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Worrying levels of HIV prevalence in blood donations in eastern Europe



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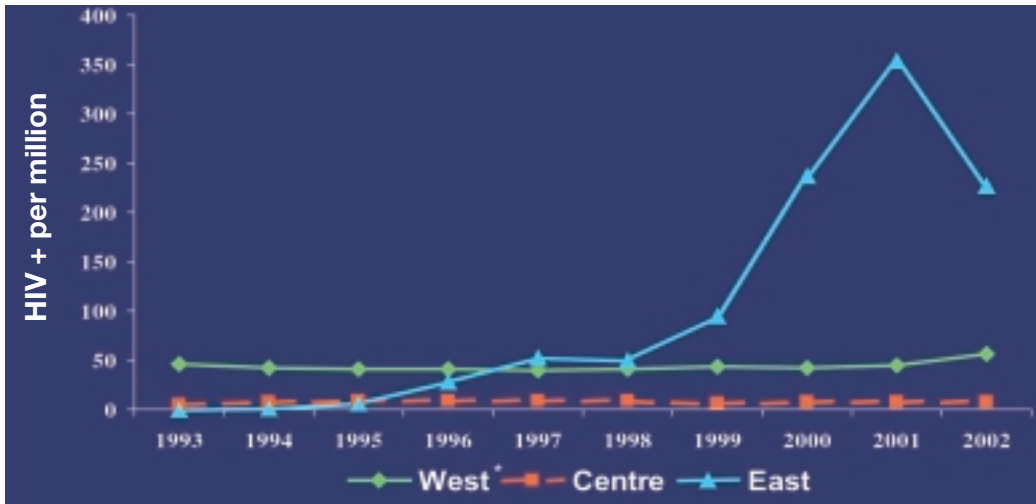
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Background

Throughout Europe, blood donations are systematically screened for HIV antibodies and donations which test positive are eliminated from the blood supply. Nevertheless, a small residual risk of HIV infection through transfusion of undetected infected blood remains; the higher the incidence and thus the prevalence of HIV among blood donors, the higher the residual risk. Monitoring HIV prevalence among donations provides an indication of the relative safety of the blood supply between countries and over time.

In the eastern part of the WHO European region, HIV has spread rapidly since 1995 ; the vast majority of the reported HIV infections have been among IDU, but cases attributed to heterosexual transmission are now increasing and there is a risk of further spread to the wider heterosexual population.

HIV infection diagnosed per million population by year of report and geographic area WHO European region



* Austria, France, Italy, Netherlands, Portugal, Spain excluded: national data not available for the whole period

Trends of HIV prevalence among blood donors can also give some indication of the spread of HIV in the general population, but trends are also affected by changes in the effectiveness of donor selection to exclude persons at high risk of HIV-infection.

Methods

Definition of geographic areas: West, Centre, East WHO European region

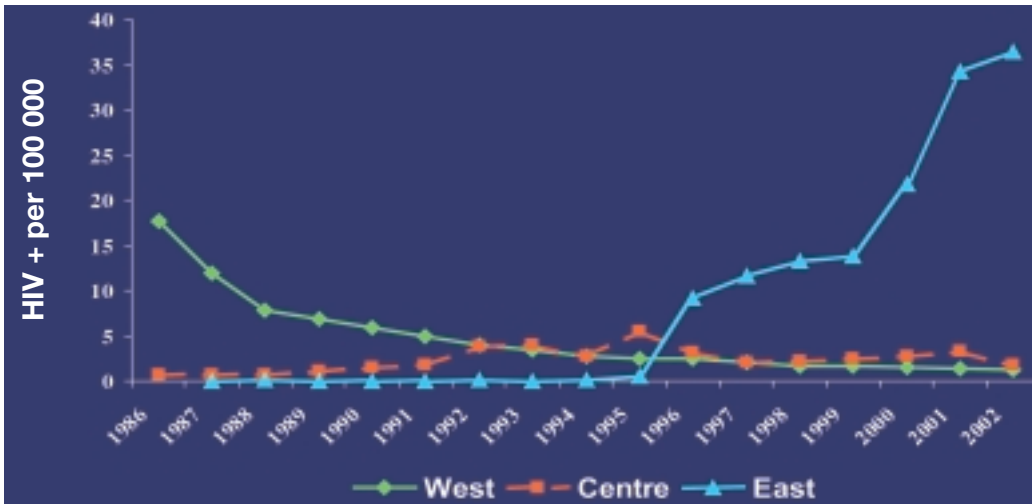


Data on HIV prevalence among blood donations obtained from EuroHIV national correspondants and included in the European HIV prevalence database.

