HIV outbreak in IDUs in Greece

Update on situation and responses

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Litsa Lagakos, Organisation Against Drugs

2nd Meeting on Detecting and responding to outbreaks of HIV among people who inject drugs
12th October 2012
EMCDDA, Lisbon, Portugal

The epidemiology of HIV infection in Greece

HIV/AIDS reporting system
HIV/AIDS reporting system

- Initiation of AIDS reporting: 1984
- Initiation of HIV reporting: 1998
- First AIDS diagnosis: 1981
- Number of reported HIV+ cases: 12,269
- Number of AIDS diagnoses: 3,343
- Number of deaths: 2,196
2011 – Reported HIV cases

- **2011**: 963
- **2010**: 609
- **Increase**: 58%

![Reported HIV cases chart]

2011 – Diagnosed HIV cases

- **2011**: 921
- **2010**: 621
- **Increase**: 48%

![Diagnosed HIV cases chart]
2012 - HIV cases

Jan-Aug 2011: 634 HIV reports, males 546 (86%)

Jan-Aug 2012: **768** HIV reports, males 636 (83%);

The outbreak is continuing in 2012...

Jan-Aug 2012 - HIV reports by transmission group

![Pie chart showing transmission groups]

- 314 (40.8%)
- 206 (26.8%)
- 161 (20.9%)
- 87 (11.3%)
- Unknown (UNK)
Jan-Aug of 2012 and of 2011
HIV reports and transmission routes

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM</td>
<td>206</td>
<td>242</td>
<td>-</td>
</tr>
<tr>
<td>IDUs</td>
<td>314</td>
<td>161</td>
<td>+</td>
</tr>
<tr>
<td>HET</td>
<td>87</td>
<td>111</td>
<td>-</td>
</tr>
<tr>
<td>UNK</td>
<td>161</td>
<td>118</td>
<td>+</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>768</td>
<td>632</td>
<td>+</td>
</tr>
</tbody>
</table>

Jan-Aug 2012 and 2011 (year)
HIV reports in IDUs by sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td>249 (79%)</td>
<td>208 (81.2%)</td>
</tr>
<tr>
<td>Females</td>
<td>65 (21%)</td>
<td>48 (18.8%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>314</td>
<td>256</td>
</tr>
</tbody>
</table>
Jan-Aug 2012 and 2011 (year)
HIV reports in **IDUs by age-group**

<table>
<thead>
<tr>
<th>Age-group</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25</td>
<td>26 (8.4%)</td>
<td>26 (10.2%)</td>
</tr>
<tr>
<td>25-34</td>
<td>173 (55.6%)</td>
<td>134 (52.3%)</td>
</tr>
<tr>
<td>&gt;=35</td>
<td>112 (36%)</td>
<td>96 (37.5%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>311</strong></td>
<td><strong>256</strong></td>
</tr>
</tbody>
</table>

Jan-Aug 2012 and 2011 (year)
HIV reports in **IDUs by nationality**

<table>
<thead>
<tr>
<th>Nationality</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek</td>
<td>207 (66.0%)</td>
<td>207 (80.9%)</td>
</tr>
<tr>
<td>Non-Greek</td>
<td>67 (21.3%)</td>
<td>42 (16.4%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>40 (12.7%)</td>
<td>7 (2.7%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>314</strong></td>
<td><strong>256</strong></td>
</tr>
</tbody>
</table>
IDUs Reported During 2011-2012

- 57% have visited an IDC or an outpatient clinic, at least once
- 35% have started ART

