

# Risk-taking profile of injection drug users in Chennai, India

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# HIV epidemic in India

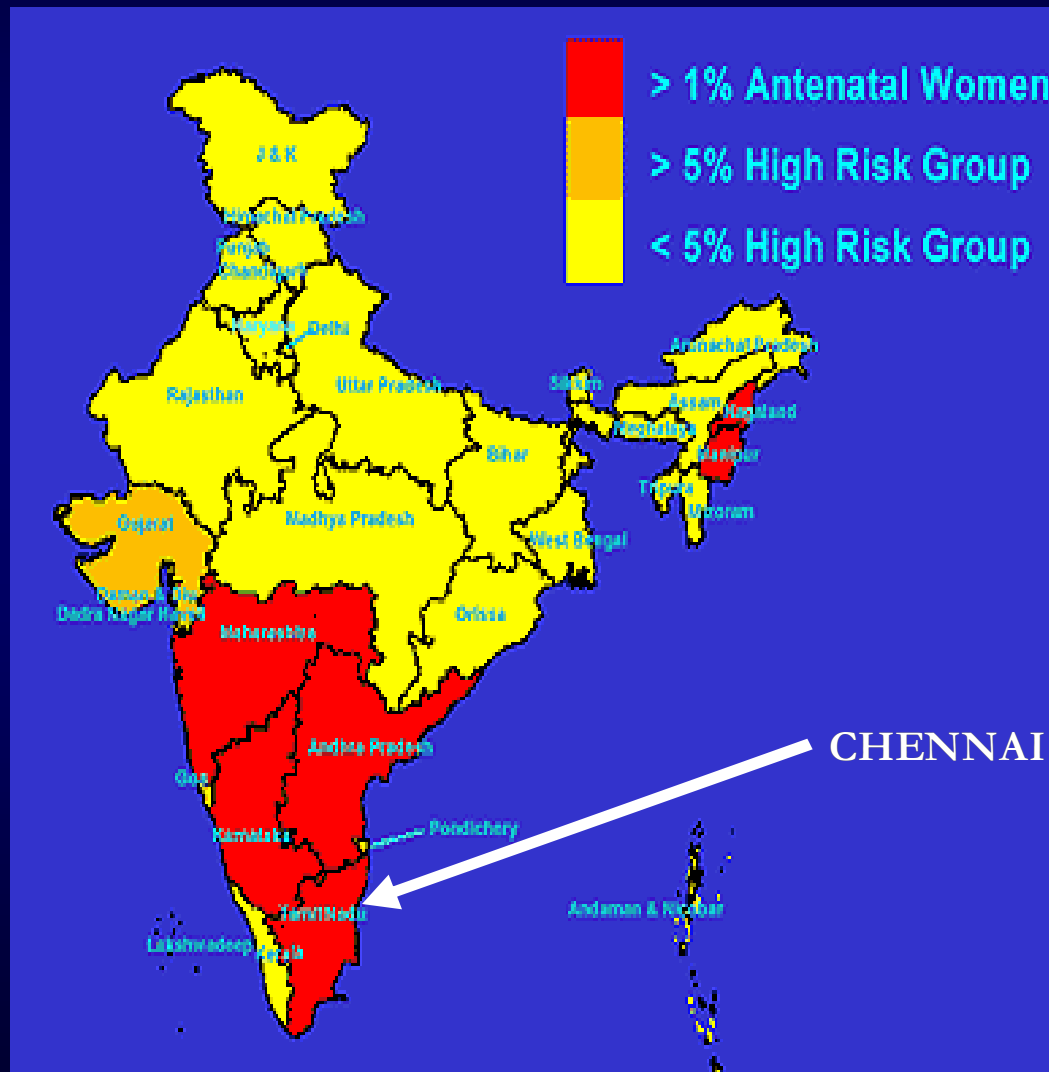
- Recent estimates: 2.5 million HIV infected persons<sup>1</sup>
- Heterosexual driven<sup>2</sup>
- Injection drug users (IDU) epidemic in Northeastern States
- Overall IDU estimates for India
  - 1.1 million IDUs<sup>3</sup>
  - HIV prevalence ranges between 1 and 68%<sup>3</sup>

