

HIV/AIDS Epidemic in India

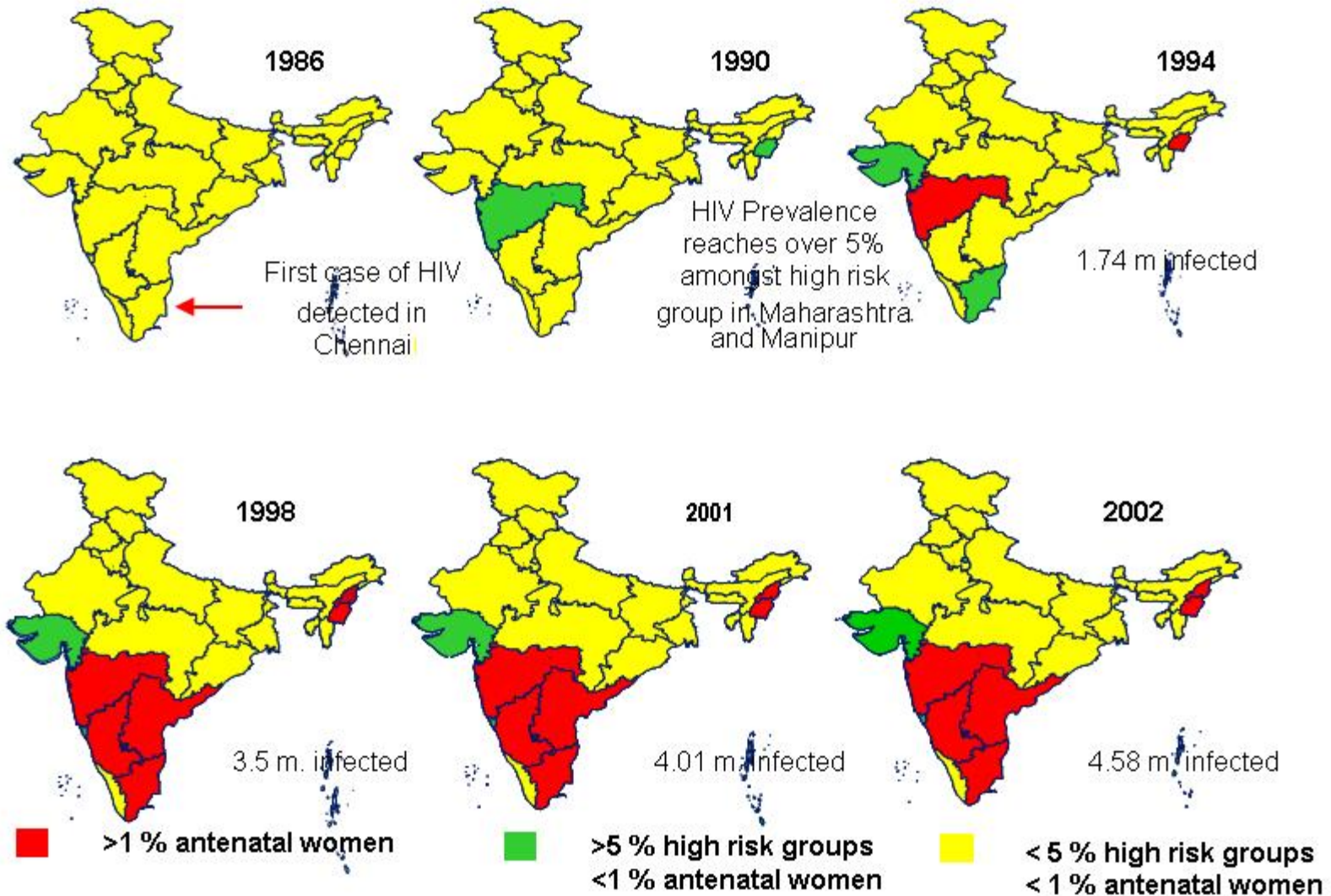
Trends, Lessons, Challenges & Opportunities

