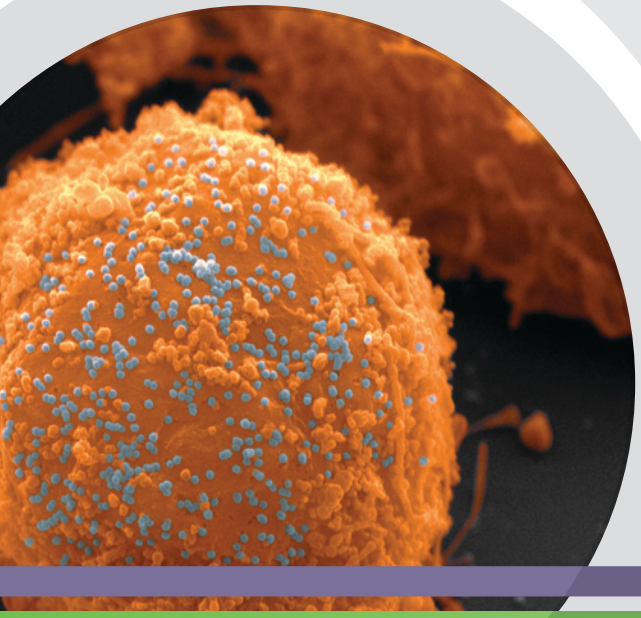

MISSION REPORT

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

1 – 3 October 2012

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This report was commissioned by the European Centre for Disease Prevention and Control (ECDC), coordinated by Otilia Sfetcu and Marita van de Laar (ECDC Programme for Sexually Transmitted Infections, including HIV/AIDS and Blood-Borne Viruses), and produced by Johann Fontaine under contract ECD.3644/2012.

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Abbreviations

THL	National Institute for Health and Welfare, Finland
MSAH	Finnish Ministry of Social Affairs and Health
IDU	Injection drug users
PWID	People who inject drugs
VCT	Voluntary counselling and testing

Executive summary

Objectives of the country visit

The ECDC country visit to Finland in October 2012 aimed to review the national strategies and programmes for HIV and STI; to discuss the current situation with respect to HIV and STI prevention and control including surveillance, partner notification and populations at risk; and to address the current situation with respect to hepatitis B and C. The main emphasis of the country mission was, however, on the prevention and control of HIV.

The country visit was conducted in Helsinki over three days and consisted of meetings with several institutions and organisations. In addition to representatives from the Ministry of Social Affairs and Health, meetings included representatives from the National Institute for Health and Welfare, the Criminal Sanctions Agency and various non-governmental organisations.

Epidemiology of HIV, STI, hepatitis B and C

By the end of September 2012, a cumulative total of 3 070 HIV and 596 AIDS cases were reported in Finland. The HIV epidemic in Finland is characterised by a low annual incidence and prevalence. Rates of new HIV diagnoses per 100 000 population have slightly increased over time (2.8 in 2000 and 3.6 in 2010). This trend is due to an increasing number of HIV infections acquired through heterosexual contact and transmission among men who have sex with men. The number of HIV cases among persons of non-Finnish origin has increased gradually since the 1990s, and in 2011, for the first time, more non-Finnish than Finnish persons have been diagnosed with HIV.

Very few IDU-associated HIV cases were reported during the 1980s and the beginning of the 1990s. An outbreak among injection drug users (IDUs) beginning in 1998 was counteracted successfully by a quick reaction centred on the development of low-threshold health service centres.

Chlamydia is the most frequently reported sexually transmitted infection in Finland. In 2011, the number of reported cases totalled 13 360. The majority of the cases were diagnosed in young people (aged 15–24). The incidence in the age group 20–24 years has increased from 1007 per 100 000 in 1995 to 1720 per 100 000 in 2011.

The incidence of gonorrhoea has slowly decreased between 1995 and 2004 but has since increased: in 2011, 288 notifications (rate 5.4/100 000) were recorded. Men accounted for 75% of the cases.

The highest number of syphilis cases in the last two decades was detected in 1996. Until 2004, the number of cases was decreasing but has been on the increase since 2005. In 2011, 179 cases syphilis were reported, corresponding to a rate of 3.36/100 000.

The numbers of acute cases of hepatitis B have decreased during the past 15 years, with the largest decline among IDUs. In 2010, 46 acute hepatitis B virus infections were reported; in 2011, this number dropped to 23 cases (incidence 0.83 and 0.43/100 000). The highest number of hepatitis C cases was detected in 1997 (1 909 cases) and has decreased since then. In 2011, 1 154 hepatitis C infections were reported, a rate of 21.7 per 100 000.

National coordination

The responsibilities for controlling infectious disease in Finland are defined in the Communicable Disease Act. The Ministry of Social Affairs and Health is responsible for the general planning and legislation. The tasks of the National Institute for Health and Welfare are to monitor the epidemiology of infectious diseases, ensure the dissemination of information, conduct research, develop laboratory tests, provide expert scientific support for the prevention of contagious diseases to municipalities, and offer expert assistance in the investigation of communicable disease epidemics to hospital districts.

Hospitals provide specialised medical care, organise training, and assist municipal bodies in detecting and monitoring communicable diseases. The municipal health services are responsible for the diagnosis and primary care of communicable diseases, information, health education and health counselling, the exchange of injecting equipment, and for vaccinations and health examinations.

The Finnish Communicable Disease Act differentiates between generally hazardous communicable diseases, diseases that are notifiable, and other communicable diseases. Among sexually transmitted infections, syphilis is classified as a generally hazardous communicable disease. HIV, infections with *Chlamydia trachomatis* and gonorrhoea are notifiable diseases, as are hepatitis B and C.

There is only limited HIV/STI behavioural surveillance, targeting mainly teenagers, including a biennial school health survey which was first conducted in 1995. Surveillance for behavioural risks in the general adult population is not well established and especially lacking for men who have sex with men and sex workers.

A national HIV strategy was developed for the period 2002–2006. The new governmental programme for 2012–15 intends to update the national HIV strategy. There is no specifically targeted national STI strategy but prevention and care for STI is covered in the 2007–2011 Action Programme for the Promotion of Sexual and Reproductive Health.

Prevention, treatment and care

Sexual and reproductive health services are provided at the municipal level. Youth prevention activities are part of general health promotion activities. Health education and sexual reproductive health education are universally provided in schools. A good-practice model shows how the results of the school health survey have been used in policy development. Health education was introduced in school curricula as a standardised compulsory subject in 2005.

HIV/AIDS treatment, care and support are integrated into public healthcare – on state, regional and municipal levels. Medical treatment and care of diseases listed in the communicable disease legislation, including HIV/AIDS, is free of charge for all permanent/long-term legal residents. Specialist care is provided through regional health districts. Adherence to HIV treatment is remarkably high, shown by low viral loads in different sub-populations, especially in people who inject drugs. However, the rate of late diagnosis is rather high in Finland as 50% of newly diagnosed HIV cases already need antiretroviral treatment at the time of diagnosis.

Since the beginning of the HIV epidemic, non-governmental organisations have been involved in the HIV response. The AIDS Council, run by the Finnish HIV Foundation, is dedicated to HIV/AIDS prevention, training, and advocacy work. 'Positiiviset Ry/HIV' Finland is the only association for people with HIV infection in Finland. Its aims are to promote the well-being of HIV-positives and their families, and help people infected with HIV to improve their quality of life. The main NGO addressing commercial sex workers in Finland is 'Pro-tukipiste' which provides low-threshold social support, outreach work, healthcare and legal advice.

The low-threshold health service centre model for persons who inject drugs is to be highlighted as a good practice. Its legal basis provides a framework for the successful intra-sectorial cooperation between municipal health services and non-governmental organisations. Good treatment management practices for HIV-positive people who inject drugs combine expertise and practice on addiction and infectious disease. Harm reduction, needle exchange, peer involvement and HIV treatment are combined effectively.

Prison health is the responsibility of the prisons health services under the authority of the Criminal Sanctions Agency. HIV testing in prisons is available using the voluntary counselling and testing concept. HIV care and medication is secured by law for Finnish residents and prisoners from foreign countries. Addiction and detoxification health services are available, opiate substitution can be continued, but cannot be initiated when a sentence is served.

Conclusions and recommendations

- Prevention and care need to be adapted to a changed HIV epidemiology. Most infections seem to now occur among heterosexuals, either migrants coming from high-prevalence countries or Finnish nationals with travel-associated HIV infections. It is recommended that monitoring should be strengthened and surveillance for both situations should be improved in order to address or reinforce messages around travel-associated infections, but also to review the access to treatment and care for those who are foreign-born residents of Finland.
- Late diagnosis is frequent in all sub-populations. Efforts should be undertaken to increase uptake of testing in all relevant groups by lowering thresholds and barriers, e.g. by expanding anonymous testing opportunities.
- HIV prevention especially targeted and adapted for men who have sex with men needs to be strengthened. Options include to expand drop-in testing, counselling facilities, and outreach work. The gay community should be more involved in prevention activities and gay-friendly services should be developed.
- Knowledge about HIV incidence is insufficient, especially in men who have sex with men; there is also a lack of knowledge in this group about what constitutes risk behaviour. It is suggested that small-scale surveys should be conducted to obtain relevant epidemiological and behavioural information. Corresponding surveys should be carried out for migrants, sex workers and travel-associated HIV infections. Sexual orientation and sexual behaviour should be systematically integrated into general health surveys.
- Finland has a good system of collecting laboratory data and physician reports. It is suggested that a national treatment registry should be developed on this basis in order to monitor HIV care.
- It is suggested that guidelines should be developed for non-occupational post-exposure prophylaxis.

- It should be considered whether harm reduction would be expanded by providing clean injection rooms in low-threshold health service centres for IDUs.
- It is suggested that it should be considered whether substitution treatment could be started in prison. Prison staff should be offered training in order to influence attitudes towards, and knowledge about, actual HIV infection risks.
- Services for the care, surveillance and prevention of sexually transmitted infections appear to be widely fragmented. It is suggested that this should be further investigated, with a strong focus on STI services and surveillance. Preliminary suggestions, however, include investing in training and quality improvement especially for counselling, patient follow-up and surveillance tasks. National guidance for municipal health services and non-governmental organisations on care, surveillance and prevention should also be considered.
- There are several suggestions for concrete actions:
  - Consider the participation of Finland in the European Gonococcal Antimicrobial Surveillance Programme (Euro-GASP): antimicrobial resistance data are available and could easily be used to assist monitoring and quality assurance efforts at the European level.
  - A follow-up visit to Helsinki in order to arrange the details of Finland's participation in Euro-GASP and review the STI services in more detail could be conducted in a short time.
  - Consider auditing the quality of fragmented HIV testing services and test compliance with the national guidance for HIV testing ('HIV-testauksen periaatteita').
  - Review the communication strategy for prevention among men who have sex with men as there seems to be a gap between messages and targeted community. ECDC will provide support in 2013, when the Centre will start developing guidance materials on HIV and STI prevention in men who have sex with men.
  - The ongoing HIV and HCV prevalence study on sex workers provides the opportunity to include behavioural risk data.

