

Indications for increasing transmission of HIV within the Netherlands



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Objective

To gain insight in changes over time in demographics and the molecular epidemiology of the HIV infected population in the Netherlands.

Methods

- Analysis of baseline characteristics and HIV sequences of patients in the national observational cohort (June 2006).
- Protease and RT sequences were obtained during routine clinical care for 2,858 patients and phylogenetic analysis was carried out.

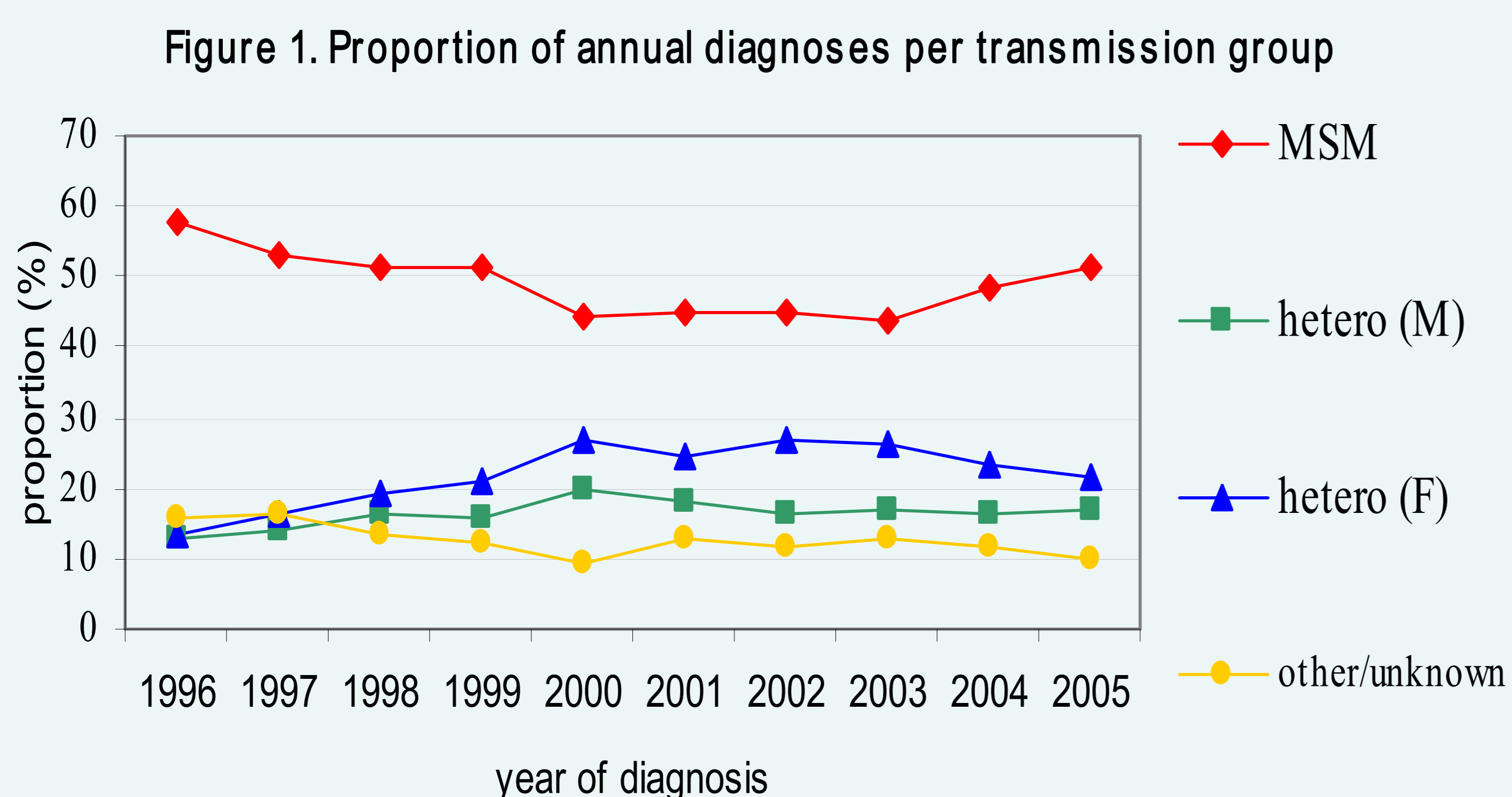
Results - Transmission risk group

A cumulative total of 11,866 HIV patients (M:77%, F:23%) with a known date of diagnosis are registered in the Netherlands. Of patients diagnosed in 2005, MSM accounted for 52% and heterosexuals for 39%.