Dr. Rajesh Kumar, MD
Prof. of Community Medicine

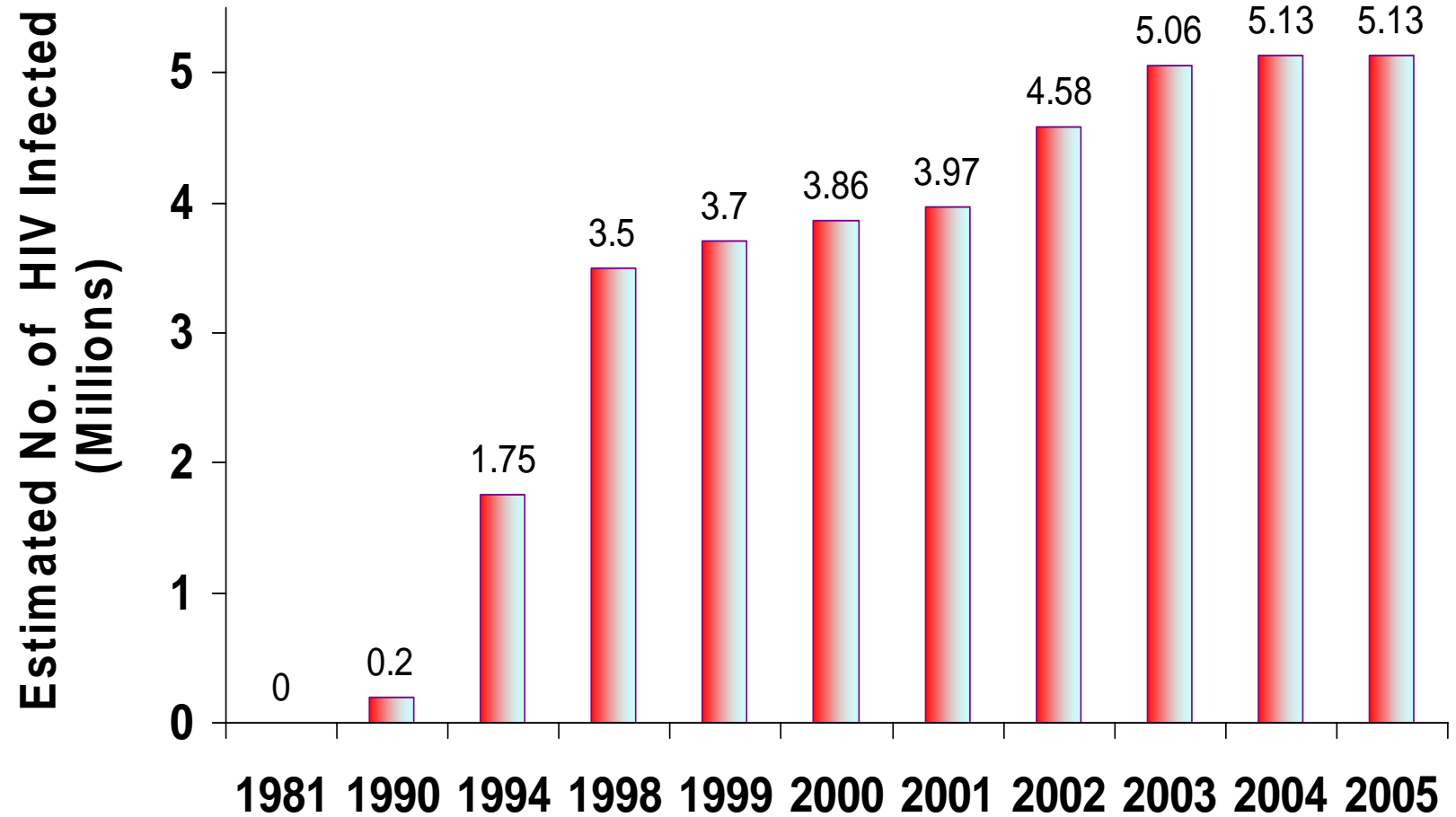
School of Public Health
Post Graduate Institute of Medical Education & Research
Chandigarh
India

dr.rajeshkumar@gmail.com

HIV Trends in India



HIV Trends..



HIV Sentinel Surveillance Sites

| | 1998 | 1999 | 2001 | 2002 | 2003 | 2004 | 2005 |
|-------|------|------|------|------|------|------|------|
| ANC | 94 | 94 | 112 | 174 | 201 | 272 | 399 |
| STD | 78 | 78 | 105 | 129 | 165 | 165 | 179 |
| IDU | 8 | 8 | 11 | 13 | 13 | 13 | 30 |
| FSW | - | - | 2 | 2 | 2 | 2 | 87 |
| MSM | - | - | 2 | 2 | 3 | 3 | 15 |
| Total | 180 | 180 | 232 | 320 | 384 | 455 | 710 |

2006 sites: 1163

Is there a change in HIV incidence?

- Incidence is the BEST measure of trends
- Prevalence in young adults is a good proxy of
HIV incidence

