

TVKC104

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Background

Eastern European countries were initially isolated from the HIV pandemic. Since the mid 1990s, an increasing number of drug-related HIV epidemics were identified in eastern European countries. It is now one of the regions of the world with the fastest growing HIV epidemic[1].

Methods

Eastern Europe is defined as the 15 countries of the former Soviet Union (including the Baltic states).

Data from two sources are presented for the period 1999 to 2004.

HIV and AIDS case reports:

- collated annually from national representatives of the 15 eastern European countries within the WHO European Region using a common case definition and standardised format[2].

HIV prevalence studies, updated most recently for the following two populations:

- blood donations: data available from 2001 or later for 12 countries (no data reported from Tajikistan, Turkmenistan or Uzbekistan);
- pregnant women: data for one or more years between 2000 and 2004 among pregnant women attending antenatal services in 10 countries were available.

Results

In 2004, 49,929 newly diagnosed cases of HIV infection were reported from countries in eastern Europe (174.2/ million population) (Figure 1):

- rates of more than 200/million population were reported in three countries: Estonia (568), Russian Federation (239) and Ukraine (212).

The number of newly diagnosed HIV cases reported in 2004 was similar to that in 2003 (49,882), but lower than the peak reported in 2001 (Figure 2). The number of AIDS cases diagnosed has increased and in 2004, for the first time, the rate of AIDS per million population in eastern Europe (27.2) exceeded that of western Europe (19.5; data not shown).

Over a third (36%) of newly diagnosed cases of HIV were among young (15-24 years old) people (compared to 10% in western Europe; data not shown). Trends between 1999 and 2004 in the percentage of young people among newly diagnosed HIV cases (Figure 3) demonstrate:

- a decline among all HIV cases (from 54% in 1999 to 36% in 2004) and among injecting drug users (from 53% to 29%), but an opposite trend among heterosexually acquired HIV cases (from 28% to 40%).

Figure 1: Rates per million population of newly diagnosed cases of HIV infection reported in European countries in 2004

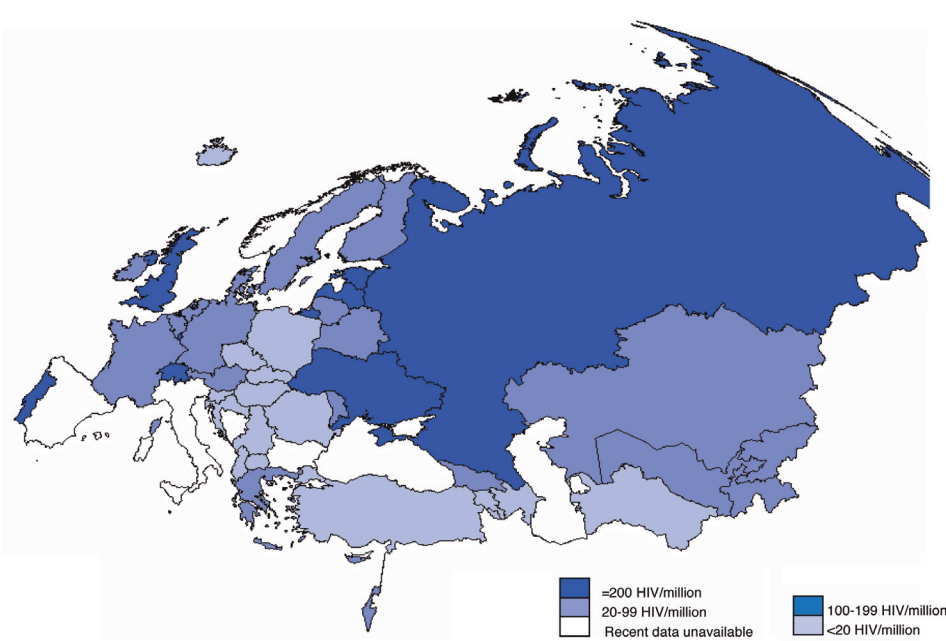
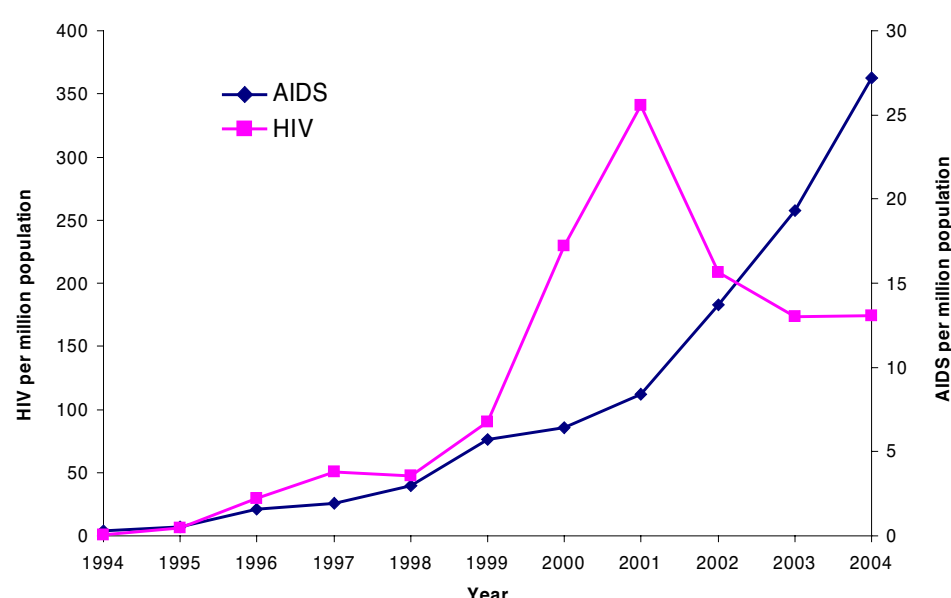


