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Drug Situation in Finland 2010

REPORT





European Monitoring Centre
for Drugs and Drug Addiction



NATIONAL INSTITUTE
FOR HEALTH AND WELFARE

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by the Finnish National Focal Point, THL

FINLAND DRUG SITUATION 2010

New developments, trends and in-depth
information on selected issues

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FOREWORD

Finland – Drug Situation 2010 is an annual drug report by the Finnish National Focal Point. The report consists of two parts. Part A discusses the latest developments and research data from recent years, mainly focusing on 2009 and early 2010. The drug situation is described from the perspectives of legislation, policies, use, harm, treatment and other interventions, and the drug issue is approached from the health, social and criminal points of view. Part B discusses drug-related special themes; this year, drug treatment recommendations and the costs of drug treatment.

Planning Officer Marke Jääskeläinen (THL) wrote section 1.3 on economic analysis and chapter 12 on the costs of drug use treatment in Finland. Research Professor Hannu Alho and Development Manager Airi Partanen wrote chapter 11 on drug use treatment recommendations. Also, researchers Tuija Hietaniemi and Sarianna Wilppula from the National Bureau of Investigation and Heini Kainulainen from the National Research Institute of Legal Policy contributed substantially to the editing of chapters 9 and 10. The report was compiled and the remaining sections written by Senior Planning Officers Martta Forsell and Ari Virtanen at the Finnish National Focal Point, which operates at the National Institute for Welfare and Health (THL).

Expert comments on the report or parts thereof were received from several people: Pekka Hakkarainen, Ulla-Maija Laakkonen, Sari Palojoki, Immo Parviainen, Katja Pihlainen, Janne Rintatalo, Jaakko Sonck, Tuukka Tammi, Helena Vormaa and Erkki Vuori. We extend our warmest thanks to everyone involved in the preparation of the report.

The report has been approved by the editorial board of Printed Products, Information, THL, as well as the working group on international co-operation on drug issues. The report is available in English and in Finnish.

Finland – Drug Situation 2010 is one of the national annual reports compiled by the National Focal Points in the European Information Network on Drugs and Drug Addiction (REITOX) which is co-ordinated by the European Monitoring Centre for Drugs and Drug Addiction

(EMCDDA). The national reports form the basis for the EMCDDA's annual report *The state of the drugs problem in Europe*.

Helsinki, November 2010

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SUMMARY

This report is a compilation of the most recent Finnish research on drugs and key indicators of the drug situation in Finland. After the mid-1990s, the drug situation in Finland deteriorated according to nearly all indicators (experimentation, problem use, health detriments, morbidity, mortality, criminality and seizures). However, since 2000, drug use and the growth in drug-related harm have levelled off; although problem use growth only stabilised some years after the other indicators.

In recent years, the situation has remained stable. What is notable, though, is that the number of drug-related deaths has been increasing. The growing popularity of designer drugs, particularly MDPV, is also a new trend. Drug experimentation among young people declined towards the end of the 2000s, but this positive trend may now have halted.

According to the most recent population study results from 2008, the percentage of the population aged 15 to 69 who had at some point in their lives tried cannabis was 13%; 3% of the population had used cannabis within the previous 12 months. Out of the population aged 15 to 34, 22% had tried cannabis at some point in their lives. According to the population study results from 2006, 2% of the population had tried amphetamines at some point in their lives, and 0.6% had tried opiates. Among young people, experimentation with drugs decreased in the late 2000s. According to the ESPAD survey in 2007, 8% of school pupils aged 15 to 16 had experimented with cannabis at some point in their lives. According to the school health survey in 2010, 11% of 1st and 2nd year upper secondary school students had tried illegal drugs at some point in their lives, as opposed to 17% of vocational education students in the same age group.

Latest estimates suggest that there were between 14,500 and 19,100 problem drug users in 2005, representing 0.5% to 0.7% of the Finnish population aged 15 to 54. Nearly four fifths of problem drug users used amphetamines. The percentage of men was 80%, the majority of problem drug users being in the age group 25 to 34. Studies indicate that the prominent role of alcohol as an additional substance, intravenous use of buprenorphine and co-occurring mental health disorders are typical of Finnish problem drug use. Increasingly, drug users seeking treatment mention pharmaceutical opioids as the drugs causing the most problems. The number of individuals attending substitution treatment is estimated at 1,800. Bottlenecks in accessing substitution treatment include

the transfer from treatment need assessment to regular outpatient substitution treatment.

In recent years, drug-related mortality has shown a substantial increase. Between 2006 and 2008, the number of drug findings increased by 35% (from 183 to 247 cases) and the number of drug-related deaths, according to the National Cause of Death Register, by 22% (from 138 to 169 cases). The situation has remained stable for other drug-related harm. Indeed, health counselling and the exchange of clean needles and syringes have clearly succeeded in preventing HIV and hepatitis infections.

As a rule, problem drug users are socially extremely marginalised. In 2009, 65% of drug treatment clients were unemployed and 12% were homeless. The number of cases of drug crime reported to the police increased by 13% from 2008. The percentage of aggravated cases of drug crime has remained low (4%). Drugs on the Finnish market are mainly cannabis products, synthetic drugs such as amphetamines and ecstasy, buprenorphine and pharmaceutical benzodiazepines. The supply of heroin is scarce. New modified intoxicants such as MDPV have appeared on the drug market alongside the traditional substances.