Prevalence Among Young Adults

2000-2004

Pregnant women at ANC clinics: 15-24 years

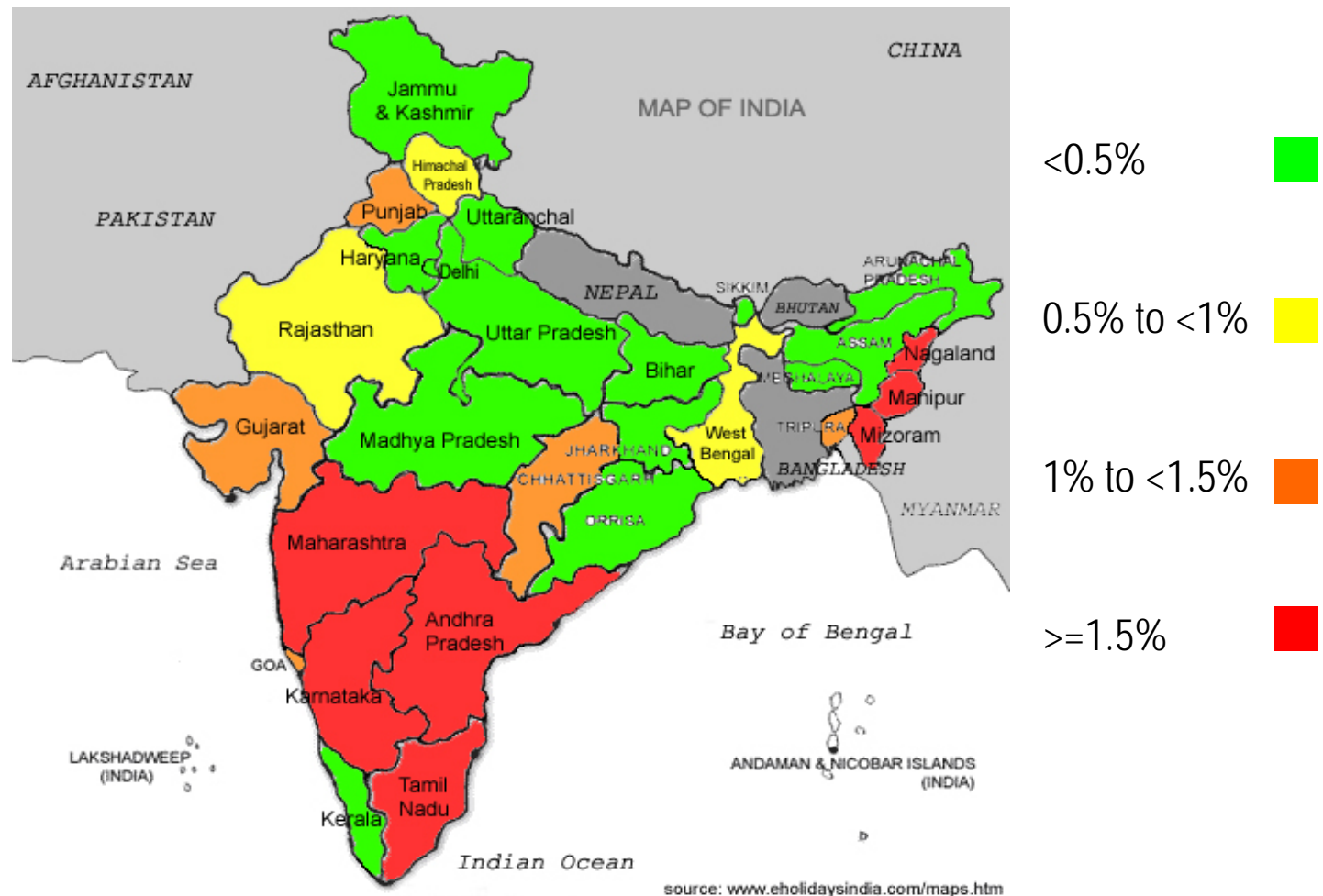
Men at STI clinics: 20-29 years

Age, Residence, Migration*, Education*, Some other sexually transmitted infections, Year, State and Site/Site Name*,