ART Initiations by Transmission Group and Year

<table>
<thead>
<tr>
<th>TRANSMISSION GROUP</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDUs</td>
<td>8</td>
<td>8</td>
<td>14</td>
<td>71</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>(2%)</td>
<td>(2%)</td>
<td>(3%)</td>
<td>(11%)</td>
<td>(29%)</td>
</tr>
<tr>
<td>MSM</td>
<td>261</td>
<td>272</td>
<td>364</td>
<td>360</td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>(57%)</td>
<td>(58%)</td>
<td>(58%)</td>
<td>(58%)</td>
<td>(42%)</td>
</tr>
<tr>
<td>HETEROSEXUALS</td>
<td>143</td>
<td>118</td>
<td>108</td>
<td>141</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>(31%)</td>
<td>(25%)</td>
<td>(20%)</td>
<td>(23%)</td>
<td>(20%)</td>
</tr>
<tr>
<td>OTHER/UNKNOWN</td>
<td>45</td>
<td>70</td>
<td>50</td>
<td>54</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>(10%)</td>
<td>(15%)</td>
<td>(9%)</td>
<td>(9%)</td>
<td>(9%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>457</td>
<td>468</td>
<td>536</td>
<td>626</td>
<td>440</td>
</tr>
</tbody>
</table>
### CD4 cell count* by the year of diagnosis and the probable transmission group

*available for 3,639 cases

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM</td>
<td>374 (252-554)</td>
<td>415 (224-586)</td>
<td>364 (190-563)</td>
<td>386 (184-580)</td>
</tr>
<tr>
<td>(n=115)</td>
<td></td>
<td>(n=121)</td>
<td>(n=221)</td>
<td>(n=147)</td>
</tr>
<tr>
<td>IDUs</td>
<td>93  (22-472)</td>
<td>573 (449-658)</td>
<td>351 (185-633)</td>
<td>215 (98-427)</td>
</tr>
<tr>
<td>(n=3)</td>
<td></td>
<td>(n=6)</td>
<td>(n=163)</td>
<td>(n=112)</td>
</tr>
<tr>
<td>HET</td>
<td>199 (59-402)</td>
<td>272 (54-417)</td>
<td>211 (77-351)</td>
<td>185 (45-301)</td>
</tr>
<tr>
<td>(n=34)</td>
<td></td>
<td>(n=43)</td>
<td>(n=102)</td>
<td>(n=65)</td>
</tr>
<tr>
<td>UNDETERMINED</td>
<td>502 (293-653)</td>
<td>565 (436-759)</td>
<td>402 (209-661)</td>
<td>80 (19-291)</td>
</tr>
<tr>
<td>(n=12)</td>
<td></td>
<td>(n=16)</td>
<td>(n=30)</td>
<td>(n=20)</td>
</tr>
<tr>
<td>ALL</td>
<td>361 (141-541)</td>
<td>398 (196-583)</td>
<td>323 (165-561)</td>
<td>265 (101-471)</td>
</tr>
<tr>
<td>(n=165)</td>
<td></td>
<td>(n=186)</td>
<td>(n=517)</td>
<td>(n=344)</td>
</tr>
</tbody>
</table>

### Conclusions (part I - HIV/AIDS reporting system)

- The HIV outbreak persists into 2012
- In 2012, IDUs have become the most affected population
The epidemiology of HIV infection in IDUs

2nd generation data

Data: sero-behavioural
Studies: routine diagnostic testing; RDS
Settings: treatment services (incl. LT)
System: DRID, TDI (NFP); ’Aristotle,*

*Collaborative study by Organisation Against Drugs, University of Athens and HCDCP

How was the HIV situation in IDUs?

Low HIV prevalence in IDUs until 2010

Figure. Prevalence of HIV in IDUs tested, by source reporting to the Greek FP (2002-2010)
When has the situation been changed?

Sharp increases in the prevalence of HIV among IDUs in 2011

Figure. Prevalence of HIV in IDUs tested, by source reporting to the Greek FP (2002-2011)

How is the situation now?

8.5% HIV prevalence in Athens in 2012 (data as of Sep ’12; 1 source*)

Figure. Prevalence of HIV in IDUs tested, by source reporting to the Greek FP (2002-2011)

*MAVY-OKANA, routine testing, N of tests in 2012 (Sep ’12) n=2 573
Is HIV prevalence different in out-of-treatment populations?