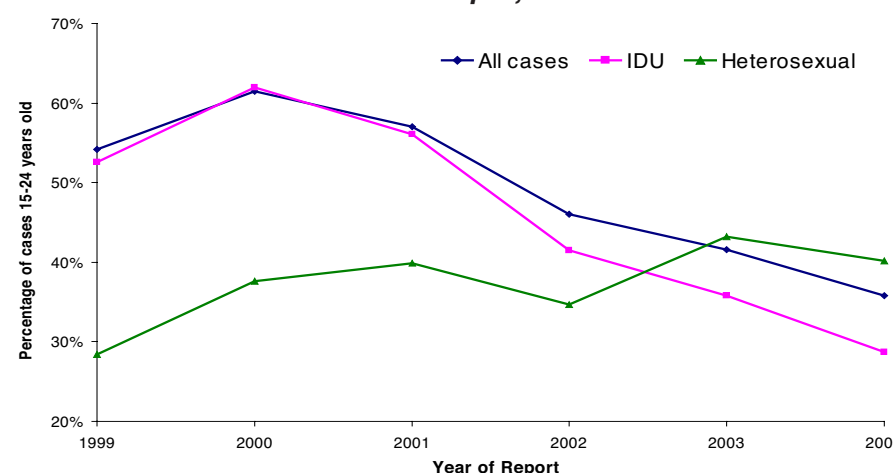
Figure 2: Rates per million population of newly diagnosed HIV infections* and AIDS cases† in eastern Europe, 1994-2004



* HIV data by year of report

† AIDS data by year of diagnosis adjusted for reporting delays and do not include Kyrgyzstan, Russian Federation and Uzbekistan as data not reported for the whole period.