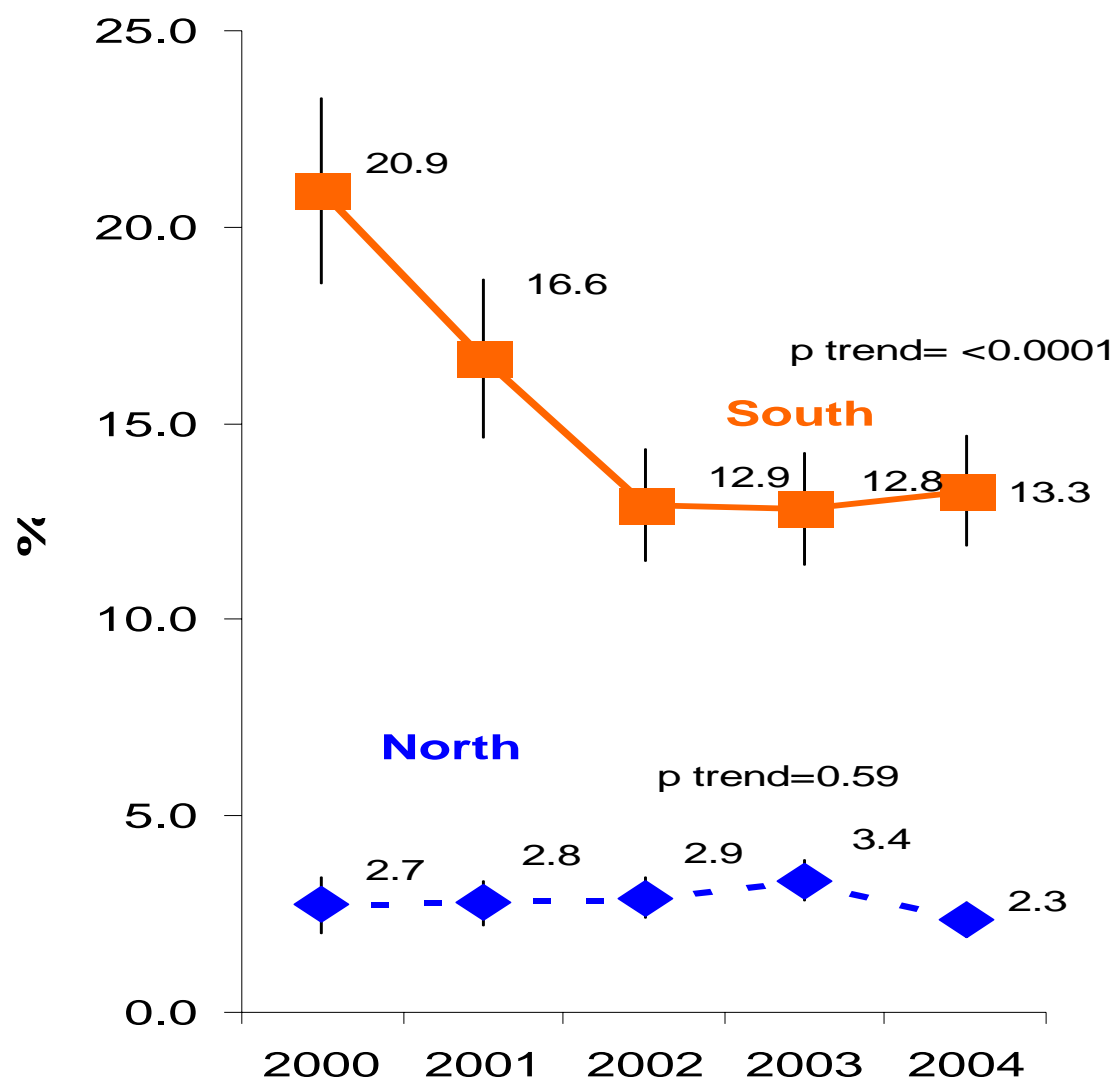
* Not all years

Regions of Analysis

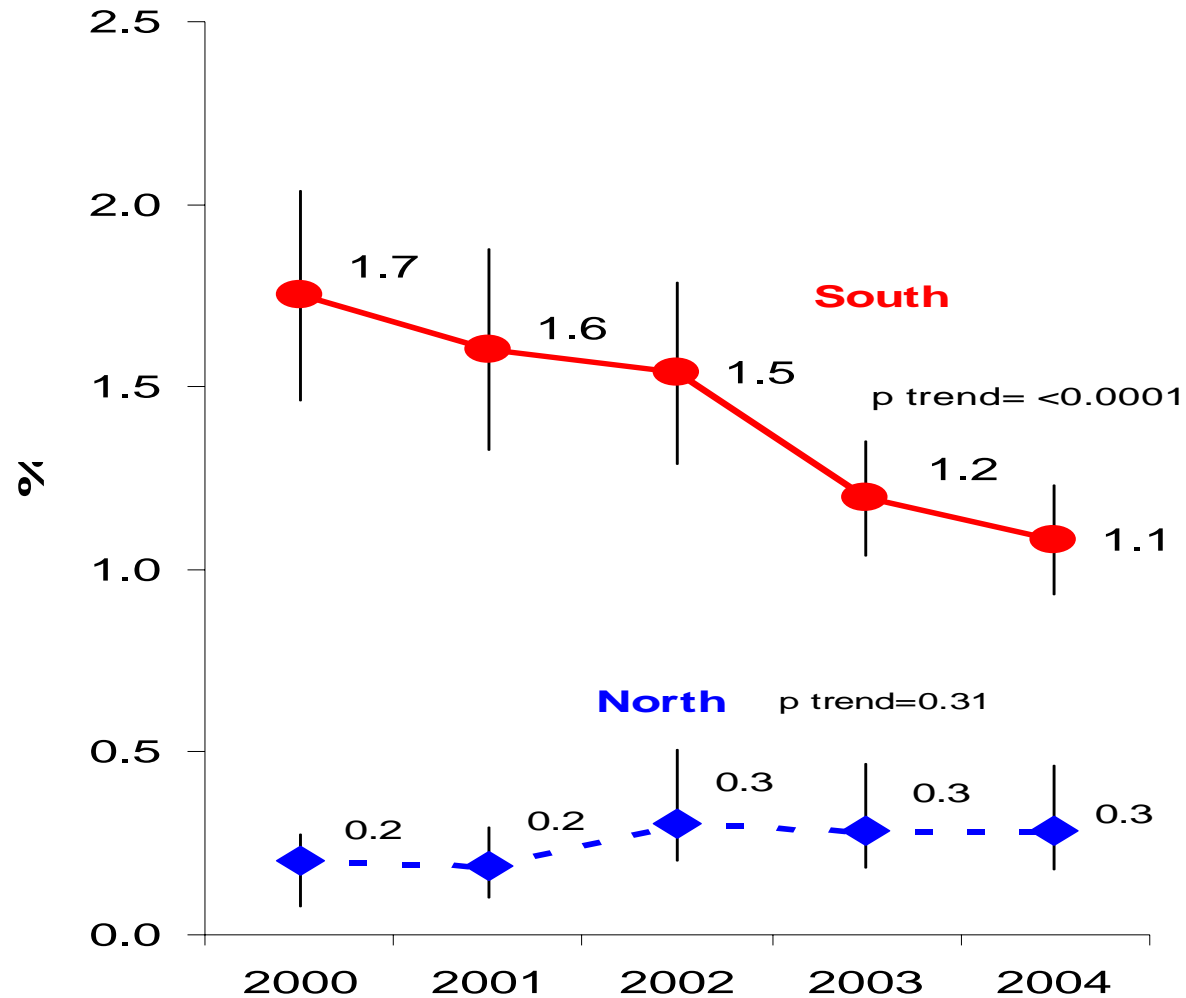
Based on state-level HIV-1 prevalence among ANC attendees
Two regions of analysis: 1. 'South' 2. 'North' and other



