

Contribution of Anonymous Testing to Epidemiologic Surveillance of HIV

An Example from Switzerland

Léonie Prasad

Faculdade de Medicina da Universidade do Porto

Aims

To assess whether the prevalence of HIV at five testing sites across Switzerland had increased since the end of the 1990s and to ascertain whether there had been any concurrent change in proportions of associated risk factors.

Background

Switzerland is a country with an HIV epidemic that is concentrated in high-risk groups. The rate of reported newly diagnosed infections in 2006 was 104/million population. In 2006, the prevalence of HIV in the Swiss general population was low, at around 0.3%, with around 23 000 persons thought to be living with HIV. Surveillance for HIV has been in place since 1985, and it has been a legal requirement to notify an HIV infection since 1 December 1987. As part of this surveillance, some 30 different sites across Switzerland have provided the Swiss Federal Office of Public Health with epidemiological information on persons presenting for anonymous HIV counselling and tests. The proportion of recent infections (occurring within the previous six months) in MSM (men who have sex with men) in Switzerland had increased from 19% to 38% between 2001 and 2006. This substantial increase was unexpected, since the annual numbers from all surveillance sources had shown a declining trend during most of the 1990s.

Methods

We analysed anonymous questionnaire data from five anonymous testing sites across Switzerland for the eleven year period 1996–2006. Questionnaires collected information on: demographics, reasons for requesting an HIV test, results of any previous tests and history of injecting drug use. Other questions related to past sexual (e.g. knowledge of a sexual partner's HIV status, use of condoms) and medical history (e.g. where and when they had a blood transfusion). The outcome variable: HIV positivity, was analysed as prevalence per 1000 tests performed in each category. Multivariable analyses stratified by risk group (heterosexual and MSM) and African nationality were done controlling simultaneously for a series of variables. Odds ratios were calculated, together with their 95% confidence intervals and p values (from the likelihood ratio test).

Results

There was an increase in the prevalence of positive tests in African heterosexuals between 1996–1999 and 2004–2006, from 54.2 to 86.4/1000 and from 5.6 to 25.2/1000 in females and males respectively. The proportion of MSM who knew that at least one of their sexual partners was infected with HIV rose from 2% to 17%; there was also an increase in those reporting more than five sexual partners in the preceding two years, from 44% to 51%.

Conclusions

Surveillance data from anonymous testing sites provide information on HIV and changes in associated epidemiological risk factors over time, which is useful as a basis to evaluate and modify public health strategies against HIV.