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A. NEW DEVELOPMENTS AND TRENDS

1 National policies and context

Anti-drug activities are largely based on long-term policy choices and the societal structures that steer those choices. Structures for drug prevention consist of drug legislation and strategies on whose basis drug policy and action plans are steered. Anti-drug activities (prevention, treatment, reduction of drug-related harm, curbing of supply) become concrete in the implementation of legislation, strategies and action plans.

Many national approaches and activities are related to international systems and agreements regarding drug policy. The resources allocated to these activities also play an important role in drug policy implementation.

1.1 Legal framework

The central government administration is undergoing a thorough re-organisation, and as a result the legislation governing the operations of several bodies involved in drug policy has been amended. The Narcotics Act was amended in 2010 with the addition of MDPV to the list of controlled substances. The Community Service Act (1055/1996) was amended to include a requirement not to use drugs while performing community service.

Narcotics Act

According to the Narcotics Act (373/2008), which entered into force in September 2008, the production, manufacture, import, export, transit, distribution, processing, possession and use of and trafficking in drugs is prohibited, although exemptions are possible for medical, scientific, investigative and control purposes. Trade in drug precursors is provided for by Decree (775/2009) enacting an EU Regulation¹.

Sanctions prescribed in the Narcotics Act are divided according to the severity of the offence into administrative coercive measures and sanctions for offences against the Narcotics Act and for narcotics offences. Administrative coercive measures apply for instance to pro-

¹ EY no 273/2004, 111/2005 and 297/2009

mote compliance with the requirements of the Act and include prohibition of further action and/or a default fine to enforce such a prohibition. Offences against the Narcotics Act include for instance intentional neglecting of the obligations of the Act. Unless a more severe punishment for the act is provided for elsewhere in the legislation in force, a person committing an offence against the Narcotics Act can be sentenced to a fine. Provisions concerning the more serious narcotics offences are laid down in Chapter 50 of the Penal Code (39/1889) according to the current Act.

The Finnish Medicines Agency Fimea is the licensing and controlling authority under the Narcotics Act. Licences are required for manufacture, import and export if not especially exempted by the law. The Decree on Narcotics Control (548/2008) lays down more specific provisions on the licence administration, operations subject to authorisation and their supervision under the Narcotics Act.

Definition of drugs

Under the Act, the definition of a drug is based principally on international conventions, although a Governmental decree may extend the definition of drugs to include substances which, it has been decided, should be placed under controls pursuant to the Council of the European Union's Decision 2005/387/JHA on the information exchange, risk-assessment and control of new psychoactive substances.

The Decree on substances, preparations and plants considered as narcotics (543/2008) lists the substances and preparations defined as narcotics in the UN Single Convention on Narcotic Drugs (SopS 44/1994) and its Convention on Psychotropic Substances (SopS 44/1994). The names of the substances in the Decree have been updated to correspond to those used in international lists. In addition, the Decree also lists substances placed under narcotics control at community level, including 4-MTA, PMMA, 2C-I, 2C-T-2, 2C-T-7, TMA-2 and 1-benzylpiperazine.

In spring 2010, public debate focused on a new synthetic drug, methylenedioxypropylvalerone (MDPV).² It was noted that this drug causes severe physical addiction and exceptional levels of aggression and had already been associated with four deaths. In Parliament, five separate written questions were tabled on the matter over a period of three

² See also chapter 10.1 MDPV.

months (211, 267, 276, 357, 461/2010 vp), noting that MDPV is particularly attractive for criminals because the sanctions for smuggling are more minor than those for conventional drugs. Illicit imports of substances classified as pharmaceuticals are investigated by the Finnish Customs as smuggling offences or pharmaceutical offences, the maximum sanctions for which are 1 to 2 years imprisonment. The aforementioned parliamentary questions referred to the Customs statement noting that Finland should introduce a national drug classification system to curb the trade in MDPV.

As a result, Parliament passed an amendment to the Narcotics Act listing MDPV as a prohibited drug as of 28 June 2010 (595–596/2010). Moreover, the Ministry of Social Affairs and Health noted in its response to the parliamentary questions that a new drug classification system will be prepared during autumn 2010. The aim is to enable the declaring of new ‘designer drugs’ as controlled substances by Government Decree much more quickly than would be possible through the UN or EU systems.

Penal Code

Narcotics offences are provided for in the Penal Code (39/1889), in an amendment to which (1304/1993) they were categorised as narcotics offences, or the preparation or abetting of narcotics offences (maximum sentence 2 years’ imprisonment), or aggravated narcotics offences (1 to 10 years’ imprisonment). In 2001, a further amendment to the Penal Code (654/2001) introduced the unlawful use of narcotics (maximum sentence six months’ imprisonment), and in 2006 the preparation of a narcotics offence and abetting a narcotics offence were rendered punishable acts (928/2006).

