

# Intensified Case Finding: Defining the Research Agenda II

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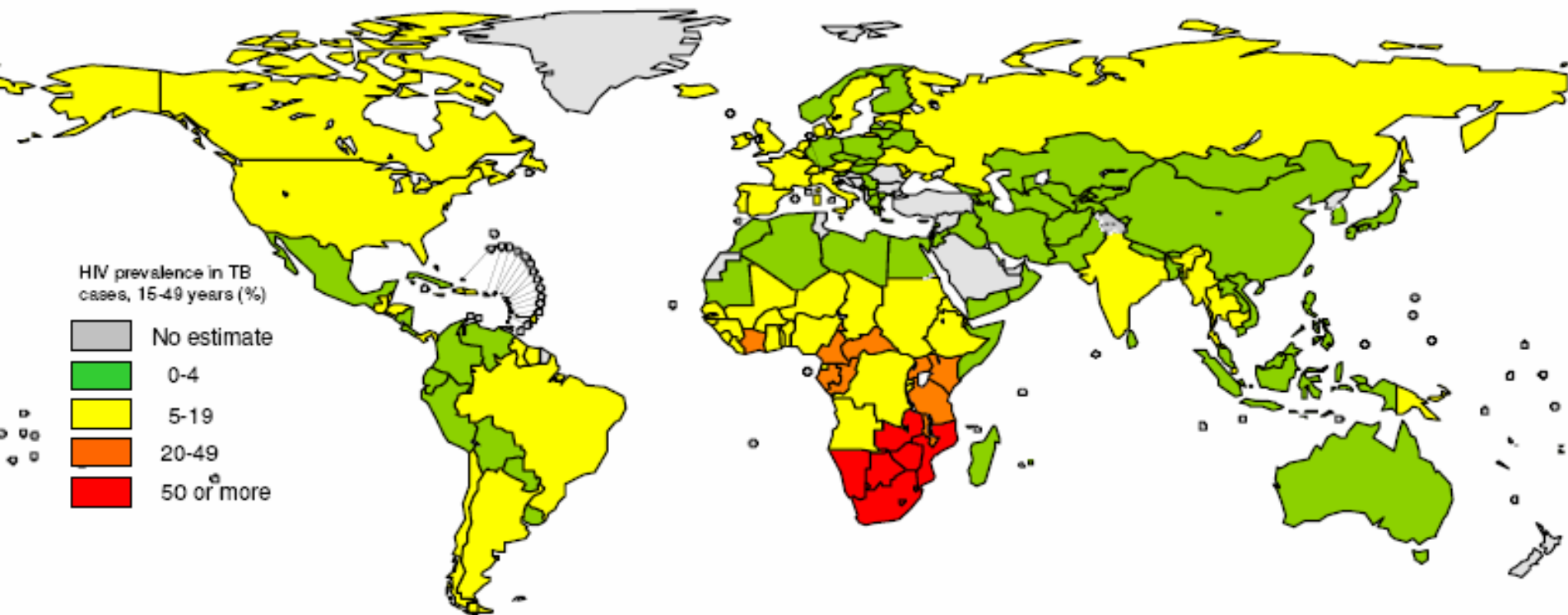
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# Estimated HIV prevalence in new TB cases, 2005

