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INTRODUCTION

Estonia is the smallest of the three Baltic countries with a population of approximately 1.37 million people and the percentage of non-ethnic Estonians of approximately 32%. Since regaining its political autonomy in 1991, Estonia has experienced major changes in political, economic, and social structure. Economic dislocation and the disruption of personal, domestic and inter-community networks have contributed to several overlapping epidemics: increased violence, high-risk sexual behavior, substance abuse, infectious diseases (HIV, viral hepatitis, sexually transmitted infections, tuberculosis) (1) increasing the overall levels of morbidity and mortality (2). HIV incidence and prevalence in Estonia is among the highest in the European Union countries (3). The most affected groups include injecting drug users and their sexual partners.

EPIDEMIOLOGICAL SUMMARY

The first HIV-case in Estonia was registered in 1988. In 1988–1999, the cumulative number of registered HIV-cases in Estonia was 96. During the 2nd half of 2000, there was a substantial rise in the number of new HIV cases that also continued in 2001. Due to the increase in the number of newly diagnosed HIV cases since the fall of 2000, the Ministry of Social Affairs proclaimed a concentrated epidemic of HIV in February 2001.

Starting from 2002, the number of officially registered cases has decreased; in 2009, 411 new cases were registered. All in all, by the end of 2009, 7,320 HIV-cases have been reported in Estonia (Figure 1) (4). HIV-prevalence among blood donors has remained low -0.01% in 2008 and 0.02% in 2009 (4).

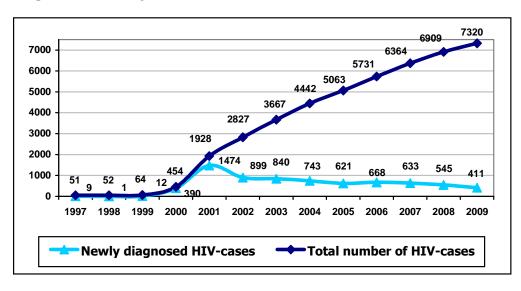


Figure 1: Newly diagnosed HIV-cases and total number of HIV-cases, 1997–2009 (*Data source: Estonian Health Board*)

Data on transmission modes is limited and based mostly on AIDS counseling centers' reports and expert opinions. Thus in 1988–1999 HIV-infection spread in Estonia mainly through sex (both homoand heterosexual) (5). Since 2000, the infection has been mainly transmitted through the sharing of contaminated syringes. In past years there are some indications of possible increase in sexual transmission. For example according to the AIDS counseling centers IDUs accounted for 90% of new HIV-cases in 2001, 66% in 2003 and 54% in 2007, and 48% in 2009 (6). At the same time the absolute numbers of diagnosed HIV-infections among clients who are not IDUs have not increased (and the increase of the proportion relates to the decrease of absolute numbers of IDUs diagnosed with HIV).

Vertical transmission has accounted for 0.5% of all newly diagnosed cases in 1988–2009 (1.5% in 2008 and 0.7% in 2009). A total of 36 MTCT cases have been diagnosed over the years (8 in 2008 and 3 in 2009). Veritcal tramission rate was 2.2% in 2007 (no data availbale for 2008 and 2009) (4). HIV-prevalence among pregnant women was approximately 0.5% in 2007. There were major regional differences in 2007 – the estimated HIV-prevalence among pregnant women in North-Eastern Estonia was 2%, and in capital city Tallinn 0.7% (4, 7).

In 2000, the explosive spread of HIV-infection occurred in North-Eastern Estonia, in a county called Ida-Virumaa which is bordering Russian Federation. New HIV cases registered in this region accounted for 92% of all cases in 2000. In comparison with the year 2000 the proportion of HIV-cases diagnosed in North Estonia (capital Tallinn and surrounding area – a county called Harjumaa) increased considerably in 2001–2002. In 2009 46% of all new cases (n=189) were diagnosed in North-Eastern Estonia and 36% of all new cases (n=150) in capital city Tallinn. The number of new HIV-cases per 100,000 population was 110 in North-Eastern Estonia and 38 in Tallinn in 2009. The rate of new cases in ohter regions of the country is less than 10 per 100,000 population (4, 7).

