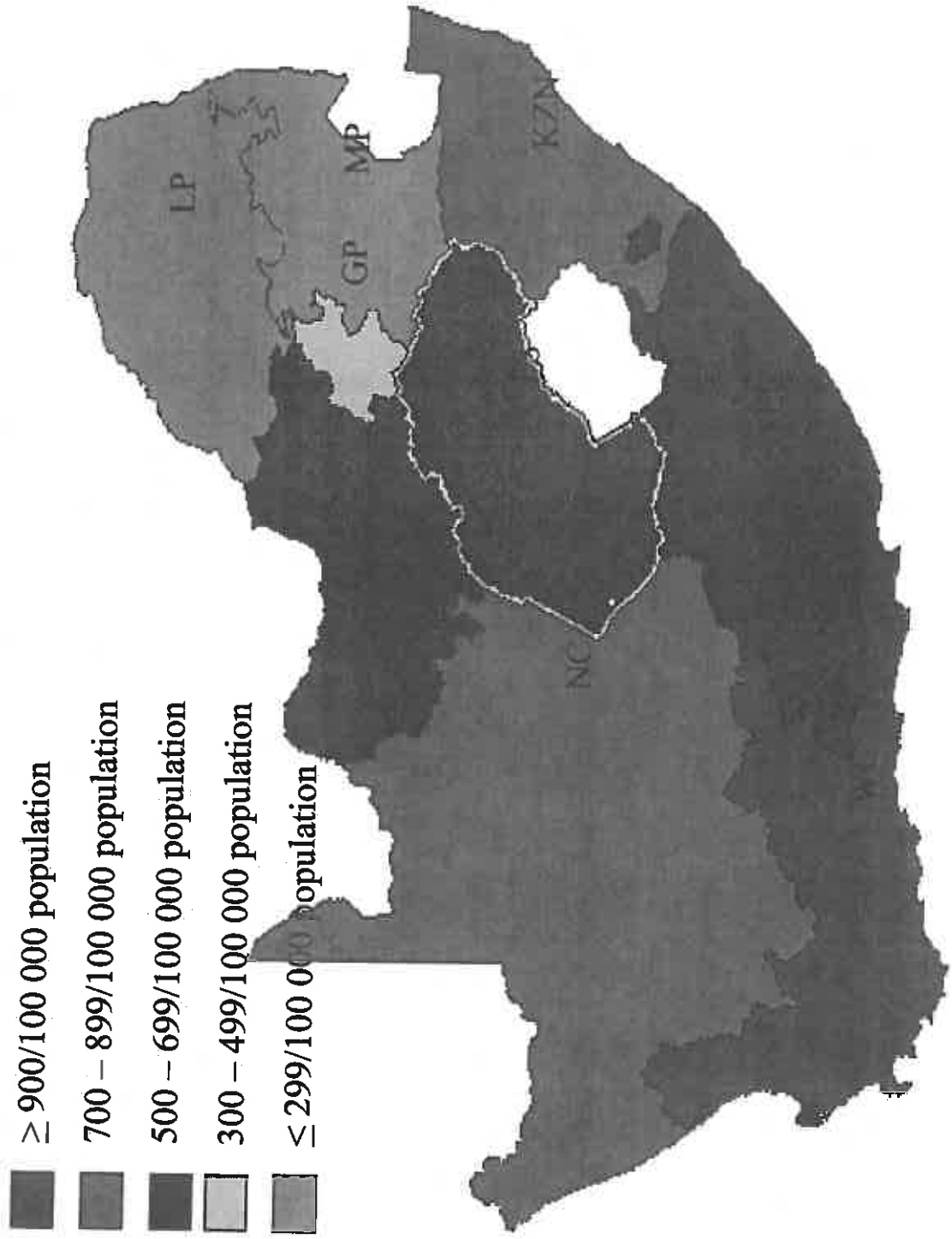
WHO/CDS

# The Burden of TB and HIV in South Africa

- Approximately 5.7 million South Africans HIV-infected, an estimated 1.8 million of whom will get TB before they die
- TB cases (incidence 645/100,000 in 2005) - >300% increase since 1989
- 55% of TB patients are HIV+ (MRC MDR TB Study, 2002)
- TB is the most common opportunistic infection and the biggest killer of people living with HIV/AIDS



