

HIV in Bangladesh: an emerging epidemic



CLINICAL RESEARCH COOPERATION WITH DEVELOPING COUNTRIES

28th May 2008

Geneva

The Bangladesh HIV Scenario, 2007

Overall HIV prevalence rates among population groups most t risk of HIV infection

<1%

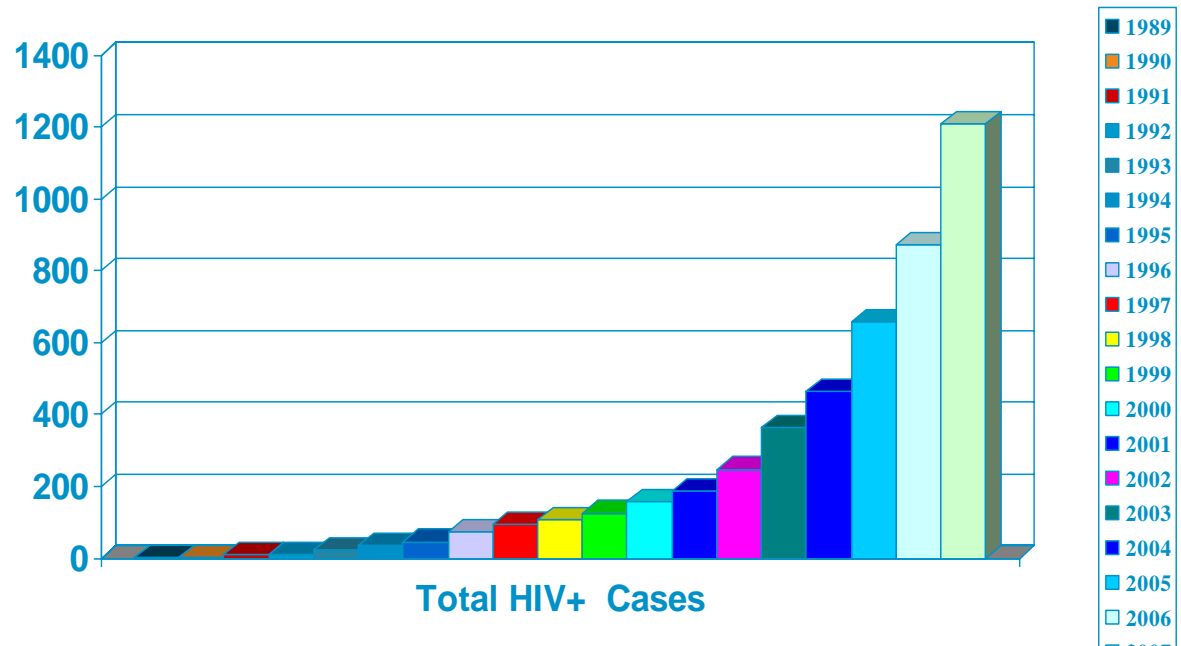
Estimated number of cases

~7500

Reported number of HIV cases
1207

Number of AIDS cases
365

Number of deaths
123



THE MAIN POPULATION GROUPS WITH HIV INFECTION AT PRESENT

- Injecting drug users
- Migrants returning home

Sources of information:

Surveillance among most at risk populations

Ad hoc surveys

Research studies

Data from VCT clients

HIV Prevalence over the years among most at risk population groups

Surveillance Round	Numbers Tested	HIV (%)
1 st Round 1998-1999	3886	<1% (0.4)
2 nd Round 1999-2000	4634	<1% (0.2)
3 rd Round 2000-2001	7063	<1% (0.2)
4 th Round 2002	7877	<1% (0.3)
5 th Round 2003-2004	10445	<1% (0.3)
6 th Round 2004-2005	11029	<1% (0.6)
7 th Round 2006	10368	<1% (0.9)