1 Objectives of the country visit

1.1 Background

Following a 2006 recommendation that a series of meetings should be conducted with national HIV/AIDS coordinators from EU/EEA countries and international experts, ECDC initiated a programme of country visits. So far, country visits were conducted in Estonia (2007, 2010), Bulgaria (2008), Poland (2008), Portugal (2008), Latvia (2011), Romania (2007, 2011) and Greece (2012). The country visit in Finland was initiated after an official invitation by the Finnish Minister of Health and Social Services.

1.2 Scope and purpose

The ECDC country visit to Finland in October 2012 had the objectives to

- review the national strategies and programmes for HIV and STI;
- discuss the current situation with respect to HIV and STI prevention and control, including surveillance, partner notification and populations at risk; and
- address the current situation with respect to hepatitis B and C.

The country visit focussed on a review of the HIV situation in Finland in order to identify challenges and explore alternative approaches, including areas of possible technical assistance and support from ECDC to relevant institutions and organisations in Finland. Discussions in each of the technical areas included aspects of prevention, surveillance (epidemiology and microbiology), treatment and care.

1.3 Organisation

The country visit was conducted in Helsinki over three days (1 to 3 October 2012) and consisted of meetings with a range of institutions and organisations. The detailed programme of the three-day visit can be found in Annex 1.

In addition to meeting representatives from the Ministry of Social Affairs and Health (MSAH), the ECDC team met with representatives from the National Institute for Health and Welfare (Terveyden Ja Hyvinvoinnin Laitos, THL), the A-Clinic Foundation, the Criminal Sanctions Agency, the Family Federation of Finland, the Finnish AIDS Council, the Finnish Red Cross, the Helsinki Deaconess Institute, Helsinki University, HIV Finland, Pro tukipiste and various representatives of people living with HIV and AIDS. Their contributions and presentations on the different aspects of the prevention and care among populations vulnerable to, or affected by, HIV/AIDS and STIs were complemented by site visits at service providers dedicated to disease prevention among IDUs (Annex 2).

The visit commenced with a meeting at the National Institute for Health and Welfare, where the programme, scope and objectives of the visit were presented. On the second day of the visit, the ECDC team presented a summary of the discussions and observations during the site visits, along with their first thoughts and reflections, to the Minister of Health and Social Services, Ms Maria Guzenina-Richardson. At the end of the visit, the ECDC team leader presented the main findings and preliminary conclusions during a feedback session held at MSAH and attended by representatives of the Ministry, THL and other institutions and organisations which had earlier contributed presentations and offered site visits.

The ECDC team is grateful for the constructive discussions and time that was generously offered by the many professionals met during the country visit.

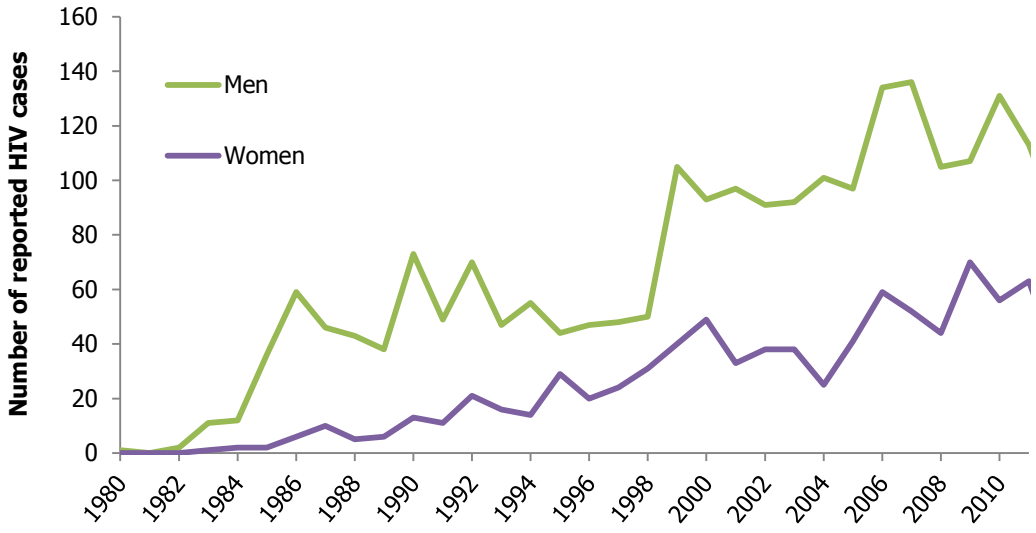
2 Overview of HIV, STI, hepatitis B and C epidemiology

2.1 HIV and AIDS

The HIV epidemic in Finland is characterised by a low annual incidence and prevalence rate of both HIV infection and AIDS. The first HIV cases were reported in the early 1980s. The epidemic affects mostly men who have sex with men (MSM). The HIV incidence and prevalence in Finland was among the lowest in a comparison of western European and Nordic countries in 1980–2000.

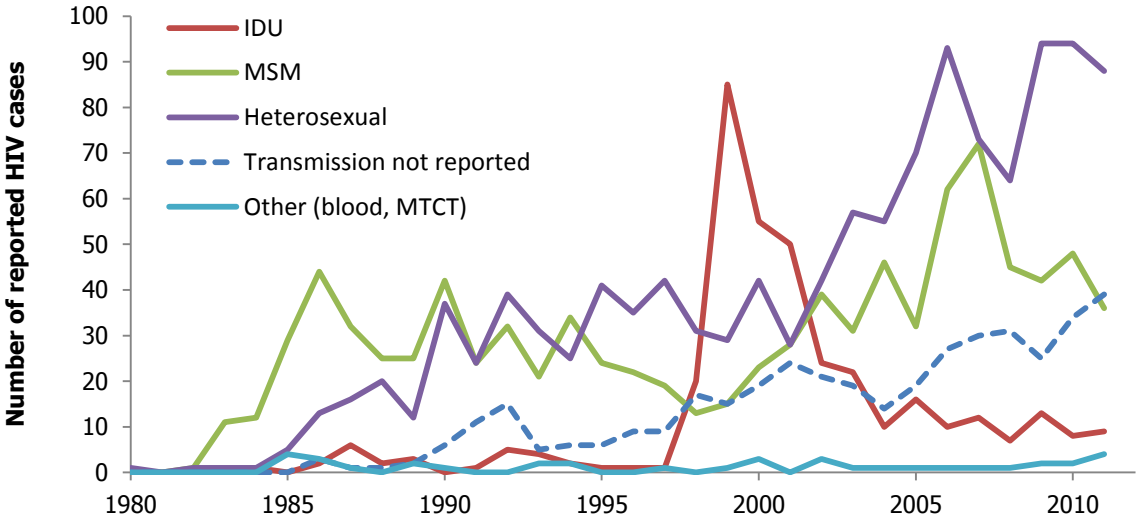
As of September 2012, a cumulative total of 3 070 HIV diagnoses had been reported in Finland. The highest numbers of cases were reported in 2006 (193 cases; 69% in men, 31% in women), 2007 (188 cases; 72% in men, 28% in women) and 2010 (187 cases; 70% in men, 30% in women) (Figure 1). Rates of new diagnoses per 100 000 population have slightly increased over time (2.8 per 100 000 in 2000 and 3.6 in 2010). In 2011, 176 new HIV infections were reported, with 64% among men. As of September 2012, 118 cases had been reported for the year, 70% of which were among men.

Figure 1: Annual number of reported HIV cases by gender, Finland, 1980–2011



Source: National Institute for Health and Welfare, Finland

Figure 2: Annual number of reported HIV cases by mode of transmission, Finland, 1980–2011



Source: National Institute for Health and Welfare, Finland

MSM are one of the most affected key populations in Finland. The number of HIV cases among MSM has slowly increased since the late 1990s. The number of reported cases declined to 13 in 1998 and then increased again, reaching a peak of 72 cases in 2007 (Figure 2). The majority of HIV cases among MSM were found in Finnish citizens and had been acquired in Finland. In an anonymous survey carried out in 2006, HIV prevalence among MSM was found to be almost 5% [1]. This would the highest prevalence of all subpopulations in the country. A prevalence study among homosexual and bisexual men conducted in 2010 found a prevalence of 1.4% [2].

Very few IDU-associated HIV cases were reported during the 1980s and the beginning of the 1990s. However, in 1998 an outbreak, mainly restricted to Helsinki, occurred among IDUs (one reported case in 1997, 20 in 1998, and 85 cases in 1999). Quickly taken prevention efforts, including the establishment of low-threshold health service centres (LTHSC) successfully counteracted the outbreak. Since then, new HIV cases among IDUs ranged between nine and 14 cases per year from 2004 to 2011 (Figure 2).

Since the late 1990s, more cases transmitted through heterosexual contact have been reported. In 2011, half of the reported cases were due to heterosexual transmission and preliminary surveillance data indicate a high proportion for 2012 also (42%, Figure 2). Approximately 33% to 50% of these cases were reported among immigrants from countries with a generalised HIV epidemic. Most of the infections contracted by Finnish men through heterosexual contact were acquired abroad [3]. The percentage of cases with unknown mode of transmission has grown steadily, from an average of 13% in the 1990s to 22% in 2011. Of the cases where mode of transmission was not reported, 40% (2010 data) also lacked a physician's notification. For the remainder of the cases, the patient did not know or did not want to disclose how the infection had been contracted.

Reporting of CD4 cell counts was introduced in 2007. Between 2007 and 2011, more than half of the cases with reported CD4 cell counts were late presenters (CD4 cell count < 350). The highest proportion of late diagnosis was among cases with unknown mode of transmission (Table 1).

