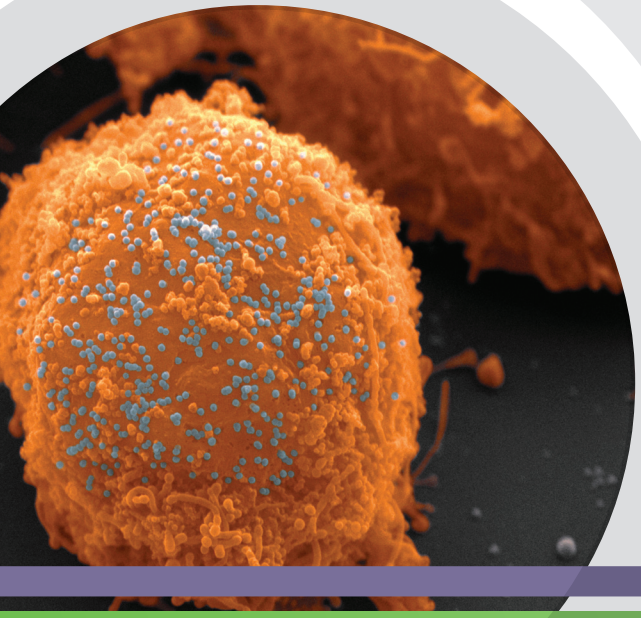

MISSION REPORT

Country mission Latvia: HIV, sexually transmitted infections and hepatitis B and C

26–30 September 2011

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This report of the European Centre for Disease Prevention and Control (ECDC) was coordinated by Marita van de Laar, Programme on sexually transmitted infections, including HIV/AIDS and blood-borne viruses.

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Contents

Abbreviations

ART	Antiretroviral therapy
ICL	Infectology Centre of Latvia
LTC	Low threshold centres
LVL	Latvian lats
MSM	Men who have sex with men
NAAT	Nucleic acid amplification testing
NGO	Non-governmental organisation
PLWHIV	People living with HIV
PWID	People who inject drugs
STI	Sexually transmitted infections
WHO	World Health Organization

Executive summary

Objectives of the country visit

Following a request by the Latvian government, ECDC conducted a country visit to Latvia covering HIV, sexually transmitted infections (STIs) as well as hepatitis B and C between the 26 and 30 September 2011. The aim of the country visit was to address specific issues recently identified by the Latvian authorities. The objectives of the mission were:

- review the national strategies and programs for HIV ad STI
- discuss the current situation with respect to HIV and STI prevention and control including surveillance, partner notification and populations at risk
- address the current situation with respect to hepatitis B and C and discuss possible future steps
- discuss the first results of pre-testing of the self-assessment tool within the ECDC behavioural surveillance project and future steps.

The visit comprised of meetings with officials at the Ministry of Health, the state agency 'Infectology Centre of Latvia' (ICL), Prisons Medical Department and representatives of various Latvian non-governmental organisations (NGOs) (Annex 2).

Epidemiology of HIV, STIs and hepatitis B and C

Since the start of the century, there have been steady declines in the number of new cases of gonorrhoea and syphilis reported in Latvia. Nonetheless, Latvia has among the highest rates of reported gonorrhoea (18.5 per 100 000; 419 cases in 2009) and syphilis (7.3 per 100 000; 165 cases in 2009) in the European Union. Reported new diagnoses of HIV and acute cases of hepatitis B and hepatitis C have increased dramatically since the early 2000s in Latvia, linked to an outbreak among people who inject drugs (PWID). The peak in new HIV diagnoses was reported in 2001 (34.3 per 100 000; 807 cases), and currently Latvia has one of the highest rates in Europe (12.2 per 100 000; 274 cases in 2010) with an estimated 10 000 persons living with HIV or AIDS (PLWH). In 2004, most cases were reported among PWID (45%) and among heterosexuals (20%) with much smaller proportion of cases among men who have sex with men (MSM) and other risk groups. By 2010, the proportion of cases reported among PWID had fallen (27%) but the proportion among heterosexuals had increased. The peak in cases of acute hepatitis B was reported in 2001 (839) and of acute hepatitis C in 2000 (297 cases).

National co-ordination

Latvia has an established and comprehensive healthcare system, which is overseen by the Ministry of Health. Healthcare in Latvia is largely publically financed and HIV surveillance and treatment are provided centrally by the Infectology Centre of Latvia (ICL). The Infectology Centre of Latvia is a focal contact point for epidemiological surveillance and laboratory diagnostic capacity for HIV, STI, hepatitis B and C.

A cross-ministerial national public health strategy for HIV and AIDS was first launched in 1999. Currently key responsibilities are overseen by the Country Coordinating Mechanism. The 2009–2013 National Programme for HIV/AIDS includes surveillance, prevention and treatment and care of PLWH.

Prevention, treatment and care

HIV and AIDS treatment and care are delivered through the ICL in Riga. A small number of patients are treated by medicals services outside of Riga. At the end of 2010, 4 888 individuals were registered as HIV positive countrywide since the start of the HIV/AIDS reporting system in 1997 (data from the HIV/AIDS case register) and 3 481 were registered at ICL. Of this total, 726 patients had died and 563 had received antiretroviral therapy.

HIV infection has especially affected people who inject drugs (PWID) in Latvia. Latvia has been an early adopter of effective measures recommended by WHO and recently also ECDC for prevention of infections associated with drug use. A network of municipally sponsored 'low threshold centres' (LTC) provide harm reduction services to PWID, including injection equipment exchange and point-of-care testing.

The diagnosis, treatment and management of STIs are based on the guidelines issued by the International Union for Sexually transmitted Infections, although national regulations exist for syphilis. The cost of STIs diagnosis, treatment and care is mostly paid for by the state although co-payments for attendance at clinics and for the purchase of treatments are required. However, contact tracing and prophylactic treatment are not financed by the state. The diagnosis and treatment of STIs are delivered through a variety of healthcare providers, but most commonly gynaecologists, dermato-venereologists and urologists. However, in Latvia, there exist only two STI clinics, both in Riga.

The control of hepatitis B is affected through an infant vaccination programme that has been in place since 1997. Since 2006, all children aged 14 have also been targeted by national vaccination programmes. Requirements for the vaccination of professional risk groups have been in place since 2000 and the cost is borne by the employer. Currently there are no recommendations for the vaccination of individuals in behavioural risk groups (e.g. PWID or MSM).

Surveillance, monitoring and evaluation

The Infectology Centre of Latvia (ICL) is responsible for the surveillance of HIV, STIs, hepatitis B and hepatitis C, which are mandatorily notifiable diseases. Healthcare practitioners are legally responsible for notifying infectious diseases and each case or professionally well-founded suspicion of the diagnosis within a minimum of 24 hours (hepatitis B and hepatitis C) and a maximum of 72 hours (STI, HIV/AIDS).

Since 2009, cases of STI and RNA-positive cases of hepatitis C have to be notified by microbiological laboratories as well. New HIV diagnoses are reported directly to the national HIV/AIDS cases register held at ICL by both physicians and the National Microbiology Reference laboratory, ICL. In contrast, STIs (chlamydia, genital herpes, gonorrhoea and syphilis) and hepatitis B and C are reported through the regional surveillance sites of ICL and by using the VISUMS (Computerised System for National surveillance and Monitoring of Infectious Diseases) system in the same way as other notifiable diseases.

Testing and diagnosis

There is a network of 18 LTCs for populations at risk, organised by ICL in collaboration with local governments or NGOs. Most LTCs are able to offer voluntary counselling and testing. HIV testing is included in the national antenatal health program and should be provided by gynaecologists during the first visit. An estimated 95% of pregnant women are tested for HIV. A network of 33 diagnostic laboratories provides serological testing for HIV, and all primary reactive samples are confirmed by the National Microbiology Reference laboratory of ICL.

The diagnosis of STIs is assured by a network of diagnostic laboratories which send samples to the National Microbiology Reference laboratory of ICL. The National Microbiology Reference laboratory of ICL, also undertakes Nucleic Acid Amplification testing (NAAT) testing for Chlamydia and antimicrobial susceptibility of gonoccocal isolates.

Behavioural surveillance

In Latvia, several behavioural surveillance surveys had or were being undertaken of people who inject drugss, men who have sex with men and sex workers. The evidence collected shows a concentrated HIV epidemic (>5%) and high levels of different high risk behaviour in the respective populations.

A review of the self-assessment tool (developed by ECDC) was undertaken and discussed with Latvian representatives and should be supplemented further.

Conclusions and recommendations

The main conclusions and recommendations following the visit are:

Continued support of the HIV programme: Currently HIV cases are reported to the HIV/AIDS case register held at the ICL, but there are proposals to incorporate HIV notification into the VISUMS system. The surveillance of HIV and the treatment of people living with HIV is well organised, fully covered by the state, and includes several infectious disease doctors working in regional centres and prisons. Nonetheless, a very low proportion of PLWH are on treatment and this has been attributed to both current treatment guidelines that recommend treatment for asymptomatic patients with CD4 cell count of <200/mm3, and eligible patients refusing treatment. The low threshold centre network is a key factor in the prevention of HIV among people who inject drugs. The overall public health function to prevent and control HIV needs prioritisation.

Recommendation:

- The inclusion of HIV cases into the VISUMS system must be approached with care, with special consideration made to ensuring the confidentiality and protection of HIV data held within VISUMS.
- Special emphasis must be applied to ensure that only a selected number of professionals working with the system have access to HIV data with person identifiers. All persons working with VISUMS should notby default have access to HIV data, but access should be granted on a separate application basis and for a specific task where access to this data can be specifically justified.
- Current treatment guidelines need to be expanded in line with European standards so that treatment for asymptomatic HIV with CD4 cell count of <350 rather than <200/mm3 is recommended. Treatment should be assertively recommended by healthcare workers, and wider health education of PLWH of the health benefits of treatment should be implemented.
- Regulations to allow the use of point-of-care HIV tests in antenatal departments for emergency use and for continuation of well-established use in the LTC system for people who inject drugs should be expedited.
- The overall public health function should be strengthened (either in ICL or in another centre or agency).