One in every 4 IDUs tested (by EIA) in ‘Aristotle’ RDS study was found with antibodies to HIV-1 (tests n=1 000)

‘Aristotle’: Sero-behavioural study (RDS) and prevention intervention in Athens*

Primary aims:
Screen IDUs for anti-HIV in Athens Metropolitan Area
Provide the WHO/UNODC/UNAIDS prevention, treatment and care package
Decrease the incidence of HIV-1 among IDUs

Secondary aims:
Describe phylogenetic and social networks
Increase linkage and retention to care of IDUs
Provide an estimate of HIV prevalence among IDUs

*Collaborative study by Organisation Against Drugs, University of Athens and HCDP

How has the situation been with HCV?

Consistently high HCV prevalence in IDUs, even higher in Athens, with an increasing trend in the last decade

Figure. HCV infection in IDUs tested within the drug treatment system nationwide and in Athens 2002-2011
How about HCV in IDU subgroups in Athens?

Significant increases of HCV prevalence in ‘new’ injectors and cocaine/crack users in 2011

Figure. Trends in the prevalence of HCV antibody in IDU subgroups in Athens

Behavioural surveillance
Have drug use patterns of IDUs in Athens been changed?

Data: TDI; Athens only; IDUs; 2008 and 2011 (n~3 000)

Aim: Examine changes in IDU risk behaviours between 2008 and 2011

- injection (as main route of administration)
- frequent use (>2 days a week)
- current injecting
- current sharing of syringes
- opioids (primary substance)
- cocaine/crack (primary or secondary)
- stimulants (other) (primary or secondary)

Have drug use patterns of IDUs in Athens been changed?

- **Injection** (main route): No changes (26% in 2011)

- **Frequent use** (primary): decreased in almost all groups, also among users reporting injection as main route (85% in 2011). Among IDU subgroups, decreases concerned only drug-free entries and in those homeless or with unstable accommodation

- **Current injecting**: decreased, but increased in the **out-of-treatment population** (from 53% to 61% in 2011)

- **Current sharing**: no changes, but increased in ‘new’ (14% => 32%) and ‘young’ injectors (31% => 47%)
Have drug use patterns of IDUs in Athens been changed? cont.

- Opioids: decreased in all groups (76% in all demands, 90% in out-of-treatment population)

However,

- cocaine/crack: increased in all groups (from 26% to 36% in all demands, from 24% to 40% in out-of-treatment population as either primary or secondary)
- stimulants other than cocaine/crack: no changes in all demands and in all IDU sub-groups, but increases in the out-of-treatment population (2% => 6%)

Headline points from 2nd generation sero-behavioural data

- High HIV prevalence persists into 2012
- A ‘local’ (Athens) outbreak
- Widespread HCV infection in cocaine – and ‘new’ injectors in Athens: early signs for an HIV outbreak
- Current injecting and sharing increased in the out-of-treatment IDU samples in Athens
Drug markets

Have there been any changes in the drug markets?

• Reductions in heroin availability
  No clear evidence

• Low heroin purity
  Clear evidence: increased quantities of adulterated heroin seized by the police; 10-15% at trafficking level and 5% at user level (Chem. State Lab.)

• New stimulants (methamphetamines)
  Clear evidence: e.g. ‘SISA’
  [Drug users => streetwork => EWS <= Chem. State Labor.; interviews]
  SISA: Methamphetamine in crystal form; in reasonable prices; severe side effects (agression, psychotic symptoms, emaciation etc. Associated with risky injecting behaviours even if only smoked]
Interventions

Has the country responded?

1. OST and injecting equipment
2. Antiviral treatment for HIV positive IDUs

3. Raise awareness among IDUs and professionals
4. Increase access to testing
5. Reach vulnerable groups via targeted interventions
6. Improve epidemiological and behavioural surveillance
7. Increase inter-organisational cooperation
Has antiviral treat. for HIV+ IDUs been increased?