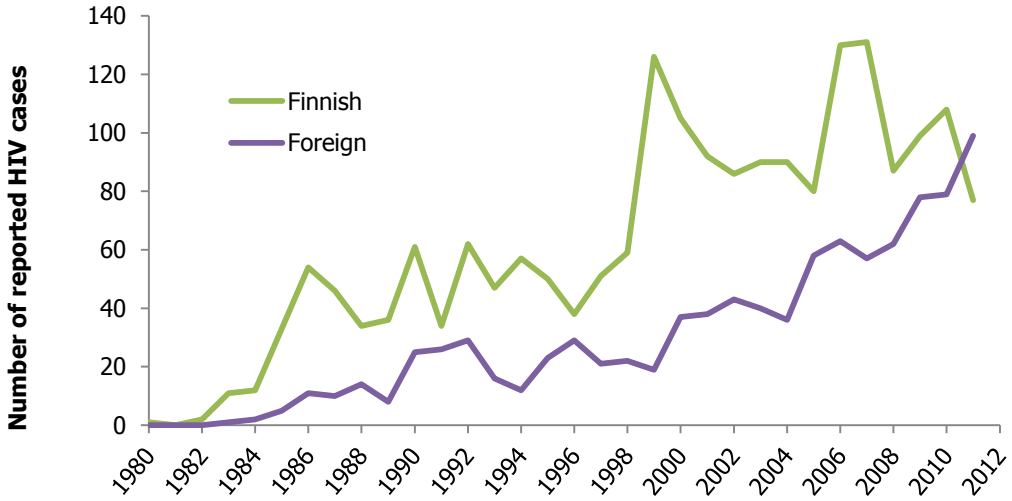
Table 1: CD4 cell count and percentage late diagnosis by transmission mode, Finland, 2007–11

	Heterosexual	IDU	MSM	MTCT	Blood	Unknown	Total
CD4 reports	158	19	134	1	0	23	335
CD4 < 350	81	10	68	0	0	15	174
% < 350	51.3%	52.6%	50.7%	0.0%	–	65.2%	51.9%

The number of HIV infections among persons born outside Finland or with foreign citizenship has been continuously increasing since the beginning of the epidemic. The highest number was reported in 2011, the year that also marked the first time that more non-Finnish than Finnish persons were diagnosed with HIV (Figure 3).

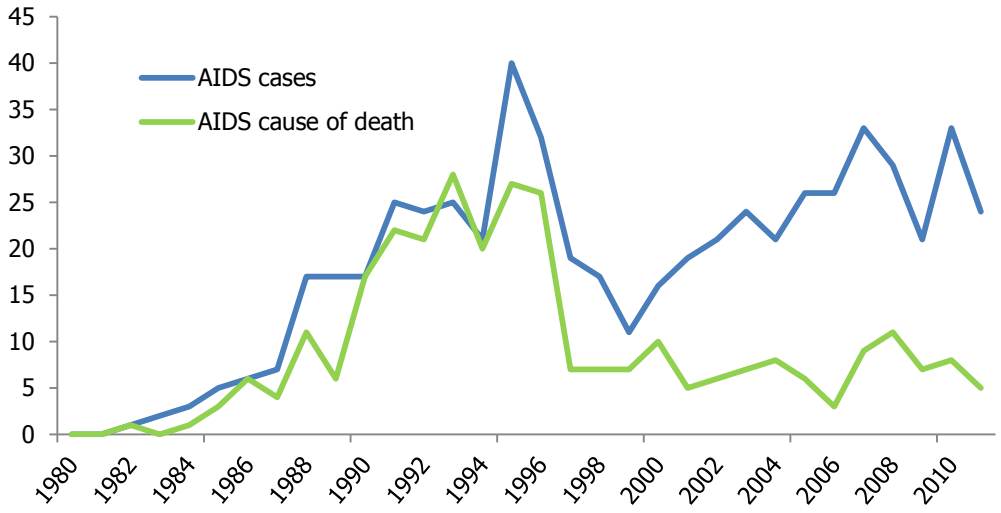
A cumulative total of 596 AIDS cases have been reported in Finland by September 2012. In 2011, 24 cases of AIDS were diagnosed, as compared to 33 cases in 2010. By the end of 2010, 296 persons had died from AIDS. The number of AIDS cases and deaths has remained fairly stable since the introduction of effective combination drugs in the mid-1990s (Figure 4).

Figure 3: Nationality of reported HIV cases, Finland 1980–2011



Source: National Institute for Health and Welfare, Finland

Figure 4: Number of reported AIDS cases and deaths caused by AIDS, Finland 1980–2011



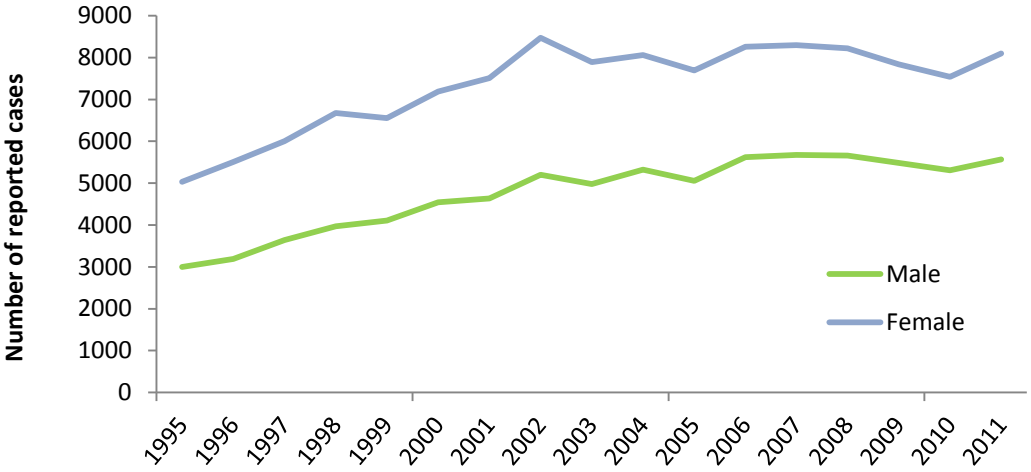
Source: National Institute for Health and Welfare

2.2 Sexually transmitted infections

Surveillance of chlamydia in Finland is based on laboratory notifications. The number of reported chlamydia cases has continuously increased since 1995 (8 030 cases). The number peaked in 2007, with a total of 13 968 cases, and remained high since then. In 2011, 13 663 cases were reported, 59% of these in women (Figure 5). Most cases were diagnosed in the age group 20–24 years (5 597 cases, 41% of the total).

From 1995 to 2011, chlamydia increased in all age groups: from 115 to 213 per 100 000 in males and from 203 to 298 in females. In the most affected age group (20–24 years) the incidence has increased from 721 to 1395 per 100 000 male population and from 1306 to 2060 per 100 000 female population.

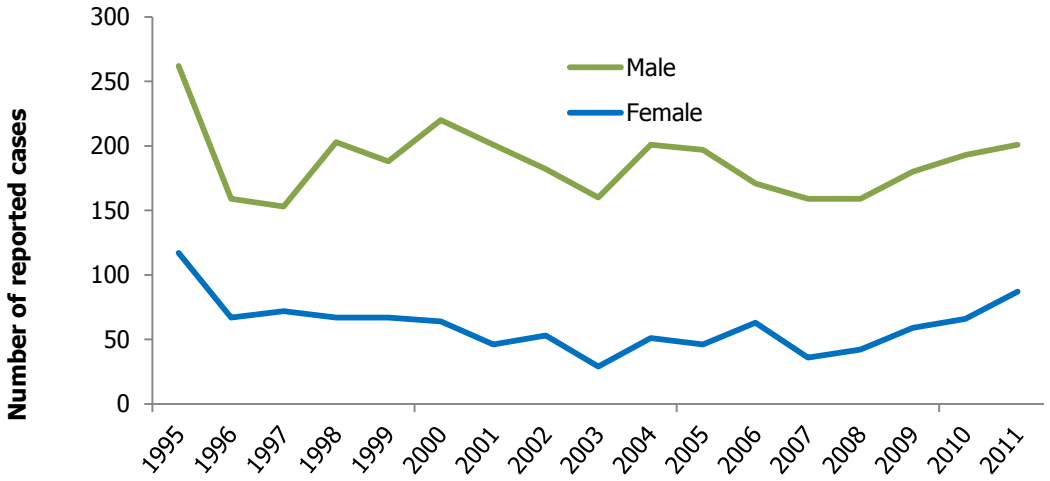
Figure 5: Number of reported chlamydia cases by gender, Finland, 1995–2011



Source: National Institute for Health and Welfare; Infectious Disease Register

With regard to gonorrhoea, the overall trend in numbers (Figure 6) and incidence showed a decline between 1995 and 2004. Since 2007, this trend has been reversed. In 2010, 259 cases were reported, 193 in males and 66 in females. The country of acquisition was specified in 82% of these cases; 42% of the infections were acquired abroad, with Thailand as the most common country of infection. Men accounted for 70% of the 288 cases reported in 2011. Overall incidence of gonorrhoea was 5.4 per 100 000 population. The incidence is higher in the capital district (Helsinki and Uusimaa) (12/100 000 in 2011), where it has been steadily increasing since 2007 (7.6 per 100 000).

Figure 6: Number of reported gonorrhoea cases by gender, Finland, 1995–2011



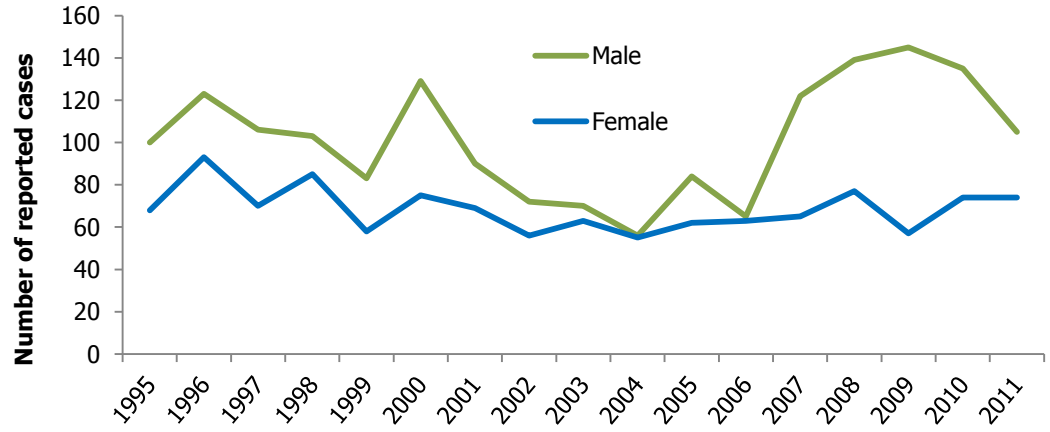
Source: National Institute for Health and Welfare; Infectious Disease Register

Between 2004 and 2011, the incidence of gonorrhoea remained fairly stable in men (7.9 per 100 000 in 2004, 7.7 in 2011) but increased in in women (from 1.9 in 2004 to 3.2 in 2011). Over the same period, the incidence in the most affected age group (20–24 years) decreased in men (from 24.3 to 21.6 per 100 000) and more than doubled in women (from 9.3 to 20.1 per 100 000). Fluoroquinolone resistance in gonorrhoea continues to increase. In 2009, 72% of gonococcal strains were found to be resistant to ciprofloxacin. In samples from the capital region (Helsinki and Uusimaa districts), more than half of the *Neisseria gonorrhoeae* strains were resistant to ciprofloxacin, with a trend indicating higher resistance rates for the current year (personal communication: P. Kuusela).