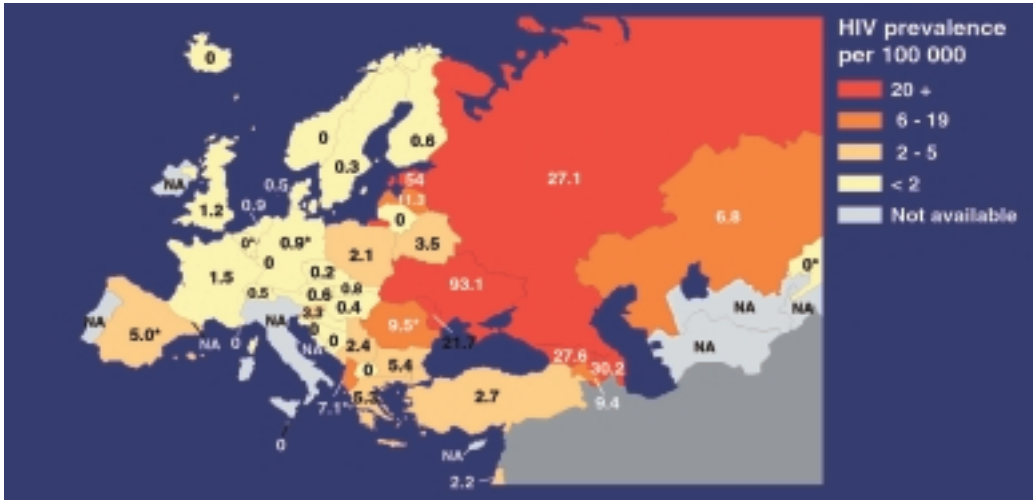
These data were analysed by geographic area (West: EU plus Iceland, Norway, Switzerland; East: former USSR; Centre: other countries of the WHO European Region) and by country. Blood donation prevalence was compared to UNAIDS estimates of population prevalence in the age group 15-49; a low ratio suggests effective donor selection (assuming uniform accuracy of estimates across countries).

Results

Trends of HIV prevalence among blood donations



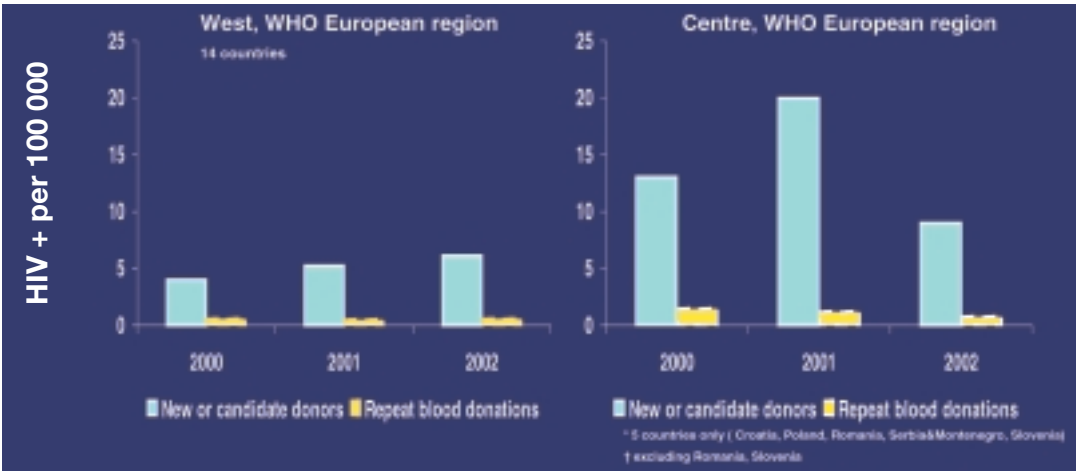
HIV prevalence in blood donations (per 100 000) 2002, WHO European region



In the West, HIV prevalence among blood donations fell sharply during 1986-1988, from 18 to 8 per 100,000 donations, then decreased steadily to 1.4 in 2001 and is now very low: overall, 1.3 per 100 000 donations in 2002. However, levels of over 2 per 100 000 have been reported in almost all of the countries during the last 5 years: from Italy (between 2 and 5 per 100 000), Greece (5-7), Portugal (10-18, but data are provided only from regional blood centres in three large cities and do not represent the country as a whole) and Spain (4-7).

Available data on donations from new and repeat donors (14 countries from the West and 5 from the centre) continue to show consistently higher (10 times) prevalence levels among new donors and reinforce the importance of establishing and maintaining a pool of regular donors.