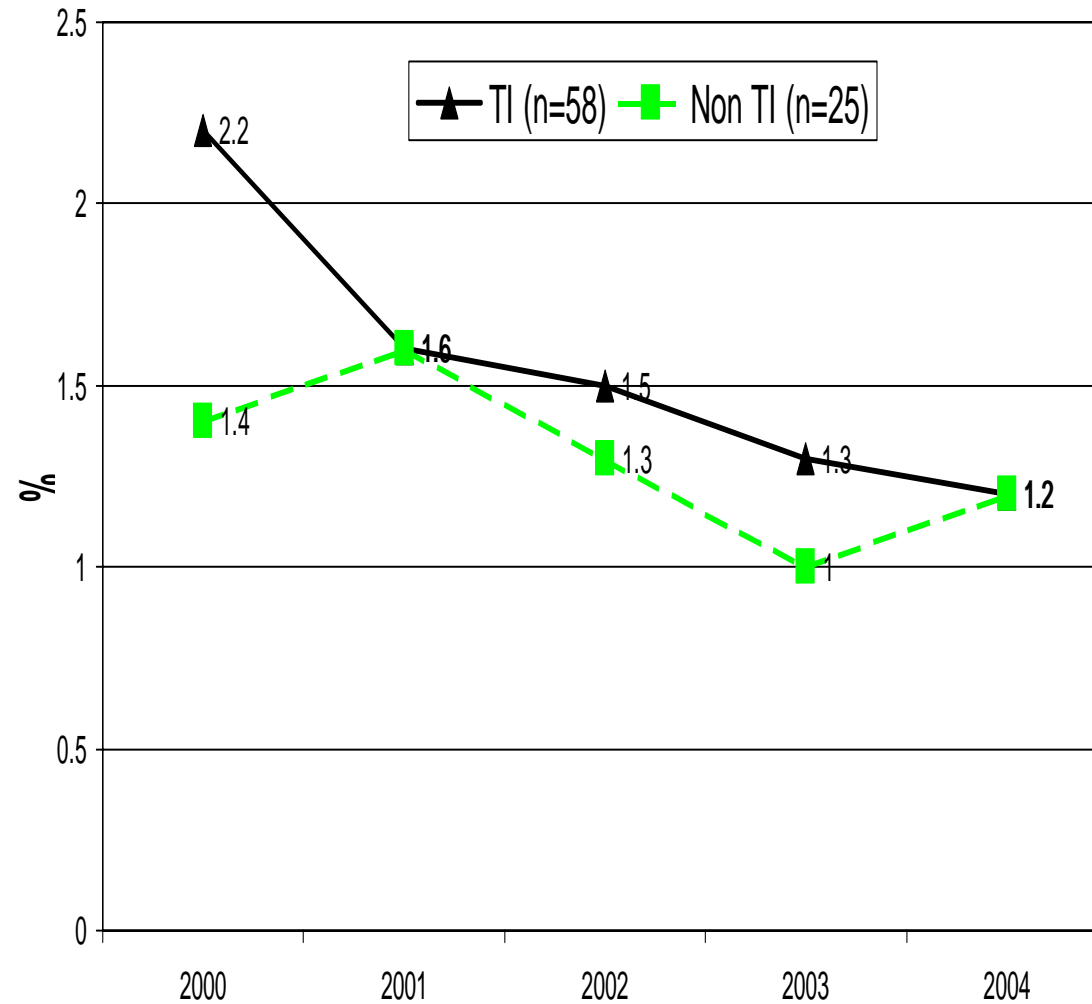
HIV-1 Prevalence in Young Men (20–29 years) attending STI Clinics



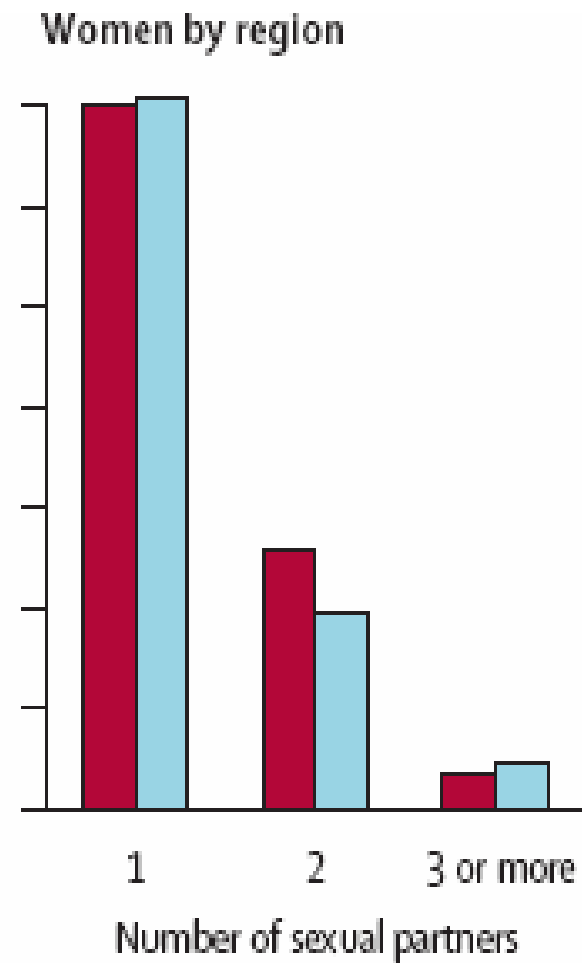
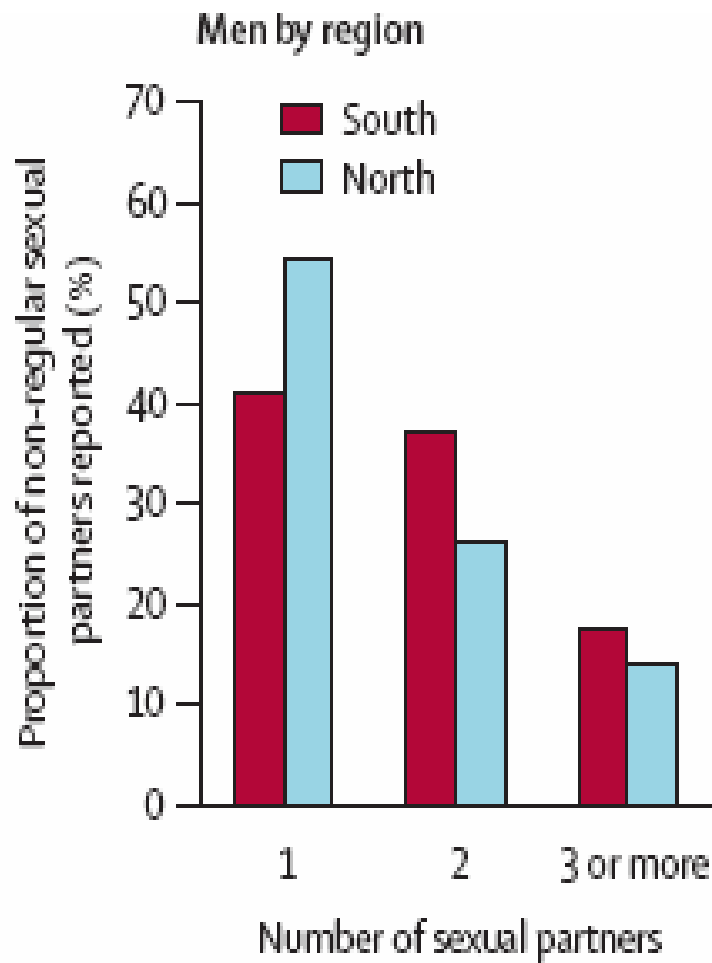
HIV-1 Prevalence in Young Women (15-24 yrs) attending ANC Clinics