Maintenance of high vigilance of HIV prevention among people who inject drugs: The LTC system is a key factor in the prevention of HIV-infection among people who inject drugs. Latvia has been an early adopter of this approach of harm reduction services for this vulnerable group. As recommended in the recently published ECDC guidance of prevention of infections for PWID, services need to be maintained at a high coverage level to prevent recurring epidemics as long as injecting drug use remains prevalent.

Recommendation:

- Support for low threshold services for people who inject drugs should be continued and strengthened to avoid a serious resurgence of HIV infection in this group and high risk of further transmission to the general population through sexual contact. Given the close links between poverty, social exclusion and vulnerability to injecting drug use, the LTC system presents a good return of investment in terms of poor health and high healthcare cost avoided.

Men who have sex with men: there is a lack of good quality data regarding the MSM population in Latvia, only partially corrected by the EMIS survey. The EMIS survey reported low levels of men 'being out' and of men reporting having tested for HIV in the previous 12 months[i]. The discrimination and stigma of MSM compounds the difficulty of collecting good quality data, especially surveillance data, needed to support the development of services.

Recommendation:

- Leadership is required to establish specialised services for MSM in Latvia which are currently lacking in Latvia. The ICL should provide this leadership and seek to establish such services in collaboration with MSM community groups.

Strengthening of the STI programme: There is an urgent need to strengthen the STI control programme and to address these issues will require strong leadership and political commitment. There are a limited number of STI clinics (two), both based in Riga, otherwise diagnosis, treatment and care of STIs is conducted by individual physicians. Partner notification is currently the responsibility of the treating physician although no financial resources or support is offered for this.

Recommendation:

- The development and establishment of a national STI strategy, even if included in the HIV national strategy, would provide a clear framework within which to develop the STI programme.

[i]The EMIS Network. EMIS 2010: The European Men-Who-Have-Sex-With-Men Internet Survey. Findings from 38 countries. Stockholm: European Centre for Disease Prevention and Control, 2013.

Strengthening of the programmes for hepatitis B and C: Latvian plans for hepatitis surveillance are in line with the proposal for the new ECDC enhanced surveillance for hepatitis B and C. The current framework for hepatitis B prevention and control is based on universal vaccination of newborns and a catch-up campaign of adolescents. Recommendations for vaccination of high-risk occupations exist but not for those with high-risk behaviour.

Recommendation

- ECDC is preparing a cost-effectiveness tool to assess which national strategies would be the most effective in the prevention and treatment of hepatitis and Latvia could be a pilot country in this project. Extension of recommendations to vaccinate those who display behaviour that place them at high risk of hepatitis B infection should be considered.

Establish and strengthen engagement with NGOs: There is limited NGO engagement with HIV or STI programmes which is due, at least in part, to limited resources and size of the sector.

Recommendation:

- ECDC should provide expertise to both statutory and non-statutory sectors in order to enable NGOs to access European and other international funds.

Behavioural surveillance: The self-assessment tool within the ECDC behavioural surveillance project was tested in Latvia and considered very useful.

Recommendation:

- ECDC to invite Latvian counterparts to the first behavioural surveillance workshop in Stockholm in January 2012.

1. Objectives of the country visit

1.1 Background

Following a recommendation of a meeting with national HIV/AIDS coordinators from EU/EEA countries and international experts in 2006, ECDC initiated a programme of country visits. So far country visits have been conducted in Estonia (2007, 2010), Bulgaria (2008), Poland (2008), Portugal (2008), Latvia (2011), Romania (2007, 2011), Greece (2012) and Finland (2012).

In 2010 discussions on a possible country mission were initiated between ECDC and Latvian officials to review the HIV, STI and hepatitis B and C programmes and to concentrate on specific issues identified by and agreed between Latvia and ECDC. The discussions resulted in an official invitation for ECDC to visit Latvia between 26–30 September 2011.

1.2 Scope and purpose

The ECDC country visit to Latvia in September 2011 had the following objectives:

- review the national strategies and programs for HIV ad STI
- discuss the current situation with respect to HIV and STI prevention and control including surveillance, partner notification and populations at risk
- address the current situation with respect to Hepatitis B and C and discuss possible future steps
- discuss the first results of pre-testing of the self-assessment tool within the ECDC behavioural surveillance project and future steps.

In each of the disease-specific areas (i.e. HIV/AIDS, STIs, hepatitis B and C) the discussion focused on aspects related to prevention, surveillance (epidemiology and microbiology), treatment and care.

These discussions described the current situation, highlighted un-met needs and sought possible alternative approaches in the future, including areas of technical assistance and support from ECDC to the relevant institutions and organisations in Latvia.

1.3 Organisation

The country visit was conducted in Riga over five days (26-30 September 2011) and consisted of meetings with a range of institutions and organisations. In addition to the ECDC country visit team, a representative from the ECDC behavioural surveillance project from the University of Lausanne was present to review behavioural surveillance in Latvia and thus fulfil the fourth objective of the visit (pre-testing of the self-assessment tool within the ECDC behavioural surveillance project).

In addition to representatives from the Ministry of Health, meetings included representatives from the Infectology Centre of Latvia, National Microbiology reference Laboratory, Ministry of Interior, Ilguciems woman's prison, Riga maternity hospital and representatives of various Latvian NGOs (Annex 2). The detailed programme of the five-day visit is in Annex 1.

The visit commenced with a meeting at the Ministry of Health, where the programme, scope and objectives of the visit were presented. At the end of the visit, a feedback session was held at the Ministry of Health at which the main findings were presented by the ECDC team leader to the Ministry and representatives from ICL. The ECDC team is grateful for the time that was generously offered to the team by the many professionals met during the country visit.

Outputs from the visit consist of summaries of findings from the presentations and discussions held during the visit, site visit experiences and background documents collected through research prior to the visit.

2. Epidemiology of HIV, STI, hepatitis B and hepatitis C in Latvia

2.1 HIV and AIDS

By September 2011, there had been 5 060 diagnoses of HIV infection reported in Latvia in total. The annual number of new diagnoses peaked in 2001 at 807 cases (34.3/100 000) and has declined gradually thereafter, falling to 275 new diagnoses in 2009 (12.2/100 000). The annual decline in new diagnoses occurred along with a sustained decline in numbers of HIV tests carried out between 2007 (79 279) and 2009 (59 331), which is a cause for concern as during this period routine HIV screening of pregnant women was introduced.

A cumulative total of 1 025 AIDS cases have been reported in Latvia by September 2011. In 2009, 98 individuals were diagnosed with AIDS in Latvia which represents an increase since 2000 (23 AIDS cases reported) but a stable number since 2005. By 2010, half (50%) of all deaths among PLWH were of individuals diagnosed with AIDS.

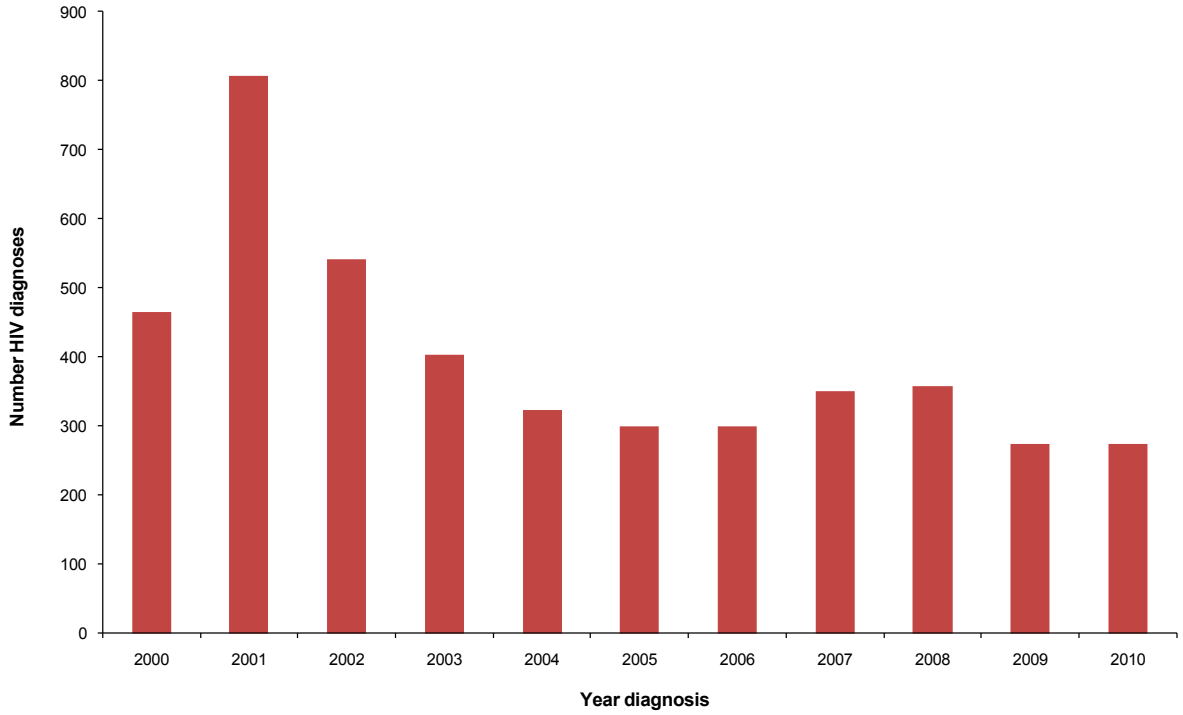
In Latvia the HIV epidemic came to the fore in the early 2000s when a large number of HIV infections were detected among people who inject drugs (PWID). In 2004, most cases were reported among PWID (45%) and among heterosexuals (20%) with a much smaller proportion of cases among MSM and other risk groups. By 2009, the proportion of cases reported among PWID had fallen (27%) but the proportion among heterosexuals had increased (49%). Most females diagnosed with HIV in 2009 are thought to have acquired their infection through heterosexual contact (74 cases) and less through injecting drug use (19 cases). In contrast, approximately equal numbers of males have acquired their HIV infection through injecting drug use (55 cases) or through heterosexual transmission (61 cases). The proportion of cases reported among MSM remains low (15 of cases in 2009; 5.5% of cases). The number of cases of HIV acquired through mother-to-child-transmission remains low (2 cases in 2009; 0.7% of cases).