Figure 3: Percentage of newly diagnosed HIV infections reported in young people (15-24 years old) among all cases and in two transmission groups, eastern Europe*, 1999-2004



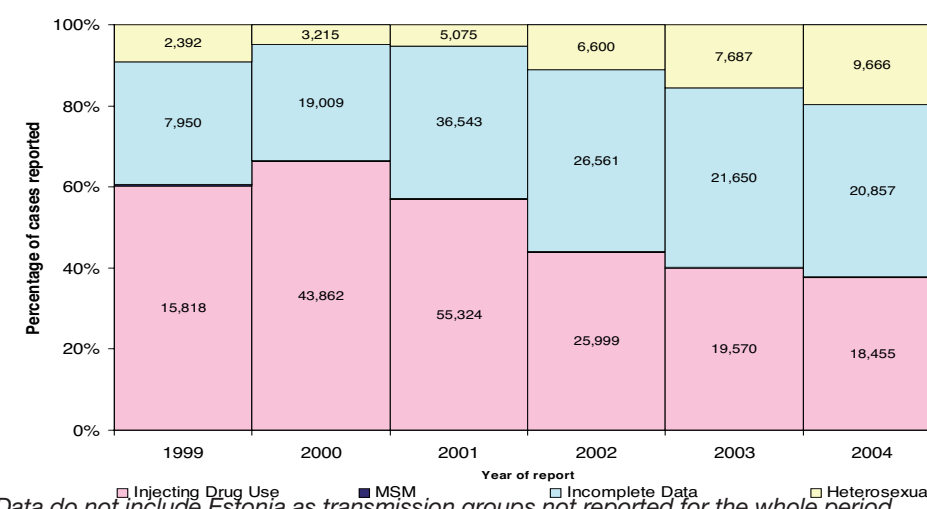
* Data do not include Estonia as transmission groups not reported for the whole period.

The trends in the percentage of newly diagnosed HIV infections by transmission group (Figure 4) show:

- a decreasing percentage of cases reported among injecting drug users - from 66% (43,862) in 1999 to 38% (18,455) in 2004;
- an increasing percentage of cases acquired by heterosexual transmission - from 9% (2,392) in 1999 to 20% (9,666) in 2004;
- a large percentage of incomplete data.

Trends vary by country as illustrated by the four examples in Figures 5a and 5b: among injecting drug users, the epidemic peaked in 2001/02 in the Russian Federation and Latvia, but has continued to grow in Ukraine and Uzbekistan (Figure 5a); among cases of HIV infection acquired heterosexually, there have been increases in all four countries since 1999 (Figure 5b).

Figure 4: Percentage by transmission group of newly diagnosed cases of HIV infection reported in eastern Europe, 1999-2004



* Data do not include Estonia as transmission groups not reported for the whole period.

Figure 5a: Rates of newly diagnosed HIV infection per million population (15-49 years old) among injecting drug users in four east European countries, 1999-2004