HIV Prevalence in Young Women (15–24 years) attending ANC Clinics in Targeted Intervention and Non Intervention districts



Sexual Behaviour Surveillance



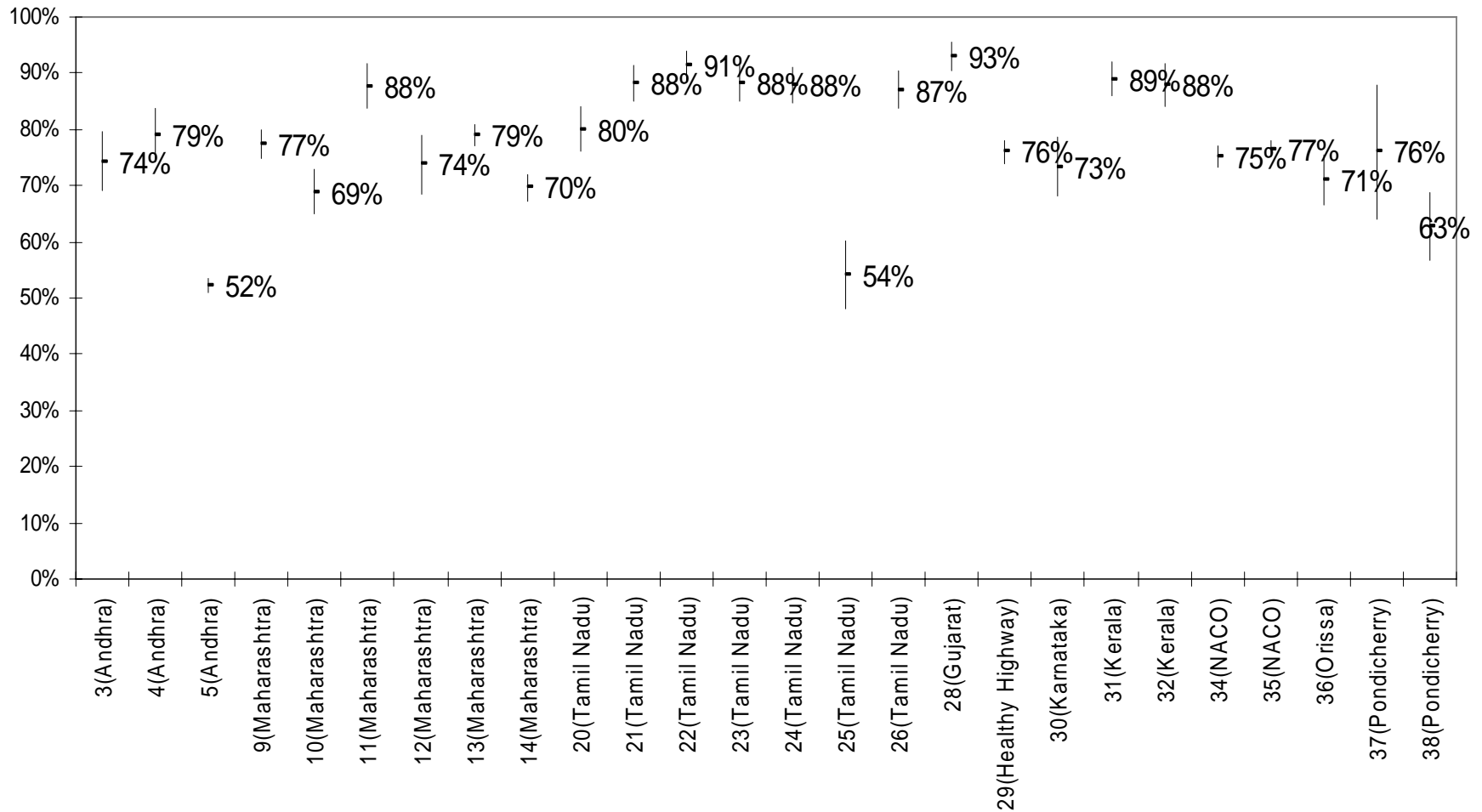
HIV Trends in India

Decline in South But No Change in North

- Changes in husband's use of female sex work (less often or with condoms when done) is only plausible explanation of decline/no major increase
- Consistent with increased peer intervention programs to reach sex workers