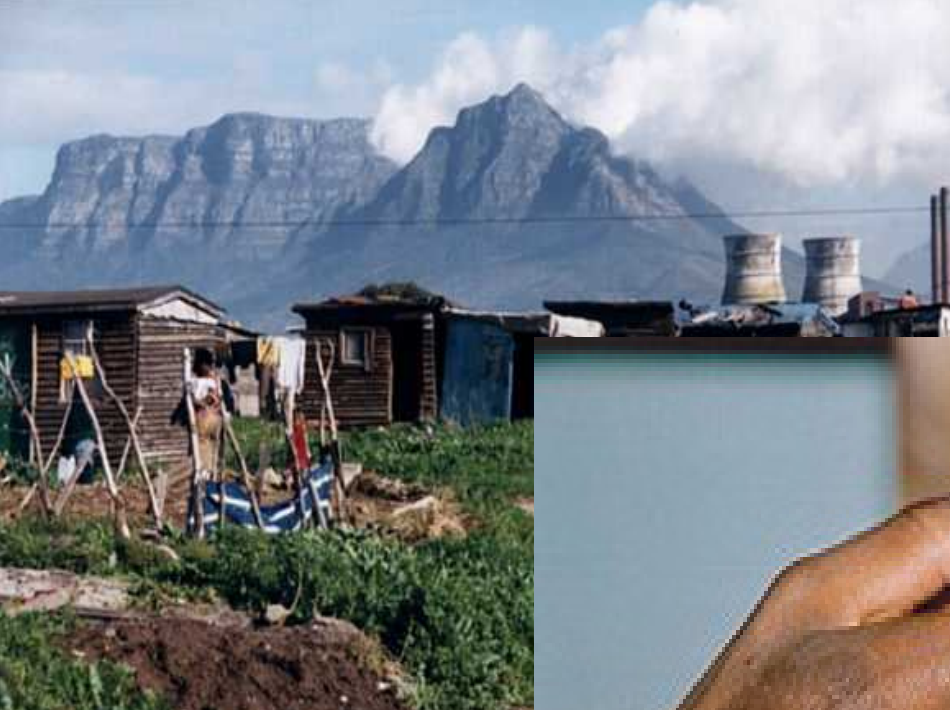


The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

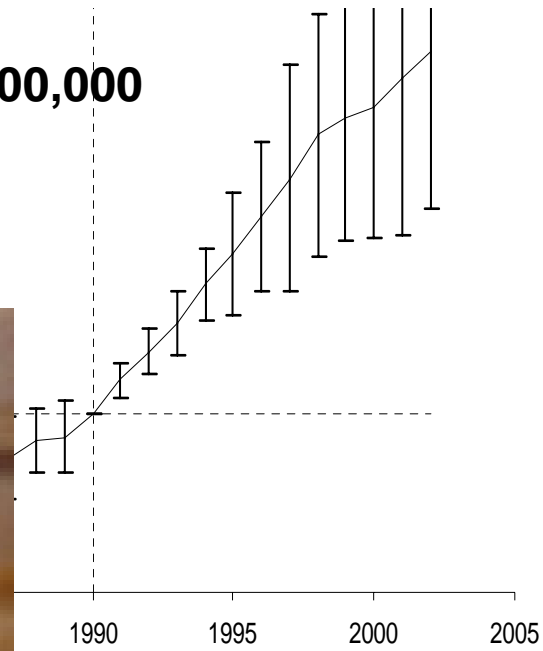
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**TB: 2,000 / 100,000**



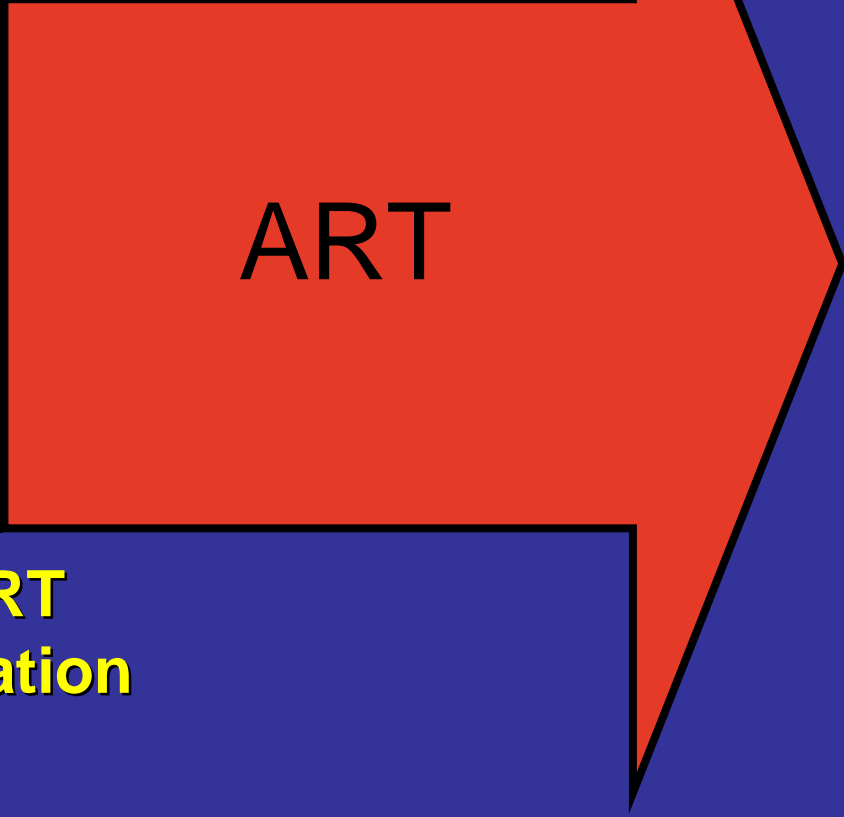
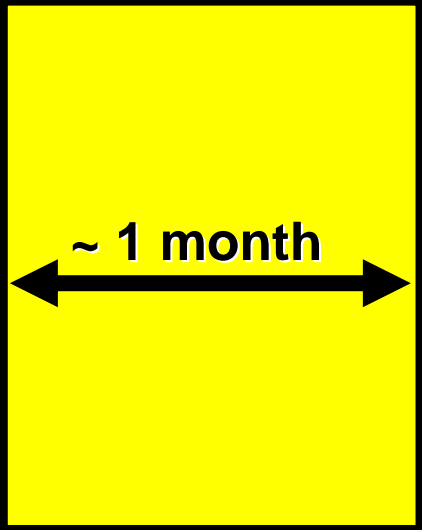
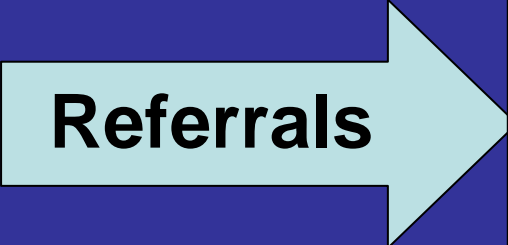
# TB Within ART Services