The majority of HIV cases have been men but the proportion of women has increased in recent years (due to the decrease in the number of men being infected). In 2000, women accounted for 20% of all new cases registered during that year, in 2007–2009, the proportion of women among new cases has been around 40%. In absolute figures the number of new cases among females was between 230–270 in 2002–2008, and 168 in 2009 (4).

The mean age of the newly diagnosed cases is increasing. Among new cases in 2001 92% but in 2009 only 56% were younger than 30 years of age (4). One possible reason could be the increased spread of HIV among older age groups, another – the increase in the mean age of injecting drug users (the same cohort is growing older). When in 2005 the proportion of IDUs younger than 25 years of age was 56%, then in 2007 it was 35% (8, 9).

The first AIDS case was diagnosed in 1992. In 2008, 61 people, and in 2009, 38 people were diagnosed with AIDS. The total number of people diagnosed with AIDS by the end of 2009 was 290 (211 per 100,000 population). Tuberculosis cases among people living with HIV (PLHIV) have also increased and TB is the main AIDS defining disease in Estonia. Both in 2008 and in 2009, 39 PLHIV were diagnosed with tuberculosis. The proportion of HIV-positive patients among all TB patients has increased somewhat in recent years being 9.5% in 2009. The proportion of MDR-TB cases among all TB cases is quite high and has also risen in recent years – from 11% in 2006 to 17% in 2009 Almost 10% of MDR-TB cases are XDR-TB. MDR-TB prevalence among HIV-infected TB cases is higher than among ohter TB cases (22% in 2007) (10).

HIV and TB problem is quite common in Estonian prisons. The first new HIV-case in a prison was registered in May 2000. That year, 80 prisoners with HIV were detected (20% of all new HIV-cases registered that year). In the following years the proportion of prisoners among newly diagnosed HIV-cases increased (for example in 2003 32% of all new cases were diagnosed within prison system). Since 2004, the proportion of prisoners among new HIV-cases has decreased being 16% in 2009 (4).

Most prisoners have been infected before imprisonment. There has been 7 detected cases (according to the data from Ministry of Justice) of HIV-transmission in the prison (1 through tattooing, 5 through sharing contaminated syringes, and 1 unknown). In 2009 7% of all TB cases were diagnosed in prisons (30 cases out of 411), most of them upon imprisonment. In 2009 6 out of 39 HIV-infected TB patients (15%) were diagnosed upon imprisonment (10).

Main risk groups

Injecting drug users

The use of illicit drugs has grown rapidly in Estonia in past decade. The upward trend is confirmed by the findings of the European School Survey Project on Alcohol and Other Drugs (ESPAD) 1995, 1999, 2003, and 2007 surveys. In 1995, 8% of the Estonian school youth aged 15–16 years had experience with some illicit drug. In 1999, the same figure increased to 16%, and in 2007 to 30% (11–14). Among 19–24 years old the proportion of people who have used some illicit drug was 36% in 2003, 42% in 2005, and 41% in 2007. Among 25–29 years old the respective figures were 24%, 36%, and 36% (15–17).

Injecting drug use (IDU) started to increase 1990s. According to ESPAD, the proportion of youth aged 15–16 years who had injected drugs during their lifetime was 0.2% in 1995, 0.7% in 1999, 1.3% in 2003, and 0,5% in 2007 (11–14). The first reports describing IDU outbreak and the size of IDU population in Estonia are based on field reports and expert opinions. They describe about 10,000–15,000 IDUs in Estonia (5). In 2004 the estimated number of IDUs in Estonia is 13,800 and the adult injecting drug use prevalence rate 2.4% (18). Injecting drug use problem is the severest in North-Eastern region of the country and in capital city Tallinn. HIV prevalence among IDUs recruited Tallinn in 2005 was 54% (8). In 2007 HIV prevalence among 350 IDUs recruited in capital city Tallinn was 48% and in Kohtla-Järve 59% (a city in North-Eastern Estonia). Hepatitis C prevalence was even higher – 90% in Tallinn and 76% in Kohtla-Järve (9).

