Methods for HIV surveillance among drug users: the role of 2nd generation surveillance

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Case Study: 2nd generation surveillance in Bangladesh
• Behavioural Surveillance Survey amongst sex workers, MSM, truckers, Rickshaw pullers, IDUs
• Repeated 1998, 2000 in Dhaka & Rajshahi
• IDU component: time-location sampling strategy, street recruited, size > 430 each
Main Indicators for IDUs: Dhaka SGS 1998-2000

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<th>Wave 1</th>
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<td>Mean no. injections last week</td>
<td>20.4</td>
<td>15.8</td>
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<td>% who shared at all last week</td>
<td>93.0</td>
<td>74.8</td>
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<td>% participating in needle exchanges</td>
<td>0</td>
<td>81.0</td>
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Inter-linked behaviours

- Rickshawpullers (76% married)
  - 9% are IDU
  - 69% visit FSW

- IDU (40% married)
  - 33% visit FSW
  - 2% are IDU
  - 9% are IDU

- MSM (46% married)
  - 34% visit FSW
  - 1% are IDU

FSW (9% married)
2nd generation surveillance: objectives and methods
Public Health Surveillance of HIV/AIDS among IDUs

The collection, analysis and dissemination of epidemiological information regarding the distribution and spread of HIV infection associated injecting drug use relevant to the planning, implementation and monitoring of HIV/AIDS prevention and control programmes.
• **Biological surveillance**
  - HIV and AIDS case surveillance
  - Regular HIV screening of donated blood
  - Sentinel sero surveillance in defined sub-populations

• **Behavioural surveillance**
  - Repeat cross-sectional surveys in the general population
  - Repeat cross-sectional surveys in defined sub-populations
  - Rapid Assessment (incl. Context)

• **Other sources of information**
  - Estimation Techniques
  - Death registration
  - STD surveillance, TB surveillance, Hepatitis surveillance
2nd generation surveillance in different epidemic states
Surveillance in low-level epidemics

- HIV prevalence has not consistently exceeded five percent in any defined sub-population.

- Cross-sectional surveys of behaviour in sub-populations with risk behaviour

- Surveillance of STDs and other biological markers of risk

- HIV sentinel surv. in sub-populations at risk

- HIV and AIDS case reporting

- Tracking of HIV in donated blood
Surveillance in concentrated epidemics

- HIV prevalence consistently over five percent in at least one defined sub-population but below one percent in pregnant women in urban areas.

- HIV and STI/behavioural surveillance in sub-populations with risk behaviour
- HIV and behavioural surveillance in bridging groups
- Cross-sectional surveys of behaviour in the general population
- HIV sentinel surveillance in the general population, urban areas
Surveillance in generalised epidemics

- HIV prevalence consistently over one percent in pregnant women nation-wide.
- Sentinel HIV surveillance among pregnant women, urban and rural
- Cross-sectional surveys of behaviour in the general population
- Cross-sectional surveys of behaviour among young people
- HIV and behavioural surveillance in sub-populations with high risk behaviour
- Data on morbidity and mortality
Implementing 2nd generation surveillance for IDUs:
Case Study
Togliatti City, Russia

Rhodes et al. AIDS 2002, Vol 16 No 13 pp F26-F31
Biological Surveillance System

- 750,000 inhabitants
- Sentinel Surveillance System in 140 health facilities focusing on specific populations
- Of HIV case reporting 99% IDU associated
- Outbreak in 2000
2nd generation Surveillance

- **Sample**: Community recruited sample, questionnaire and saliva, n= 426 IDU, unlinked, anonymous, 4 weeks
- **Field staff**: outreach worker, former and current IDU
- **Safety**: Policy informed and mobile phone contact
- **Incentive** “Prevention pack” (syringes, condoms, info)
Results

• HIV prevalence 56%, of these 74% unaware
• status positively associated with
  – injecting home produced drugs
  – needle sharing in past 4 weeks
  – new needles from pharmacies rather than NSP
  – living in district “Komsomolskii”
• Revision / development of interventions and policies
Outlook: The next generation

HIV/AIDS

Determinants

Interventions

Biological Surveillance

Behaviours

Context

Population Size

Response Monitoring
Key Resources:

- WHO/UNAIDS: Guidelines for Second Generation Surveillance
- UNAIDS: National AIDS Programmes - A guide to monitoring and evaluation
  www.unaids.org / www.who.int
- Family Health International: Behavioural Surveillance Surveys Guidelines;
  www.fhi.org