Epidemiology of HIV infection and AIDS among injecting drug users

Peter Ghys, MD, PhD
Epidemic Monitoring and Prevention
UNAIDS

Overview

- Global AIDS epidemiology
- Epidemiology of injecting drug use (IDU)
- Epidemiology of HIV infection among IDU
- Temporal shifts in mode of transmission

Global AIDS Epidemiology

Estimated number of adults and children* living with HIV by region, 1986–2005

Estimated adult and child* deaths due to AIDS globally, 2001–2005

Epidemiology of Injecting Drug Use
Drugs and injecting practices

- Heroin is the most commonly injected drug
- Cocaine is the most commonly injected drug in Latin America (more frequent injection than for heroin)
- Pharmaceuticals – synthetic painkillers, benzodiazepine are commonly injected in South Asia
- Injecting practices: syringe mediated drug sharing, sharing networks, professional injectors

Transition to injecting

- Many countries have seen a rapid rise of injecting drug use in the past 10-20 years
- Changes in drug trafficking routes have exposed formerly unexposed populations to injectable drugs
- Switch from traditional opium smoking or coca chewing to injecting; switch to injecting due to rising price of heroin
- Countries in sub-Saharan Africa have started documenting injecting drug use (e.g., Kenya, Tanzania, Nigeria)

Countries reporting injecting drug use

Injecting drug users worldwide total: 13.2m

<table>
<thead>
<tr>
<th>Region</th>
<th>Number (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe and Central Asia</td>
<td>1.6m</td>
</tr>
<tr>
<td>South Asia</td>
<td>1.3m</td>
</tr>
<tr>
<td>East Africa</td>
<td>0.9m</td>
</tr>
<tr>
<td>West Africa</td>
<td>0.9m</td>
</tr>
<tr>
<td>South America</td>
<td>0.6m</td>
</tr>
<tr>
<td>North Africa &amp; the Middle East</td>
<td>0.3m</td>
</tr>
</tbody>
</table>

| Sub-Saharan Africa | 3.2m |

| Total | 13.2m |

| Percent of male IDUs selling sex and female sex workers injecting drugs, four Central Asian cities |

<table>
<thead>
<tr>
<th>City</th>
<th>Males selling sex</th>
<th>Females injecting drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karaganda, Kazakhstan</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Tashkent, Uzbekistan</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Osh, Kyrgyzstan</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Dushanbe, Tajikistan</td>
<td>25%</td>
<td>20%</td>
</tr>
</tbody>
</table>


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Epidemiology of HIV infection among IDU

Rapid increases in HIV prevalence among IDUs, 1978-1998 — 40% and higher prevalence may be reached within two years

HIV prevalence among injecting drug users, 1998–2005

HIV prevalence and drug use among IDU, Santos, Brazil, 1991–1999


Percent infected with HIV by duration of injection and by sex, Kathmandu valley, Nepal, 2003

HIV prevalence is high even among people who have just started injecting.

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HIV prevalence and drug use among IDU, Santos, Brazil, 1991–1999

Percent infected with HIV by duration of injection and by sex, Kathmandu valley, Nepal, 2003

HIV prevalence is high even among people who have just started injecting.
Recent steep rises in HIV infection among drug injectors has been followed by a rise in HIV among sex workers in parts of China, Indonesia and Vietnam.

Projected impact* of injecting drug use on number of HIV infections in Jakarta, Indonesia.

HIV prevalence among injecting drug users in selected areas in Latin America, 2000-2003.

Temporal shifts in mode of transmission.


Summary

- Global AIDS epidemic continues to grow; especially in regions where IDU is an important mode of transmission.
- Estimated 13 million IDU with regional variation in IDU prevalence. Important levels of sexual risk behaviour.
- Rapid evolution of local epidemics among IDU; HIV prevalence determined by frequency and duration of injecting and injecting practices and networks.
- IDU-dominated epidemics can evolve to broader epidemics dominated by sexual transmission. IDU-related transmission can re-emerge as a dominant mode of transmission.