2.2 Sexually transmitted infections

In Europe, Latvia has one of the highest rates of new diagnoses of gonorrhoea (18.5 per 100 000; 419 cases in 2009) and of syphilis (7.3 per 100 000; 165 cases in 2009), although they have been in decline since 2007 (Figure 2). In the 12 years between 1998 and 2009, rates fell from 106.7 to 7.3/100 000 for syphilis and from 51.1 to 18.5/100 000 for gonorrhoea. The relative declines in notification for both STIs represent among the largest decreases reported in Europe in the last 10 years, yet the reported incidence of both gonorrhoea and syphilis remains among the highest. In 2009, the ratio of male-to-female cases was very much higher for gonorrhoea (314 males/105 females; 3:1) than for syphilis (89 males/76 females1. 1.2:1). In both cases the proportion of cases reported from MSM is very low (<5%).

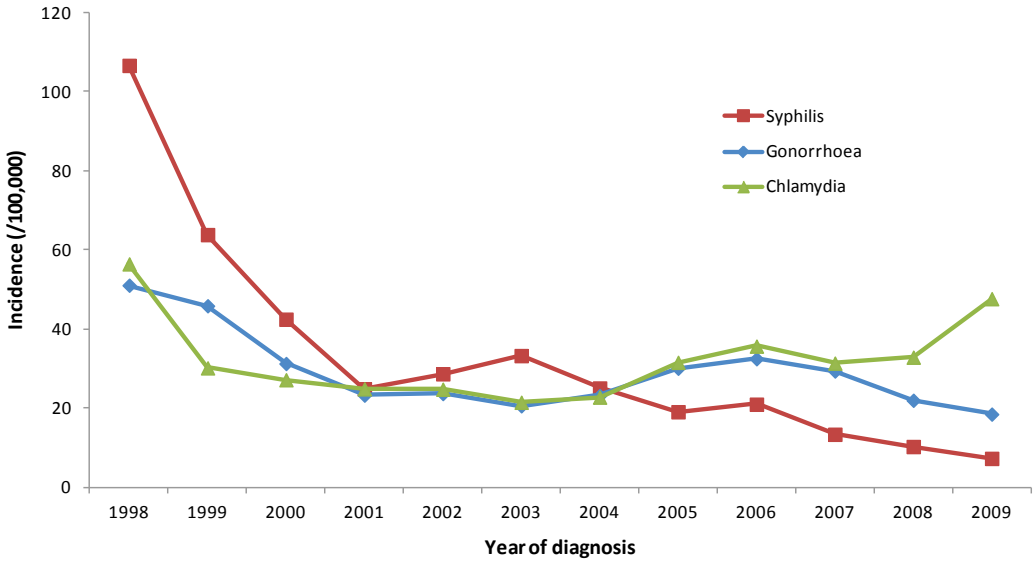
In contrast, the number of diagnoses of chlamydia has increased steadily in recent years although it remains among the lowest in Europe. In 2003, 502 cases of chlamydia (21.5/100 000) were reported and this number increased steadily until 2009 when 1 078 cases were reported (47.7/100 000) close to the number reported in 1998 (1,367 cases; 56.5/100 000). The increase in chlamydia diagnoses may be attributed to a variety of reasons including the use of more sensitive techniques for its diagnosis (NAAT as opposed to serology), changes in sexual behaviour and the introduction of antenatal screening. In 2009, the ratio of male to female cases of chlamydia was almost 1:1 (502 male/576 females), much lower than the gender ratio of reported cases in 2003 (352 males/150 females; 2.3:1)

Figure 1. Newly diagnosed HIV reported in Latvia, 2000–2010.



Source: Infectology Centre of Latvia

Figure 2. Rates of diagnosed cases of chlamydia, gonorrhoea and syphilis in Latvia, 1998–2009.



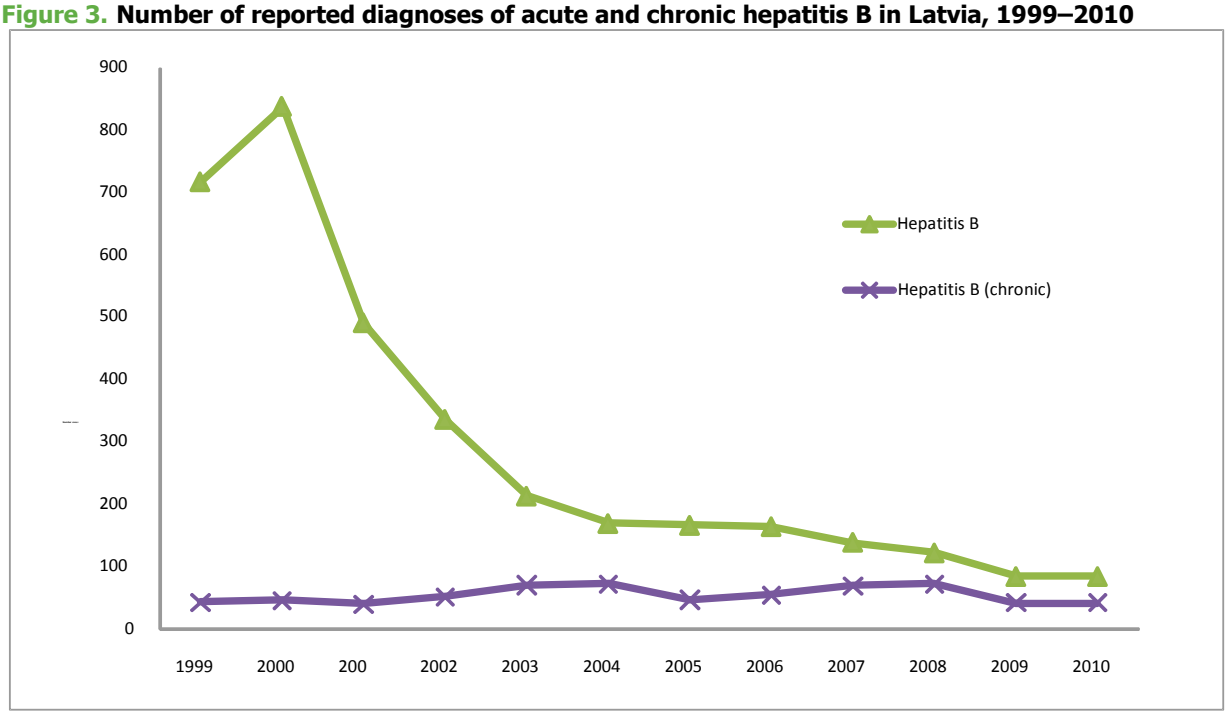
Source: Infectology Centre of Latvia

2.3 Hepatitis B and C

Although international comparisons are difficult, in the latest ECDC report (ECDC 2010) Latvia had one of the higher incidences of reported acute hepatitis B in Europe (7.2/100 000 in 2007). Nonetheless, the reported incidence of acute H=hepatitis B declined from 839 cases in 2000 to 85 (3.8/100 000) in 2010 (Figure 3). At the same time, the number of chronic cases of hepatitis B infection reported have remained low (<80) without any significant trend. Of cases of acute hepatitis B infection reported between 2008 and 2010, the ratio of females to male cases was 1.9 (227 males, 121 females).

A national vaccination of newborns was introduced in 1997 and a campaign targeting 14 years olds was introduced in 2006. The number of children (aged <17 years of age) reported with acute hepatitis B infection has declined dramatically since the peak observed in 2000 (159 cases) and in 2010 only two cases were reported in this age group. The recommendations for adult vaccination against hepatitis B only include those with possible occupational exposure to hepatitis B infection, but none currently exist for those whose behaviour may place them at higher risk of infection (e.g. PWID, MSM).

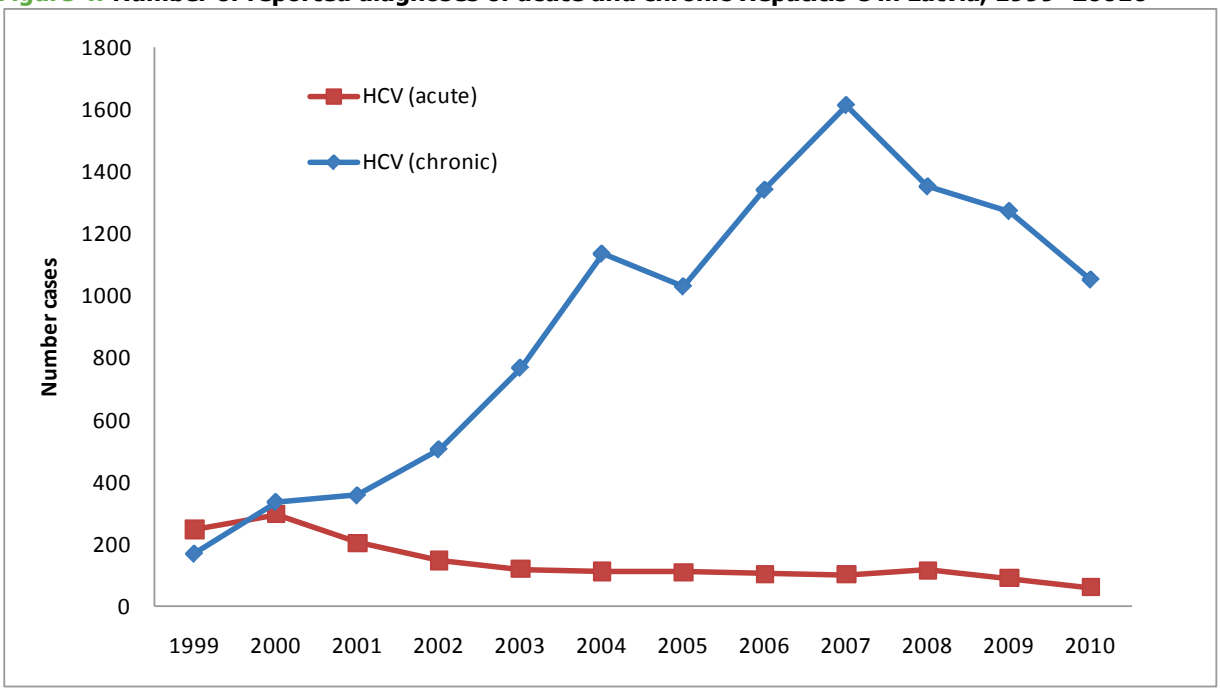
Figure 3. Number of reported diagnoses of acute and chronic hepatitis B in Latvia, 1999–2010