Injecting Drug Users in Bangladesh

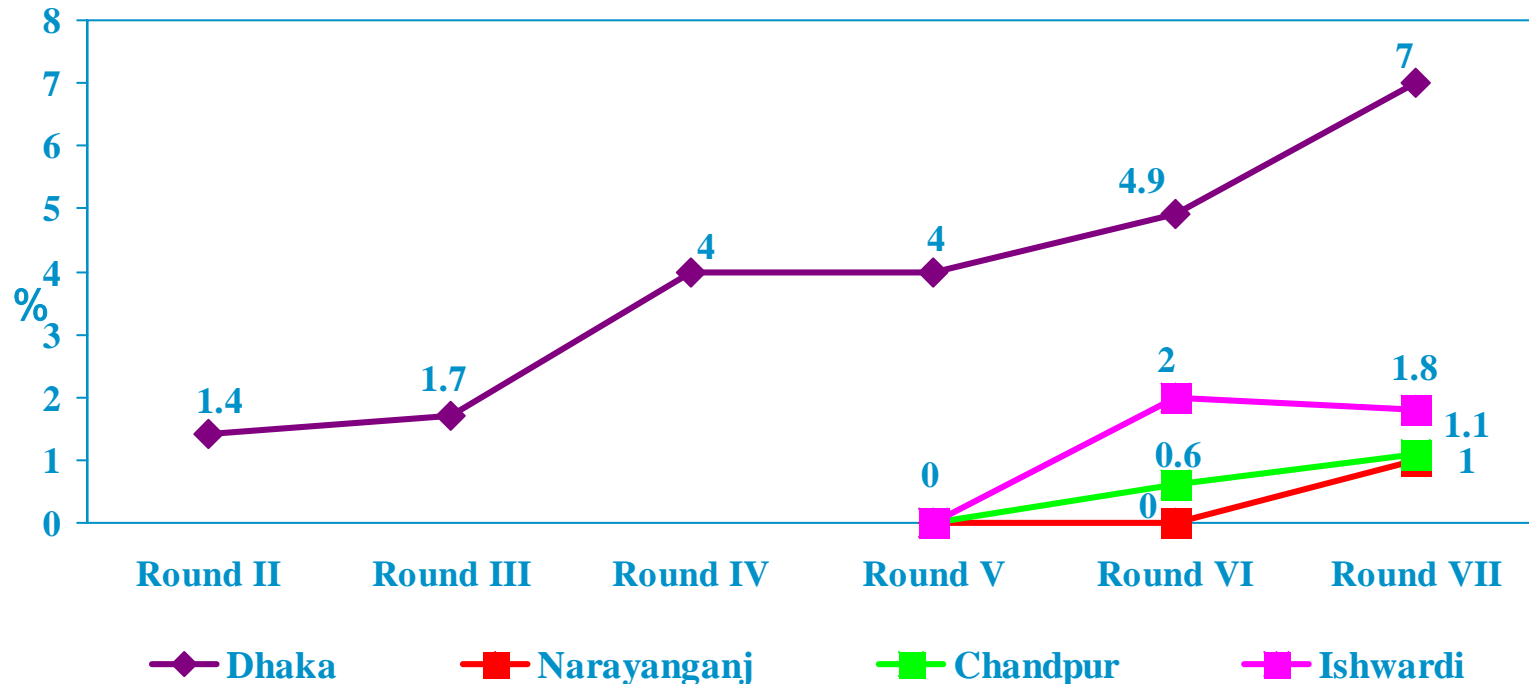
Estimated numbers: 20,000 – 40,000



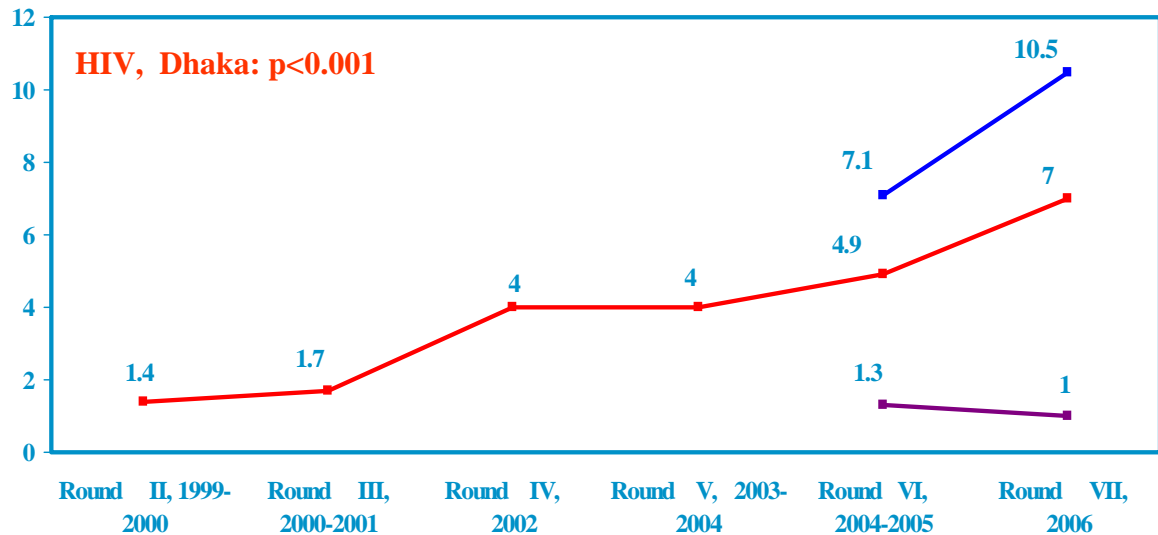
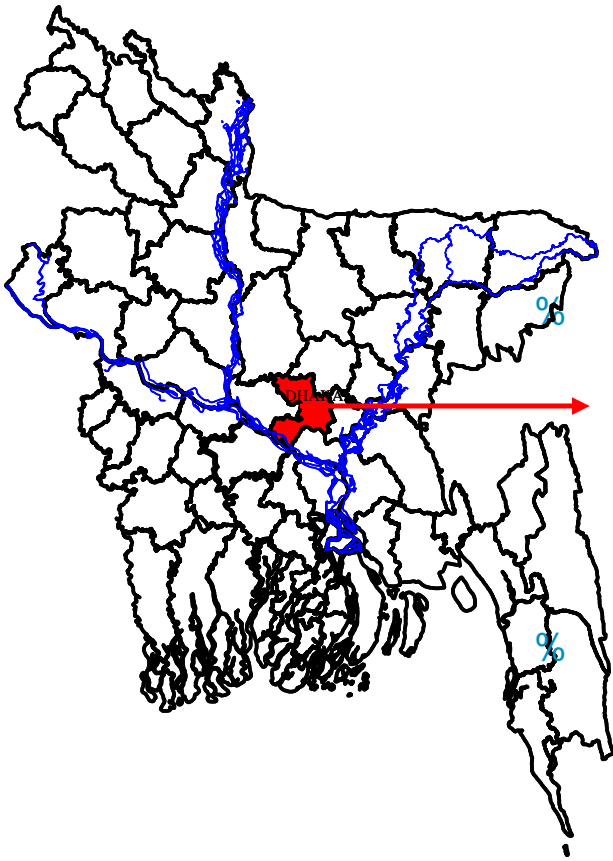
A concentrated epidemic in IDU in Dhaka, Bangladesh