	HIV diagnoses in 2005 N=970	Cumulative total, N=11,866
MSM	501 (51.7%)	6,211 (52.3%)
Heterosexual	374 (38.6%)	3,934 (33.2%)
IDU	10 (1.0%)	596 (5.0%)
blood products	3 (0.3%)	167 (1.4%)
MTC	6 (0.6%)	126 (1.1%)
Needle stick injury	3 (0.3%)	27 (0.2%)
unknown/other	73 (7.5%)	805 (6.8%)

MSM: men who have sex with men; IDU: injecting drug use; MTC: mother-to-child

The relative contribution of each risk group to the annual number of diagnoses changed over time (figure 1).



- The proportion of MSM decreased from 58% of the new diagnoses in 1996 to 44% in 2000, and increased again to 52% in 2005.
- The proportion of heterosexuals increased to 47% in 2000, and decreased to 39% in 2005 ($p < 0.0001$).
- HIV diagnoses among MSM of ≥ 40 years increased significantly from 30% in 2000 to 47% in 2005 ($p < 0.0001$).

Results – Country of HIV infection

- For 71% of the MSM the most likely country of infection was known; 89% of those reported the Netherlands.
- An increasing number of MSM reported to have acquired the HIV infection in the Netherlands (figure 2).

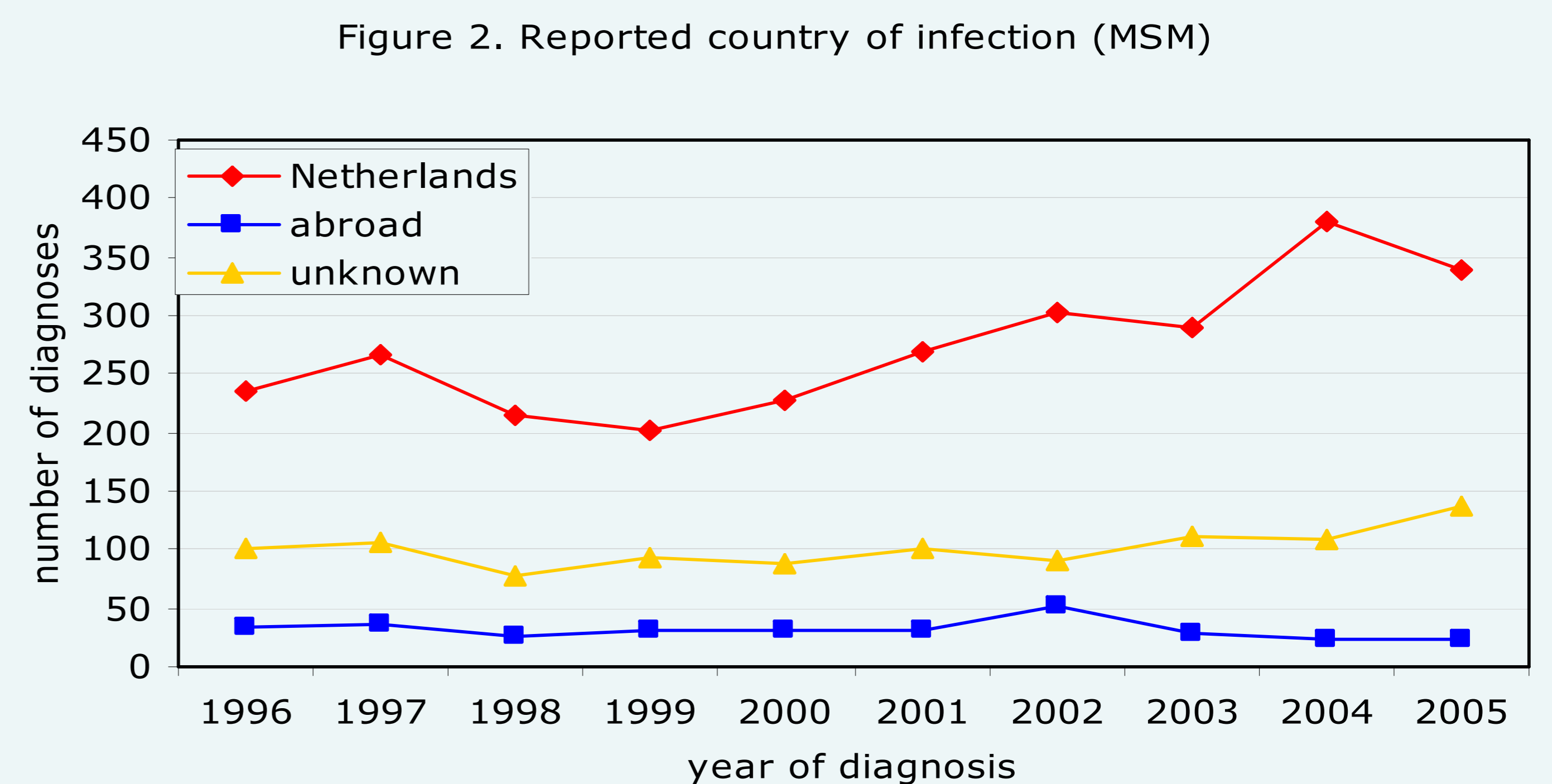
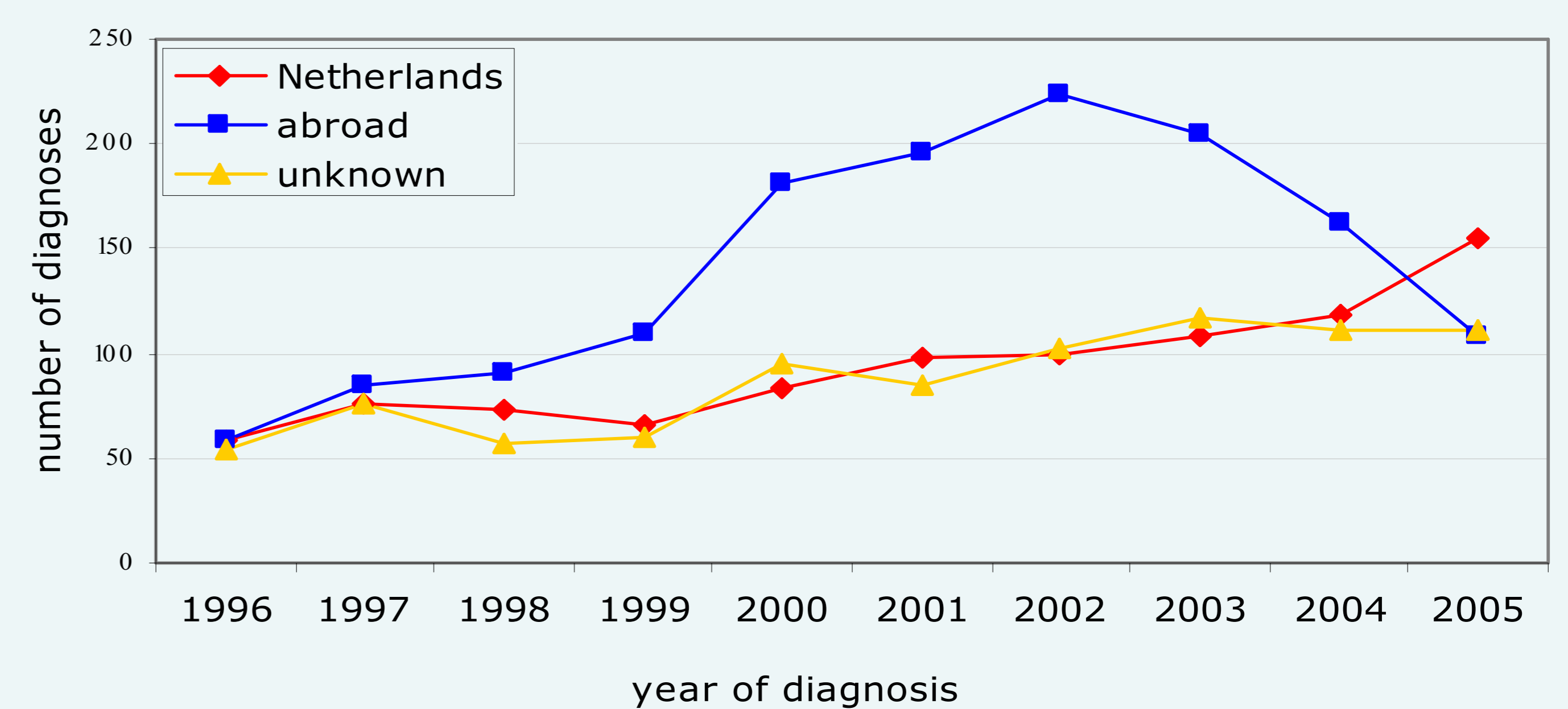


Figure 3. Reported country of infection (heterosexuals)



- The trend in HIV infections heterosexually acquired abroad follows the trend of immigration from SSA (figure 3). After 1999, an increasing number of heterosexuals reported to have acquired the infection within the Netherlands.

Results - HIV-1 subtypes

- Genotyping of 2,858 sequences reveals the following: B(77%), A(3%), C(6%), D(1%), F(0.5%), G(2%), H(0.1%), J(0.03%), CRF01_AE (3%), CRF02_AG (7%) and URFs (2%).
- The proportion of non-B subtypes increased from 18% to 39% in 1996-2001. The proportion of subtype B increased from 61% to 77% in 2001-2005. Both, the absolute number of B and non-B viruses increased in 2001-2003, partly due to an increase in sequence testing. However, the number of subtype B viruses increased more rapidly than the number of non-B viruses.

Conclusions

- We observed a recent increase in the number of new HIV diagnoses among (mainly older) MSM in the Netherlands.
- An increasing number of MSM and heterosexuals reported to have acquired the infection in the Netherlands.
- This suggests - together with the increasing proportion of subtype B viruses - an increasing transmission of HIV within our country.