Source: Infectology Centre of Latvia

The reported incidence of acute hepatitis C is very much lower (2,7/100 000 in 2010). Of cases of acute hepatitis C infection reported between 2008 and 2010, the ratio of females to male cases was 1.3 (149 males, 119 females). There is a decline in the reported incidence of acute cases declining from 297 in 2000 to 61 cases in 2010. However, the incidence of hepatitis C is underreported due to its asymptomatic nature. In contrast, the incidence of reported chronic hepatitis C infection has risen from 337 cases in 2000 to a peak of 1 611 in 2007, although since then, there was a decline to 1 051 cases reported in 2010. The prevalence of hepatitis C among PWID in Latvia was estimated at 74%, lower than either of its Baltic neighbours Estonia (93% or Lithuania (95%)

Figure 4. Number of reported diagnoses of acute and chronic Hepatitis C in Latvia, 1999–20010



Source: Infectology Center of Latvia

3. National coordination

3.1 Health service organisation

The total health expenditure, as a percentage of Gross Domestic Product in Latvia was 7.5% in 2008, of which government expenditure represented 65% of this total.[i]

For those individuals registered with the Latvian healthcare system, co-payments is required for all diagnosis, treatment and care except for pregnant women, children under 18 years of ages and some other exemptions. These co-payments range from 3 LVL (Latvian lats) for a visit to general practice to 5 LVL for in-patient.

3.2 Communicable disease surveillance

The surveillance of communicable disease was established by Cabinet Regulation number 7 (Procedures for registration of Infectious Diseases) in which all healthcare providers are obliged to report listed communicable diseases to the Infectology Centre of Latvia (ICL). Cases of infectious diseases diagnosed by treating physicians and by laboratories are reported to the ICL. There is an obligation to report cases with a minimum of 24 hours and a maximum of 72 hours depending on the infectious disease diagnosed. In general, notification is required for suspected cases and then additional notifications are required if a diagnosis is changed or discarded, as well as for the final diagnosis and outcome of disease and laboratory confirmation of the diagnosis. Cases of infectious diseases (excluding HIV/AIDS and tuberculosis) are reported through regional surveillance sites of the Infectology Centre of Latvia onto VISUMS. The surveillance of HIV/AIDS and tuberculosis is based on reporting systems that run in parallel with that for all communicable diseases. HIV and AIDS cases are reported to a case register held at the ICL and there are separate reporting forms for HIV/AIDS/death notifications which collate an ID number as well as all relevant TESSy variables. These data can be cross-linked with other health databases such as the mortality, tuberculosis register and the VISUMS systems. Therefore, good estimates are obtained of mortality among those PLWH as well as co-morbidity such as tuberculosis and STIs such as syphilis. There are plans to incorporate HIV/AIDS and tuberculosis reporting into the VISUMS system which will require careful consideration of confidentiality and data protection issues, especially for HIV/AIDS.

[i] WHO Health for all Database. http://data.euro.who.int/hfadb Accessed December 2011

STI and hepatitis are reported through the VISUMS system requiring notification by healthcare providers through regional surveillance sites of ICL. The reporting forms for STIs and hepatitis B and C collate name, ID numbers as well as relevant clinical, microbiological and socio-demographic data. The inclusion of ID numbers allows cross-linkage of the HIV/AIDs databases with the VISUMS systems. The reporting time for each group of infections is as follows:

- Sexually transmitted infections that are listed as notifiable include gonorrhoea, syphilis, chlamydia, genital herpes and lymphogranuloma venereum. Healthcare practitioners are required to report suspicion of or confirmed diagnoses of STIs within 72 hours.
- Hepatitis B and C: currently acute and newly-diagnosed chronic cases of hepatitis B and C are notifiable through the VISUMS system. Healthcare practitioners are required to report suspicion of or confirmed diagnoses of by phone, and by sending a special urgent notification form within 24 hours.
- In 2009, laboratories were also required to notify STI and detection in serum samples of hepatitis C RNA.

3.3 National strategies

The national HIV/AIDS policy is based on the national Public Health Strategy, and three consecutive national programs to limit spread of HIV/AIDS in Latvia have been implemented since 1999. The latest five-year programme for HIV/AIDS in Latvia for 2009-2013 has the following objectives:

- reduce new HIV cases total and among main groups-at-risk (PWID, prisoners, prostitutes) through targeted HIV prevention activities and through promoting changes in HIV risk-related behaviour
- implement wider prevention strategies among general population
- improve quality of life of PLWH through provision of health and social care as well as avoiding stigma and discrimination
- generate and use evidence for response planning and implementation management
- strengthen national coordination capacity to respond to HIV and AIDS.

A National HIV, Tuberculosis and STIs Prevention Coordination Committee, under the auspices of the Ministry of Health, acts as a governmental advisory committee for the implementation and coordination of the national response to HIV/AIDS. The HIV/AIDS Epidemiological Surveillance and Prevention Unit of the Infectology Centre of Latvia collect national data and indicators.

No national strategy for STI prevention or control currently exists.

4. Prevention, treatment and care

4.1 HIV and AIDS

Nearly all HIV care is organised through the Infectology Centre of Latvia. Regular *consiliums* are arranged to discuss and organise care for those HIV patients requiring treatment in a number of tuberculosis, regional (five) and prison centres, although the number of patients treated outside of the ICL in Riga is minimal. Since January 2010, all antiretroviral medicines for the treatment of HIV infection are included in the list of reimbursed medicines. Treatment guidelines for antiretroviral therapy (ART) published in April 2009 recommend treatment for patients with:

- acute retroviral syndrome
- symptomatic HIV infection or/and AIDS diagnosis
- asymptomatic patients with a CD4 count of less than 200/mm3
- Hepatitis B co-infection.

By September 2011, a cumulative total of 5 060 individuals had been reported as being diagnosed with HIV. Of this total, 3 481 patients had been registered at the Infectology Centre of Latvia and 573 patients were on ART which represents less than 1 in 7 patients (16%) receiving therapy. This is a fraction of the estimated number of individuals who would be expected to receive treatment. Part of the problem may be the highly-centralised nature of HIV care and limited access to integrated HIV/AIDS and addiction services in Latvia. This especially affects the large cohort of HIV infected PWID. People who are not able or willing to register at the ICL have few alternative services to register and receive follow-up.

Treatment and care costs take up most (57%) of the 2.2 million LVL allocations in 2009 for HIV/AIDS. This allocation was frozen in 2010. The International Treatment Preparedness Coalition reported that the government is cutting the HIV and health services budget and imposing restrictions on the number of PLHIV provided with ART free of charge (2010).

HIV testing services are included at national level in the antenatal health services package (free of charge, recommended by gynaecologists). Of the 21 599 pregnant women in Latvia in 2009, over 98% had received antenatal care. A reported total of 20 608 (95%) pregnant women were tested for HIV in 2009, of whom 57 (0.3 %) were reported as positive.

A network of 18 LTCs provide free and confidential HIV rapid testing, counselling, needle exchange and condom provision, and a few also provide methadone treatment. In 2010, the LTCs performed 1 111 HIV rapid tests and reactivity was 6.4%. The LTCs also distributed over 310 000 syringes in 2010 (although most PWID obtain syringes and needles through pharmacies) and over 57 000 condoms. The network of LTCs is organised by the Infectology Centre of Latvia and is supported by local municipalities (an estimated 150 000 LVL in 2008) or NGOs.

4.2 Sexually transmitted infections

The diagnosis, treatment and management of STIs (gonorrhoea, syphilis and chlamydia) are mostly delivered through gynaecologists, dermato-venereologists and urologists and are not free of charge as individuals have to provide co-payments for consultations. The cost of treatment is reimbursed either partially for some (e.g. only 50% of doxycycline costs are reimbursed for early syphilis) or not at all for many STIs (e.g. chlamydia, gonorhoea, genital herpes).

There is an absence of national guidelines for the diagnosis, treatment and management of STIs and therefore European guidelines are widely adopted. Although the National Microbiology Reference Centre has access to modern diagnostic tools (e.g. NAAT to diagnose chlamydia), these are not widely available in Latvia.

There are no national guidelines describing a systematic approach to partner notification and although this is expected of healthcare providers, it is an activity that is not reimbursed. Thus very low proportions of contacts are traced (estimated at less than 5%).

4.3 Hepatitis Band C

The prevention of hepatitis B has rested on the introduction of vaccination of all newborns against hepatitis B with a schedule administered at 2, 4, 6 and at 12–15 months. Infants born of mothers who are either hepatitis B surface antigen or are of an unknown status are vaccinated within 12 hours of birth. The reported coverage of hepatitis B vaccination of infants is high (>95%) and has been at this level since the late 1990's. Routine vaccination has also been introduced for older age groups: for 14 year olds since 2006. Antenatal screening of hepatitis B surface antigen is conducted routinely and is provided free by the state as part of antenatal care. However, there is no systematic screening or recommendations for vaccination of populations at risk of infection.