Sex workers

Sex workers (SW) in Estonia work mainly in the capital city Tallinn. Many SWs are soliciting their clients through independent advertising on the Internet and in newspapers and tend to be organised in small groups in a rented flat. There is also prostitution in few big brothels, on the hotels/bars and on the street. The number of SWs has degreased last years due to recent economic recession and police efforts in closing down brothels. According to the estimations of the organisations offering services to SWs, the number of SWs could be around 1,500 (19). A study in Tallinn detected 7.6% HIV-prevalence among a group of SWs (n=191) in 2006. As the proportion of people co-infected with both HIV and hepatitis C was low, there is a reason to assume that at least some of the HIV cases had been transmitted sexually (20).

Men who have sex with men

Homosexual transmission was the main transmission route in Estonia in 1988–1999 (personal communication, N. Kalikova). In research study among a small sample of MSM (n=79) in capital city, two men were HIV infected (2.5%) (21).

STRUCTURES AND STRATEGIES RELATED TO HIV PREVENTION

HIV-prevention activities in Estonia started more than 20 years ago. At the end of 1980s, biological surveillance of HIV-infection started and the first anonymous AIDS counselling centers were opened. On the basis of the prevention strategy developed by the Estonian Association "Anti AIDS", the first National Programme for AIDS Prevention was launched during 1992–1996. The second National Programme for HIV/AIDS Prevention – "National Action Plan for HIV/AIDS and other Sexually Transmitted Diseases Prevention" was implemented in 1997–2001. The third national programme was adopted for 2002–2006. These programs were financed from the state budget and coordinated by the Ministry of Social Affairs. However, due to the growing HIV-epidemic, a need emerged for a new strategy that would better involve other governmental organizations, private sector and civil society. In 2005 a new national HIV and AIDS Strategy was developed for the years 2006–2015 together with an Action Plan for years 2006–2009. In 2009 a new 3-year action plan was developed for the years 2010–2012.

The strategy was adopted with a government order on December 01, 2005. With the order, the Government also created a high-level multisectorial Governmental HIV and AIDS Committee as an advisory body to the Government for the central coordination of the implementation of the new strategy. The committee includes various stakeholder representatives – the representatives of all the ministries that need to plan activities in their field (Ministry of Social Affairs, Ministry of Education and Research, Ministry of Justice, Ministry of Defence, Ministry of the Interior), the representatives of local municipalities, counties, the Parliament (Social Committee), the bureau of Prime Minister, the representatives of the four thematic working groups, PLHIV, and a representative of the youth organizations' union. The four thematic working groups (prevention, drug use isuses, treatment&care, monitoring&evalution) are open to all specialists and organizations operating in the field of HIV, both state and non-governmental. Thus, they serve as a forum where all the important issues can be discussed. Most of the working groups review the annual strategy Action Plans and present their proposals to the Committee. The Committee reviews the proposals of the working groups and approves the national Action Plan for the following year and the Government of the Republic adopts the document. The Ministry of Social Affairs is now serving as the Secretariat to the new committee. Each implementing ministry develops its own annual Action Plan with a precise budget (based on the Strategy Action Plan), which is presented to the Committee for approval. Besides strategy working groups there is a separate HIV and TB working group with the primary aim to coordinate the collaborative actions in HIV and TB field.

Besides the state budget, the financial reseources for implementing activities have also been received from the Estonian Health Insurance Fund, gambling tax funds and other local funds and from different foreign donors (Open Estonian Foundation, the Global Fund to Fight AIDS, Tuberculosis and Malaria, foreign embassies, Family Health International, European Commission, WHO Office in Europe, Nordic Council of Ministers, Baltic States Body for Cooperation, etc.).

NATIONAL HIV/AIDS PREVENTION STRATEGY FOR 2006–2015

The general goal of the National HIV/AIDS Prevention Strategy for 2006–2015 (hereinafter referred to as the National Strategy) is to achieve a constant decline tendency of HIV spread in Estonia.