In 1996, 216 cases of syphilis were reported; 123 in men, 93 in women (Figure 7). Since then, the number of cases has decreased until 2004 when the number started to increase again, especially in men. 216 cases were reported in 2008 (139 in men, 77 in women), 209 cases 2010 (105 in men, 74 in women) and 179 cases in 2011 (105 in men, 74 in women). Over 60% of the cases were diagnosed in men. Most cases of syphilis occurred in the capital region, southern Finland (Kymenlaakso and Southern Karelia hospital districts).

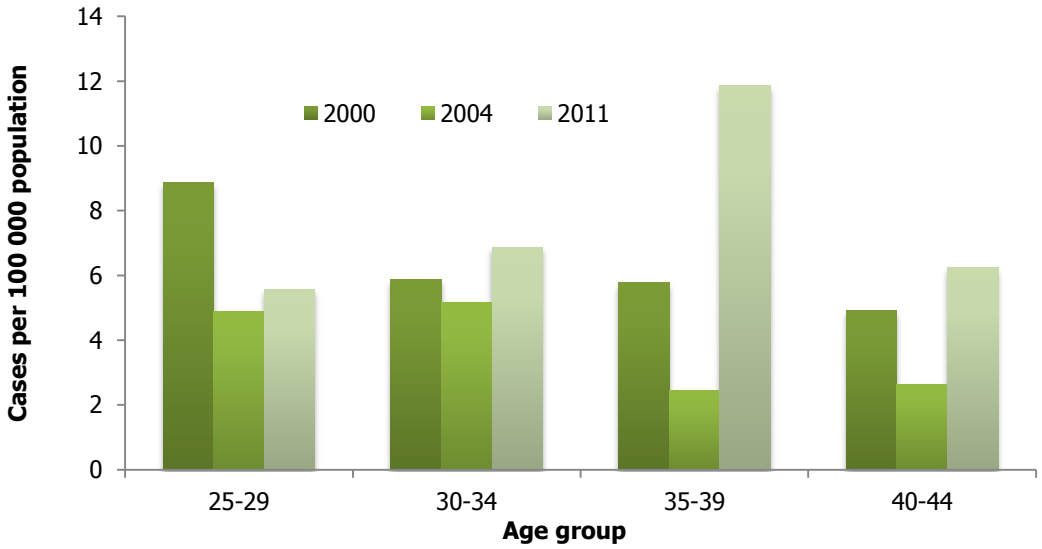
Since 2004, the overall incidence has shown an increasing trend; it was highest in 2009 in males (5.55 per 100 000) and in 2008 in females (2.9 per 100 000). The most affected age group is the group between 25 and 44 years. For the age group 35–39 years, the incidence has risen from 2.5/100.000 in 2004 to 11.9 in 2011.

Figure 7: Number of reported syphilis cases by gender, Finland, 1995–2011



Source: National Institute for Health and Welfare; Infectious Disease Register

Figure 8: Age-specific rates of syphilis in 2000, 2004 and 2011; Finland

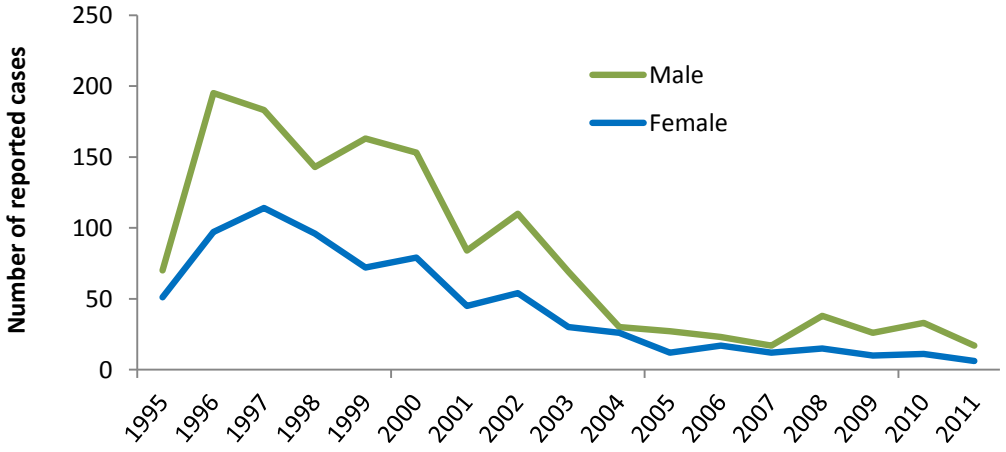


Source: National Institute for Health and Welfare; Infectious Disease Register

2.3 Hepatitis B and C

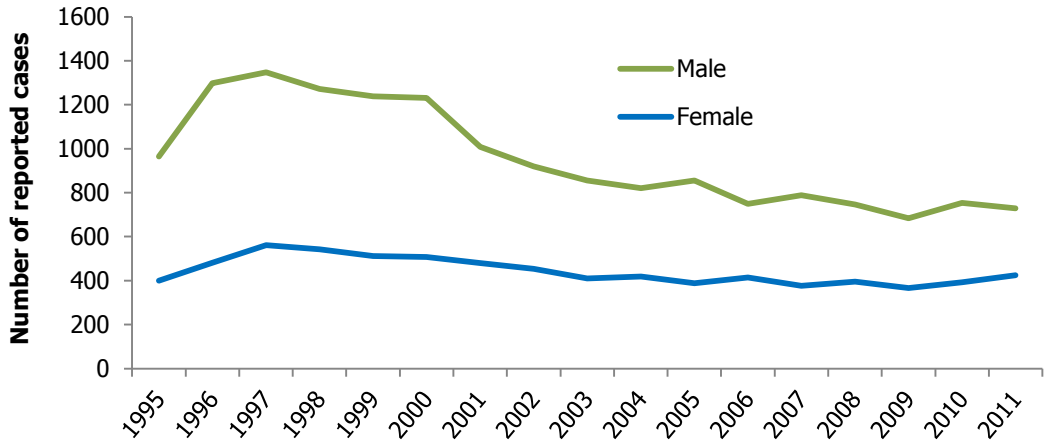
Surveillance for hepatitis B and C is based on physician and laboratory notification and uses the national identity code for case linkage. For hepatitis B (HBV), acute and chronic cases are reported; only chronic cases of hepatitis C (HCV) are reported. The numbers of acute cases of HBV decreased between 1997 and 2011 from 297 to 23 (Figure 9). Cases transmitted by injecting drugs have shown the most rapid decrease due to vaccination and needle and syringe exchange programmes. In 2010, 44 acute HBV infections were reported (33 men and 11 women). About half of the cases involved patients born outside Finland or with foreign citizenship [3]. In 2011, 46 acute HBV infections were reported (17 men and 6 women).

Figure 9: Number of reported cases of acute hepatitis B by gender, Finland, 1995–2011



Source: National Institute for Health and Welfare; Infectious Disease Register

Figure 10: Number of reported (chronic) hepatitis C cases by gender, Finland, 1995–2011



Source: National Institute for Health and Welfare; Infectious Disease Register

The number of hepatitis C cases has decreased as well, which indicates the importance of clean injection equipment for hepatitis prevention. Most cases were reported in 1997 (1909 cases) [4]. Since then, the annual number of new HCV cases had been decreasing (Figure 10). In 2010, 1 146 HCV infections were reported. In the majority of these cases, the mode of transmission reported was intravenous drug use. In 2011, 1154 cases were reported, 63% in men and 37% in women.

The most affected age groups are the age groups 20 to 24 and 25 to 29 years. The incidence in the peak year 1997 was 133.6 per 100 000 population but since then the trend has been declining. In 2011 incidence was 80.5 for the younger and 79.6 for the elder of these age groups. Because of the transmission characteristics of hepatitis C, further changes in incidence are expected to occur only very slowly if prevention cannot be significantly strengthened.

3 National coordination

3.1 Healthcare system

Finland has three different healthcare systems: municipal healthcare, private healthcare and an occupational healthcare system. Health services are mainly funded by tax revenues. The total health expenditure in 2009 was EUR 15.7 billion, which corresponds to 9.2% of GDP.

The public healthcare system in Finland is funded mainly by municipal taxation and a national obligatory social insurance system. The social insurance provides benefits and covers many areas of social support services and health costs, including partial compensation for private medical care. Coverage is not tied to employment but legal residence status. Co-payments for medical care have to be provided for most primary, secondary and tertiary care, but ceilings to these fees exist, varying with the economic status of patients. Co-payments and client charges cover 5–10% of costs.

Primary healthcare is mainly provided through publicly funded municipal healthcare centres. Municipal healthcare services are financed by municipal taxes, state subsidies and user fees. All municipalities are, by law, obliged to maintain health centres for the provision of primary healthcare services, either on their own or jointly through a federation of municipalities. The residents of the approximately 300 municipalities are served by 250 primary healthcare centres.

Municipalities or municipal federations purchase specialist services as part of their public health service provision obligations. For specialist care, municipal healthcare centres refer patients to regional or university central hospitals belonging to a regional health district. There are 21 such secondary and tertiary health districts. Each municipality must belong as a member to one of the hospital districts. Municipalities can also purchase healthcare services from other municipalities, other hospital districts or private providers. The most specialised care is provided by five university hospitals.

Due to municipal territorial reform and the redrawing of local government boundaries, the number of municipalities decreased the last year, and there is an ongoing discussion whether and how to create stronger and more sustainable administrative units at this level. Currently, the population size of municipalities ranges from 100 to 600 000 inhabitants.