Approximately 1 200 patients have been treated for either chronic hepatitis B or chronic hepatitis C. Therapy (in the form of interferon and of antiretrovirals) requires patient co-payments of up to 75% of monthly costs in excess of 200LVL which is not in the reach of many ordinary individuals.

5. Role of non-governmental organisations

A meeting was held with members from a range of different NGOs. Representatives from the Infectology Centre of Latvia were also present. NGOs are able to contribute little to HIV and STI prevention, treatment or care due to the lack of central funding being made available. In 2012, Latvia became eligible for grants from the Global Fund for HIV/Aids, Tuberculosis and Malaria and this has precipitated and promoted a close cooperation between governmental and non-governmental organisations.

A range of organisations presented their work in different populations affected by the HIV/AIDS epidemic. Activities and services available for vulnerable populations include:

- Men who have sex with men: community-based activities have focused on promoting lesbian, gay, bisexual and transgender rights. There has been collaboration with international research including the EMIS project which demonstrated significant levels of stigma for gay and bisexual men in Latvia. This collaboration as well as the possibility of international funding has provided an opportunity for NGOs to be much more closely involved in HIV and STI prevention;
- People who inject drugs (PWID): NGOs have been involved in outreach (including the use of mobile units), needle and syringe exchange programmes and counselling for PWID. These activities have been supported with a financial contribution from municipalities (16 in 2010) and contribution (e.g. supply of rapid tests, condoms, syringes and needles as well as trainings, data collection software, brochures, manuals) by the ICL; Today there are two municipalities where NGOs are active (in Riga 'DIA+LOGS'; in Jurmala 'Vecāki Jūrmalai'). These programs are financed by the Municipality. The Latvian Red Cross started work with harm reduction activities in Riga in2011.

- People living with HIV/AIDS: most work occurs within the community although a support service is provided in the clinical setting of the Infectology Centre of Latvia. Recently an internet peer support project has been established;
- Young people: surveys have been conducted among young people and a sexual health hot line is provided by NGOs;
- Sex workers: Sex work in Latvia is legal (although the running of brothels is not). Regulations state that sex workers are required to carry a registration card which is disbursed by GPs, thus entailing regular contact with medical services for the proportion of sex workers who carry such documentation. There are no NGOs that work specifically with this vulnerable population, but those working with PWID do have contact with drug-using sex workers, although this is estimated to be very limited (e.g. DIALOGS estimated contact with 50 sex workers).
- Prison staff: NGOs are involved in the training of prison staff or education of prisoners.

6. Behavioural surveillance

6.1 Background

Currently there is no formal behavioural surveillance system in place. However, a number of surveys have been carried out including bio-behavioural surveys among PWID, MSM and sex workers. One survey was conducted among PWID (n=100) with a very high prevalence of HIV (29%); half of the participants were Roma. Some surveys have been conducted periodically, mostly in Riga, with some starting at the end of 1990s. Subsequent surveys have allowed trends in prevalence and levels of high risk behaviour to be measured. Funding from the United Nations Office on Drugs and Crime (UNODC) for surveys among PWID stopped in 2012; likewise other external sources of funding are not secured for the coming years and there are plans to develop a proposal for the Global Fund

6.2 Assessment of self-assessment tool

The self-assessment tools were considered to be very useful and an excellent way to summarise and compile information. It was proposed to asylum seekers in the migrant category, i.e. migrants/asylum seekers.

The new version of the excel toolkit seems to work well. Nevertheless there is a need to add or to specify more clearly that the most important part of the tool is the comments part.

Some minor problems (protected cells) have been solved and a new version of the excel toolkit is ready.

6.3 Propositions for behavioural surveillance

The discussions raised a number of propositions and recommendations:

- There is a need for technical support to develop the behavioural surveillance in Latvia and to help the country to develop a second generation surveillance system. This could include technical support to support Latvia to write the proposal for the Global Fund.
- The organisation of regional workshops on behavioural surveillance in 2012 will provide indirect support to Latvia and help to reinforce the importance of behavioural surveillance for the country.
- Future exchanges with neighbouring countries could be reinforced through this next step.

7. Health promotion and education

In Latvia, there have been no recent sexual health promotion campaigns targeted at the general population. Sexual health promotion for the general population is mostly through the delivery of sex and relationship education delivered in both primary and secondary schools.

National standards for health education in schools are decreed in Cabinet Minister Regulations for primary (number 1027 published in 2006) and secondary schools (number 715 published in 2008). The standards are extensive in describing the national curricula for sex and relationship education. However, there is little support for teachers to deliver the national SRE curriculum.

Sexual health promotion for the most vulnerable groups is very limited either through the work of statutory services or of NGOs.

Health promotion work is undertaken by the network of 18 LTCs which offer information and advice, free condom distribution, HIV counselling and testing and needle exchange. The level of service, however, is not standardised and varies widely in the different services. (Further details are available in section 4.2).

Some health promotion work is undertaken by NGOs working in vulnerable populations. There was discussion about a plan to submit a proposal to the Global Fund to seek support for prevention work that would be undertaken by NGOs. This support and development in the sector is needed as the sector needs to be developed. Currently, the engagement of NGOs in this area is limited, with the glaring absence of work being undertaken among MSM or among migrant or travelling populations. Examples of NGOs working in the area of HIV prevention are presented in section 5 above.

8. Prisons

There are a total of 12 prisons and one training centre in Latvia. At any one time there are approximately 7 000 inmates in the Latvian prison system and a total of approximately 10 500 individuals pass through the prison system in any one year.

Responsibility for healthcare in prisons lies with the Ministry of Justice and is outside the civilian healthcare system. The current financial crisis in Latvia has resulted in a 44% cut in the prison budget since 2008 and the healthcare budget has suffered a disproportionate cut of 69%. In 2010, the estimated healthcare budget per prison inmate was 5.3LVL.

In 2007, 3 590 prisoners were tested for HIV of whom 70 (2.1%) were newly diagnosed with HIV. However, since then the number of prisoners tested for HIV has declined so that in 2010 only 2 506 were tested, although positivity remained constant (1.9%; 47 new diagnoses). The decline has been attributed to both reductions in funding available as well as to an increase in the number of prisoners declining an HIV test (763 in 2010). At the same time new inmates are no longer screened for syphilis or for either hepatitis B or C.

As of 31 December 2010, the number of inmates with an HIV diagnosis in Latvian prisons was 478 (652 in 2010) of whom 73 had been diagnosed with AIDS (116 in 2010) and 47 had been newly diagnosed with HIV. Of the 73 prisoners with AIDS in 2010, 46 (63%) were receiving antiretroviral therapy. The low level of ART treatment of prisoners with HIV has been attributed to the increasing refusal of prisoners to accept treatment.

9. Conclusions and recommendations

The main conclusions and recommendations following the visit are:

Continued support of the HIV programme: Currently HIV cases are reported to the HIV/AIDS case register held at the ICL, but there are proposals to incorporate HIV notification into the VISUMS system. The surveillance of HIV and the treatment of people living with HIV is well organised, fully covered by the state, and includes several infectious disease doctors working in regional centres and prisons. Nonetheless, a very low proportion of PLWH are on treatment and this has been attributed to both current treatment guidelines that recommend treatment for asymptomatic patients with CD4 cell count of <200/mm3, and eligible patients refusing treatment. The low threshold centre network is a key factor in the prevention of HIV among people who inject drugs. The overall public health function to prevent and control HIV needs prioritisation.

Recommendation:

- The inclusion of HIV cases into the VISUMS system must be approached with care, with special consideration made to ensuring the confidentiality and protection of HIV data held within VISUMS.
- Special emphasis must be applied to ensure that only a selected number of professionals working with the system have access to HIV data with person identifiers. All persons working with VISUMS should notby default have access to HIV data, but access should be granted on a separate application basis and for a specific task where access to this data can be specifically justified.
- Current treatment guidelines need to be expanded in line with European standards so that treatment for asymptomatic HIV with CD4 cell count of <350 rather than <200/mm3 is recommended. Treatment should be assertively recommended by healthcare workers, and wider health education of PLWH of the health benefits of treatment should be implemented.
- Regulations to allow the use of point-of-care HIV tests in antenatal departments for emergency use and for continuation of well-established use in the LTC system for people who inject drugs should be expedited.
- The overall public health function should be strengthened (either in ICL or in another centre or agency).

Maintenance of high vigilance of HIV prevention among people who inject drugs: The LTC system is a key factor in the prevention of HIV-infection among people who inject drugs. Latvia has been an early adopter of this approach of harm reduction services for this vulnerable group. As recommended in the recently published ECDC guidance of prevention of infections for PWID, services need to be maintained at a high coverage level to prevent recurring epidemics as long as injecting drug use remains prevalent.

Recommendation:

- Support for low threshold services for people who inject drugs should be continued and strengthened to avoid a serious resurgence of HIV infection in this group and high risk of further transmission to the general population through sexual contact. Given the close links between poverty, social exclusion and vulnerability to injecting drug use, the LTC system presents a good return of investment in terms of poor health and high healthcare cost avoided.

Men who have sex with men: there is a lack of good quality data regarding the MSM population in Latvia, only partially corrected by the EMIS survey. The EMIS survey reported low levels of men 'being out' and of men reporting having tested for HIV in the previous 12 months[i]. The discrimination and stigma of MSM compounds the difficulty of collecting good quality data, especially surveillance data, needed to support the development of services.

Recommendation:

- Leadership is required to establish specialised services for MSM in Latvia which are currently lacking in Latvia. The ICL should provide this leadership and seek to establish such services in collaboration with MSM community groups.

[i]The EMIS Network. EMIS 2010: The European Men-Who-Have-Sex-With-Men Internet Survey. Findings from 38 countries. Stockholm: European Centre for Disease Prevention and Control, 2013.