1. UNAIDS, NACO, WHO 2007

2. NACO Monthly Updates on AIDS: 31 August 2006

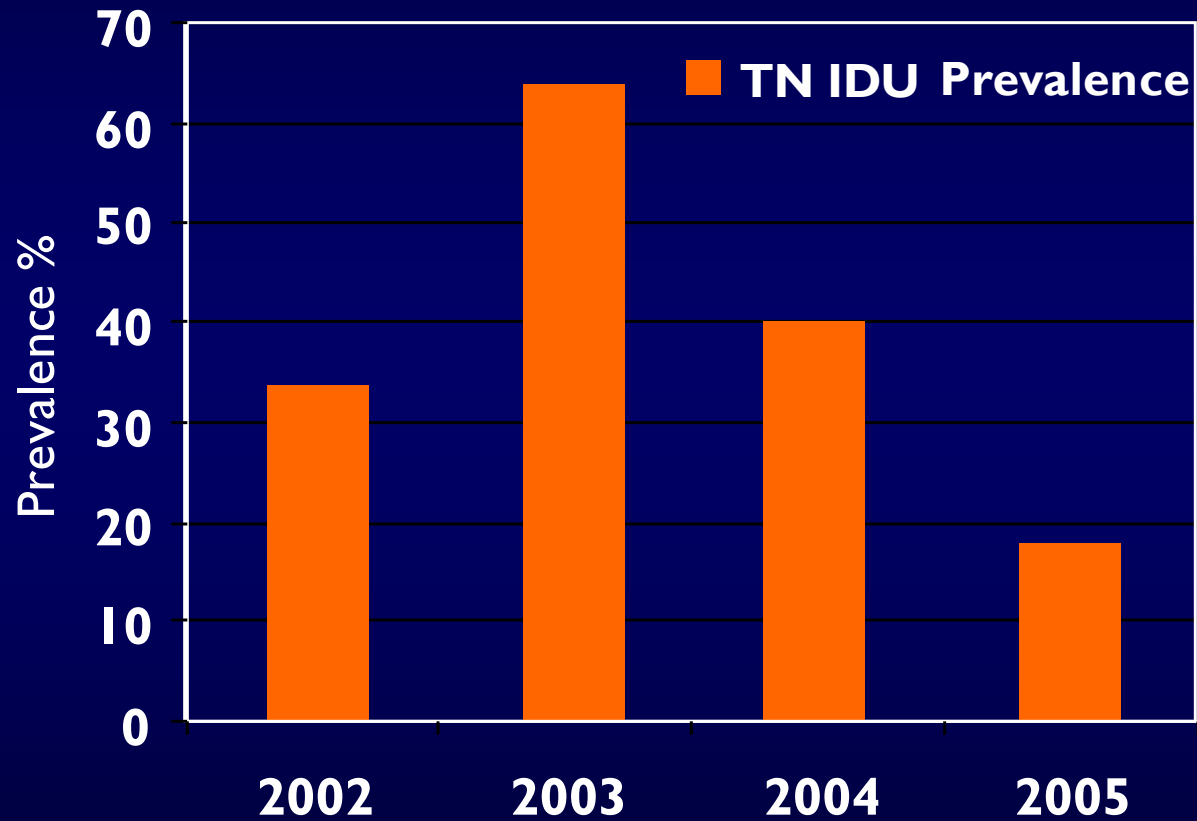
3. Aceijas et al. AIDS 2004

# Chennai, India



# Background

## IDUs and HIV in Tamil Nadu □



Source: NACO, India

# Objectives of the study

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- Describe the demographics and risk-taking profiles of IDUs in Chennai for the purposes of identifying points of intervention

# Methods

Recruitment of IDUs from Chennai (convenience sample)

- Over 18 years
- Injected drugs once in last 6 months (by self report)

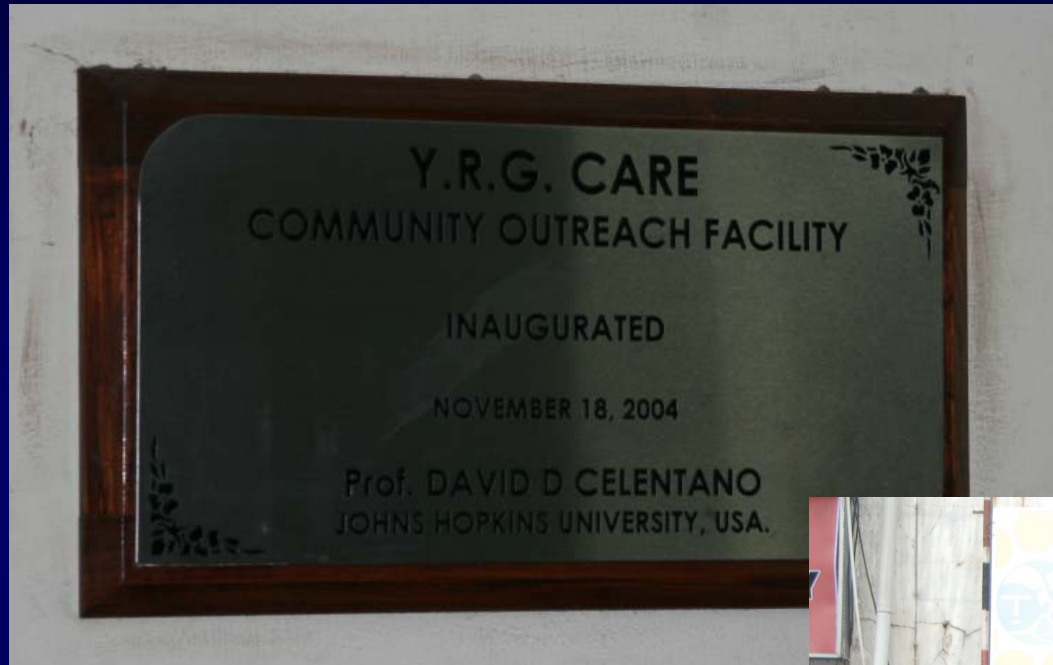
Detailed questionnaire

- Demographics
- Needle use, care and disposal
- Drug and alcohol use, sexual behaviour
- Interaction with family and friends