18 cities sampled for IDU, 4095 IDU sampled
HIV found in four cities only

Concentrated epidemic in Dhaka

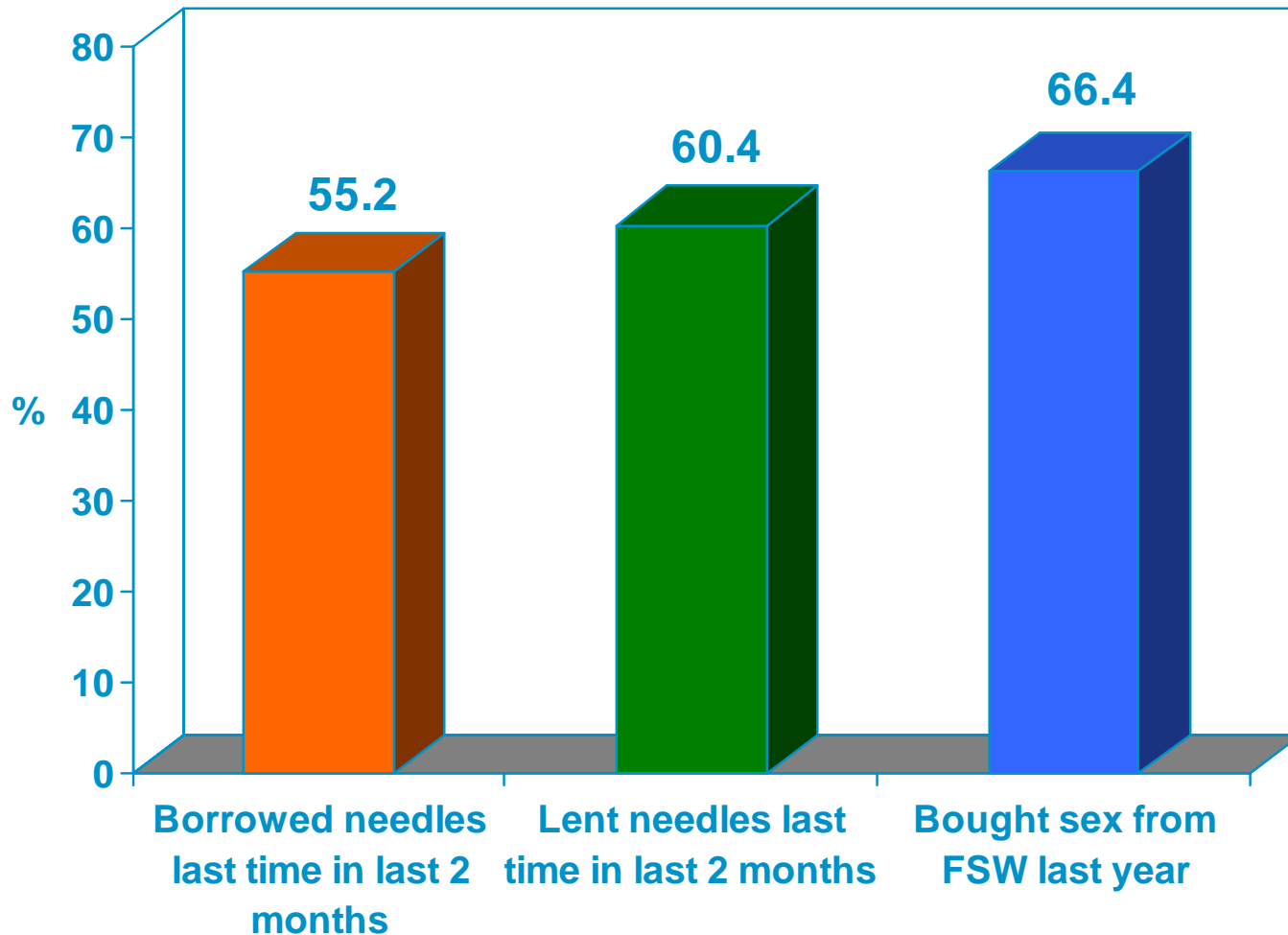


HIV prevalence in male IDU from Dhaka over the years



Source: Bangladesh HIV surveillance, 2006