Dealing with the unlawful use of narcotics is possible in summary penal proceedings (692/1993). Said proceedings are applicable to cases where the penal provision applicable does not include a punishment more severe than a fine or a maximum of six months’ imprisonment. A summary penal order is issued by the police, a customs official or another public official performing controls stipulated by law, on their own initiative or on behalf of the prosecutor. Processing the order requires the complainant’s consent. Through amendment (578/2008) to the Penal Code, it was decided that a fine imposed in summary penal proceedings may not be converted into imprisonment. In practice, this means that offenders issued a fine in summary penal proceedings by the po-

lice or the prosecutor for the unlawful use of narcotics may no longer be sent to prison instead. In cases of the unlawful use of narcotics, charges may be waived in favour of a reprimand for young people or referral to treatment for problem users, but the number of such decisions has remained low. (Ministry of Social Affairs and Health 2009.)³

Drugs are also referred to in connection with driving while intoxicated in Chapter 23 of the Penal Code; for instance, zero tolerance with regard to drug use while driving (without a prescription from a physician) has been practiced since 2002. The control of illegal drugs is also provided for in the Coercive Measures Act (450/1987), which sets forth terms and conditions for wiretapping, telecommunications monitoring and technical monitoring, and in the Police Act (493/1995), which provides in more detail for the above and also for undercover action, pseudo purchases and other significant intelligence methods in the prevention, uncovering and solving of serious and organised crime (including drug crime).

Central government reorganisation

The Narcotics Act was amended to designate **the Finnish Medicines Agency Fimea** as the licensing and controlling authority as of 1 November 2009 (593/2009), assuming the former duties of the National Agency for Medicines (775, 1095, 1568/2009).

With the merger of the National Research and Development **Centre for Welfare and Health** (STAKES) and the National Public Health Institute (KTL) into the National Institute for Health and Welfare (THL) as of 1 January 2009 (668/2008), the new agency acquired the STAKES mandate specified in the Narcotics Act of acting as the representative of Finland in the European information network on drugs and drug addiction (REITOX) (775/2009).

The **National Police Board** is a new central government agency that began operations on 1 January 2010 (497/2009). Under this reorganisation, the National Bureau of Investigation, the Finnish Security Intelligence Service, the National Traffic Police, the Police College, the Police Technical Centre and the local police departments were all brought under the new National Police Board. At the same time, the Police Department of the Ministry of the Interior was abolished and its duties assigned to the new central government agency. The setting up

³ See also chapter 9.3 Alternatives to prison.

of the National Police Board is reflected in formal amendments made to the Coercive Measures Act (511/2009) and the Police Act (498/2009). Further in the central government reorganisation, the State Provincial Offices were abolished and their police functions divided among the new **Regional State Administrative Agencies** (896/2009). A reorganisation was also effected in the prison service, as the former Criminal Sanctions Agency, Probation Service and Prison Service merged into the new **Criminal Sanctions Agency** as of 1 January 2010 (953/2009).

As the State Provincial Offices were abolished, their duties concerning quality, monitoring and customers' legal safeguards in education, social welfare and health care basic services were transferred to the new Regional State Administrative Agencies at the beginning of 2010 (896/2009). One year earlier, the former National Authority for Medicolegal Affairs and National Product Control Agency for Welfare and Health merged into the new **National Supervisory Authority for Welfare and Health (Valvira)** (669/2008), whose duties include the nationwide administration of the aforementioned duties of the Regional State Administrative Agencies, which Valvira also assists in their regional duties.

Prevention

There are many other legislative provisions intended to prevent, treat and monitor drug use and problem use of drugs. Provisions concerning preventive substance abuse work are laid down in the **Temperance Work Act** (828/1982). This Act defines the purpose of temperance work as habituating citizens to healthy lifestyles by guiding them in avoidance of the use of substances and tobacco. According to the Act, the establishment of general prerequisites for substance abuse prevention is primarily the task of the State and municipalities.

The **Child Welfare Act** (417/2007) provides for essential care and support for children in cases where the person responsible for the care and education of the child is a client of a substance abuse service, for instance, and for the eventual foster care, taking into care or providing of substance abuse services for the child if the child himself/herself seriously jeopardises his/her health or physical development through substance abuse.

The key principles for pupil and student welfare services and the educational objectives are defined in the national curricula for the various educational levels. **Legislation related to education** has required ed-

educational institutions to apply these principles, together with social welfare and health care authorities, in local curricula in order to further the prevention and treatment of substance abuse. (477–479/2003.)

The **Government Decree on welfare clinic services, school and student health services and preventive oral health services for children and youth** (380/2009) lays down provisions concerning health examinations in welfare clinics and carried out by school and student health services. According to the Decree, sufficient and regular health examinations and health counselling are aimed at enhancing early support and preventing social marginalisation. In health counselling, individuals are supported and their psychosocial welfare promoted; this includes preventing the use of alcohol, tobacco and other intoxicants. The Decree specifies that welfare clinics must adopt extensive health examinations – as in school health care – involving the entire family. Health examinations in eighth grade in comprehensive school highlight the importance of early detection, intervention and further treatment in any substance abuse problems.

The **Occupational Health Care Act** (1383/2001) enables drug testing in the workplace. Before requiring any individual to take a test, the employer must have a written substance abuse programme, which contains the general goals of the workplace and practices to be followed to prevent substance abuse and help substance abusers in seeking treatment. The Act on the Protection of Privacy in Working Life (759/2004) regulates employers' rights and their limitations concerning drug tests required from employees. However, there are special regulations in several sectors regarding drug use monitoring, required because of the nature of the work done in those sectors. Such provisions may be found in the Conscriptio Act (1438/2007), the Aviation Act (1194/2009) and the Act on traffic safety duties in the railway system (1664/2009).