FSW Condom Use

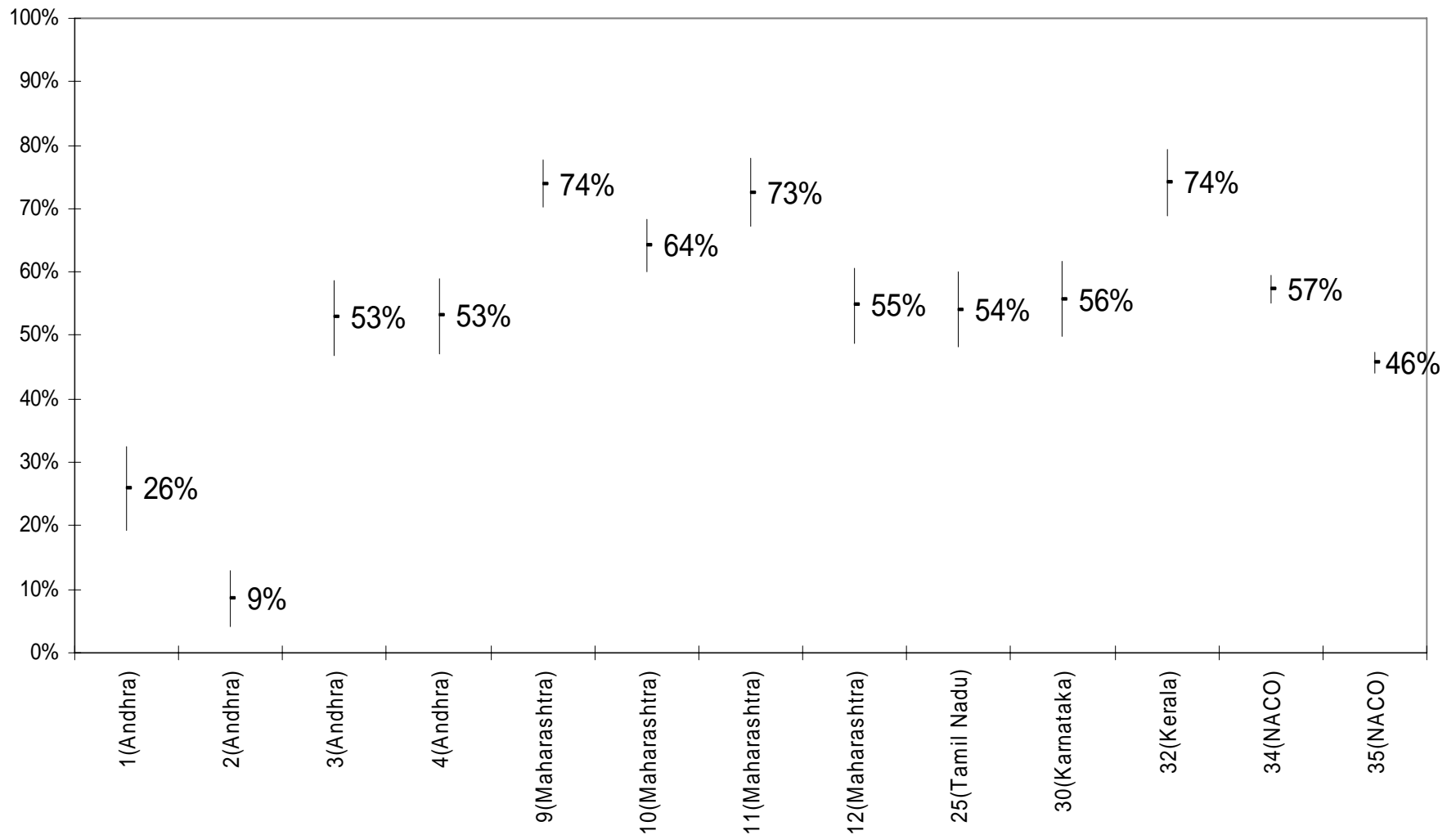
LAST CLIENT



Source: Millson, Jha, Cyriac, Mony et al, Avahan background study

FSW Condom Use

Recent < 3 month



Source: Millson, Jha, Cyriac, Mony et al, Avahan background study

Lessons

- Routine Simple Low Cost Sentinel Surveillance
Can Track the Course of Epidemic
- Heterogeneous Epidemics in Sub-Populations
- Targeted Interventions is Effective Strategy
- Prevention works

Is India on the Right Track?

- Many low prevalence states in north seem to have high prevalence zones, which is of concern
- IDU epidemic in the NE states spreading to other part & needs attention
- To have a ART program major shifts in health expenditure required

Key Challenges..

- **Expansion of ARV and STI Services**
 - Weak health infrastructure in several north Indian states
 - Integration with Maternal and Child Health services
 - Integration with TB services
- **Quality**
 - Improved monitoring of the Prevention and Care Programs to make corrections based on evidence

Key Challenges..

- **Better understanding of Sex Work and Injecting Drug Use**
 - Size and distribution
 - Measuring HIV and STIs in SWs & IDUs
 - Targeting Interventions: 100% coverage

Key Challenges...

