HIV Drug Resistance Prevention in the WHO European Region

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Cumulative number of reported cases – all WHO EURO countries, Most recent data

- **HIV**
- **AIDS**
- **AIDS deaths**
- **people on HAART**
New Reported HIV cases, 1989-2008

Cumulative figures, most recent data:
- HIV cases: 681,821
- AIDS cases: 38,766
- AIDS deaths: 15,987

Cumulative figures, most recent data:
- HIV cases: 507,590
- AIDS cases: 298,712
- AIDS deaths: 168,392

Cumulative figures, most recent data:
- HIV cases: 39,712
- AIDS cases: 17,574
- AIDS deaths: 8,398
Rates of newly reported HIV cases in the WHO European Region, 2007

Cases per million

- < 20
- 20 - 99
- 100 - 199
- 200 +
- Data not available
Predominant mode of transmission of newly reported HIV cases, 2007

- MSM
- Heterosexual
- Injecting drug use
- Data unavailable

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HIVResNet Steering Committee
10-11 Nov 2009
Men as % of all HIV/AIDS cases, Dec 2007

NOTE: % of AIDS cases in countries not reporting HIV: France, Italy, Spain
Source: ECDC/WHO

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Scaling up treatment in Europe

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### Increase in ART in low- and middle-income countries, adults and children, December 2007–2008

<table>
<thead>
<tr>
<th>Geographical region</th>
<th>Number of people receiving ARV therapy December 2008</th>
<th>Number of people receiving ARV therapy December 2007</th>
<th>Increase in one year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>2,925,000</td>
<td>2,100,000</td>
<td>39%</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>445,000</td>
<td>390,000</td>
<td>14%</td>
</tr>
<tr>
<td>East, South and South-East Asia</td>
<td>565,000</td>
<td>420,000</td>
<td>35%</td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>85,000</td>
<td>54,000</td>
<td>39%</td>
</tr>
<tr>
<td>North Africa and the Middle East</td>
<td>10,000</td>
<td>7,000</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,030,000</strong></td>
<td><strong>2,970,000</strong></td>
<td><strong>36%</strong></td>
</tr>
</tbody>
</table>

**Note:** The figures are approximations as indicated by the brackets: **[3.7–4.4 million]** and **[2.7–3.3 million]**.
## Number of HIV and HAART patients

Source: WHO EURO survey, Dec 2007

<table>
<thead>
<tr>
<th>Region</th>
<th>Patients seen for HIV care</th>
<th>Patients on HAART</th>
<th># HAART facilities</th>
<th>Average # of HAART patients per facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>450,000 (3 MS not reporting)</td>
<td>396,000</td>
<td>1,100 (4 MS not reporting)</td>
<td>285 (range: 9-770)</td>
</tr>
<tr>
<td>Centre</td>
<td>20,000 (0 MS not reporting)</td>
<td>15,350</td>
<td>125 (1 MS not reporting)</td>
<td>125 (range: 9-500)</td>
</tr>
<tr>
<td>East</td>
<td>295,000 (0 MS not reporting)</td>
<td>72,000</td>
<td>800 (1 MS not reporting)</td>
<td>90 (range: 1-600)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>765,000</strong></td>
<td><strong>483,350</strong></td>
<td><strong>2,025</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>
HIVDR Activities in Countries

- Eastern Europe
  - Russian Federation
  - Ukraine
  - Various countries in preparation (BLR, GEO, MDA, TJK)

- Western Europe
  - Accreditation of labs
  - Collaboration with ECDC, various groups
Ukraine: Achievements (1)

- National plan, Taskforce/working group in place
- Monitoring early warning indicators via patient monitoring database started
- Threshold surveys in 4 sites started
- Reference laboratory designated
- Annual reports
Ukraine: Achievements (2)

- HIVDR Task Force is functioning
- Technical support mission by HQ 6/2008
- Training of HIVDR staff in the National HIV and Retrovirology Lab Ottawa/Canada
- Financial support from WHO HQ (Gates’ grant)
Ukraine – Challenges

• Continuing overall political and economical instability in the country
• State slashed spending on the National AIDS Program activities in 2009 due to financial problems.
• State funding for purchasing DR tests and other expendables was not provided in 2009.
• Lack of human resources in DR monitoring area
  ◦ Turnover of lab staff
  ◦ part-time jobs only
  ◦ holding of more than one duty (VL, CD4, PCR, DR)
Ukraine – Plans for 2009-2010

- HIVDR transmission survey in 4 sites completed next year
- Survey on monitoring early warning indicators in 4 sentinel sites initiated
- Cohort survey on HIVDR in ART patients
- Establishing cooperation with CDC/US and National HIV and Retrovirology Lab Ottawa/Canada in genotyping and SOP development
- Strengthening capacity of the NRL in HIVDR
Russia: Achievements (1)

- HIVDR working group is in place (affiliated to the Russia National Institute of Epidemiology)
- National guidelines for prevention of DR transmission published
- Threshold surveys in 8 regions were done (level of HIVDR is less than 5%)
- 1 HIVDR monitoring survey done, results currently analyzed
Russia: Achievements (2)

- First national conference on HIVDR held in Moscow in September 2008
- Two national experts trained in Zagreb: 1 of Federal AIDS Centre and 1 of Central Research Institute for Epidemiology
- The process of WHO accreditation of the National HIVDR Lab started
- Capacity building and curricula integration started – 72 hours certificate course on laboratory diagnosis of HIVDR integrated in the continuous professional development program scheduled for October-November 2009
Russia: Next Steps

• National HIVDR plan for next two years developed and approved by the MoH
• Tools for monitoring of EWI are designed and EWI are collected
• Completion of WHO accreditation for national reference genotyping laboratory
• Regular HIVDR monitoring and threshold surveys – development of the online data base for HIVDR by the Federal AIDS Center
• Annual reports
Surveillance KH : Training Course

- Transmission of HIVDR
- Effects of DR on treatment outcomes
- Mutations associated with HIVDR
- Testing for HIVDR in the laboratory
- Monitoring Early Warning Indicators
- Implementation of surveys to evaluate HIVDR prevention in sentinel ART sites
- Information technology tools/applications for surveys
- WHO recommendations for development of a national HIVDR prevention and assessment strategy
Target Audience

– HIV surveillance staff
– M&E staff working on ART programme monitoring
– Epidemiologists, clinical staff with an interest in HIVDR surveillance and monitoring
– Virologists interested in HIVDR assessment
– First course 17-23 Nov 2008: 19 participants from 12 countries
Sources

WHO/EURO  www.euro.who.int/aids
WHO/HQ  www.who.int/drugresistance
KH Zagreb  www.surveillancezagreb.org

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Drug resistance

- Raising awareness
- Drug resistance: malaria
- Drug resistance: tuberculosis
- Drug resistance: HIV/AIDS

In spite of the availability of effective medicines and vaccines, the battle against infectious diseases is far from being won. Not only do they continue to cause a large number of infections and deaths, particularly in developing countries, but the emergence of antimicrobial resistance is threatening to undermine our ability to treat infections and save lives.

Respiratory infections, HIV/AIDS, drug-resistant tuberculosis and malaria are among the leading killers of infectious disease. In some cases, the level of resistance to first-line drugs has become so high that expensive second or third-line agents are required. As drug resistance also emerges, the world will run out of answers.

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