Strengthening of the STI programme: There is an urgent need to strengthen the STI control programme and to address these issues will require strong leadership and political commitment. There are a limited number of STI clinics (two), both based in Riga, otherwise diagnosis, treatment and care of STIs is conducted by individual physicians. Partner notification is currently the responsibility of the treating physician although no financial resources or support is offered for this.

Recommendation:

- The development and establishment of a national STI strategy, even if included in the HIV national strategy, would provide a clear framework within which to develop the STI programme.

Strengthening of the programmes for hepatitis B and C: Latvian plans for hepatitis surveillance are in line with the proposal for the new ECDC enhanced surveillance for hepatitis B and C. The current framework for hepatitis B prevention and control is based on universal vaccination of newborns and a catch-up campaign of adolescents. Recommendations for vaccination of high-risk occupations exist but not for those with high-risk behaviour.

Recommendation

- ECDC is preparing a cost-effectiveness tool to assess which national strategies would be the most effective in the prevention and treatment of hepatitis and Latvia could be a pilot country in this project. Extension of recommendations to vaccinate those who display behaviour that place them at high risk of hepatitis B infection should be considered.

Establish and strengthen engagement with NGOs: There is limited NGO engagement with HIV or STI programmes which is due, at least in part, to limited resources and size of the sector.

Recommendation:

- ECDC should provide expertise to both statutory and non-statutory sectors in order to enable NGOs to access European and other international funds.

Behavioural surveillance: The self-assessment tool within the ECDC behavioural surveillance project was tested in Latvia and considered very useful.

Recommendation:

- ECDC to invite Latvian counterparts to the first behavioural surveillance workshop in Stockholm in January 2012.

Annex 1. Programme of the Country Visit

PRELIMINARY PROGRAMME

Monday 26 September

09:00–12:00 ECDC country visit team arrival

13:00–15:00 Introduction to country visit (venue: Ministry of Health, Brivibas street 72)

- Welcome and introductions
- ECDC team: background and terms of reference
- Presentations by the Latvian team to cover:
  - Organisation of healthcare and public health in Latvia (Healthcare Department of the MoH)
  - Public Health and National policies regarding communicable diseases (Ms.I.Šmate – Director of Public Health Department of the MoH)

15:30–17:00 Meeting of experts' group (venue: Ministry of Health, Brivibas street 72)

- National policies on HIV/AIDS

Latvian experts in attendance: Dr.I.Upmace; Ms.G.Grīsle; Dr.V.Mavčutko; Ms.A.Lazdiņa; Dr.T.Kolupajeva; Dr.G.Pakarna; Dr.V.Ķūse; Dr.O.Lizāns; Dr.I.Januškēviča; Dr.G.Stūre; Ms.D.Lazdiņa; Ms.L.Langenfelde; Mr.Z.M.Vincze (internship student from HU)

Tuesday 27 September

09:00–10:30 Introductory meeting with the management of Infectology Centre of Latvia (ICL) (venue: Linezera street 3)

- General introduction to the system of treatment, diagnostic and surveillance of infectious diseases in Latvia

9:00–9:45 Introductory meeting with the management of Infectology Centre of Latvia (Prof.B.Rozentāle – Director of Infectology Centre of Latvia)

9:45–10:15 Presentation of the principles of the surveillance and early warning and response system for communicable diseases (Dr.J.Perevoščikovs)

10:15–10:30 Short introduction to the National Reference Laboratory (Dr T.Kolupajeva)

Latvian experts in attendance: Prof.B.Rozentāle; Prof.L.Vīksna; Dr.J.Perevoščikovs; Dr.I.Lucenko; Dr.A.Brila; Dr.I.Januškēviča; Dr.G.Stūre; Dr.T.Kolupajeva; Dr.I.Upmace; Ms.D.Viļuma; Ms.G.Grīsle; Ms.B.Kleina; Ms.E.Dimiņa; Ms.I.Cīrule; Ms.E.A.Labant; Mr.Z.M.Vincze

10:30–12:00 HIV policies, epidemiological situation and surveillance system (venue: Linezera street 3)

- Update of HIV epidemiology
- HIV/AIDS surveillance system
- HIV/STI situation in prisons

Latvian experts in attendance: Dr.I.Upmace; Dr.V.Mavčutko; Ms.A.Lazdiņa; Dr.T.Kolupajeva; Dr.V.Ķūse; Dr.O.Lizāns; Dr.I.Januškēviča; Dr.G.Stūre; Dr.R.Fedosejeva; Ms.G.Grīsle; Mr.Z.M.Vincze

Lunch

13:15–17:00 Laboratory service of HIV, STI, hepatitis B and C (Venue: Linezera street 3)

13.15–14.00 Laboratory visit

14.00–16.00 Laboratory service of HIV, STI, hepatitis B & C:

- HIV and STI laboratory diagnostics
  - HIV reference laboratory capacity
  - Monitoring of ARV resistance in HIV
  - STI and hepatitis laboratory diagnostic and practices
  - Monitoring of anti-microbial resistance in gonococci
  - Hepatitis B and C laboratory diagnostics and capacity

16.00–17.00 visit STI care, HIV/AIDS unit

Latvian experts in attendance: Dr.I.Upmace; Dr.V.Mavčutko; Ms.A.Lazdiņa; Dr.T.Kolupajeva; Dr.G.Pakarna; Dr.V.Ķūse; Dr.O.Lizāns; Dr.I.Januškēviča; Dr.G.Stūre; Ms.G.Grīsle; Mr.Z.M.Vincze

17.00: Closure

Wednesday 28 September

9:00–15:00 Self-assessment behavioural surveillance

Discussion around the results of the self-assessment exercise and about the process. This parallel session is planned for a whole day of individual support.

09:00–12:30 STI and hepatitis surveillance and prevention

Venue: ICL, Klijanu street 7

9:00–11:00 STI surveillance

- Update of STI Epidemiology
  - Surveillance of STI focus on Chlamydia, Gonorrhoea and Syphilis
  - National policies on STI (legislation)
  - Screening and testing programmes
- STI organisation of public and private health services
  - Medical service capacity for testing and treatment
  - Partner services: notification and treatment

11.00–12:30 Hepatitis surveillance prevention

- Screening and testing programmes, partner notification and treatment
- Medical services capacity for hepatitis B and C
- Reporting and Surveillance of hepatitis B and C (system VISUMS)
- Health education (for general and at-risk populations)

Latvian experts in attendance: Dr.V.Mavčutko; Dr.I.Lucenko; Dr.T.Kolupajeva; Dr.G.Pakarna; Dr.V.Ķūse; Dr.O.Lizāns; Dr.I.Januškēviča; Dr.G.Stūre; Dr.S.Rubins; Ms.G.Grīsle; Mr.A.Mārtiņsons; Mr.Z.M.Vincze

13:15–15:30: HIV prevention, testing, treatment and care

- HIV prevention programmes and testing
  - Harm reduction, counselling and HIV testing programmes for populations at risk (PWID)
  - Health education (for general population and youth)
  - Extending of HIV testing programmes in general medical services (e.g. antenatal, primary care, STI clinics, tuberculosis clinics etc)
  - Testing in prisons settings
- HIV treatment and care
  - Treatment guidelines, treatment, adherence
  - Partner notification
  - Care and social support

Latvian experts in attendance: Dr.I.Upmace; Dr.V.Mavčutko; Ms.A.Lazdiņa; Ms.I.Skripste; Dr.T.Kolupajeva; Dr.V.Ķūse; Dr.O.Lizāns; Dr.I.Januškēviča; Dr.G.Stūre; Dr.R.Fedosejeva; Dr.M.Jansone; Dr.S.Rubins; Ms.G.Grīsle; Mr.Z.M.Vincze; Dr.S.Krūmiņa

15.30: Break

16.00–18:00: Meeting with NGOs (Venue: Klijanu 7)

- Activities with at risk groups and marginalised communities
- Health and sexual education (for youth and at-risk populations)
- Support for activities by governmental institutions and local municipalities

Latvian experts in attendance: Mr.A.Mozaļevskis; Mr.I.Kokars; Mr.A.Molokovskis; Mr.R.Kaupe; Ms.I.Ķelle

18:00 Closure

Thursday 29 September

Visits:

9:00–11:00 Healthcare in prison – Ilguciems prison. Latvian experts in attendance: Dr.I.Upmace; Dr.R.Fedosejeva; Dr.G.Stūre; Ms.G.Grīsle

11:00–12:00 AIDS counselling service – epidemiological surveillance (address: Bruņinieku str.5, Rīga). Latvian experts in attendance: Dr.I.Upmace; Dr.I.Bulmistre; Ms.I.Skripste; Ms.G.Grīsle.