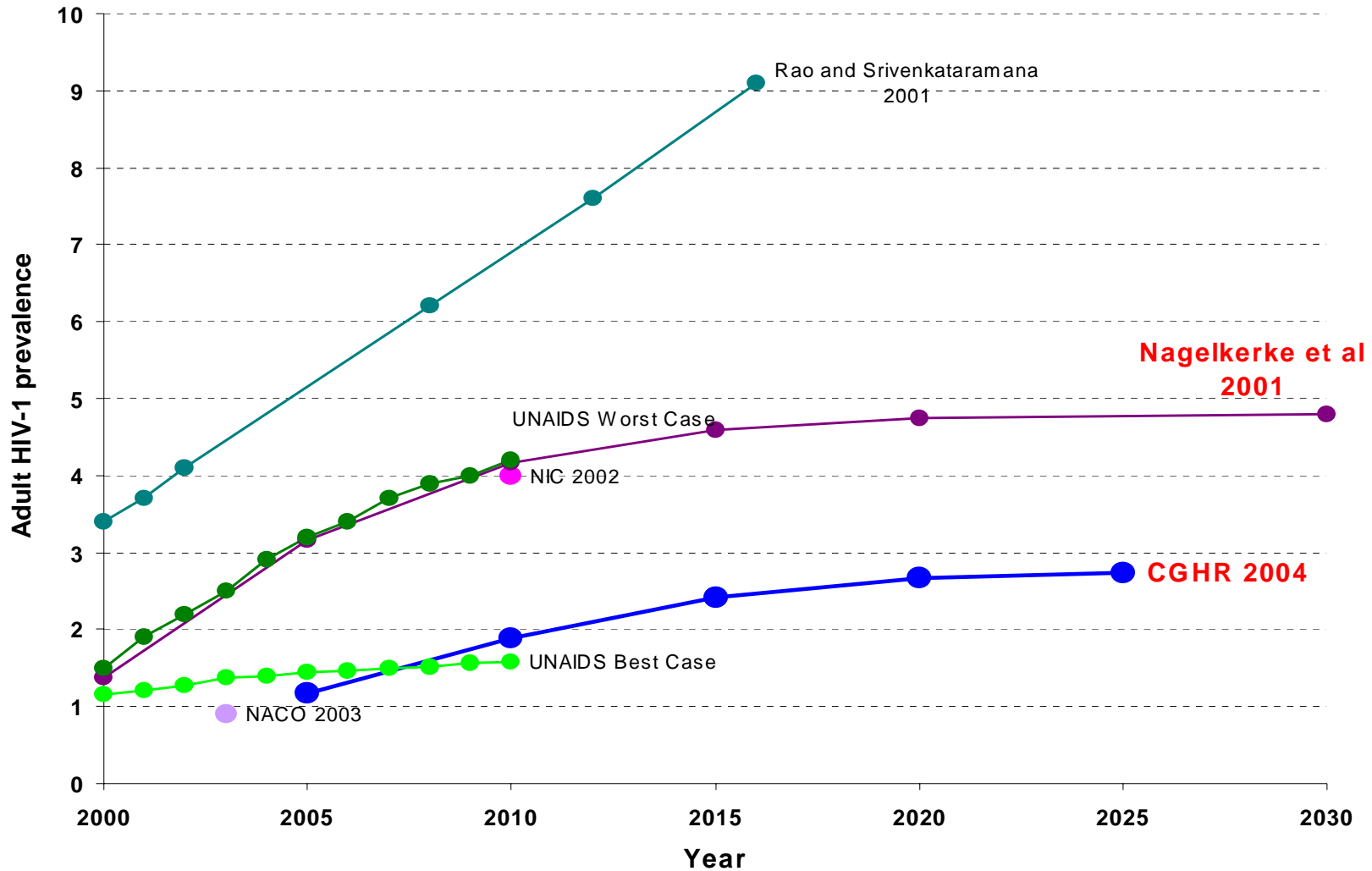
- **Innovations in routine surveillance as a cost-effective, sustainable and relevant research resource**
 - Enhanced ANC surveillance which includes STIs and behavioural surveillance
 - Central biorepository of HIV+ and random % of HIV-
 - HIV incidence measures that are cheap and valid
 - Risk stratification with combination of STI markers/questions
 - Training of surveillance officers for better use of their own data

AIDS Mortality in India

Preliminary results of the RGI-CGHR Million Death Study
(n=150,000 deaths 2001-3, 22,000 analyzed here)
(All cause deaths at ages 15-59 total 3,772,000)

| | % of all deaths | Number |
|--|--------------------|---------------|
| WHO indirect estimate (2002) | 6.2% | 233000 |
| <i>RGI-CGHR preliminary direct estimates (2002-3)</i> | | |
| AIDS only | 1.0% | 36000 |
| AIDS + lymphomas + fevers | 2.3% | 88000 |
| AIDS + lymphomas + fevers + <u>all</u> tuberculosis in South | 4.6% | 175000 |

Major Projection Models for HIV-1 Growth in India



Source: CGHR, 2004

Opportunities

- Good organizational capacity
 - Public, Private & NGO
 - Decentralized focused approach
- Increased political and financial commitment (0.9% to 3%) to Health
 - Integration of Health Care Programs under National Rural Health Mission
- Supportive Development Assistance

Major Strategies of NACP

PREVENTION

High risk populations

- Targeted interventions
- STD treatment
- Condom programming
- Multisectoral Collaboration
- Public private partnerships

Low risk populations

- Holistic IEC and social mobilisation
- Safe Blood
- Voluntary counselling and testing
- AIDS Vaccine Initiative
- Sensitising youth and /adolescents
- Workplace interventions

CARE

Low cost care & support

- Prevention of Parent to Child Transmission
- Management of HIV TB Co Infection
- Treatment of Opportunistic Infections
- Provision of ART
- Post Exposure Prophylaxis

SURVEILLANCE

Evidence based planning

- Annual Sentinel Surveillance
- AIDS Case Detection
- Mapping of high risk groups
- Behavioural Surveillance

Thanks