Services and harm reduction

Treatment for drug users is regulated by the **Act on Welfare for Substance Abusers** (41/1986), requiring municipalities to ensure that the provision of substance abuse services meets local needs as regards content and scope. These services must be delivered through the development of general social and health care services and the provision of services that are intended specifically for substance abusers. Such services must be provided primarily through outpatient care and should be easily available, flexible and diversified.

The **Decree governing detoxification and substitution treatment for opioid addicts** (33/2008) stresses that only demanding substitution treatment cases should be dealt with by specialist health care; other cases should be treated at primary health care level. With respect to the evaluation and beginning of treatment, the focus is on outpatient rather than inpatient care.

Pharmaceuticals containing buprenorphine or methadone can only be prescribed for the detoxification or substitution treatment of opioid addicts by a physician employed by a health care unit and responsible for its operation, or by the physician who assigned this task to him/her. Medical treatment may be conducted and the medication administered to the patient only under the supervision of the health care unit. If the patient's commitment to treatment is high, the health care unit can give him/her pharmaceuticals equivalent to a maximum of eight daily doses (15 in exceptional cases).

However, the Decree allows a combined preparation of buprenorphine and naloxone to be issued from a pharmacy under a pharmacy contract signed by the patient. A *pharmacy contract* refers to a contract by which the patient commits to collecting the pharmaceuticals specified under the contract from only one pharmacy, and agrees that this pharmacy may transmit treatment-related information to the physician treating the patient and notify other pharmacies of the existence of the pharmacy contract.

The amendment of the **Decree on Prescription of Medicines** (490/2008) specifies the conditions for prescribing a narcotic substance for medicinal use and, if special therapeutic reasons exist, for prescribing special preparations outside the special authorisation procedure, under the Medicines Act for medicinal use. A condition for prescribing a preparation requiring special authorisation is that no other therapies are available for treating the patient or that the desired outcome cannot be achieved using other therapies. Special authorisation can be granted on a patient-specific basis and, at most, for one year at a time. Based on the amendment, a cannabis-based analgesic can also be prescribed in certain cases. However, cannabis-based medicines do not have regular marketing authorisation.

The **Communicable Disease Decree** (786/1986) requires that the municipal body responsible for combating infectious diseases ensure that work is undertaken for the prevention of infectious diseases, including the provision of health counselling for intravenous drug users as well as needle and syringe exchange. In addition, as part of the general vaccination programme, Decree 421/2004 recommends free hepa-

titis A and B vaccines for intravenous drug users, their sexual partners and individuals living in the same household.

Imprisonment

The **Act on Imprisonment** (686/2005) regulates both drug control and drug prevention and treatment work in prisons. The Act stipulates that, in a closed institution, the prison inmate must be provided with the opportunity to stay in a contractual ward where the inmates are committed to a supervised intoxicant-free life and to the activities arranged in the ward. An inmate with a substance abuse problem can also be placed for a fixed term in an institution outside prison, where he/she can participate in rehabilitation or other target-oriented activities that reinforce his/her operational abilities, and where he/she does not use intoxicating substances and observes the terms and conditions stipulated for free movement.

The **Community Service Act** (641/2010) was amended to include a requirement not to use drugs while performing community service. In cases of suspected drug use, the convict would be required to submit a urine or saliva sample; a positive sample would lead, depending on the situation, to a reprimand, a notification to the prosecutor, or even the discontinuation or denial of community service. This amendment will enter into force on 1 January 2011.

1.2 Institutional framework, strategies and policies

No major changes have occurred in drug policy in recent years. Broad-based development of general welfare policy and of social welfare and health care services continues.

Background

The first Finnish drug strategy was published in 1997, with the aim of arresting the growth of drug use and the related crime. Based on this strategy, the Government has issued resolutions in 1998, 2000, 2004 (for 2004–2007) and 2007 (for 2008–2011).

According to a dissertation by Tuukka Tammi (2007), two contradictory views on the drug issue were held by the relevant Committee: the police authorities advocated a drug-free society and strict control policies while the social welfare, health and criminal policy alliance was in favour of harm reduction. The general objective of harm reduction was not solely based on public health concerns. Indeed, the concept's ideological roots can be traced back to the tradition of a rational and humane criminal policy first adopted in the 1960s and 1970s,⁴ according to which criminal and social policy primarily aims at minimising social harm.

According to the study, minimising harm has not presented a threat to the drug prohibition policy; rather, it has become part of it. Minimising harm through the establishment of syringe and needle exchange points (health counselling centres) and extended substitution treatment has meant new, specialised services founded upon medicine and increased efforts by medical professionals to treat drug-related problems. At the same time, penal control of drug use has become more effective. Therefore, minimising harm has not meant a step towards a more liberal drug policy, nor has it vitiated the traditional policy based on complete drug prohibition. Instead, minimising harm combined with punitive prohibition policy forms a two-pronged paradigm for Finland's drug policy. (Tammi 2007.)