3.2 Legal framework and responsibilities

The legal framework for health consists mainly of the following acts and decrees: Act on the Status and Rights of Patients, the Primary Healthcare Act, the Act on Specialized Medical Care, the Personal Data Act and Personal Data File Decree, and the Act on the Protection of Privacy in Working Life. The responsibilities for combating infectious disease in Finland are defined in the Communicable Disease Act and its accompanying decrees [5].

The Ministry of Social Affairs and Health is responsible for the general planning and legislation. It ensures the implementation of health education to the population and national dissemination of information on communicable diseases; it also promotes national and international scientific research.

The tasks of the National Institute for Health and Welfare (THL) in the area of communicable diseases are to monitor the epidemiology of infectious diseases, ensure dissemination of information, conduct research, develop laboratory tests, and provide expert assistance to municipalities (prevention purposes) and hospital districts (investigation of epidemics).

Hospitals districts provide regional expertise. They assist municipal bodies in detecting and monitoring communicable diseases, and in investigating epidemics. They provide specialised medical care services necessary for the treatment of communicable diseases, organise training, and are responsible for regional information dissemination to healthcare professionals.

The municipal health services are responsible for diagnosis and primary care of communicable diseases, information, health education, health counselling, exchange of injecting equipment, vaccinations, and health examinations.

3.3 Communicable disease surveillance

The Finnish Infectious Disease Act differentiates between generally hazardous communicable diseases, diseases that are notifiable, and other communicable diseases. Generally hazardous and notifiable diseases are specified by Government decree. According to law, physicians (and dentists) shall notify cases of generally hazardous or notifiable communicable diseases which they suspect or have diagnosed to the National Institute for Health and Welfare. Laboratories shall make a notification of microbial findings of generally hazardous or notifiable

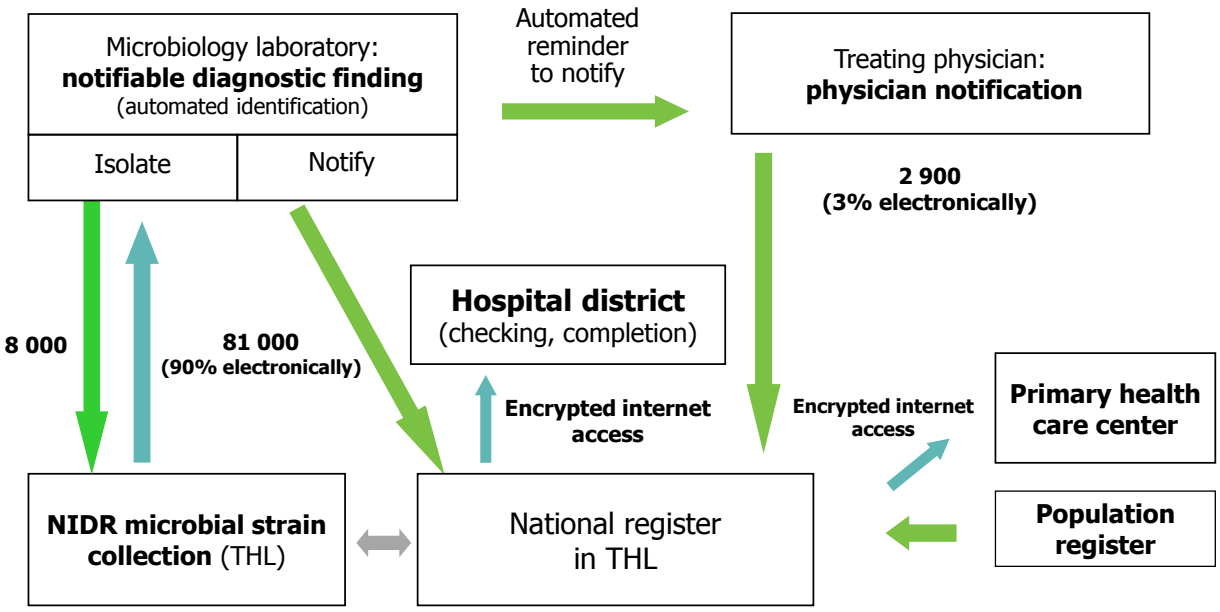
communicable diseases they have detected. A notification shall contain the identification data of the patient, data of the notifying person, patient data, and the name of the communicable disease and/or microbial findings necessary to investigate and prevent the spread. The identification data include the patent's personal identity code and, in case a 'generally hazardous' or 'notifiable' communicable disease is reported, also the patient's name. The National Institute for Health and Welfare keeps a national communicable disease register based on the notifications.

Currently, 32 diseases and causative agents are classified as notifiable by physicians and laboratories. A physician's communicable disease notification is supposed to be made within seven days. The content of the physician notification is supposed to complement the laboratory notification. Notifiable by laboratories are 40 microbes or microbe groups and any microbes isolated in blood or cerebrospinal fluid. Syphilis is classified as a generally hazardous communicable disease. HIV, chlamydial infections and gonorrhoea are notifiable diseases, as are hepatitis B and C.

For certain diseases, strains or samples are collected for further characterisation of properties. Among the sexually transmitted infections, HIV is covered by this provision.

The flow of data and information pathway to the National Infectious Disease Register can be seen below.

Figure 11: Flow of data and information pathway to the National Infectious Disease Register, Finland



Source: National Institute for Health and Welfare

3.4 Behavioural surveillance

THL's statistical data are collected from national registers, by analysing specimens, and by using readily available statistical data from third parties. The institute regularly conducts studies and surveys which traditionally focus on risk factors for chronic disease (especially diet, tobacco and alcohol consumption); other studies measure functional capacity and lifestyle health questions [6]. The survey-based population studies draw on self-reported information. Some of the population studies also include information from health examinations. These studies use questionnaires and results from physical examinations (carried out by nurses) and, for some studies, laboratory tests.

Major recurring studies address mostly the general population and school-age children, for example the 'regional health and well-being study' (provides municipalities with an opportunity to monitor the welfare and health of residents); the 'health behaviour and health among the Finnish retirement-age population' (information on health status, functional capacity and lifestyles; conducted every other year since 1985); the national FINRISK study (population survey on the risk factors for chronic, non-communicable diseases; every five years); the 'school health promotion study' (young people's living conditions, school conditions, health, health habits, as well as school and student welfare; every two years); a study on 'welfare and services for families with children' (information about means of subsistence, perceived health, the balance of work and family life, and use of health services); a survey on 'child and youth health monitoring' (welfare and health of children and their parents); a survey on 'health behaviour and health among the Finnish adult population (annual survey monitoring health and lifestyles; since 1978); a study on 'welfare and health services' (every three years); and a survey entitled 'Health 2011' (national

survey on changes in health status, functional capacity, welfare, and health and welfare inequalities between population groups).

Despite the large number of regular health surveys, there is only limited HIV/STI behavioural surveillance, for example the 'biennial school health promotion survey', which THL initiated in 1995 and mainly focusses on teenagers. None of the studies mentioned above address sexual health and STI risks in sufficient detail to be able to guide efficient policy development. A recent self-assessment (as part of the ECDC regional workshops on behavioural surveillance) suggested that by expanding some of the regular studies, this issue could be addressed relatively easily.

There is no established behavioural surveillance system among MSM, though there was a one-off survey in 2006 on sexual behaviour and lifestyle, with participants who were recruited with the assistance of the gay press. The ECDC team also noted a lack of surveillance on sexual behaviour and risk among the general adult population, MSM or sex workers. Only two small one-off studies among MSM were conducted, one in 2006 and another in 2010, but these were performed with different methodologies, and while results are not discrepant, the comparability is not clear. A first study among sex workers was started recently.

Finland participated in the large Europe-wide EMIS study among MSM through a study sponsored by the Ministry of Health and Social services and conducted by the University of Tampere, School of Health Sciences, but the data have not been published or otherwise made available [7].

However, Finland is one of only two European countries that collect behavioural data from all adults attending STI clinics, and there are regular behavioural surveys of IDUs attending low-threshold service centres.

Anonymous bio-behavioural studies among IDUs are conducted on a regular basis (approximately biannually) at LTHSCs and used to monitor HIV and HCV prevalence, drug use patterns, and changes in risk behaviour.

3.5 Antenatal screening

The national antenatal screening programme started 50 years ago to prevent congenital syphilis. Congenital syphilis is no longer a notifiable disease in Finland and only one case has been reported since 1981. The antenatal care programme is centrally organised under the Ministry of Social Affairs and Health and is financed by municipal budget resources. The centralisation has the advantage that epidemiologic information can be collected and analysed efficiently. The Prenatal Serology Laboratory in the National Institute for Health and Welfare provides laboratory testing services. Pregnant women are offered screening for HIV, hepatitis B and syphilis at their first visit to maternity clinics during gestational weeks 9–15. Approximately 60 000 women are tested per year and the participation rate is estimated to be 98%.

In case of a previously unknown HIV infection or syphilis, the maternity clinics are contacted to obtain additional information in order to provide control samples, and, if necessary, start treatment. HIV-positive women are referred to HIV specialist treatment centres. The intervention protocol for HIV includes antiretroviral medication initiated before the last trimester. The newborn will receive prophylactic antiretroviral medication and a follow-up for HIV test is given (PCR). Thanks to this practice, HIV transmission has been avoided in all HIV-positive pregnancies in Finland. In two cases of mother-to-child transmission of HIV, in 2009, transmission occurred before arrival in Finland. Children of HBsAg-positive women receive passive vaccination and the first dose of HBV vaccine at the maternity clinic. Vaccination is completed with three booster doses of vaccines at the children's clinic.