The strategic objectives set by the national HIV and AIDS strategy are the following:

- 1. The number of drug injectors has decreased and the spread of HIV among the injecting drug users has a constant declining tendency.
- 2. The incidence of HIV among young people aged 15–29 has constantly decreased.
- 3. The spread of HIV infection among sex workers has not increased and the spread of sexually transmitted infections has decreased.

- 4. The knowledge of the population of the ways of HIV transmission and their skills to assess their infection risk have increased and negative attitudes towards PLHIV have decreased.
- 5. No spread of HIV infection has occurred in detention institutions.
- 6. Vertical transmission of HIV infection has decreased.
- 7. The spread of HIV infection among MSM has not increased.
- 8. The STI spread among the population has decreased.
- 9. No HIV infections have occurred in the course of vocational work.
- 10. Availability of HIV testing and counselling service has increased.
- 11. Safety of the transfused donor blood and transplanted organs and tissues to the recipient is ensured.
- 12. Quality of life of people living with HIV and AIDS has improved.
- 13. Evidence-based planning in the field of HIV has enlarged.
- 14. Amount of competent organizational and human resources actively involved in the field of HIV prevention has increased.
- 15. Amount of services performed by specialists of the field on the basis of an agreed service description has increased.

To achieve these goals and objectives the so-called "Three Ones" principle is being implemented:

- central management and coordination of the strategy;
- development and implementation of a uniform action plan, and
- the existence of a uniform surveillance and evaluation system for the whole country.

The priorities of the strategy include:

- Harm reduction services for IDUs;
- Presention work for young people;
- HIV-related specific health care and social support services for PLHIV.

PREVENTION

Injecting drug users

Needle and syringe exchange services for IDUs started in Estonia within the framework of pilot projects already in 1997. The real scale up of these services started in 2003, in the framework of Global Fund Program. Since the fall 2007 all syringe exchange programs are financed mostly through the National Strategy. Services are provided mostly in the capital city Tallinn and its surrounding areas and in North-Eastern Estonia. The number of needle exchange programs has increased from 13 in 2002 to 36 in 2009 and the number of distributed syringes from 520,000 in 2004 to 2.3 million in 2009. The coverage with stringe exchange services is good. According to the 2007 study 64% of IDUs in Tallinn and 75% in Kohtla-Järve (town in North-Eastern Estonia) visited syringe exchange as their main source for syringes and needles (9). In some syringe exchange programs anonymous AIDS counselling centeres provide HIV testing and counselling.

In addition to syringe exchange, opioid substitution therapy (OST) is provided for IDUs injecting opioids. At the end of 2009 660 patients were on OST. The coverage of the service is under ten percent (22).

In 2006 a new service for IDUs and their sexual partners was launched – counseling and testing of sexually transmitted infections. Services include counseling on safe sex, STIs, contraception, HIV/STI testing, outpatient treatment of STIs and distribution of condoms and lubricants. All services are provided free of charge. In 2009, a total of 753 people received these services in North-Eastern Estonia (22).

Youth and general population

Behaviour change communication

Courses on HIV to the students of high and vocational schools and also army recruits were organised in the framework of GF program in 2003–2007. Peer-education network for young people has been implemented and information materials on HIV and safe sex and related topics have been produced. Since the beginning of 2006 Ministry of Education and Research is responsible for information and education for young people, and since the end of the GF program also finances peer-education network. Ministry of Education and Research is also responsible for developing new curriculum and study materials for health education classes within the formal education system (both in Estonian and Russian speaking schools) and developing respective program for universities where future teachers are being trained. New curriculum will contain more detailed and up-to-date information on sexual health and HIV related issues and these subjects will be covered in every grade. The new curriculum will be introduced stepwise and the final deadline for implementation in all grades is September 1st, 2013.