Drug policy guidelines for 2008–2011

According to the latest Government Resolution, pertaining to 2008–2011,⁵ Finnish drug policy is based on general social policy measures, national legislation and international treaties, together aimed at contributing to a reduction in the supply of and demand for drugs, and in drug-

⁴ A book by Mikko Ylikangas on the history of drug abuse in Finland from 1800 to 1950 was published in 2009. The book reveals that the drug problem was discussed in Finland as early as in the 1920s and that in the 1930s Finland consumed more heroin (used as a cough medicine at the time) than any other Western nation. Also, as far back as 200 years ago the authorities expressed concern over the abuse of opium, even though drug control in the modern sense did not yet exist. The book explores the contradiction between legal use and abuse, shifts in attitudes in government and the press, and developments in drug control and detoxification. From a historical perspective, every generation discovers its own drugs, and almost always any 'new' drug is first considered harmless and even used for detoxification. (Ylikangas 2009.)

⁵ The Resolution of Matti Vanhanen's second Government, which took office in March 2007, concerning co-operation on drug policy for 2008–2011 was completed in late 2007, based on the above-mentioned final report. (Finnish Government 2007a.) Mari Kiviniemi's Government, which took office on 22 June 2010 and will sit until April 2011, is continuing the implementation of the Government Programme of Matti Vanhanen's second Government as regards drug policy.

related harm, enabling early treatment for those suffering from drug problems and imposing penal liability on those engaged in illegal activities. In its drug policy, Finland observes the United Nations international drug control conventions and the EU Drugs Strategy for the period 2005–2012. (Finnish Government 2007a.)

Pursuant to this Resolution, the Government will continue to strengthen the co-ordination of its drug policy and co-operation among administrative sectors during the 2008–2011 administrative period. The resolution states that the basic requirements of counter-narcotics action in Finland are well ensured: the drug situation can be reliably monitored and effective interventions made where required. Each year, the Drug Policy Co-ordination Group provides an account to the Government on the implementation of the resolution. At the end of the period, a separate final report is prepared for the Government with respect to the potential planning of a new programme. The Resolution includes the following seven action points:

1. Preventive work and early intervention

Preventive substance abuse work will be enhanced in social and health care, youth work, schools and educational establishments and its role in the promotion of health and well-being will be consolidated in the restructuring of municipalities and services. Early intervention will be established as part of all health and welfare services. Substance education will be reinforced throughout the educational system. Support will be provided for high-quality information and education activities. Where necessary, the provision of information will be targeted at special risk groups.

2. Combating drug-related crime

The likelihood of being caught will be increased with respect to aggravated narcotics offences and those involving distribution carried out in Finland. Criminal liability will be implemented through seamless international co-operation with the offender's home country or country of residence. The import of drugs into the Finnish market will be tackled primarily through seizures at national borders. Control of the distribution of drugs and pharmaceuticals classified as drugs will be integrated into the basic operations of the police. The detection of crimes accompanying narcotics offences, particularly concealment, procurement, extortion and money laundering, will be en-

hanced. Tracking criminal gains and their comprehensive recovery shall be reinforced.

3. Treatment of drug addiction and reduction of harm from drug use

The development and increased provision of treatment services will continue, with the aim of ensuring equal access to services for all citizens. A range of treatment options, appropriate to the type of addiction in question, will be offered to drug users. Treatment, health counselling and support directed at reducing drug-related harm (such as diseases, mental health problems and accompanying crime), will be increased. Access to treatment will be facilitated for opioid addicts, and treatment volumes increased to meet demand on a more comprehensive basis. Referral to treatment by the police will be made more efficient.

4. Intensifying the treatment of drug abuse in connection with criminal sanctions

The effectiveness of imprisonment will be improved through the better planning of prisoners' sentences and release on an individual basis, as required by the new Act on Imprisonment. The procedures of allocation units determining prisoner placement will be developed and substance abuse rehabilitation and contact work in prisons increased. Support measures for supervised probationary freedom and post-care for released inmates will be improved. Moreover, substance abuse rehabilitation included in community sanctions will be bolstered and rehabilitation opportunities for those sentenced to juvenile punishments enhanced.

5. EU drug policy and international co-operation

Finland will take an active role in planning and implementing the EU-wide drug policy. It will participate in international anti-drug collaboration through drug policy forums established by the United Nations, the Council of Europe and the Nordic Council of Ministers. International anti-drug and drug-related harm reduction projects conducted bilaterally or multilaterally and supporting Finland's objectives will be supported through funding, within the framework of neighbouring area and development co-operation.

6. Information collection and research regarding drug problems

Long-term follow-up research on the drug situation will be continued and the availability of up-to-date information on this situation secured for those responsible for drug policy. The national information required by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) for reports on the drug situation, and for the UN's data collection systems, will be produced. Research into drug use, drug markets, the treatment of drug users and methods of combating drug-related problems will be furthered and international co-operation by Finnish researchers promoted. Citizens' opinions on drugs, drug use and related harm will be monitored regularly.

7. Co-ordination of drug policies

The Ministry of Social Affairs and Health is responsible for co-ordinating national measures related to drug policy. In support of this, the operations of the Drug Policy Co-ordination Group will continue during the Government's 2008–2011 term of office. Developments in the drug situation will be followed and findings regularly reported to the Government. Co-ordination will encompass the preparation and implementation of legislation and actions taken by the authorities pursuant to the overall drug policy. Furthermore, the national drug policy will be co-ordinated with the alcohol and tobacco policies.

The effectiveness of drug policy will be monitored using the following indicators, among others: the extent of drug use by age group; the number of problem drug users; hospitalisation periods; drug-related deaths; infectious disease cases related to drug use; narcotics offences; drug seizures; and treatment referrals by the police.