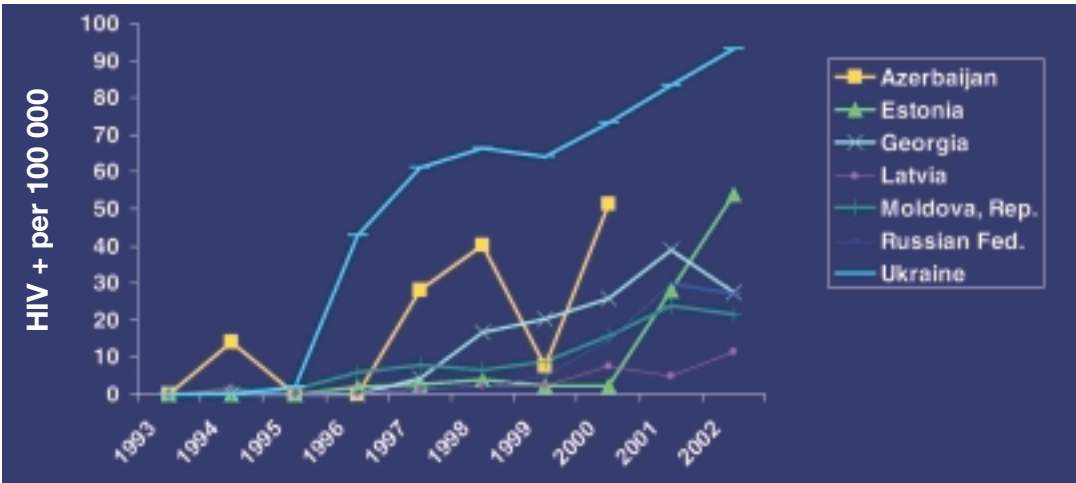
HIV prevalence per 100 000 donations among new and repeat donors



In the Centre, prevalence levels rose from 0.7 in 1986 to 5.5 in 1995 and then decreased to 3.3 in 2001. Over 2 per 100 000 donations have been reported in all or most of the last 5 years from Albania (between 5 and 7 per 100 000), Bulgaria (2-5), Poland (2-3 overall, but <1 per 100 000 among repeat donors), Romania (5-10), Serbia & Montenegro (2-9) and Turkey (3-5), but with no clear trends except possibly in Bulgaria where prevalence appears to have been increasing in the last 3 years. Elsewhere, levels remain extremely low (<1 per 100 000).

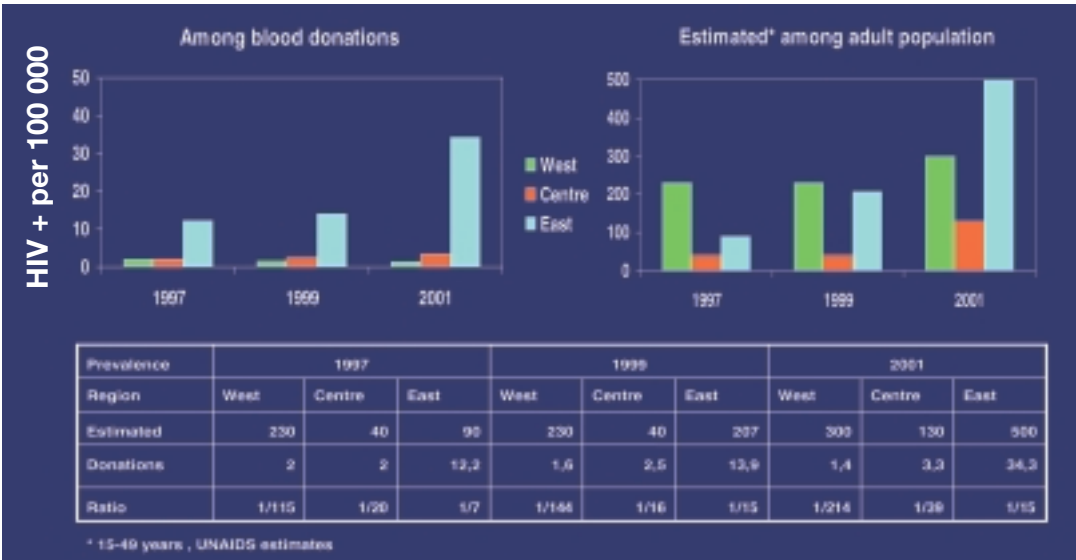
In the East, prevalence has increased markedly since 1995 (0.6 per 100 000 donations, data not shown) to reach over 30 per 100 000 in 2001 and 2002 overall (data available for 11 of the 15 countries).

HIV prevalence per 100 000 blood donations in the East, 1993-2002



Increasing trends are observed in most countries of the region. By far the highest levels are reported from Ukraine (up to 93 per 100 000 in 2002), followed - in the last 2 years - by Estonia, where prevalence increased from around 2 per 100 000 to reach 28 in 2001 and 54 in 2002. Levels consistently over 20 per 100 000 have also been reported for the last 2 or 3 years from Azerbaijan, Georgia, the Republic of Moldova and the Russian Federation. Levels have also risen, though more slowly, in Latvia (up to 11.3 in 2002), Kazakhstan (6.8) and, most recently, Belarus (3.5). In general, the continuing diffusion of HIV in the region has been accompanied by worrying increases in the prevalence of HIV among blood donations which has reached alarming levels in several countries.

HIV prevalence per 100 000 among blood donations and adult populations



In 1997-2001, blood donation prevalence was 100-200 times lower than estimated population prevalence in the West, but only 10-20 times lower in the Centre and East.

Conclusions

In the West, low and declining HIV prevalence in blood donations reflects effective donor selection. In the East, the spread of HIV since 1995 has been accompanied by worrying increases in prevalence in blood donations. Improvement of donor selection, including constituting a pool of regular donors, is urgently needed in several countries of the East and Centre.

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