# Current SA Situation (TB)

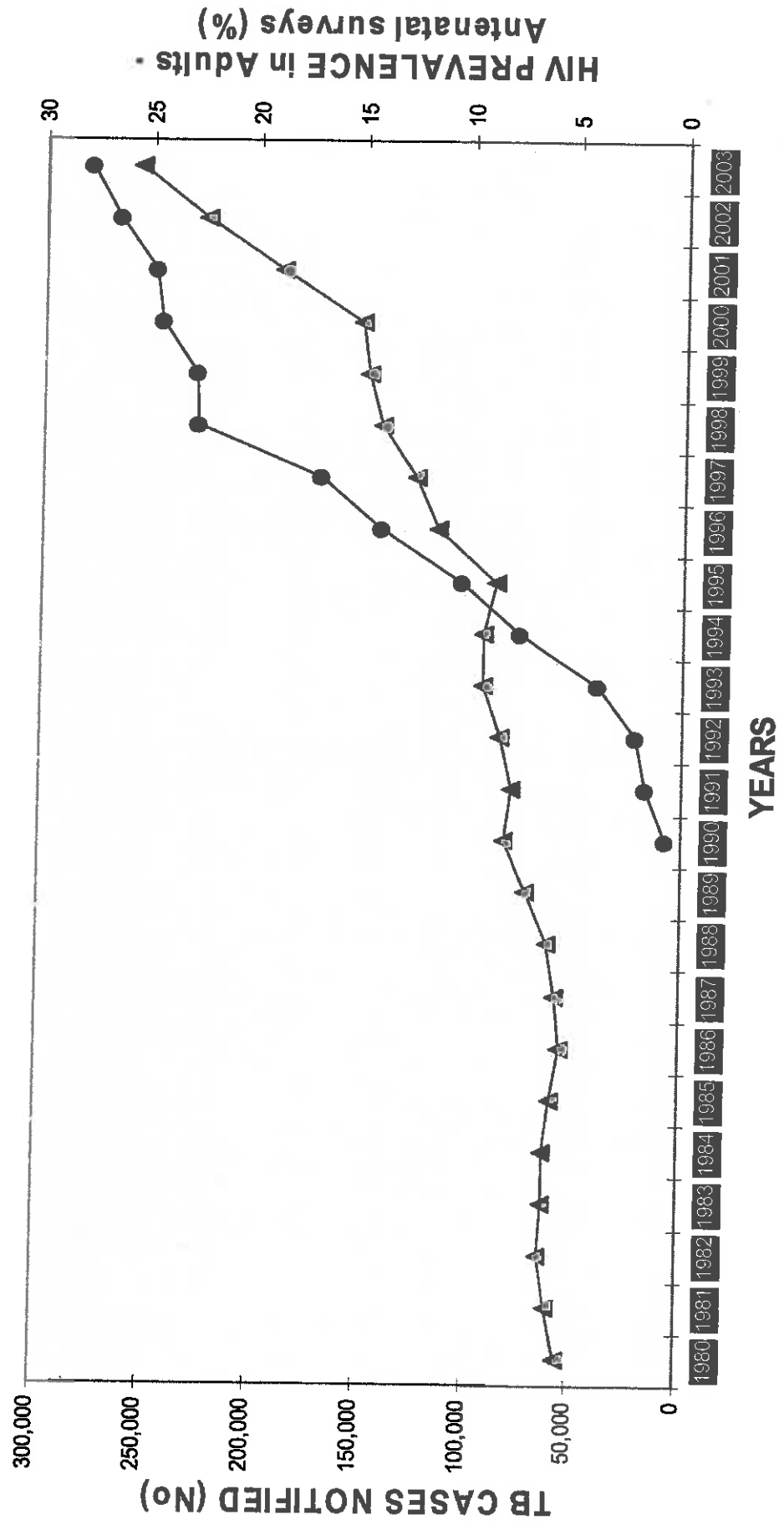


# HIV prevalence among TB patients, 2005

| Province       | HIV prevalence (2004) | HIV prevalence among TB (MRC)* | TB Incidence 2005 (2004) |
|----------------|-----------------------|--------------------------------|--------------------------|
| KZN            | 39.1 (40.7)           | 64.4                           | 885.9 (723)              |
| Mpumalanga     | 34.8 (30.8)           | 67.2                           | 333.6 (230)              |
| Free State     | 30.3 (29.5)           | 71.9                           | 708.3 (642)              |
| North West     | 31.8 (26.7)           | 66.0                           | 711.5 (551)              |
| Gauteng        | 32.4 (33.1)           | 63.8                           | 487.8 (436)              |
| Eastern Cape   | 29.5 (28.0)           | 30.5                           | 637.9 (519)              |
| Limpopo        | 21.5 (19.3)           | 52.4                           | 237.2 (215)              |
| Northern Cape  | 18.5 (17.6)           |                                | 846 (784)                |
| Western Cape   | 15.7 (15.4)           | 28.2                           | 1037 (988)               |
| <b>Average</b> | <b>30.2 (29.5)</b>    | <b>55.3</b>                    | <b>645 (550)</b>         |

\* Prevalence of HIV in culture-confirmed TB patients (n=4 639) MRC 2002

# TB Notification and HIV prevalence South Africa, 1980-2003



# **HIV and TB: A deadly combination**

- HIV increases the risk of developing active TB for those who have been infected with TB earlier in life. Risk increases from 10% lifetime to 10% per year
- If newly infected with TB, persons with HIV are more likely to progress to active TB disease
- TB is now the leading cause of death among HIV infected persons

# TB & HIV epidemics: Prevention

- We cannot control TB without controlling HIV
- 90% of PLWHA do not know they are infected
- Up to 50% of PLWHA in poor countries will develop TB, with spread to others
- People who know their HIV status are targets for specific TB and HIV interventions
- Community HIV groups involved in social mobilisation should include TB on their agenda

# Paradigm shift in TB&HIV Advocacy



" We can't fight AIDS unless we do much more to fight TB as well "