Lunch 12.00–13.00

13:00–15:00 Screening of pregnant women and antenatal care (Riga Maternity Hospital; 45, Miera street) Latvian experts in attendance: Dr.I.Upmace; Ms.A.Lazdiņa; Dr.I.Januškeviča; Ms.G.Grīsle, Dr.S.Krūmiņa

15.00–18.00 ECDC team meeting

Friday 30 September

10.00: ECDC country visit team debrief (main findings and preliminary recommendations) with representation from:

- Ministry of Health
- Infectology Centre of Latvia
- Other organisations

13.00: End - Departure for the airport

Annex 2. List of participants

- Latvia, Ministry of Health
  - Ms. Gunta Grīsle; Senior Expert of Epidemiological Surveillance Division, Public Health Department;
  - Ms. Inga Šmate Director of Public Health Department;
  - Ms. Dace Viļuma, Head of Epidemiological Surveillance Division, Public Health Department
- Infectology Centre of Latvia
  - Prof.B.Rozentāle
  - Dr.J.Perevoščikovs
  - Dr.I.Upmace
  - Ms.A.Lazdiņa
  - Ms.I.Skripste
  - Dr. V. Mavčutko
  - Dr.T.Kolupajeva
  - Dr.G.Pakarna
- Riga AIDS Counselling Service
  - Dr.I.Bulmistre
- Riga Maternity Clinic
  - Dr.S.Krūmiņa
  - Dr. D. Rezeberga
- Ministry of Justice
  - Dr.R.Fedosejeva
- Professional medical staff
  - Dr.G.Stūre
  - Dr.O.Lizāns
  - Dr.S.Rubins
- Latvian non-governmental organisations (NGOs)
  - Mr.A.Mozaļevskis (Mozaika)
  - Mr.I.Kokars (PLWH)
  - Mr.A.Molokovskis (PLWH)
  - Mr.R.Kaupe (DIALOGS)
  - Ms.I.Ķelle (Family Planning Association)
- ECDC, Disease Specific Programme for STIs, HIV and hepatitis B and C
  - Dr. Marita van de Laar, head of programme on HIV, STI and hepatitis (team leader);
  - Dr. Mika Salminen, Senior Expert HIV and hepatitis B and C;
- ECDC contracted consultants
  - Dr. Jean-Pierre Gervasoni, ECDC consultant, Behavioural Surveillance project; and
  - Dr. Anthony Nardone, ECDC consultant, country visits HIV and STI (rapporteur).

Annex 3. Main behavioural studies

Table 3. Current situation of the behavioural and biological surveillance system/surveys conducted over the last 10 years

Name of survey	Target population	Design/sampling	Sample size	Frequency of data collection	Coverage/Organised by	Main Indicators	Strengths /weaknesses /constraints
EMIS (The European MSM Internet survey)	**MSM** having access to Internet, visiting MSM specific websites.	Internet-based questionnaire	708	**2010** One-off	**National** (part of international survey) A joint project of academic, governmental, non-governmental, and social online media partners from 35 European countries (EU and neighbouring countries) In Latvia: managed by Infectology Center of Latvia (GO) in collaboration with NGO "Mozaika"	**Self-reported prevalence:** **HIV 8%** **Syphilis 5.5%** **HBV 8.8%** **HBC 2%** **Gonorrhoea 12.5%** **Chlamydia 9.8%** **An-genital Herpes 2.1%** • Number of sexual partners in the last 12 months (with steady, unsteady) • Use of condom at last intercourse[i](in the last 12 months) • Use of condom with identification of the type of partner: stable / casual / paid • HIV test ever and date of the last test or whether tested in the last 12 months • HIV test Result of the test (reported) • Having paid for sex in the last 12 months • Use of condom at last paid intercourse (in the last 12 months) • Level of education • Sexual orientation • Being able both to identify correctly ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission • Age at first intercourse and/or being sexually active	+ Practical + Low cost (support of EU/ Latvia=collaborative partner) + management by more experienced EU country (Germany) + reaching of many individuals + EU common indicators used + results comparable to other EU countries - Not representative of the whole population although there is information on the bias - big volume of questions, gruelling not - collected biological samples

[i]Allows for construction of UNGASS indicator No. 17/18/19/20.

HIV/AIDS knowledge and sexual risk behavioural among MSM in Latvia. (HIV prevalences un saistīto riska faktoru noteikšana vīriešiem, kam ir sekss ar vīriešiem)	**MSM** visiting selected night clubs and LTC (AIDS Counselling Service), age 18+	Bio-behavioural Venue based Cross-sectional Convenient sampling Questionnaire (self admin.) Rapid tests	252	**2008** One-off	Local/ Riga Org.: Public Health Agency(GO) in collaboration with NGO "Mozaika"	**Prevalence:** **HIV 4%** **Syphilis 1.6%** **HBsAg 2.4%** • Number of sexual partners in the last 12 months • Use of condom at last intercourse[i](in the last 12 months) • HIV test ever and date of the last test or whether tested in the last 12 months • HIV test Result of the test (reported and measured) • Having paid for sex in the last 12 months • Level of education • Sexual orientation • Nationality • Being able both to identify correctly ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission • Age at first intercourse and/or being sexually active • Recent STI/12m • Condom use with different types of partners • Having been paid for sex in the last 12 months • Condom use for different types of sexual practices • Hepatitis C test a) Ever b) Result of the test (reported) • Types of drugs consumed	+ Financed from the state budget + Linked with intervention + Contains biological component - Non representative of the whole MSM group - Possible information on the bias due to different venues (LTC & night club) - Possible information on bias due to alcohol consumption (specific venue)
Study of sexual behaviour in men who have sex with men in Latvia	**MSM** in reproductive age (16-45 years) visiting one health centre and one gay night club	Venue based Snow-ball sampling Questionnaire (self admin, LV, RU)	107	**2001** One-off	Local/ Riga Org.: Association „Health for men" (NGO who doesn't exist more)	Sexual behaviour and lifestyle	- non representative sample of MSM - report is not available

[i]Allows for construction of UNGASS indicator No. 17/18/19/20.

<table>
<tr>
<td>Injecting Drug Users Cohort Study</td>
<td>IDUs
visiting Low threshold centres</td>
<td>Service/ community based
Snowball sampling
Face to face interviews</td>
<td>499
531
634
614
553</td>
<td>Cohort study
2010
2009
2008
2007
2006</td>
<td>National
Org.:Health Economic Centre (GO)
Org.: Public Health Agency (GO)

Org.: State Addiction Agency(GO)</td>
<td><u>Self reported prevalence (%):</u>
<table>
<tr><th></th><th>2007</th><th>2008</th><th>2009</th><th>2010</th></tr>
<tr><td>HIV</td><td>20</td><td>18</td><td>18</td><td>22</td></tr>
<tr><td>HBV</td><td>22</td><td>17</td><td>16</td><td>11</td></tr>
<tr><td>HCV</td><td>53</td><td>61</td><td>66</td><td>63</td></tr>
</table>
Indicators from 2010:
• Education level
• Nationality
• Needles/ syringe sharing/ last month
• Injecting frequency/ last month
• No.of syringes obtained for personal use/ last month
• Substitute treatment/ last month
• Testing for HCV/ 12m/ ever
• Years since first injection
• Paid sex/ 12m
• Injection in prison/ 12m
• Syringe sharing in prison
• No.of sex partners/ 30d
• Use of condom/ last intercourse/with.ident.partner
• HIV test/ 12m/ ever
• Result of HIV test
• Types of drugs consumed
• Utilization of HR services
• Treatment</td>
<td>+ Longitudinal
+ Controversial representativity of IDUs pop.due to low geographical coverage;
- decreasing number of repeated contacts from year to year
- Incapacity to reach the same individuals (changeable staff, decreasing/ changing number of cities involved, unsteady system of remuneration)
- Not included questions indication knowledge on HIV/AIDS prevention
- Doesn’t contain biological component
- High costs
+ Regularity based on international project support</td>
</tr>
</table>

Bio-behavioural survey among IDUs in Ventspils	**IDUs** clients of LTC	Bio-behavioural Service based Convenient sampling Face to face interviews Rapid tests	195	**2009** One-off	Local (Ventspils) Org.: Ventspils LTC for IDUs, ,,Samariesu apvieniba"(NGO) in collaboration with Public Health Agency (GO)	**Prevalence:** **HIV (29.2%)** **Self-reported prevalence:** **HIV (3.8%)** **HBV (2.9)** **HCV (15.8)** • Edu.level • Nationality • Needles/ syringe sharing/ last month/ last injection • Injecting frequency/ last month • Substitute treatment/ last month • Testing for HCV/ ever • Years since first injection Injection in prison/ 12m • Syringe sharing in prison Use of condom/ last intercourse HIV test/ 12m/ ever • Result of HIV test • Types of drugs consumed/ 30d • Being able both to identify correctly ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission • Injection in prison • Syringe sharing in prison • No.of sex partners/ 30d • Use of condom/ last intercourse/30d • Utilization of HR services	+ The first investigation in Ventspils (one of the highest HIV prevalence by the State register: 0.35% in 2009) + Evidence of existent high HIV prevalence among drug users, int.al.Roma community +Low cost, support from UNODC project - Disjointed balance of respondents due to inadequate methodology - Non representative sample of IDUs - Not follow-up (not repeated or planned to repeat) due to the lack of local capacity and finances

Prevalence of HIV and other infections and risk behaviour among injecting drug users in Latvia, Lithuania and Estonia in 2007	**IDUs** **IDUs sex partners**	Bio-behavioural Cross-sectional RDS Face to face interviews Rapid tests	IDUs 407 (in Riga) 156 (5regional cities) Sex partn.-61	**2007** One-off	International/Local/ Riga Org.: AIDS Prevention Centre/ Public Health Agency (GOs) (ENCAP proj.No. 2005305)	**Prevalence in IDUs :** **<u>Riga (n=417)</u>** **HIV – 22,3%** **HBsAg – 2,8%** **Anti-HBc – 52%** **Anti HCB – 72,1%** **Syphilis – 4,3%** **<u>Regions (n=156)</u>** **HIV – 7,6%** **HBsAg – 7,6%** **Anti-HBc – 44,8%** **Anti-HCB – 65,3%** **Syphilis – 0%** • Needles/ syringe sharing/ last month • Injecting frequenyc/ last month y • Substitute treatment • Testing for HCV/ ever • Years since first injection • Paid sex/ ever • Injection in prison/ • Syringe sharing in prison • No.of sex partners • Use of condom/ last (6 m)intercourse/with.ident.partner • HIV test/ ever • Result of HIV test • Edu.level • Nationality • Sexual orientation • Being able both to identify correctly ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission • Types of drugs consumed	+ Representative sample of target pop.in Riga - Non representative out of Riga +results comparable to other Baltic States + high quality thanks to international collaboration (experienced partners from Tartu University, Estonia) + EU project financing - expensive; problematic regular ensuring do to financial pressure + RDS methodology firstly used in IDUs in Latvia +in-depth information on risk population + firstly collected info.on sexual partners of IDUs (although non representative) + Notable number of new IDUs recruited and involved in utilization of LTC services