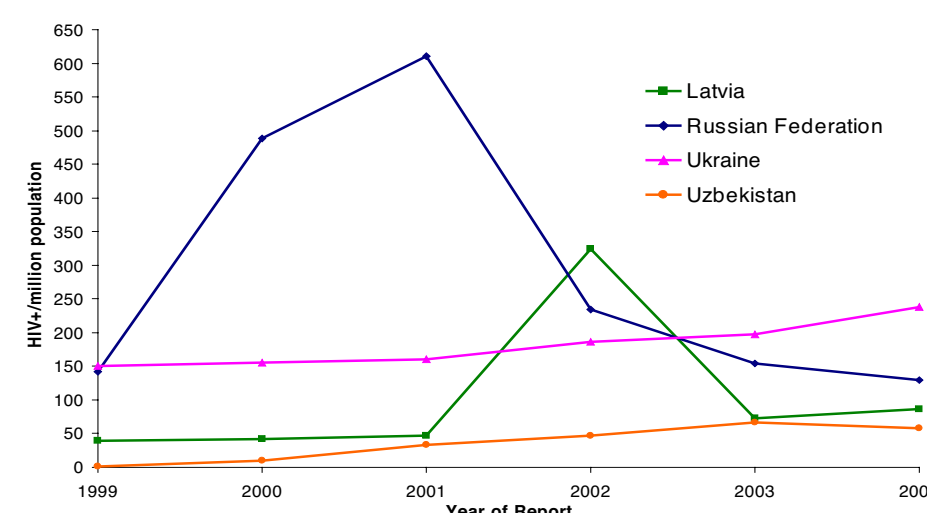
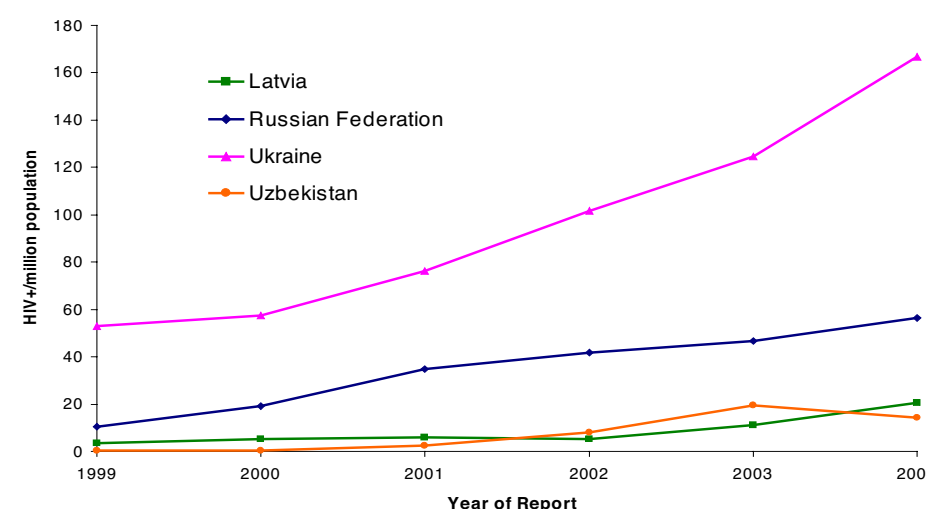


Figure 5b: Rates of newly diagnosed HIV infection per million population (15-49 years old) heterosexually acquired, four east European countries, 1999-2004



HIV prevalence data among blood donations were available from 12 east European countries and show (Figure 6):

- rapid increase in Ukraine from <5 HIV+ per 100,000 donations in 1995 to 128 HIV+/100,000 in 2004 (1,209 individuals);
- in five other countries, sero-positivity among blood donations has increased since 1999 with a reported rate of >20/100,000 donations in one or more years since 1999;
- in six countries rates were <20/100,000 donations (data not shown).
- data not reported in three countries (Tajikistan, Turkmenistan and Uzbekistan).

HIV prevalence data among pregnant women attending antenatal care were available from 10 east European countries and show (Figure 7):

- in Estonia, a rapid increase in HIV among pregnant women, from 4/10,000 women attending antenatal care in 1999 to 43/10,000 in 2004;
- increases since 1999 in 3 countries: Ukraine, Russian Federation and Latvia;
- low rates (<10/10,000) in five countries (data not shown).
- data not reported for five countries (Kazakhstan, Moldova, Tajikistan, Turkmenistan and Uzbekistan).

Figure 6: Rates of HIV per 100,000 blood donations in six selected east European countries, 1995-2004