Nelson Mandela, Bangkok, July 2004

# Principles of prevention

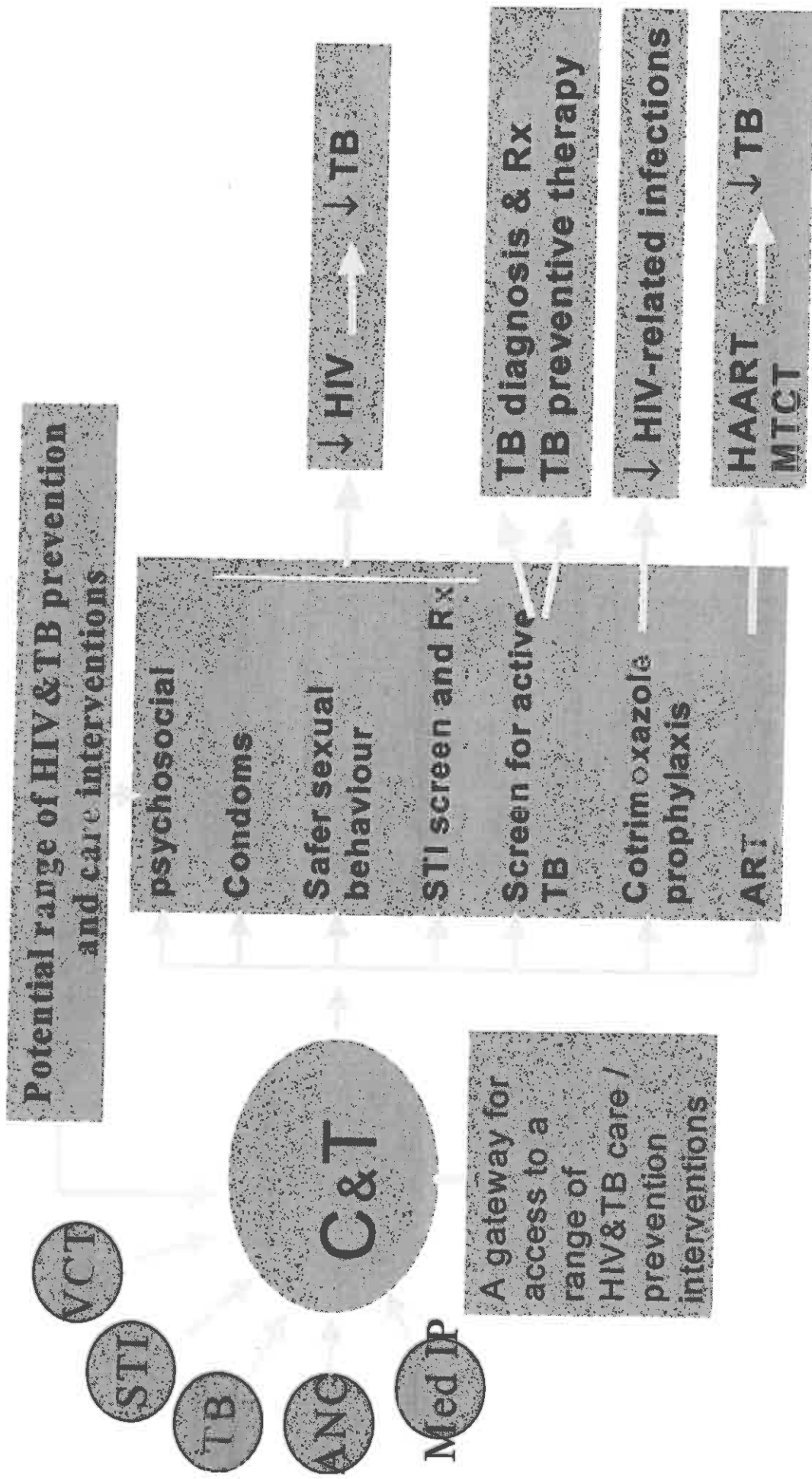
- Patients need care for both conditions at the same time - “*Two diseases, one patient*”
- Both HIV/AIDS&STI programmes and TB programmes require strong technical units
- No separate programme:
  - Collaborative activities add to existing TB and HIV/AIDS control strategies
  - HIV/AIDS&STI and TB programmes should benefit from each other’s strengths.
- NGOs should be supported to assist in providing services for both HIV/AIDS&STI and TB.

# Objectives of TB & HIV Collaborative Activities

- A. Establish the mechanism for collaboration between TB & HIV/AIDS programs (HAST)**
  1. TB&HIV coordinating bodies
  2. HIV surveillance among TB patient
  3. TB&HIV planning
  4. TB&HIV monitoring and evaluation
- B. To decrease the burden of TB in PLWHA (HIV entry point)**
  1. Intensified TB case finding
  2. Isoniazid preventive therapy
  3. TB infection control in care and congregate settings
- C. To decrease the burden of HIV in TB patients (TB entry point)**
  1. HIV testing and counselling
  2. HIV preventive methods
  3. Cotrimoxazole preventive therapy
  4. HIV&AIDS care and support
  5. Antiretroviral therapy to TB patients.



# Operationalising the link between TB&HIV activities



# Phased approach

- Start with DOTS (Directly Observed Treatment Short-course) and STI syndromic management
- Add C&T (Counselling & Testing) with rapid HIV testing, active TB case finding and Cotrimoxazole prophylaxis +/- IPT (INH prophylaxis)
- Add antiretroviral therapy (ART) for treatment of eligible HIV+

# **Reduction of burden of HIV among TB patients**

- **Provision of HIV counselling and testing to TB patients**
- **Prevention of HIV transmission**
- **Provision of CPT to co-infected**
- **Provision of care and support**
- **Provision of ART to eligible TB patients**

# **Requirements for effective TB-HIV collaboration and comprehensive services**

- **Commitment**
- **Coordination & communication**
- **Comprehensiveness**
- **Continuity**
- **Competence**
- **Compassion**
- **Cost effectiveness**