## Sub-saharan Africa

- Lawn et al *AIDS* 2005
- Seyler et al *AJRCCM* 2005
- Lawn et al *AIDS* 2006
- Bonnet et al *AIDS* 2006
- Moore et al *AIDS* 2007

**Lawn et al.** Burden of tuberculosis in an antiretroviral treatment programme in sub-Saharan Africa: impact on treatment outcomes and implications for tuberculosis control. **AIDS 2006; 20: 1605-12**





**Programme  
entry**

**ART  
initiation**

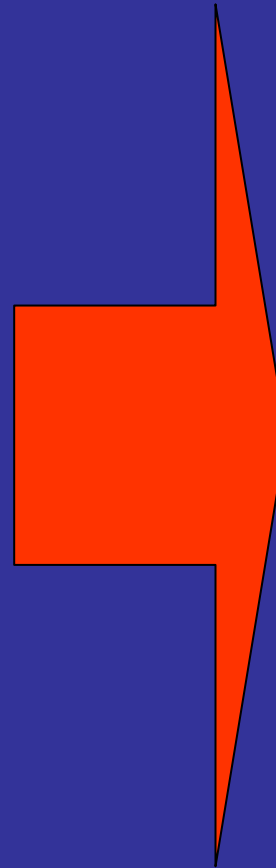
# TB Screening

## SYMPTOMS

- **Cough 2/52**
- **Fever / sweats**
- **Unexplained weight loss**

## SIGNS

- **Febrile**
- **Wasted**
- **Unwell**



**Investigations:  
including sputum  
AFB and MGIT  
culture**

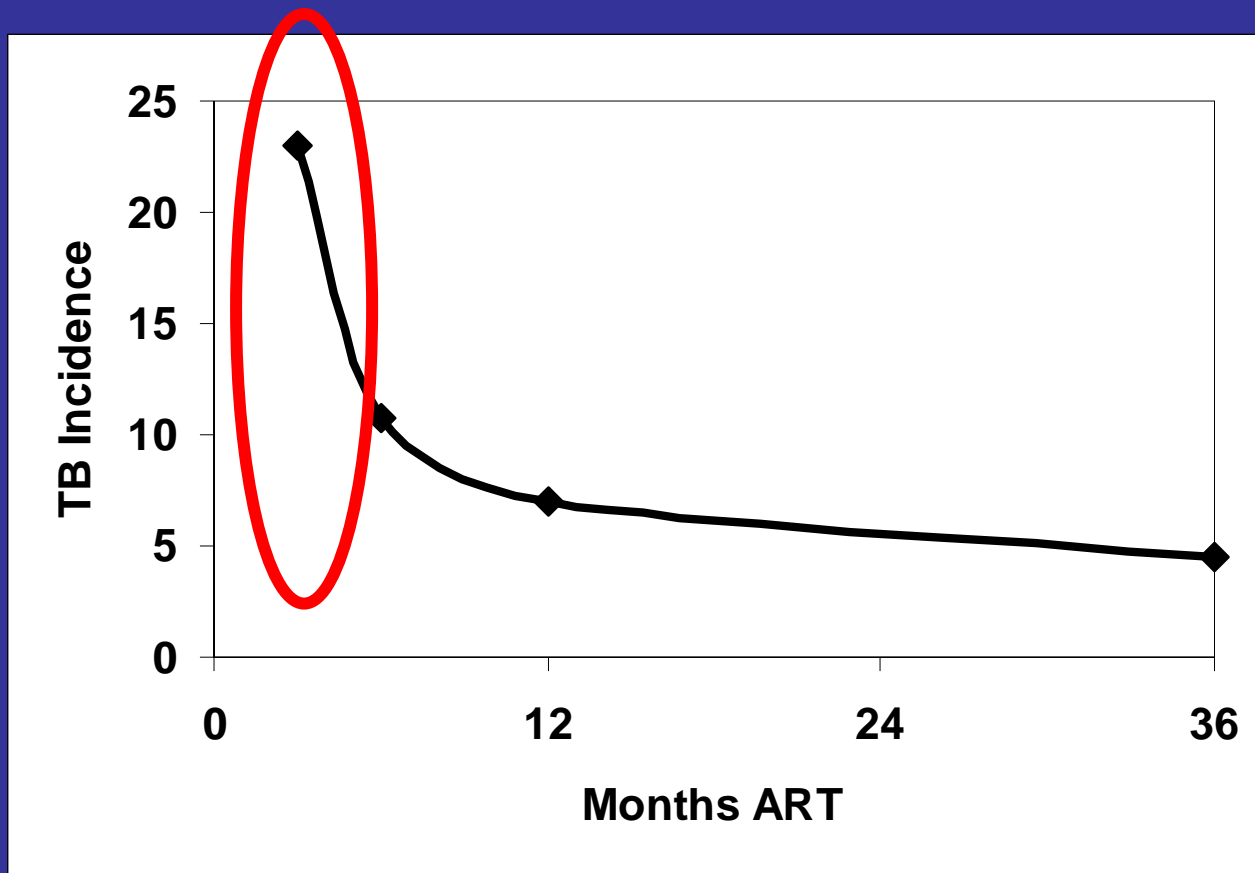
- **>50% have previous history of treated TB**
- **>25% on TB Rx or active TB at enrolment**



Lawn et al. AIDS 2006: 20: 1605-12



# Incident TB During ART



Lawn et al. AIDS 2006; 20: 1605-12



# High TB Burden

- **Morbidity**
- **High early mortality**
- **Nosocomial transmission**
- **Risk of 'unmasking' form of immune reconstitution disease**

# Hypothesis: **high rates of sub-clinical TB at baseline**

## 'Sub-Clinical' TB in HIV+ in Africa

- **Mtei *et al.* Clin Infect Dis 2004 (Tanzania)**