Table 2: Observed infections during antenatal screening, 1997–2011

		Syphilis	HBsAg	HIV (total)	HIV newly diagnosed
1997	59 855	6	70	6	No data
1998	60 055	11	83	5	5
1999	58 670	7	49	7	6
2000	59 112	9	64	8	7
2001	57 427	12	46	12	8
2002	58 947	9	66	12	9
2003	60 300	8	78	13	10
2004	60 060	8	73	8	4
2005	59 343	12	63	16	7
2006	59 659	16	91	13	7
2007	58 755	17	74	19	10
2008	62 947	25	90	13	5
2009	63 862	19	99	23	8
2010	62 893	37	84	20	6
2011	61 832	34	86	22	9

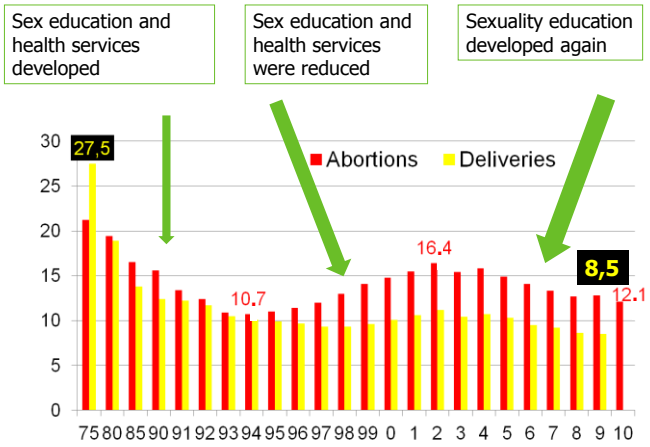
Source: National Institute for Welfare and Health

3.6 National strategies for HIV and sexual and reproductive health

The main aim of the Finnish HIV/AIDS policy is the prevention of new infections. The policy approach stipulates that prevention activities are linked to general health prevention and education by coordination on the national level and multidisciplinary partnerships between public and private bodies. The policy includes the involvement of civil society organisations. Policy objectives for persons infected with HIV are to guarantee free access to treatment and care, provide social benefits, and support social empowerment in order to reduce vulnerability. A national HIV strategy was developed for the period 2000–2006. It was intended to guide healthcare agencies to plan and implement measures, rather than to prescribe specific action proposals. The new government programme for 2012–2015 includes an update of the national HIV strategy, launched shortly after ECDC's country visit on World AIDS Day, 1 December 2012) [8].

There is no specifically targeted national STI strategy; instead, prevention and care for STIs are described in the 2007–2011 *Action Plan for the promotion of sexual and reproductive health* [9]. Sexual and reproductive health services are provided at the municipal level. Sexual health counselling is integrated into the general services of the health centres, and every centre has a member of staff who is trained as a sex counsellor. The foundation for sexual and reproductive health activities was established through earlier work since the 1970s. Sex education became obligatory in schools in 1970. In 1972, it became the duty of municipalities to provide counselling on contraception free of charge for the whole population. The development of sexual and health education services was followed by a decline of abortions and deliveries in young girls. This trend was reversed when the services were reduced during the recession experienced in Finland in the 1990s (Figure 12). These worrying observations lead to a re-launch of sexual and reproductive health services and the establishment of the Action Programme.

Figure 12: Number of abortions and deliveries per 1000 in 15–19-year-old girls, Finland, 1975–2010



Source: Family Federation of Finland

The aim of the programme is to promote the sexual and reproductive health of the population, as well as to develop methods, competencies and service structures related to this. It establishes 14 themes with specific objectives and measures, with a strong focus on young people, i.e. sexual counselling, provision of knowledge and

information, reorganisation of services, family planning, prevention and care of STIs, education and training, and research in sexual and reproductive health. Elements addressing HIV are included but they seem not to be well integrated and key populations are not sufficiently addressed in the implementation of the programme.

An interim evaluation of the programme has been carried out in 2009. The ministerial level programme is considered as valuable regarding legitimacy and visibility, and also in terms of possibilities to act on the drivers of sexual and reproductive health. One of the main achievements is the establishment of a Unit for Sexual and Reproductive health in the THL which improves national guidance and supports municipalities in their activities. Sexual counselling has become mandatory in maternity and children's clinics, schools and student healthcare. As a consequence, promotion of sexual health has continued in health centres and hospital districts; sexual counselling and therapy services have increased.

The current programme is considered essential in addressing open issues and challenges, but it is also acknowledged that the programme has to be better targeted to reach key populations, including MSM, sex workers, transgenders and migrant populations. Prevention of unwanted pregnancies and STIs has to be intensified. Further challenges are seen in the multi-sectorial coordination and the integration of sexual and reproductive health into overall health promotion – on all levels of the service system.

Finland's drug policy is based on the national drug strategy of 1997 and the Government Resolution on *Cooperation regarding national drug policy 2008–11*, which was adopted in November 2007 and is the continuation of an earlier programme. It focusses on illicit drugs, the importance of long-term work, increased cooperation between various actors, and the establishment of a uniform drug policy to reduce drug demand and supply. The overall objective is to prevent the use/spread of narcotic drugs so as to minimise the economic, social and individual harm. The measures outlined in the resolution are related to preventive work and early intervention, drug-related crime, treatment of drug addiction and reduction of harm from drug use, and treatment of drug misuse in connection with criminal sanctions.

4 Prevention, treatment and care

4.1 Men who have sex with men

The responsibility for prevention, treatment and care of HIV/AIDS lies with the municipal social services and healthcare providers, which are supported at the national level by THL. HIV/AIDS treatment, care and support are mainly integrated into the public healthcare social care and welfare at state, regional and municipal levels. For HIV/AIDS there is a special provision in the Act on Customer Fees which stipulates that access to HIV/AIDS medical treatment and care is free of charge for all legal residents. This covers primary and specialist care, laboratory diagnostics and medication, and includes antiretroviral treatment. There is no formal decision to centralise HIV care and treatment, and municipalities and health districts can make their own choices on how to provide the services under their obligations.

In Finland, residents cannot choose their municipal healthcare provider; they are assigned to a specific general practitioner (employed at the municipal health centre) or specialist. For HIV patients, special provisions allow seeking (specialist) care in a non-residential health centre in order to maintain confidentiality for residents of small municipalities. However, the costs are referred back to the residential municipality. Voluntary HIV counselling and testing services are provided free of charge by all municipal health centres. Post-exposure prophylaxis (PEP) in non-occupational settings is possible. However, there is no national guideline on the use of PEP and/or on its funding.

HIV patients are referred to specialist care due to the needed level of expertise. HIV specialist care is provided by all regional health districts. Some of the larger health districts have more expertise and provide services to other districts. The largest centre providing specialist HIV/AIDS healthcare is the Helsinki and Uusimaa Hospital Districts, i.e. at the Aurora University Hospital Infection Clinic.

In 2011, 98% of the HIV-positive MSM who need antiretroviral treatment (ART) actually receive ART. Unfortunately, many infections remain undiagnosed; around 50% of all HIV cases are diagnosed as late presenters (CD4 <350), at a time when they are already eligible for ART. For MSM, this percentage was 54% in 2011 [2].

In addition to public healthcare, private healthcare services also offer HIV/AIDS care, but costs are not reimbursed by the national health insurance system. In the Helsinki area, the municipal health board and municipal health services made a separate agreement with the Helsinki Deaconess Institute (a private health service provider) and the Aurora University Hospital for health services for HIV-infected drug users.

Laboratory services are either provided by local laboratories or purchased by the municipal health centre from health district level laboratory centres or private laboratory service providers. Reference laboratory functions for genotyping and resistance testing are provided by THL.

4.2 People who inject drugs

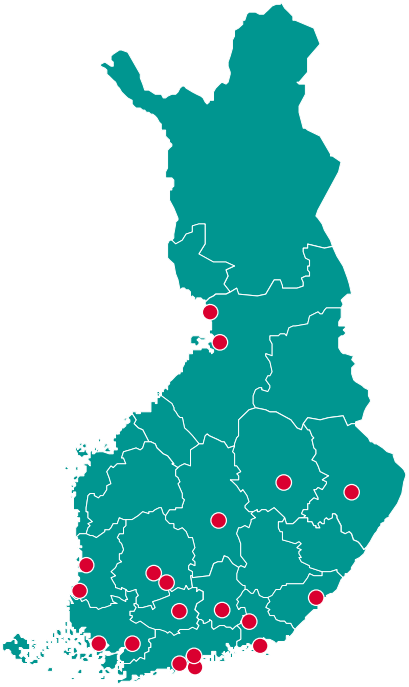
Facing the HIV outbreak in the late 1990s, prevention activities for people who inject drugs (PWID) were strengthened and a network of low-threshold service centres was implemented and eventually evaluated in 2008 [10]. The first low-threshold centre opened in 1997; the same year, needle exchange started. In 2004, injection equipment exchange was made explicitly legal and the 2004 Act on Communicable Diseases requires municipalities to provide health counselling for PWID, including the exchange of injecting equipment. In 2011, Finland had around 30 low-threshold health service centres (LTHSC) for PWID in 23 towns (Figure 12). Data from surveillance based on anonymous sampling has shown that HIV prevalence has remained low in the group (close to 1%), despite continuously high hepatitis C rates.

The provided services vary among the centres but normally include small-scale healthcare provision, counselling and guidance for detoxification services, vaccinations, condom distribution, social services, and referrals to other services. Exchange of syringes and needles is at the basis of all LTHSCs. Antiretroviral therapy and opiate substitution therapy services are provided at one location in Helsinki. There are other health services providing opiate substitution therapy for opiate users who are not HIV infected.

A large part of PWID living with HIV in Finland have been treated at the Munkkisaari Centre of the Helsinki Deaconess Institute. A variety of interdisciplinary services is provided under one roof by the centre in tripartite arrangement with the City of Helsinki, University Hospital, and Deaconess Institute; the services are considered to be an incentive for PWID to attend medical services. Currently around 125 PWID receive antiretroviral treatment for HIV infection, for 5 to 10 patients ART is not indicated, and more or less the same number of patients refuse to take ART. PWID who refuse to be monitored are followed up by social workers at the centre. The choice of treatment regimen is guided by an adherence questionnaire covering medical conditions (co-illnesses, co-medications, use of alcohol and other drugs, possible drug interactions) but also individual preferences for dosing, concerns about side effects, and the personal situation of the patient (housing, disclosure of HIV status, work,

hobbies). Taking into account the characteristics and living situation of PWID adherence to therapy is high, as shown in Table 3 which presents the viral load for PWID compared with other patient groups.