Second generation HIV surveillance among IDUs	**IDUs** clients of Low Threshold Centres	Bio-behavioural Service based Convenient sampling Face-to-face interviews (questionnaire) Rapid tests + whole blood (confirm.)	325 (200 in Riga + 125 in 9 regional cities)	**2005** Second generation surveillance	National Org.: AIDS Prevention Centre (GO)	**HIV prevalence** **Riga – 26%** **Regions – 15%** • Needles/ syringe sharing/ last month • Injecting frequency/ last month y • Years since first injection • Use of condom/ last • HIV test/ 12m/ ever • Result of HIV test • Nationality • Types of drugs consumed	- Non representative sample of IDUs (local sense) + Regular follow-up of surveillance in IDUs + Evidence for necessity of HR + Low costs
	IDUs clients of Low Threshold Centre	Bio-behavioural Service based Convenient sampling Face-to-face interviews (questionnaire) Rapid tests + whole blood (confirm.)	205	**2003** Second generation surveillance	Local (Riga) Org.: AIDS Prevention Centre(GO) in collaboration with NGO 'DIA+LOGS'	**HIV prevalence 22%** • Needles/ syringe sharing/ last month • Injecting frequency/ last month y • HIV test/ 12m/ ever • Result of HIV test • Nationality • Types of drugs consumed	- Non representative sample of IDUs (local sense) + Regular follow-up of surveillance in IDUs + Evidence for necessity of HR + Low costs
	IDUs clients of Low Threshold Centres	Bio-behavioural Service based Convenient sampling Face-to-face interviews (questionnaire) Whole-blood tests	250	**2002** Second generation surveillance	Local (Riga, Jurmala, Ogre, Olaine, Salaspils). Org.: AIDS Prevention Centre (GO)	**Prevalence :** **HIV 20,8%** **antiHBV 73%** **HCV 81,2%** **Self reported HIV prevalence 27.3%** • Needles/ syringe sharing/ last month • Injecting frequency/ last month y • No.of syringes obtained for personal use/ last month • Substitute treatment/ ever • Years since first injection • HIV test/ 12m/ ever • Result of HIV test • Edu.level • Nationality • Being able both to identify correctly ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission • Types of drugs consumed	- Non representative sample of IDUs (local sense) + Regular follow-up of surveillance in IDUs + Evidence for necessity of HR + Low costs
	IDUs clients of Low Threshold Centres	Bio-behavioural Service based Convenient sampling Face-to-face interviews (questionnaire) Whole blood tests	261	**2001** Second generation surveillance	Local (Riga) Org.: AIDS Prevention Centre (GO)	**Prevalence:** **HIV 13.7%** **antiHBC 38%** **HCV 80%**	- Non representative sample of IDUs (local sense) + Regular follow-up of surveillance in IDUs + Evidence for necessity of HR + Low costs - Full report isn't available

	IDUs clients of State Addiction Agency and Methadone program	Bio-behavioural Service based Convenient sampling Face-to-face interviews (questionnaire) Whole blood tests	194	**1997** One-off	Local (Riga) Org.: AIDS Prevention Centre in collaboration with Infectology Center of Latvia (GOs)	**Prevalence:** **HIV 3.1%** **antiHBC 69.1%** **antiHCV 83%** **RPR 2%** **TPHA 9.8%** Risk behaviour	+ First evidence of spread of HIV in IDUs population + Continuous researches (subtyping etc.) - Non representative sample of IDUs - Full report isn't available
Distribution of drug use in Latvian prison settings" (Narkotiku lietošanas izplatība ieslodzījuma vietās Latvijā)	**Prison inmates** (male) who serve in Latvian prisons (n=11)	Questionnaire (self admin.) & quest.for prison staff and expert interviews	1965	**2010** One-off	National Org.: **Centre of Health Economics (GO)**	**Self reported prevalence:** **HIV 7%** **HBV 7%** **HCV 18%** **STI 3%** **TB 8%** • Education • HIV test / 12m • Hepatitis C test / 12m • Types of drugs consumed • Distribution of drug use	+ Using of MCDDA standards and recommendations; + High level of respondence (54.1%) + All prisons involved - Contains low number of HIV/AIDS related information
Inquiry on risk behaviour among prostitutes in Riga	**FSW** Riga and surroundings	Venue-based Face-to-face interviews (questionnaire)	109	**2004** Second generation surveillance	Local (Riga) Org.: AIDS Prevention Centre (GO)	**Self reported prevalence:** **HIV 16.8%** • Condom/last/12m (stable, causal, paid) • HIV test/ever • Results (reported) • Having been paid for sex/12m • Condom/last paid intercourse/12m • Nationality • Age at first sex • Recent STI • Condom use with different types of partners • Types of drugs consumed	- Non representative + Regular investigation of local FSW situation + Linked with intervention - Doesn't contain biological component
HIV prevalence and risk behaviour survey among street and bar prostitutes in Riga and Riga region	**FSW** rending service in selected places in Riga	Bio-behavioural Venue based Convenient sampling Face-to-face interviews (questionnaire) Saliva tests	92	**2002** Second generation surveillance	Local (Riga) Org.: AIDS Prevention Centre (GO)	**HIV prevalence 16%** **Self reported HIV prevalence 13%** • Number of sex partners/last day • Condom/last/(stable, causal, paid) • HIV test/ever, last, 12m • Results (reported and measured) • Condom/last paid intercourse/30 day • Level of education • Nationality • Knowledge • Age at first sex (for paid) • Recent STI • Condom use with different types of partners • Having been paid for sex/12m • Types of drugs consumed	- Non representative sample of FSW - Low credibility of HIV prevalence due to saliva testing + Regular investigation of local FSW situation + Linked with intervention

HIV prevalence and risk behaviour survey among street prostitutes in Riga	**FSW**	Bio-behavioural Convenient sampling Face-to-face interviews (questionnaire) Saliva tests	78	**2001** Second generation surveillance	Local (Riga) Org.: AIDS Prevention Centre (GO)	**HIV prevalence 7.7%** • Number of sex partners/ per day • Condom/last/12m (stable, causal, paid) • HIV test/ever, last, 12m • Results (measured) • Paid for sex/12m • Condom/last paid intercourse/12m • Nationality • Age at first sex (paid) • Recent STI • Condom use with different types of partners • Hepatitis c test: Ever • Types of drugs consumed	- Non representative sample of FSW + Firstly used saliva tests (handy) - Low credibility of HIV prevalence due to saliva testing + Regular investigation of local FSW situation + Linked with intervention
Prevalence of HIV, hepatitis B&C and syphilis infections in different risk behaviour groups in Latvia	**FSW** rending service in selected places around Riga	Bio-behavioural Convenient sampling Various recruitment strategies Face-to-face interviews (questionnaire) Whole-blood tests	198	**1997** Second generation surveillance	Local (Riga and surroundings) Org.: AIDS Prevention Centre (GO)	**Prevalence:** **HIV 0%** **HBsAg 11.6%** **antiHCV 21%** **RPR 18.2%** **TPHA 30.8%**	- study report isn't available
Understanding Sexual Risk Behaviour of People Living with HIV	**PLWH**	Cross-sectional quantitative study Service-based (clinic) Paper questionnaire	2	**2006/2007** One-off	National (part of international survey; Project EURO Support V) Org.: Latvia`s Association for family Planning and Sexual health „Papardes zieds."(NGO)	• Level of education • Medical treatment a) being on antiretroviral treatment b) undetectable viral load at last examination • Number of sexual partners in the last 6 months • Use of condom • Sexual orientation • Recent STI (syphilis) • Condom use with different types of partners • Types of drugs consumed • Variables related to HIV treatment (being in treatment, CD4 count, viral load)	- LV data has not been analyzed separately - non representative sample of PLWH
Health Behaviour in School-Aged Children (HBSC)	**Youth** 11,13 and 15 years old teenagers	Cluster sample of school classes Paper questionnaire (self admin.)	4000	2010 2006 2002 1998 1994 1990 Cohort	National Org.: Public Health Agency/ Health Economic Centre (GOs)	• Use of condom at last intercourse • Age at first intercourse and/or being sexually active • Condom use /contraceptive method www.hbsc.org	+ Regularly repeated + Large sample + International project's support - Great amount of questions, long questionnaire - Doesn't contain specific HIV/AIDS questions - Questions about sexuality only to 15 years old

Latvian School Survey Project for Alcohol and Drugs (LaSPAD) / **European School Survey Project for Alcohol and Drugs (ESPAD)**	**Youth** Secondary school and vocational school students (age: 13-18)	Cohort Paper questionnaire (self admin.)	~2500	**2007** **2003** **1999** **1995** Cohort	National Org.: Public Health Agency(GO)	Since 2007: • being able both to identify correctly ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission • Age at first intercourse and/or being sexually active • Condom use /contraceptive method • Number of sexual partners/ 12m • Having occasional sex/ 12m • Types of drugs consumed www.espad.org	+ Regularly repeated + Internationally recommended indicators used + International project's support + Large sample + Representative + In 2007: possibility to add module (5 questions on HIV/AIDS knowledge) + Next in 2011; 5 HIV/AIDS indicator questions included
Reproductive Health of the Population	**General population** people at reproductive age (15-49)	Quantitative survey Stratified random selection Anonymous, face-to-face interviews	2452	**2003** One-off	National Org.: Latvia's Association for family Planning and Sexual Health „Papardes zieds"(NGO)	• Age at first intercourse • knowledge of HIV related prevention practices • condom use/ first/ high risk (occasional) sex affairs	+ internationally recommended indicators used + large sample + representative + international project's support - very expensive - long interval between surveys (next in 2011) + In 2011: possibility to add module (5 questions on HIV/AIDS knowledge)
	Youth age 15-24	Qualitative survey + 4 focus groups interviews (resp.age 18-23)					