National Institute for Health development is responsible for programs for young people with special needs and high-risk youth. These educational programs are implemented in collaboration with several NGOs. NIHD also organizes continuous education trainings for teachers, developes study materials on sexual education and information materials on HIV, STIs, safe sex and ohter related subjects for youth and adults.

Every year since 2004 at least one country-wide media campaign targeting young people and/or eneral population has been launched. The main themes have been promotion of condom use and HIV testing. The means of information distribution have included TV and radio clips, outdoor posters and information distribution in public places and events.

Youth counseling centers

These centers provide HIV counseling and testing, STI counseling, diagnostics, and treatment, counseling on safe sex and family planning issues for young people up to 24 years of age. There are 18 youth counseling centers in Estonia, at least one in every county. Services are free of charge for all clients. The work of youth counseling centers is coordinated by the Estonian Association of Sexual Health and financed through National Health Insurance Fund and National Institute for Health Development. In 2009, more than 30 000 visits were made to these centers (23).

Prevention and health promotion activities in county municipalities

All 15 county governments in Estonia have established drug prevention and health promotion councils. These councils include representatives from local governments and various organisations in the county. The task of the councils is to implement the national health strategies and programmes at the county level. For that purpose they prepare strategic directions of health promotion in the councils may vary somewhat in different counties depending on the situation of health problems in each specific region. Project tenders are organised in order for various local organisations to receive allocations. In addition, the councils organise prevention events and training courses for the youth, seminars or information days for the local government members and different specialists. The activities at the county level are supported from the European Social Fund and follow the priorities and principles of the National HIV and AIDS Strategy and National Drug Use Prevention Strategy.

Other vulnerable populations

Sex workers

Sex work is mostly related to the capital city Tallinn. There are two NGOs in Tallinn which provide social support and health care services related to STIs and HIV for SWs. In 2007 almost 1,600 visits were made to these two centers, and the number of condoms distributed was more than 47,000 (23).

Men who have sex with men

Funded by the Global Fund and the National Strategy, the Gay and Lesbian Information Centre operated in 2003–2008. ESPO Society has been supported to run a support group for HIV-infected gay men. The publication of information materials and distribution of condoms (almost 132,000 condoms were distributed in 2008) has also been supported (24).

Prevention of mother-to-child transmission

All women who register their pregnancies are recommended to take HIV-test already during their first visit. The corresponding test is also recommended to all women who decide to have an abortion. This is established by the regulation of the Ministry of Social Affairs No 118 from 31 October 2003. All health care services for the prevention of mother-to-child transmission are free of charge for all women. Services are provided in collaboration by obstertrics and infectious diseases clinics. Free of charge powdered milk is provided for all newborns of HIV-infected women until the child is 12 months old. In 2009, 190 children received powdered milk (23).

LIVING WITH HIV AND AIDS

Treatment and care

At the end of 2008 1,006 and at the end of 2009 1,263 people received cART (23, 24). It has been estimated that the number of people in need of cART could be as high as 2,000–3,000 (26). Main challenges lay with the active injecting drug users who are oftentimes considered not motivated to start

and adhere to the treatment. cART is provided by five specialized infectious diseases clinics and is free of charge for all patients. Patients on treatment have to attend the clinic once a month to receive their supply of ARV drugs. In 2010 a pilot project for directly observed cART for IDUs on OST will start in capital city Tallinn, with the aim of improving adherence to cART.

The number of HIV-infected TB cases has remaind stable in last few years – 39 in both 2008 and 2009. HIV and TB related health care services (both in- and out-patient) are free of charge for all patients and they are provided centrally by separate infectious diseseas and TB clinics located in bigger cities. Estonia implements DOTS since the end of 1990ies and DOTS coverage is 100%. Infectious diseases and TB specialists' professional societies hold regular joint-consiliums to discuss the problematic cases and follow up treatment results in general. Prophylactical treatment for latent TB is not provided universally because of high rates of primary resistance to isoniazide and other first line TB drugs. The nead for such treatment is decided case by case.

Several NGOs offer psychological support services and counselling for PLHIV and their families. In 2009, 307 PLHIV attended support groups and people not belonging to the support groups were counselled 2,500 times.