Anti-drug work will also take account of measures contained in other Government action plans (including those adopted by previous Governments and still valid) and those under the Internal Security Programme, for instance.

Drug policy monitoring

The Drug Policy Co-ordination Group follows the drug situation in Finland and supervises the implementation of the cross-sectoral drug programme. This Group's key task is to co-ordinate the measures of the various administrative sectors. Represented on the Group are the Ministry of

Social Affairs and Health, the Ministry of the Interior, the Ministry of Justice, the Ministry of Education, the Ministry for Foreign Affairs, the National Institute for Health and Welfare, the Office of the Prosecutor General, the National Board of Customs and the Finnish National Board of Education.

Implementation of the Government Resolution on drug policy for 2008–2011 is being monitored through administrative reports submitted by the co-ordination group to the Government. The report for 2008 (Ministry for Social Affairs and Health 2009d) focused on additional funding received for substance abuse work training; positive findings in a cross-discipline evaluation study concerning the impact of a network of health counselling points for intravenous drug users set up in Finland on curtailing the spread of infectious diseases, particularly HIV; prison service activities for implementing individual rehabilitation plans during imprisonment; co-operation agreements by the Police and Customs with their opposite numbers in Russia, Uzbekistan, Belarus and Azerbaijan, and other actions taken by Finland in international drug prevention contexts (including the UN); completing the drug legislation reform; and increasing resources for drug research. The report for 2009 will be postponed. (Rönkä et al. 2009.)

Criminal justice evaluation of the drug policy

Aarne Kinnunen noted in his doctoral dissertation, completed in 2008,⁶ that despite its social welfare and health care elements the Finnish drug policy continues to rely principally on the criminal justice system. According to this study, Finnish society simultaneously shuns drug users (exclusion) and seeks to integrate them (inclusion). The special nature of dealing with the drug problem manifested itself in the study for instance in how slowly the drug abuse treatment system was able to react to changing circumstances. (Kinnunen 2008.)

⁶ The study discusses the development of the drug market and drug-related crime since the mid-1990s, the criminal careers and socio-economic status of narcotics offenders, and efforts to solve the problem of drug-related crime through official enforcement. The study is based on statistics, observations of police work, interviews with the authorities and people in the drug market, and official documents. It shows that since the mid-1990s drug use has become more common, drug problems have become more serious, and drug control has become stricter. Prevention of drug problems became a key issue for the authorities, and more resources were allocated to anti-drug measures. Control through the criminal justice system was reinforced, and drug prevention took top priority in the strategies of the Police and the Customs. The prevention and uncovering of drug-related crime was introduced as an objective in police surveillance nationwide. This manifested itself as a marked increase in crime statistics. (Kinnunen 2008.)

Drug control is selective and conducive to repressive practices. It was estimated that offenders convicted of narcotics offences in Finland were subject to more severe sanctions than those convicted of other offences. The criminalisation of drug use and the tightening of the practice of issuing fines demonstrate that a stricter moralist view of drug use and other high-risk behaviour is now prevalent. Moreover, criminal control tends to focus on persons of low socio-economic status. (Kinnunen 2008.)

Heini Kainulainen came to a similar conclusion in her dissertation (Kainulainen 2009). According to her, the criminal justice sanction system has in recent years focused increasingly on the offender,⁷ particularly in the case of offenders who are substance abusers. For example, waiving charges remains an extremely rare outcome, even though it would be especially needed in narcotics offences. The police have traditionally been reluctant to apply this procedure, since intervention in users' actions has been considered crucial. For a long time, prosecutors concurred. (Kainulainen 2009.)

According to Kinnunen, the way in which the drug problem is treated has led to a stricter approach across the board in criminal policy. The drug problem has been cited as an argument for expanding the range of coercive measures available to the police and for the introduction of unconventional investigative methods. At the same time, new administrative procedures have been lined up against drug users, such as drug tests at the workplace, a review of criminal record entries in applying for certain jobs, and the threat of the offender losing his/her right to drive in cases where a physician diagnoses him/her with a substance addiction. (Kinnunen 2008.)

Traditionally, it has been considered important in Finnish criminal policy to prefer values of humanity and social justice and to focus on preventive action. Sanctions have been considered a secondary resort. However, in drug policy criminal justice has retained a central role despite the fact that harm-reduction policy has made inroads and the wel-

⁷ In the drug use offence reform that entered into force in 2001, the police were given the authority to issue summary fines to drug users; at the same time, alternative sanctions were heavily recommended. Underage offenders should be given a reprimand instead of imposing a fine, and problem drug users should be referred to treatment. However, in practice this reform led in the early 2000s to a substantial increase in summary fines issued to drug users. Because there is less scope for waiving charges in this case, the practice also led to a decline in the use of waiving of charges, and thereby decreased the use of alternative sanctions and indirectly led to stricter sanctions overall. The effect of guiding problem users to treatment that was sought in the drug use offence reform has not been achieved in practice: it is still extremely rare for charges to be waived for drug use offenders who have sought treatment. (Kainulainen 2009.) See also 9.3 Alternatives to prison.

fare society has been able to provide a growing range of care services for problem users. (Kinnunen 2008.)