INJECTING DRUG USERS AND RISK BEHAVIOURS

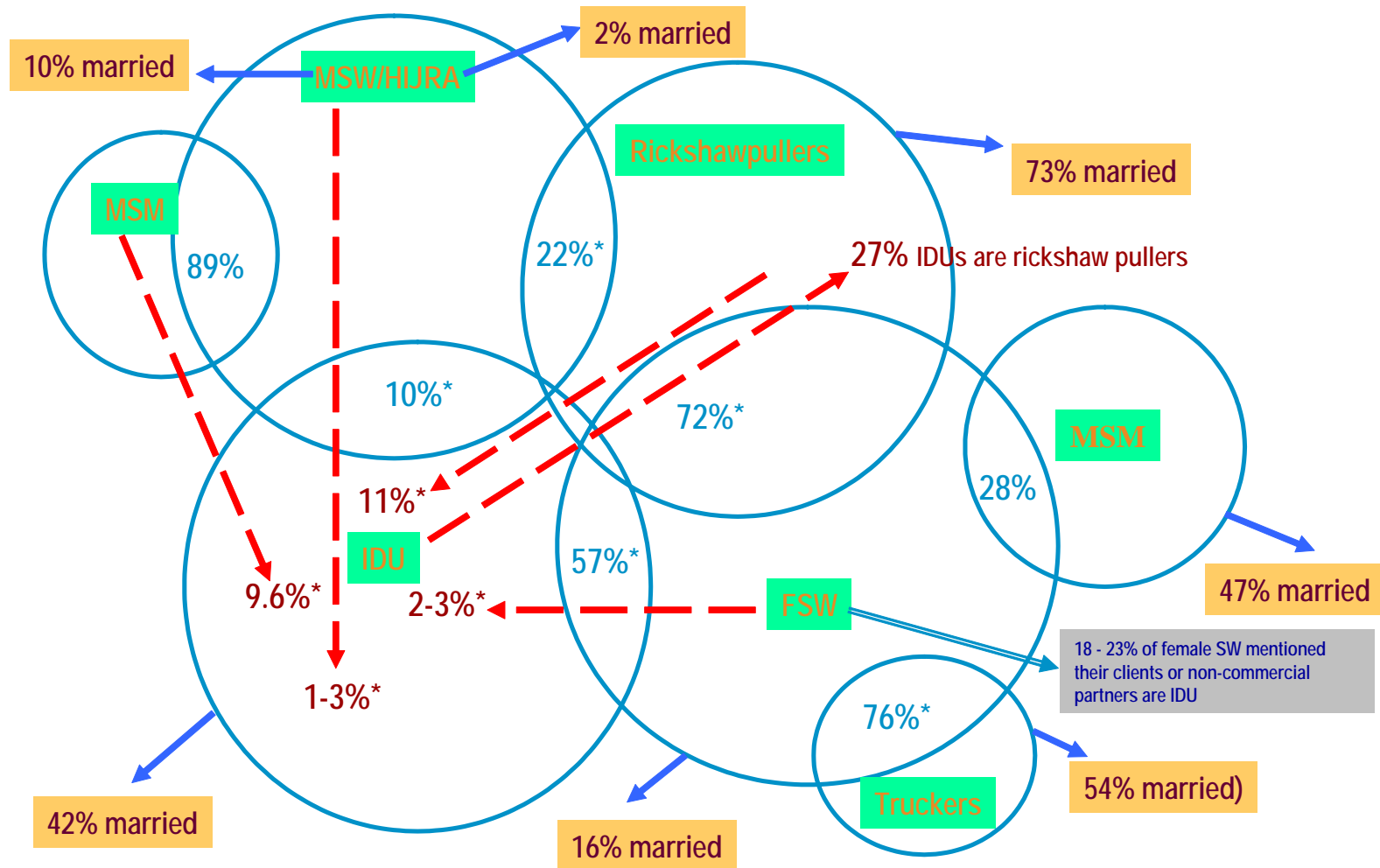


Risk factor for HIV infection in IDU



IDUs who live on the streets are five times more likely to be HIV Positive than those who live at home