Testing and counselling

Biological surveillance of HIV in Estonia started in 1987. Surveillance is performed by primary diagnostic groups (33 regular screening measurement laboratories) that are located in all bigger health care institutions and national HIV-reference laboratory located in Tallinn. Rapid tests are used very little.

Every person living in Estonia has the right to HIV testing and counselling. HTC is usually free of charge at the GPs or specialist doctors when there is an indication of infection. In Estonia the number of people undergoing HIV screening has increased in recent years. 59 people were tested per 1,000 population in 2009 (does not include blood donors) (4). Anonymous voluntary counseling and testing is provided in Anonymous AIDS Counseling Centers (ACC) in 8 bigger towns. In ACCs approximately one third of all new HIV cases have been diagnosed over the years (6).

HIV in prisons

There is evidence of continous use of illicit drugs and IDU in prisons. According to the survey conducted among 750 prisoners in 5 prisons in 2008 28% of prisoners have used drugs during their lifetime while in prison (among women it was 4%, non-injecting drugs included) and 6% did so during last month. Compared to 2006 data the proportion of active drug users has decreased. 2% of prisoners had chared injecting equipment with others while injecting in prison setting during last month (27). Study among IDUs revealed that 58% of the respondents in Tallinn and 44% in Kohtla-Järve (North-Eastern Eastonia) had been in the prison at least once in lifetime. Out of those ever been in prison 45% in Tallinn and 70% in Kohtla-Järve reported injecting drugs at least once during imprisonment (9).

HIV testing is voluntary in prison system and HIV tests are offered to the prisoners throughout imprisonment. TB screening is mandatory upon inprisonment. HIV and TB related health care services (including hepatitis B vaccination) are available in all prisons for all those in need. One NGO conducts HIV-related seminars and trainings and runs support groups for HIV-infected inmates in Estonian prisons. Condoms are available in visiting rooms (for visits by spouses), prison shops and health care departments. Since 2009 prisons have also started providing OST for those IDUs who were on OST before imprisonment. There are no syringe exchange services in prisons.

Overall progress and challenges for the future

Overall progress:

- The coverage of syringe exchange programs has increased considerably and is considered quite high. The geographical coverage with the services has improved, the number of people attending the services and the number of syringes distributed has constantly increased since 2003. During

the five years of surveys among SEP clients (2003–2007), the percentage of drug users who share syringes has decreased. Sharing other injecting equipment is still more problematic.

- HIV-testing has been scaled up. The number of sites providing anonymous HIV testing has increased and the geographical coverage has been improved. The number of people tested in health care settings has increased.
- Acces to free of charge STI services among risk groups and general population youth has improved. In the last 3 years government has supported free of charge STI services in youth counselling centers (for youth without health insurnace), and STI centers for injecting drug users and their sexual partners.
- The number of people on cART has increased and government support for HIV-related health care services for all PLHIV has been continuos.
- HIV testing rates at TB clinics are high and all people eligible are provided with treatment.

Immediate key issues include:

- Integration of harm reduction, health and social care services for IDUs and other groups; linking the services with the prison and detention system, ensuring the continuum of care.
- Increasing the adherence to clinical treatment programs among PLHIV, especially those injecting drugs.
- Providing sexual health, and family planning services and health related counselling (e.g nutrition) for PLHIV.
- Ensuring an appropriate range of easily accessible services for IDUs and their sexual partners (for example appropriate injecting-related equipment, other than needles and syringes; sexual health services; HIV- and hepatitis testing in all syringe exchange programs) and improving the geographical coverage of services.
- Lack of proper prevention activities in all prisons (limited access to OST and condoms).
- Lack of appropriate prevention activities for MSM (there are no services targeting MSM).
- Developing special programs and systematic approach for HIV prevention for out-of school youth.
- Providing HIV prevention services for SW in other regions besides the capital city.
- Scaling up HIV testing for hard to reach populations and general population.
- Strenghtening data collection and availability related to biological surveillance of HIV.

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