Programmes to develop wellbeing, social welfare and health care

Intoxicants and substance abuse services play a major role in several large development projects in the social welfare and health care sector.

Legislation on the **restructuring of municipalities and services** (the PARAS project) entered into force on 23 February 2007. The Framework Act (169/2007) requires that municipalities ensure the equal provision of vital social and health care services to all Finns. This goal will be met by reinforcing the municipal structure and funding base, strengthening co-operation between local authorities and ensuring comprehensive coverage by the service network.

Substance abuse and mental health services constitute an important service package in the PARAS project. THL surveyed the implementation of the PARAS project in municipal social welfare and health care services in 2009. (Kokko et al. 2009.) The responses showed⁸ that about 15% of the population lives in municipalities where the local authorities provide no substance abuse outpatient services. In 58% of the municipalities in Finland, substance abuse service reception services are provided by the local authorities, while detoxification is available at a local facility in fewer than half of the municipalities. Institutional rehabilitation for substance abuse covers a larger percentage of the population (65%). Mental health and substance abuse services have been centralised at the sub-regional or regional level, particularly in the case of small municipalities. (Kokko et al. 2009.)

⁸ The framework act associated with this project is applied in nearly all municipalities in Mainland Finland. In 2007, 329 municipalities were covered by the framework act. Åland has separate legislation. A survey of municipal social welfare and health care services was conducted to explore the progress of the restructuring of municipalities and services in 2009, and also how local authorities plan to move ahead after the framework act expires in 2013. Respondents were in general administration (municipal and city managers), sectoral management and municipal federation management. The largest group of respondents (57%) out of all municipalities consisted of sectoral managers, followed by municipal/city managers (20%) and administrative directors (12%). Analysed by municipality size group, in small municipalities with a population of less than 3,000, the largest group of respondents (43%) consisted of municipal managers, closely followed (40%) by sectoral managers. The percentage of municipal/city managers among respondents was the lower the larger the municipalities.

In estimating trends up to 2013, the greatest difference between the current and the projected situations emerged in mental health and substance abuse services. For instance, responses indicate that only 40% of local authorities would be providing substance abuse reception services in the future. The trend towards sub-regional centralisation of detoxification and institutional substance abuse services was generally considered acceptable. Despite pressing development needs, 65% to 75% of the respondents estimated that no change had happened in the previous year in substance abuse outpatient services, mental health services, institutional services and crisis services – and more than half estimated that no change will be forthcoming either. (Kokko et al. 2009.)

Also, it was noted that substance abuse and mental health services were generally one of the worst-functioning parts of the service system, especially as regards the overall running of the system, the co-ordinating of services and general complexity: in many cases, substance abuse services are run by the local authority and mental health services are located elsewhere, in specialist medical care. In those parts of the country where mental health bureau services were transferred from hospital districts to health centres, mental health and substance abuse services were able to develop as municipal services. In these cases, local authorities have created combined units for psychosocial services or mental health and substance abuse services. About half of all local authorities declared that they had such combined service units. By comparison, local authorities tended to outsource substance abuse rehabilitation, institutional rehabilitation, housing and detoxification services from the private sector.

The **National Development Plan for Social and Health Care Services** (the Kaste programme) (Ministry of Social Affairs and Health 2008) highlights improvements required in primary health care, social work, care provided by paramedics as well as mental health and substance abuse work. This development plan's objectives include increasing people's inclusion and decreasing their social marginalisation, augmenting their well-being and health and reducing health inequalities as well as improving the quality, effectiveness and availability of services whilst narrowing regional differences.

The objectives related to substance abuse in the implementation programme of the National Development Plan for Social and Health Care Services (Kaste) concern information steering and expert assistance provided to local authorities, meaning the maintenance of follow-up indicators concerning the substance abuse situation, the production of material and the development of substance abuse strategy work and

best practices. In particular, the National Institute for Health and Welfare bears co-ordination responsibility for reinforcing the regional structures of substance abuse prevention, with the help of regional developer networks and training associated with support material. It also bears such responsibility for creating peer information systems, in order to monitor the generation of results from operating practices. Essential in this respect are the quality recommendations issued to services and the collection of client feedback revealing the client perspective. The Kaste programme's objectives also include the dissemination of best practices concerning early intervention among substance abusers, particularly children and young people. In addition, the programme emphasises the integration of services into a consistent whole.

The first interim report on the implementation of the programme was completed in 2010 (Ministry of Social Affairs and Health 2010a), stating that the Kaste programme addresses key development needs in the social welfare and health sector. It has close connections with the policies of the PARAS project, but co-operation between programmes in different administrative sectors should be improved in its practical implementation. Taking into account the needs of different types of municipalities will require further attention in the programme evaluation, and probably in the Kaste programme itself too. The interim report notes that it would be important for implementation support to allocate additional resources to project administration and peer learning, and to monitoring and self-evaluation. Kaste funds to be granted to local authorities in 2010 are intended to be earmarked particularly for substance abuse and mental health services.

According to the **Policy Programme for Health Promotion** (Finnish Government 2007b), the Ministry of Social Affairs and Health will prepare a proposal for the comprehensive care of pregnant women with intoxicant problems. Furthermore, the Ministry of Social Affairs and Health is currently drawing up a national mental health and intoxicant plan creating policy outlines and operating models for mental health and intoxicant abuse services.