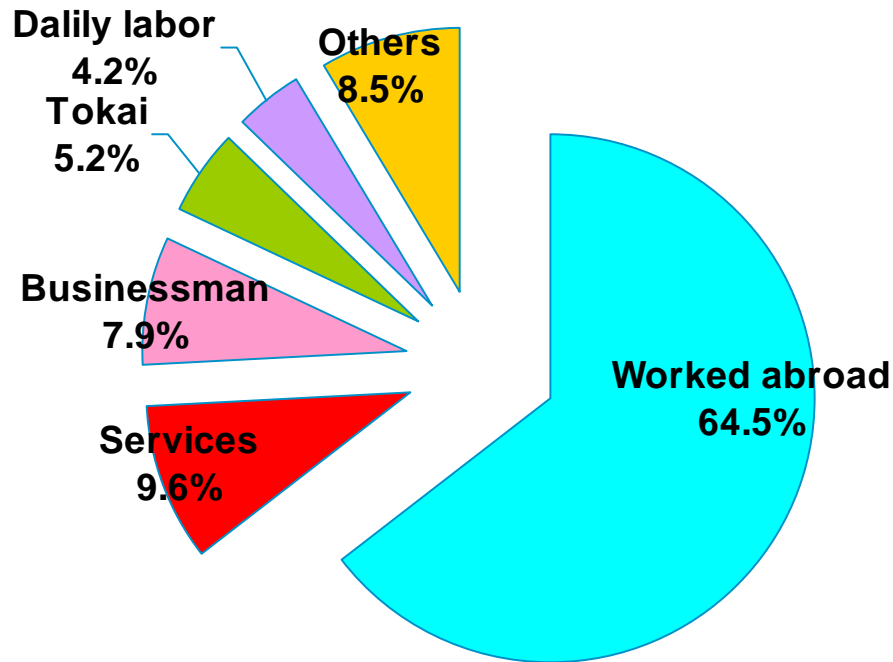
Potential spread of HIV from MARPS to the general population in Central Bangladesh (Surveillance, 2002)



*Star marked figures refer to last year

Black font figures refer to commercial sex

Migration and HIV PLHIV (N=740)