- **Day *et al.* Int J Tuberc Lung Dis 2006 (S. Africa)**
- **Wood *et al.* AJRCCM 2007 (S. Africa)**
- **Corbett *et al.* PLoS Med 2007 (Zimbabwe)**
- **Lucas *et al.* AIDS 1991 (Cote D'Ivoire)**

# Pilot Study

## Screening for TB

- **New adult referrals**
- **All ART-naïve**
- **Not currently receiving TB Rx**
- **Symptoms documented**
- **All investigated for TB**
- **2 x sputum (induced + non-induced)**
  - **Fluorescence microscopy**
  - **Liquid culture (MGIT, Beckton Dickinson)**
- **CXR**









# Preliminary Results

- **31% culture-proven TB**
- **~80% smear negative**
- **>25% no suggestive symptoms**
  
- **CXR<sub>s</sub>**
- **IPT / HAART trial in Khayelitsha**
  
- **The harder you look for it, the more you find!!**

# Many More Questions

- **Who to investigate....some or all?**
- **How to investigate? - specimens? – diagnostics?**
- **Benefits of screening on outcomes?**
- **Adverse effects of screening....workload / cost / delays in ART initiation?**
- **ART as a practical 'diagnostic' in asymptomatic patients?**
- **Empiric TB treatment in sub-groups with highest-risk?**



# Acknowledgements

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