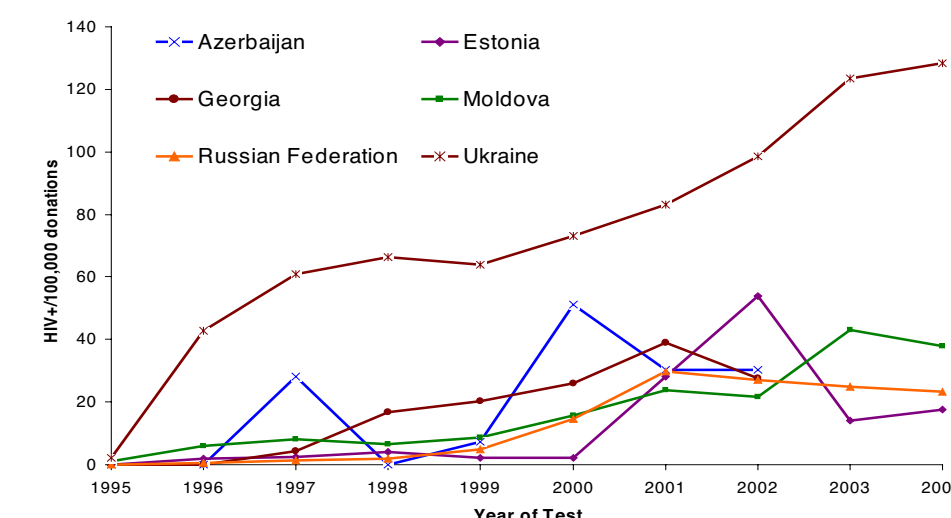
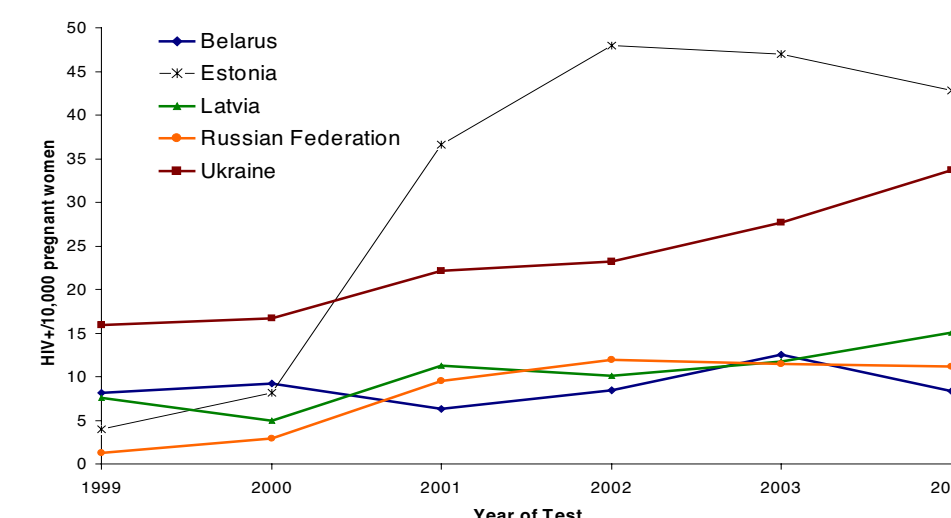


Figure 7: Rates of HIV per 10,000 pregnant women attending antenatal care in five selected east European countries, 1999-2004



Conclusions

Despite an apparent stabilised epidemic among injecting drug users:

- there is a need for continued prevention activities in some countries (e.g. Russian Federation);
- a growing number of cases among injecting drug users in other countries (e.g. Ukraine, Uzbekistan).

There is a need to assure the safety of the blood supply in some countries as there are worrying increases in prevalence among blood donations.

Evidence of increased heterosexual transmission:

- increasing HIV reports in this group, especially among young people (15-24 years of age);
- increasing prevalence among pregnant women attending antenatal services in some countries (e.g. Estonia);
- need to increase measures to control transmission in this population.

Nonetheless, interpretation of data is limited by:

- large percentage of incomplete data in some countries (e.g. Russian Federation and Estonia).
- data based on HIV reports, which are not necessarily indicative of recent infections and are open to bias due to changes in testing policies[3].

References

- [1]UNAIDS. Report on the global AIDS epidemic, May 2006. UNAIDS, Geneva, 2006.
- [2]EuroHIV. HIV/AIDS Surveillance in Europe. End-year report 2004. Institut de veille sanitaire, St Maurice, France. 2005; No 71. (http://www.eurohiv.org/reports/report_71/pdf/report_eurohiv_71.pdf)
- [3]V Pokrovsky, NN Ladnaya, EV Sokolova & EV Buravtsova. HIV infection surveillance in Russia in 2003. Information bulletin number 26. 2003.

Acknowledgements

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