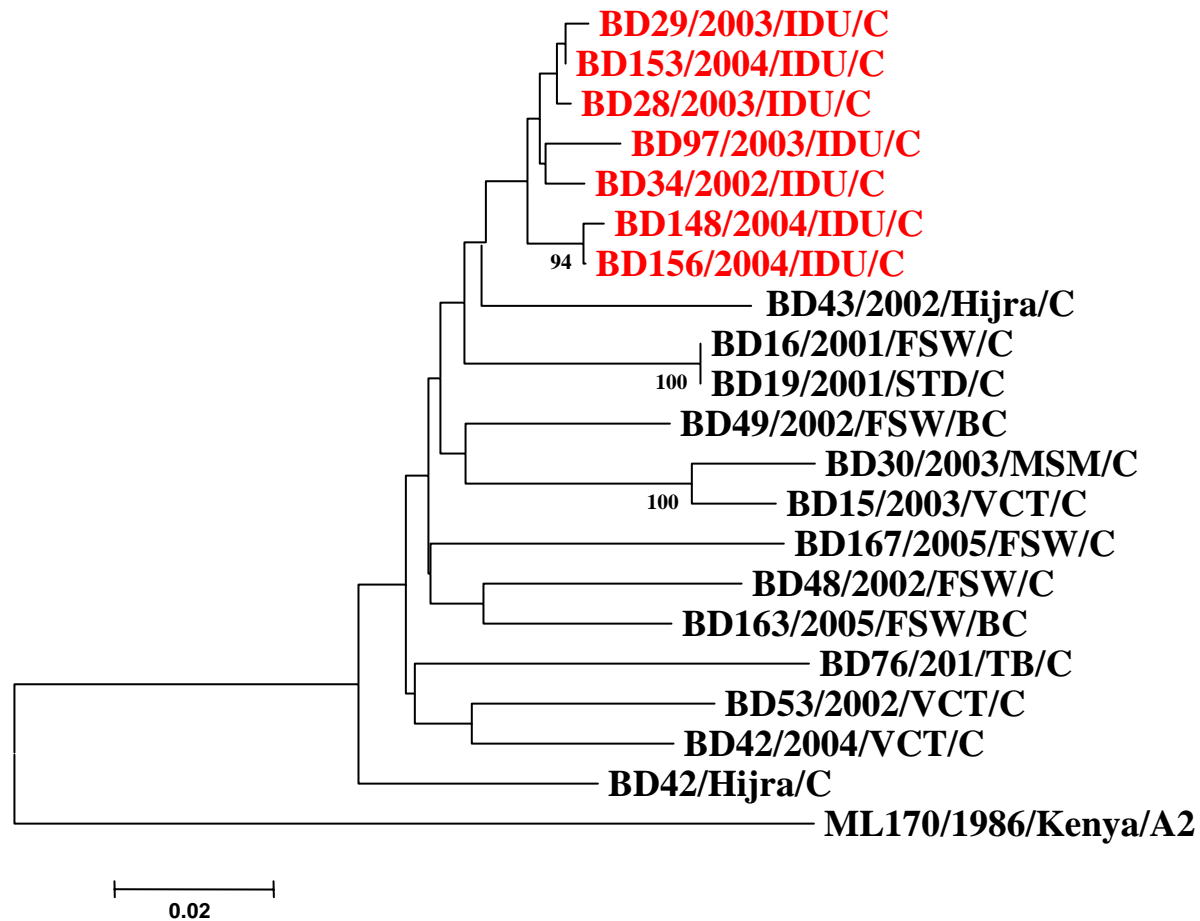


Heterosexual transmission = 76.3%

SUBTYPING OF HIV STRAINS FROM BANGLADESH

Source of HIV strains (collection years)	No. of HIV-1 positive	Subtype C N (%)
Surveillance (2000-2005):		
Injecting Drug Users (IDU)	61	59 (96.7)
Female sex workers	23	18 (78.3)
Heroin smokers	2	2 (100.0)
Male who have sex with males (MSM)	5	3 (60.0)
Transgender	5	4 (80.0)
Patient with STI	5	4 (80.0)
Survey on patient with tuberculosis (2001-2002)	1	1 (100)
VCT (2002-2005)	96	44 (45.8)
Total	198	135 (68.2)

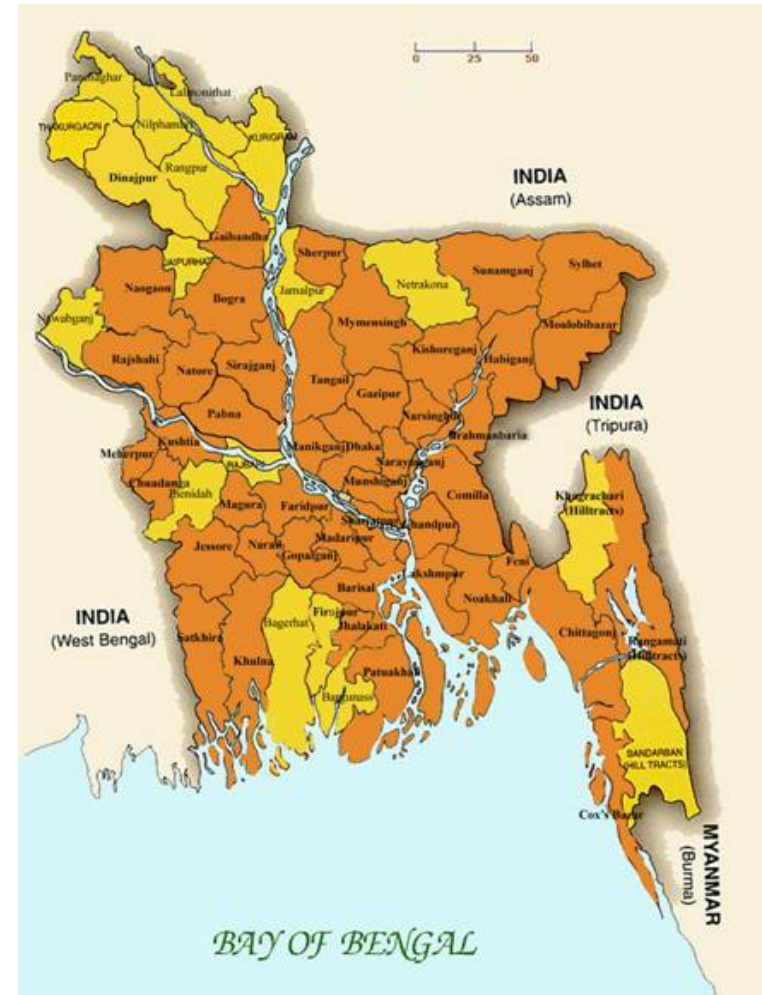
HIV strains from IDU are distinct from strains isolated from other population groups in Bangladesh