Figure 13: Network of low-threshold health service centres in Finland



Source: National Public Health Institute, Finland

Table 3: Viral load by transmission mode after more than six months of antiretroviral therapy, 2011

	PWID	Hetero	MSM	Other	Total
< 50 cop/ml	120	276	351	20	767
% within key population	86.3%	91.1%	93.9%	83.3%	91.3%
51–400 cop/ml	13	18	21	2	54
% within key population	9.4%	5.9%	5.6%	8.3%	6.4%
> 400 cop/ml	6	9	2	2	19
% within key population	4.3%	3.0%	0.5%	8.3%	2.3%
Total count	139	303	374	24	840
% within key population	100%	100%	100%	100%	100%

Source: Dr Sutinen, Helsinki University Central Hospital

4.3 Young people

Youth prevention activities are considered part of general health promotion activities and integrated with sexual health, sex education and reproductive health activities. Health education was introduced in school curricula as a standardised, mandatory subject in 2005; for grades 1–6 it is integrated into environmental and natural studies, for grades 7–9 of the primary level and for grades 1–3 of the secondary level, health education is an independent subject. It is based on a standardised, comprehensive health and healthy lifestyle curriculum and includes reproductive and sexual health, sex education and STI risks. Contraceptive advice is offered to youth both through schools and the regular primary healthcare system. In a number of municipalities, specialised youth clinics are also available, for example the Sexual Health Clinic of the Family Federation. Unwanted pregnancies in youth and the prevention of STI are recognised as an important issue for the update of the Action Programme for the Promotion of Sexual and Reproductive Health.

4.4 Prisoners

Finland has a total of 27 prisons. There are around 3 000 inmates, one fifth of them nationals of Russia or the Baltic states. HIV prevalence among prisoners has been estimated at 1%, hepatitis B prevalence at 8%, and hepatitis C at 50%. Prison health is the responsibility of the prison health services under the authority of the Criminal Sanctions Agency, an agency of the Ministry of Justice. HIV testing in prisons is available, based on the VCT concept (voluntary counselling and testing). Voluntary screening is offered routinely on admission, but not at discharge. Rapid HIV tests during prison terms are offered at several correctional facilities. Tuberculosis screening is not carried out systematically. However, inmates from Russia and the Baltic states are regularly screened for

tuberculosis. Each prison has its own medical outpatient ward. On admission, each inmate is given a hygiene kit containing disinfectant materials, instructions, and containers for the disinfection of injection equipment. Within two weeks after arrival an interview is carried out to assess the health of the inmate.

HIV care and medication for prisoners is provided for by law, both for Finnish residents and prisoners from abroad. Currently, there are no imprisoned AIDS patients on record, but there are approximately 10 prisoners on HIV medication who serve a prison sentence in a correctional facility. Finnish residents are usually already on treatment when they start their sentence. For non-Finnish-residents, treatment often is initiated only at the beginning of a prison term. Treatment is planned and coordinated by specialist services, mainly the Aurora University Hospital and other university hospitals, and carried out by the prison health staff.

Using illicit drugs during imprisonment is not allowed. Although individual observations indicate that intravenous drug use seems to become less frequent, studies have shown that drugs are being used during imprisonment, including injecting drugs. Disinfectants – and condoms – can be obtained from the prison health services. Injection equipment exchange services are not available within correctional facilities since this policy is not endorsed by the Ministry of Justice or the Criminal Sanctions Agency. Addiction and detoxification health services are available in the correctional system. Opiate substitution services can be continued in prison, but cannot be initiated during a prison sentence.

Health staff receives training on HIV and AIDS, some of the nurses even receive specialised training, including coaching and seminars, to have an accurate, comprehensive and up-to-date knowledge about HIV. Prison and health staff cooperate but the general attitude of the prison staff seems to be focused on the security aspects around HIV and drug use in prisons.

4.5 STI services

Services for care, surveillance and prevention of sexually transmitted infections appear to be widely fragmented across the country. During the country mission, time was too short to visit dedicated STI clinics and dermato-venereology clinics. It is suggested that the situation should be further investigated with respect to STI services and surveillance. Preliminary suggestions, however, include investing in training and quality improvement, especially for counselling, patient follow-up and surveillance tasks. National guidance for municipal health services and non-governmental organisations on these topics should also be taken into account.

5 Role of non-governmental organisations

Several NGOs are actively involved in HIV prevention and health education work. They are often – partly or entirely – funded through public and private partnerships with municipal and/or national funding agencies. An important source of funding is the Finnish Slot Machine Association (Raha automaattiyhdistys, RAY). Profits from casinos are channelled to health and social welfare organisations for basic operations, investments and projects. Applications are evaluated according to a funding strategy agreed with the Ministry of Social Affairs and Health. The final decision is made by the government.

5.1 Men who have sex with men

SETA, the Finnish Organisation for Sexual Equality, is nowadays mainly focused on human rights issues. The AIDS Council is run by the Finnish HIV Foundation and offers its services since 1986. It is dedicated to HIV/AIDS prevention, training and advocacy work. Its 'Safely among men' campaign started in 2003. It aims to reduce the number of new HIV infections among MSM, to promote sexual health, and to support HIV-positive gay and bisexual men and their partners. Current activities include the provision of various information materials (brochures, posters, postcards, website, etc.), safer sex kits and safer sex campaigns (twice a year). Workshops addressing HIV-positive gay and bisexual men are carried out once to twice a year. Outreach work addressing other STIs is carried out four times a year and complemented by outreach work via the internet. The AIDS council offers HIV-testing and counselling by appointment and – since 2011 – a drop-in testing service where testing is carried out free of charge and anonymously (once a month specifically for MSM, regular testing at least twice a week).

5.2 People living with HIV

Positiiviset Ry/HIV Finland is the only association for people with HIV infection in Finland. It is a patient and peer group organisation founded in 1989. Its aims are – in addition to the prevention of new HIV infections – to promote the well-being of HIV positives and their families, and help people infected with HIV to improve their quality of life. Empowerment, advocacy and the fight against discrimination are the overarching aims. Activities include support, guidance and counselling. Information is disseminated via a website, newsletters and a handbook for HIV-positive persons. Peer support is offered to MSM, women, families, heterosexuals, former drug users, persons under 29 years, and family members. Peer support groups exist in several cities. In Helsinki, a drop-in centre is open five days a week.

5.3 People who inject drugs

The main civil society organisations who provide support for IDUs (care, prevention, treatment) are the A-Clinic Foundation and the Helsinki Deaconess Institute. The A-Clinic Foundation is an NGO that provides treatment services mainly through a municipal public-private partnership. It is the leading substance abuse service provider in Finland with 19 outpatient and inpatient service units, therapeutic communities and low-threshold health service centres providing needle, syringe and other injection equipment exchange, medical services, condoms, hepatitis vaccinations, and HIV and hepatitis testing/counselling. Working methods also include outreach and peer work models. The main principles of health promotion and counselling are anonymity, confidentiality and easy access regarding location and opening hours. Services are delivered by health counselling points (fixed sites), mobile units and outreach work.

A special feature is the involvement of peers, e.g. in education and needle exchange activities. The facilities do not include the possibility to inject drugs in a safe environment. It is feared that the medical conditions might become incontrollable in case of overdosage. In Finland, the use of heroin is quite rare. The most frequently used injection drugs are amphetamines and illicitly obtained buprenorphine pills in crushed and dissolved form. The intravenous use of other psychoactive substances is quite frequent; for example, valium pills are also crushed, dissolved and injected. This practice may cause misdosage and considerable harm at the injection site.

The Helsinki Deaconess Institute is a non-governmental public utility foundation. It provides a range of social and healthcare services, as well as educational services. Since 2000, the Helsinki Deaconess Institute has been operating a specialised service centre for HIV-positive IDU in Helsinki, the Munkkisaari Centre (see above). The concept calls for the provision of all required services under one roof. This includes opiate substitution treatment, needle exchange, medical treatment, referral to medical specialists (e.g. crisis intervention linked with other health and support programmes, including detoxification), HIV and hepatitis testing, and vaccination (hepatitis, pneumonia). Also available are a wide range of support services such as health information, food, showers, washing machines, an overnight shelter, and supported housing. A community service specialist is employed to improve the acceptance of the clientele in the neighbourhood of the institute, which lies in an affluent part of the city.

5.4 Sex workers

The most important NGO providing services for commercial sex workers is Pro-tukipiste. Its social and healthcare service and outreach units are located in Helsinki and Tampere. Pro-tukipiste provides low-threshold social support; outreach work; and healthcare and legal advice for female, male, and transsexual sex workers (both foreign and Finnish). Services are anonymous and free of charge. They include drop-in encounters, outreach work (street, massage parlours, bars, internet) and peer activities. Pro-tukipiste reaches 1 500 to 2 000 commercial sex workers a year, with the capital as the center being the main focus (85% of contacts). 75–80% of commercial sex workers are migrants or have a foreign origin. Main countries of origin are Russia, Thailand and Estonia. Both cross-border and internal mobility have drastically increased in recent years. New countries of origin are Brazil, Nigeria, Bulgaria, Slovakia and Romania. Newcomers often have a poor knowledge of basic physiological facts, which renders safe sex information ineffective.

A consequence of the recent trend toward increased mobility is that more undocumented migrants engage in commercial sex work. At the same time, observations indicate that the demand for unsafe sex has increased; intense competition is a pressure to agree to unprotected sex; in addition, the unclear legal status of commercial sex workers complicates access to HIV testing.

There is no specific information on the incidence or prevalence of HIV infection among sex workers, as this group is not included in routine surveillance. Rapid HIV testing offered in low-threshold services does not indicate a high prevalence. However, there is a potential for higher prevalence as a significant number of sex workers who temporarily work in Finland originate from high-prevalence neighbouring countries. As in other countries, sex work may be linked to intravenous drug use, which introduces an additional risk of infection.

A study addressing health and welfare of commercial sex workers has very recently (September 2012) been started in cooperation between Pro-tukipiste and the National Institute for Health and Welfare. It aims at providing information on the prevalence of HIV and hepatitis C among commercial sex workers. Health status and well-being are addressed via a questionnaire. The goal is to include to 200 to 300 participants. Recruiting is done via peers, internet and email, newsletters and text messages.

6 Conclusions

6.1 Good practices

An effective passive surveillance system for HIV and AIDS is implemented through the national infectious disease register in THL. The municipal healthcare services, non-governmental and civil society organisations provide good access to low-threshold HIV testing. HIV treatment and care is provided through publicly funded specialised care.

An outstanding achievement is the low-threshold health service centre model for people who inject drugs. Its legal foundation provides the basis for the successful multi-sectoral cooperation between municipal health services and non-governmental organisations. Good treatment management practices for HIV-positive PWID combine addiction with infectious disease expertise and practice under one roof in a tripartite partnership. Harm reduction, needle exchange, peer involvement and HIV treatment are combined in a smart and effective way.

A further outstanding feature is the high adherence to HIV treatment, shown by low viral loads in different sub-populations, especially in people who inject drugs.