Practically yes; however there is no sufficient data about levels of uptake and adherence to treatment

Has health promotion been increased?

Practically yes; however there is no sufficient data about the number of IDUs (or professionals) informed or about the content of the information disseminated (effectiveness)

Has testing been increased?

Yes; credits to all services/professionals involved and to NGOs

Have vulnerable groups been reached?

Yes; credits to all, however, access to treatment remains an issue

Has surveillance been advanced?

Yes; credits also to EMCDDA; ECDC; inter. experts; other countries

Has inter-organisational cooperation been advanced?

Yes

**Trends in OST (1/2)**

**OKANA data**

Since Aug ‘11, 27 new OST units have been launched, primarily in Athens and Thessaloniki (in hospitals)

In Aug ‘12: 7620 were in OST, 2000 more than in Aug ‘11 (+35% : 27% in Athens and 64% in Thessaloniki)

**Figure.** Expansion of OST units between August 2011 and August 2012

**Figure.** Number of individuals receiving OST in a given day of the year/month (2005-August 2012)
**Trends in OST (2/2)**

**OKANA data**

Reduction of the mean time for entry in OST in Athens (from 7y in Aug ’11 to 4y in Aug ’12); almost eliminated in Thessaloniki

43% decrease in the number of POUs lining up for OST since Aug ’11, especially in Thessaloniki (30% in Athens)

**Figure. Mean waiting time (in months) for receiving OST (Jul ’11- Aug ’12)**

**Trends in OST coverage**

**PDU and OKANA data**

OST coverage improves:
from 20% in 2010, to 28% in 2011, and ≈35% in Aug ’12

**Figure. OST coverage in Athens (percentage of PDU in Athens offered OST)**
**Trends in NSP**

PDU and NSP data

In 2011 and 2012 NSP programs proliferated (primarily through the interventions run by OKANA)

**Figure.** Number of syringes exchanged/distributed to IDUs (2009-2012)

This number excludes syringes which have potentially reached IDUs through interventions targeting vulnerable groups in Athens

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**Trends in NSP coverage**

PDU and NSP data

NSP has been restricted to Athens only (a NSP program is about to be launched in Thessaloniki), while also their coverage remains low. No data are available about the number of IDUs receiving syringes and kits.

**Figure.** NSP coverage in Athens (number of syringes available per IDU per year)

Estimations do not take into account syringes that have potentially reached IDUs through interventions targeting vulnerable groups in Athens
An overall assessment of the HIN outbreak...

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local, concentrated outbreak (Athens)</td>
<td>Low coverage of OST and NSP</td>
</tr>
<tr>
<td>Concentration of services (Athens)</td>
<td>Unknown levels of treatment uptake</td>
</tr>
<tr>
<td>Dynamism in OST and NSP programs</td>
<td>Lack of recourses (human, economic)</td>
</tr>
<tr>
<td>Extensive NGO contribution</td>
<td>Lack of data on key indicators</td>
</tr>
<tr>
<td>International guidance</td>
<td>No databasing culture in treatment services</td>
</tr>
<tr>
<td>Community reaction to OST units</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationalise services</td>
<td>Economic crisis and further budgetary cuts</td>
</tr>
<tr>
<td>Change IDUs’ health risk attitudes</td>
<td>Deteriorating socio-economic conditions</td>
</tr>
<tr>
<td>Change attitudes towards harm reduction</td>
<td>New substances</td>
</tr>
<tr>
<td>Advance data collection and analysis</td>
<td>Stigma and exclusion of vulnerable groups</td>
</tr>
<tr>
<td>Improve inter-organizational cooperation</td>
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<tr>
<td>Look at more vulnerable groups</td>
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</tbody>
</table>

Thank you

Acknowledgements

to all collaborating persons and institutions and especially to data providers