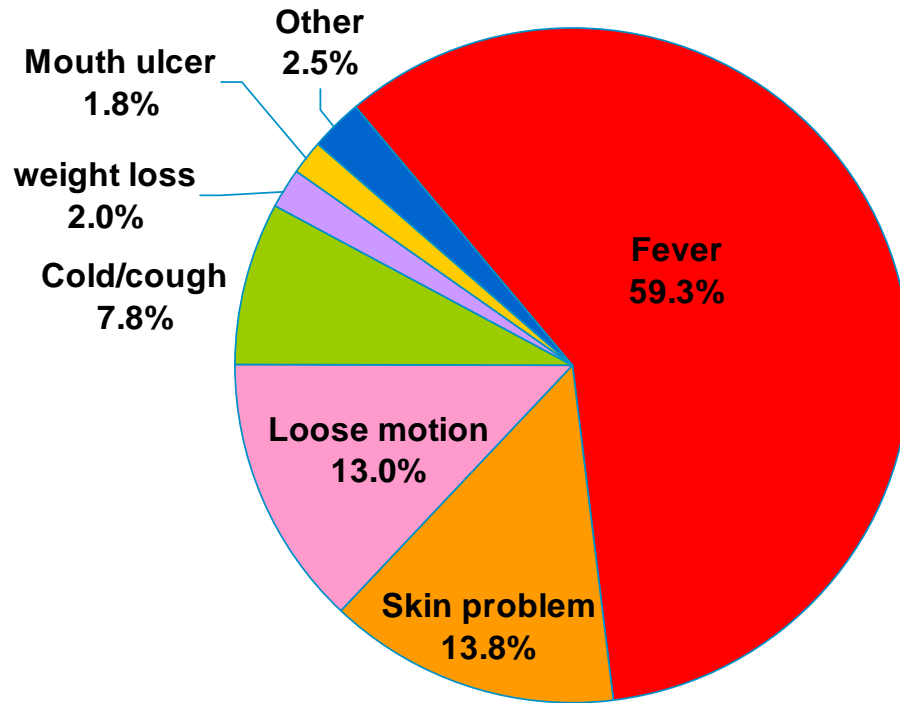
PEOPLE LIVING WITH HIV (PLHIV) IN BANGLADESH

Total number of HIV positive cases (2007) = 1207

Analysed information from PLHIV attending care and support organisations = 946



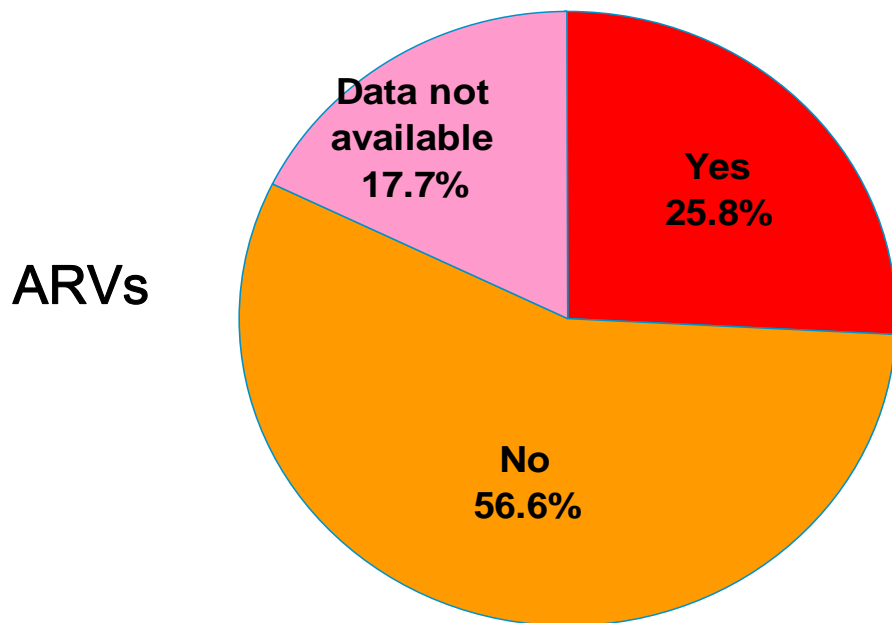
COMMON HEALTH COMPLAINTS OF PLHIV



Prevalence of tuberculosis among PLHIV January 2003 to October 2007 (N=290)

	Total PLHIV	IDU	Non IDU
All TB	78 (28%)	24 (24%)	56 (29%)
Pulmonary	40 (51%)	18 (75%)	27 (48%)
Extra pulmonary	38 (49%)	6 (25%)	29 (52%)

History of taking Antiretroviral Drugs (N=977)



Reasons for taking ARVs:

- CD4 <200 (94.7%),
- PPTCT (0.8%)
- prescribed by clinician (1.2%)

44 PLHIV have CD4 counts <200 but are not under HAART
10 children require ART, only two are under treatment.

ANTIRETROVIRAL DRUGS AND DRUG RESISTANCE IN BANGLADESH

HAART is given in Bangladesh and combination of drugs used are:

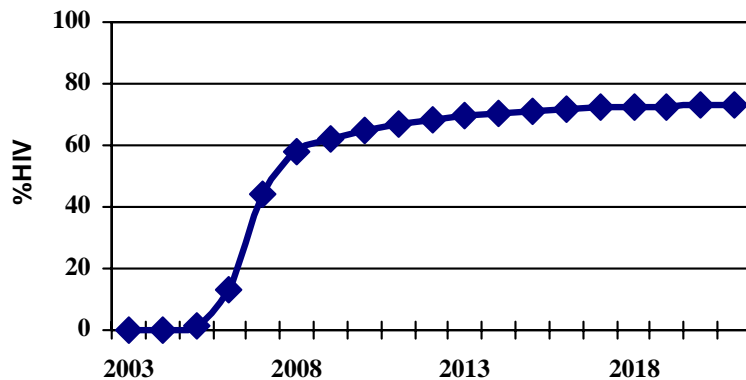
- **Zidovudine (NRTI), Lamivudine (NRTI), Nevirapine (NNRTI)**
- **Zidovudine (NRTI), Lamivudine (NRTI), Efavirenz (NNRTI) (esp. in case of TB)**

Three out of 18 analyzed samples show drug resistance against NRTI or NNRTI.