HIV testing with pre- and post-test counseling at baseline  
Follow-up care at YR Gaitonde Substance Abuse Center, Chennai

Single variable analysis, using the Chi squared test and Fisher's exact method

# Study Setting



# Results

- 912 study participants (HIV infected= 271)

## Demographics

Demographic	Overall prevalence (per 100)	Prevalence in HIV positives (per 100)	P-value
<u>Marital status:</u>			0.001
Single	31.2	36.4	
Married	58.3	50.4	
<u>Education:</u>			0.194
None	27.6	29.8	
Primary school	34.5	34.2	
<u>Average monthly earnings:</u> <500R	9.9	11.8	0.328
500-1500 INR	37.7	45.6	



## Most commonly used drugs

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### Injection drugs used:

- Heroin: 84.4 % vs. 93.8% ( $p < 0.001$ )
- Buprenorphine: 27.3% vs. 15.5% ( $p < 0.001$ )

### Non-injection drugs used:

- Ganja (marijuana) 75%
- Chewing intoxicating tobacco: 19.7% vs. 15.4% ( $p = 0.034$ ) □

# Injection practice (where and with whom)

Variable	Overall prevalence (per 100)	Prevalence in HIV positives (per 100)	P-value
<u>Place of injection in last 1 month:</u>	26.7	33.6	0.014
Home			
Dealer's place	23.9	30.0	0.002
Public park	19.0	13.7	0.014
Alone	57.5	67.7	0.<001
With other people well known	37.4	25.2	0.000

# Procurement and storage of needles

Variable	Overall prevalence %	Prevalence in HIV positives %	P-value
<u>Needle procurement</u> : pharmacy	67.3	83.6	0.874
<u>Storage of needles</u> : buried in ground	24.2	17.3	0.004
<u>Disposal of needles in last 1 month</u> : garbage	74.0	68.7	0.033

# Injection practice and needle care

Variable	Overall prevalence %	Prevalence in HIV positives %	P-value
<b><u>Risk use of needle:</u></b> Pass on cotton ball filter after use	26.4	18.9	0.002
Use someone else's cotton ball filter after use	23.0	17.2	0.012
Use a known HIV positive's needle	4.6	7.81	0.03
<b><u>Needle cleaning practice:</u></b> with soap and water	30.0	24.3	0.015
With water (not distilled)	54.0	39.8	0.032

# Use of alcohol and sexual practice, incarcerations

Variable	Overall prevalence (per 100)	Prevalence in HIV positives (per 100)	P-value
<b><u>Alcohol use:</u></b> Always combine alcohol and drug taking	15.1	14.2	0.034
<b><u>Tattoo</u></b>	69.8	82.3	0.000
<b><u>Sexual practice in last 1 month:</u></b> vaginal or anal sex	41.1	29.0	0.000
<b><u>Incarceration:</u></b> nights in prison in last 6 months (mean, sd)	44.8, 44	47.0, 39.1	0.663

# Discussion

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## Potential opportunities for intervention

### 1. Demographics

- Before age 24: ?school age
- Workplace
- Prisons

Panda, S., A. Chatterjee, et al. (2000). "Transmission of HIV from injecting drug users to their wives in India." [Int J STD AIDS](#) 11(7): 468-73.

## 2. Drugs used and injection practice

- Target heroin and bupenorphine use
- Sharing of needles, cotton filter
- Education regarding sharing known HIV positive's equipment
- Discourage injection at dealer's place
- Encourage establishment of needle-exchange centres/ role of pharmacies

### 3. Needle care and disposal

- Education regarding correct cleaning and disposal of needles



## 4. Use of non-injecting drugs, alcohol and sexual practice

- Target use of non-injecting drugs
- Sex education (Sharma, 2002)
- Clean tattoo practice (Panda, 2005)

Sharma, A. K., O. P. Aggarwal, et al. Prev Med 2002; **34**(5): 512-5.

Panda, S., M. S. Kumar, et al. J Acquir Immune Defic Syndr 2005; **39**(1): 9-15.

# Limitations

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- Recruitment from known IDU networks
- More detailed sexual behaviour questions needed
- May not be generalizable to all IDUs in India due to cultural differences as well as alternate drug trafficking routes

# Acknowledgements

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Sunil Solomon (YRGCSAR, YRGCARE and JHSPH)

David Celentano (JHSPH)

Carl Latkin (JHSPH)

A. K. Srikrishnan, Easter Thamburaj, C.K. Vasudevan, K.  
G. Murugavel, Suresh Kumar,, Suniti Solomon  
(YRGCARE and YRGCSAR)