Health and sex education is taught in all Finnish schools. Health education is a mandatory subject in grades 1–9. At the secondary level (grades 10–12), the subject is available as an optional subject. A good practice model is how the results of a recent school health survey were used for the development of policies. In general, access to reproductive health services for youths is good.

6.2 Considerations and recommendations

There is a need to adapt to a changing HIV epidemiology with respect to HIV prevention and care as the proportion of cases due to heterosexual transmission has increased recently. Approximately 35–50% of these cases are reported among migrants from countries with a generalised HIV epidemic. On the other hand, most of the infections among Finnish men that are acquired through heterosexual contact were classified as travel-associated infections. This results in a complex situation with two different epidemiological backgrounds. It is therefore recommended that monitoring and bio-behavioural surveillance in these situations should be strengthened. It is also essential to address or reinforce messages around travel-associated infections (safe sex, condom use). Access to treatment and care for HIV-positive foreign-born persons should be reviewed.

The proportion of late presenters among new HIV diagnoses in all key populations is high. HIV testing is in principle universally available but efforts should be undertaken to increase the uptake of testing in relevant sub-populations, especially MSM, by lowering thresholds and barriers, e.g. by expanding anonymous testing opportunities in collaboration with non-governmental organisations.

HIV prevention targeted at MSM needs to be strengthened. There is insufficient knowledge on the incidence of HIV in this group and no sufficient knowledge of risk behaviour, despite the participation in EMIS. Links to the gay community seem to be weak and need to be strengthened. More targeted information on different types of sexuality would be helpful, as would be a study on the differential STI/HIV risk for the gay/homosexual versus heterosexual populations. Homosexuality should be included in the syllabus for general sexual health education. It is suggested that small-scale surveys should be conducted to obtain the relevant epidemiological and behavioural information. The expertise demonstrated with the surveys carried out on drug users could be used to produce similar surveys on MSM.

Further priority areas for epidemiological and behavioural surveys are migrants, sex workers and travel-associated HIV infections. In this context, a study was initiated among commercial sex workers on the prevalence of HIV and hepatitis C – a promising approach.

Unless linked to drug use, commercial sex workers are not a major factor in the HIV epidemic. However, this study may provide insights about which issues need to be addressed for this group, taking into account the high mobility of commercial sex workers, prevalence rates in home countries, and behavioural aspects.

In addition, sexuality and sexual behaviour should be systematically integrated into general health surveys for the Finnish population, as these data are needed as a reference for targeted surveys. This issue is already addressed in the school health survey but should be expanded to other targeted and general health studies among adults, taking into account sexual minority issues.

Regarding MSM, there is a clear need to strengthen and further develop testing opportunities, for example by expanding drop-in testing and counselling facilities and outreach work. Beyond the development of gay-friendly services there seems to be a need to involve the gay community more extensively in prevention activities. A strategy based on respect and dignity should be developed, thus contributing to a healthier sexual lifestyle and the reduction of stigma and discrimination.

It is suggested that guidelines should be developed for non-occupational post-exposure prophylaxis in order to lower the barrier to this prevention measure.

Regarding clinical care for HIV it can be stated that the high level of specialisation (in Aurora University Hospital) brings about a high level of competence. However, a shortage of personnel (infectiologists and trained nurses) is reported. The outcomes of HIV care (such as repeated vital load, CD4, co-infections) are not monitored comprehensively. This is clearly a missed opportunity because Finland has many elements in place to establish a national treatment registry (e.g. biomarkers as viral load) which could easily combine laboratory data and physician reports.

Services for care, surveillance and prevention of STI seem to be widely fragmented. It is suggested that Finland should invest in training, quality improvement (especially for counselling), patient follow-up and surveillance tasks. National guidance for the municipal health services and non-governmental organisations on these topics could be developed.

Regarding the excellent low-threshold health service centres for PWID it is suggested that it should be considered whether harm reduction possibilities could be expanded by providing clean injection rooms. Another element which could be added is drug checking for those who inject drugs from dubious sources. An innovative approach could be to offer substitution of these drugs in low-threshold health centres.

It is suggested that it should be considered whether substitution treatment can be initiated in prison settings. Prison staff should be offered training in order to influence attitudes and knowledge of HIV infection risks.

Suggestions for concrete actions include:

- Consider the participation of Finland in the European Gonococcal Antimicrobial Surveillance Programme (Euro-GASP): antimicrobial resistance data are available and could easily be used to assist monitoring and quality assurance efforts at the European level.
- A follow-up visit to Helsinki in order to arrange the details of Finland participation in Euro-GASP and review STI services in more detail could be conducted in a short time.
- Consider auditing the quality of fragmented HIV testing services and test compliance with the national guidance for HIV testing (‘HIV-testauksen periaatteita’). The development of national guidance on this issue should be considered.
- Review the communication strategy for prevention among men who have sex with men as there seems to be a gap between messages and targeted community. ECDC will provide support in 2013, when the Centre will start developing guidance materials on HIV and STI prevention in men who have sex with men.
- The ongoing HIV and HCV prevalence study on sex workers provides the opportunity to include behavioural risk data.

Annex

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Sari Koskue, Criminal Sanctions Agency, Healthcare Inspector
Sari Valoaho, Finnish Red Cross, HIV/Sexual Health Coordinator
Pekka Tuomola, Helsinki Deaconess Institute, Addiction and Mental Health Sercices, Director of Division
Matti Ristola, Helsinki University Central Hospital, Division of Infectious Diseases, Head HIV Services
Jussi Sutinen, Helsinki University Central Hospital, Division of Infectious Diseases, Consultant
Pentti Kuusela, Helsinki University Laboratory/Clinical Microbiology
NGOs and civil society representatives
Irma Pahlman, Finnish AIDS Council, Executive Director
Jaana Kauppinen, PRO tukipiste, Executive Director
Tuomas Ahonen, A-Clinic Foundation
Anne Ovaska, A-Clinic Foundation, Nurse
Sini Pasanen, HIV Finland, Director
Juha-Erkki Kants
ECDC visiting team
Marita van de Laar, head of Disease Programme for HIV, STI and hepatitis B and C, Office of the Chief Scientist (team leader)
Otilia Sfetcu, scientific officer, Surveillance and Response Support Unit
Johann Fontaine, scientific officer, Ministry of Health and Consumer Protection Hamburg, Germany (rapporteur, ECDC contracted consultant)

Programme of the country visit

Monday, 1 October 2012		
	Venue: National Institute for Health and Welfare (THL), Mannerheimintie 164a Finnish Experts in anttendance: Jutta Immanen-Pöyry, Taneli Puumalainen, Mika Salminen, Heljä-Marja Surcel, Anne Ovaska, Kirsi Liitsola, Henrikki Brummer-Korvenkontion, Marja Anttila	
11.00	Welcome	
11.15	Background and terms of reference	Marita van de Laar
11.45	Introduction of the National Institute for Health and Welfare	Jutta Immanen-Pöyry
12.00	Finnish healthcare system; STM, THL, private sector, laws	Taneli Puumalainen, MSAH
12.30	STI/HIV/hepatitis B/C surveillance in Finland	Mika Salminen
14.00	Coordination of HIV work	Mika Salminen
14.45	Antenatal screening for HIV, HBV and syphilis in Finland	Heljä-Marja Surcel
15.15	A-Clinic Foundation, prevention among IDU's	Anne Ovaska
	Venue: Helsinki Deaconess Institute, Munkisaarenkatu 16	
16.15	Helsinki Deaconess Institute	Pekka Tuomola Jussi Sutinen
	Finnish experts in attendance: Pekka Tuomola, Jussi Sutinen, Henrikki Brummer-Korvenkontio, Mika Salminen	
17.30	End of day 1	
Tuesday, 2 October 2012		
Venue: Ministry of Social Affairs and Health, Meritullinkatu 8 Finnish Experts in attendance: Taneli Puumalainen, Anni-Riitta Virolainen-Julkunen, Mika Salminen, Marja Anttila, Henrikki Brummer-Korvenkontio, Dan Apter, Irma Pahlman, Jaana Kauppinen, Sini Pasanen, Juha-Erkki Kants		
8.30	Welcome	
9.00	Family Federation, Youth Sexual health	Dan Apter
9.30	Finnish AIDS council, prevention among MSM	Irma Pahlman
10.00	Pro Centre Finland, prevention among sex workers	Jaana Kauppinen
10.30	HIV Finland, support for HIV positives	Sini Pasanen
11.00	Comments from community representative	Juha-Erkki Kants
12.00	Welcome to Ministry of Social Affairs and Health. Towards a comprehensive HIV/STI prevention and control strategy (meeting with Minister)	Maria Guzenina-Richardson, Minister of Health and Social Services
Afternoon programme	Finnish experts in attendance: Mika Salminen, Henrikki Brummer-Korvenkontio, Miia Alho, Irma Pahlman and staff of the Finnish AIDS council counselling centre	
14.30	Visit to Vinkki, A-Clinic Foundation (low-threshold service centers, Malmi and Toinen-linja, Helsinki)	Miia Alho
16.00	Visit to Finnish AIDS council	Irma Pahlman
17.00	End of day 2	

Wednesday, 3 October 2012		
Venue: Ministry of Social Affairs and Health, Meritullinkatu 8 Finnish experts in attendance: Taneli Puumalainen, Anni-Riitta Virolainen-Julkunen, Mika Salminen, Marja Anttila, Henrikki Brummer-Korvenkontio, Sari Koskue, Sari Valoaho, Marjaana Pelkonen, Matti Ristola, Eija Hiltunen-Back, Pentti Kuusela		
9.30	Criminal Sanctions Agency, prisons	Sari Koskue
10.00	Finnish Red Cross (SPR), HIV/AIDS Programme	Sari Valoaho
10.30	Promotion of sexual and reproductive health	Marjaana Pelkonen, STM
12.00	HIV and STIs; diagnostics, care and treatment	Matti Ristola, HUCH Eija Hiltunen-Back, THL / HUCH Pentti Kuusela, HUS-lab
13.30	General discussion	
14:00–15:00	ECDC team meeting	
	Finnish experts in attendance: Taneli Puumalainen, Anni-Riitta Virolainen-Julkunen, Mika Salminen, Marja Anttila, Henrikki Brummer-Korvenkontio, Sari Koskue, Sari Valoaho, Marjaana Pelkonen, Matti Ristola, Eija Hiltunen-Back, Pentti Kuusela, Jaana Kauppinen, Juha-Erkki Kants	
15:00–16:00	Final conclusions MSAH and ECDC	
16.00	End of the meeting	

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