Drug resistance monitoring conducted under a collaborative study with Swiss Tropical Institute and Swiss InPheno AG

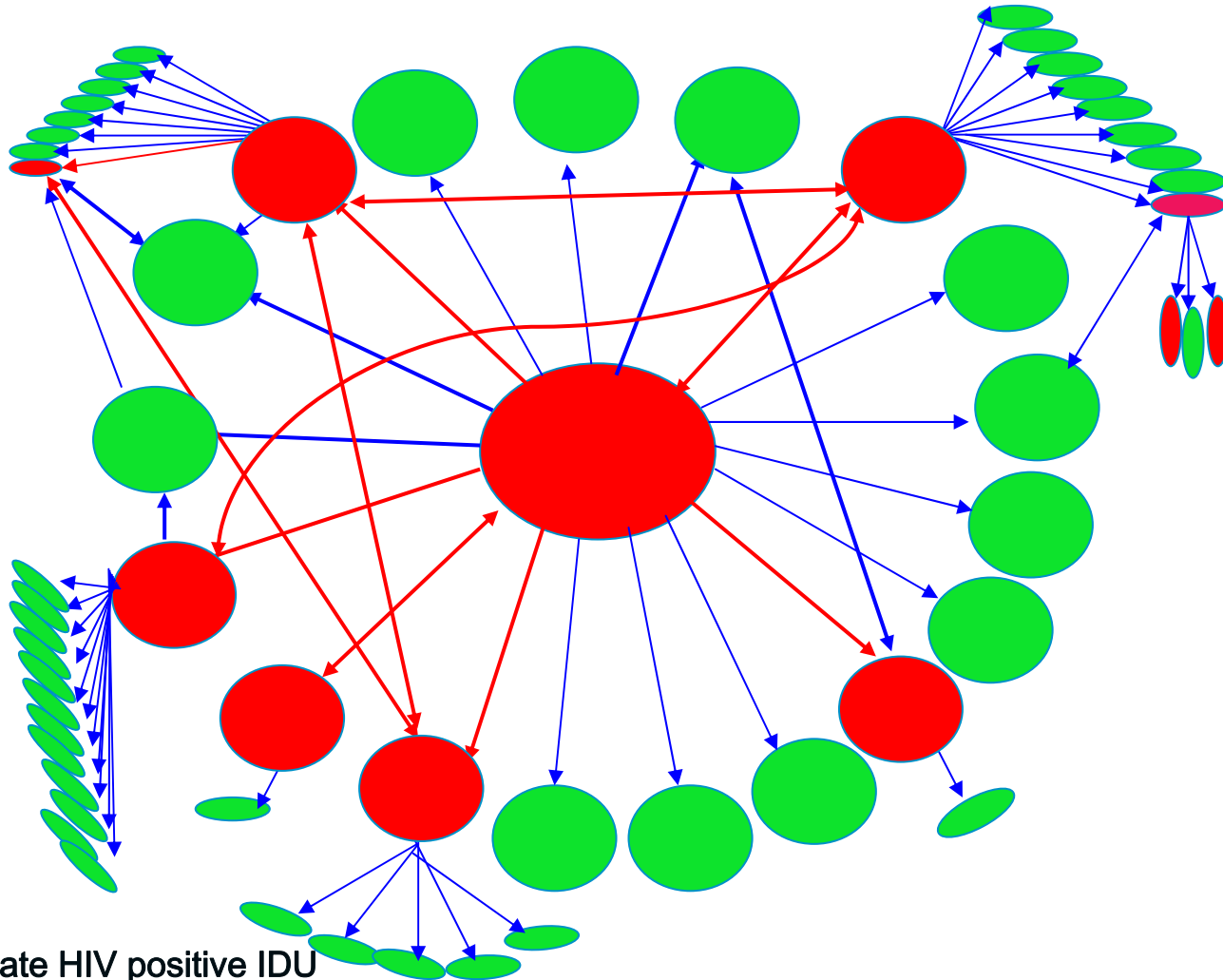
IMMEDIATE ISSUES IN BANGLADESH

The epidemic starts with explosive growth of HIV among IDU and it then spreads to other population groups



- THIS ESCALATION HAS TO BE STOPPED
- BETTER UNDERSTANDING ON HOW TO WORK WITH MIGRANTS

Sharing network of an HIV positive IDU (N=18)



Red circles indicate HIV positive IDU

Green circles indicate HIV negative IDU

Arrows show who was sharing with whom (red if both partners were HIV+, blue if one was HIV+)

THANK YOU