In 2009, the Policy Programme for Health Promotion (Finnish Government 2007b) generated two reports by the Working Group appointed by the Ministry of Social Affairs and Health, one concerning mental health and substance abuse work and the other the development of treatment for substance-abusing pregnant women (see following).

The report (Ministry of Social Affairs and Health 2009a) by the **Mieli 2009 Working Group**, concentrating on the development of mental

health and substance abuse work, underlined prevention and early intervention as well as shifting the service focus to primary and outpatient services. According to the Working Group, people with both mental health and substance abuse problems must be able to access services flexibly through a one-stop shop and on an equal basis in comparison to other people. However, this would require the modification of the service structure, and it would be reasonable to make such changes within the framework of the ongoing, broad-based PARAS restructuring project. To enable eventual operating reforms, the National Institute for Health and Welfare also published a guide to strategic planning in mental health and substance abuse services at the local or regional level. (Laitila et al. 2009.) The Working Group also proposes that the contents of the Mental Health Act, the Act on Welfare for Substance Abusers and the Temperance Work Act be updated and the possibility of grouping them be assessed.

According to the Mieli Working Group, the service structure must be developed by increasing mental health and substance abuse work carried out in primary services and by establishing outpatient units combining treatments for both mental health disorders and substance abuse. Local authorities should increase and diversify their mobile on-duty services providing consultation for people suffering from mental health and substance abuse problems, since this would reduce the number of patients treated in institutions. Another suggestion recommends that people who have themselves experienced mental health and substance abuse problems be included in planning, implementing and evaluating the services. Since the concurrence of mental health and substance abuse problems is becoming more and more common, a further proposal is made that outpatient units specialising in psychiatry and outpatient units offering services for substance abusers be combined. It is suggested that psychiatric inpatient care be principally transferred to general hospitals. Improving services requires more extensive resources, which must be targeted in particular at primary and outpatient services for the enhancement of the prevention, early support and treatment of mental health and substance abuse problems. The level of preventive mental health work and substance abuse prevention within these services must be ensured by appointing at least one full-time employee for co-ordinating such work in areas with a large population base.

The Ministry of Social Affairs and Health and the National Institute for Health and Welfare are responsible for implementing the national plan for mental health and substance abuse work. The National Institute for Health and Welfare published a report on the national plan for mental

health and substance abuse work, its reception⁹ and its implementation plan in 2010.(Partanen et al. 2010.) The report states that although the focus has shifted to prevention in the 2000s, the economic recession and spending cuts have forced the promotion of wellbeing and health into short-term mode. However, at the strategic level the promotion of mental health and the prevention of substance abuse have been included in broader strategies for wellbeing. The provision of mental health and substance abuse services in Finland is governed by legislation framed in relatively broad terms, and there are different kinds of actors from small local authorities to large municipal federations and private service providers. Mental health services are largely handled by the health care sector, and substance abuse services by the social welfare sector. Boundaries have evolved between sectors and actors, which has translated into the use of referrals in mental health services and guarantees of payment in substance abuse services; these boundaries also cause queuing, and sometimes clients fall between systems when moving from one service or system to another.

Programme implementation is divided into four areas: (1) Spearhead projects for enhancing experiential expertise and peer work and developing psychiatric hospital care to increase patient/client security while reducing the number of compulsory care actions in psychiatric wards to improve the status of patients/clients. (2) Strategic development and preventing the inheriting of mental health and substance abuse problems by the next generation are spearhead projects in preventive action. (3) For the service system, the focus is on developing low-threshold basic services with mental health and substance abuse expertise while monitoring the development of the service system through research and registers. (4) In control measures, the focus will be on improving the national plan website and on strengthening national, regional and local co-ordination in preventive mental health and substance abuse action.

The Health Care Act reform, social services legislation reform and development of legislation regarding compulsory care are key legislative projects that will have an impact on mental health and substance abuse action. The Kaste programme is of central importance to the de-

⁹ In an open Internet survey conducted with municipal social welfare and health care services, NGOs, educational institutions, etc., development of outpatient and basic services was considered important, and also the strengthening of the status of the patient. Criticism was voiced particularly regarding the weak presence of social services in the plan. Responses also showed concern about the threshold of access to treatment for substance abuse patients rising from its present level. The greatest uncertainty was prompted by the transfer of psychiatric hospital care to general hospitals.

velopment of mental health and substance abuse action, extending far beyond public services to the third sector. This involves not only the social welfare and health care sector but also education, culture and other leisure functions, businesses and bodies responsible for housing and living environments.

The report by the **Working Group examining how to ensure treatment for pregnant women with intoxicant problems** (Ministry of Social Affairs and Health 2009b) states that pregnant women need to be granted a subjective right to immediate assessment of their need for substance abuse treatment and access to treatment required by the assessment. The issue of substances should be raised as early as possible with all clients in maternity clinics, and the spouse's alcohol consumption should be assessed. Health care services, social welfare offices, emergency social services and the police must encourage pregnant substance abusers to visit a maternity clinic, so that they can benefit from the maternity allowance and ensure the child's health. Seeking voluntary treatment must be rendered easy, and the appropriate substance abuse services should be offered. While special competences must be centralised at university hospitals and central hospitals, part of the follow-up can be carried out at maternity clinics.

The Working Group is of the opinion that Finland should investigate the possibility of preparing provisions regulating involuntary treatment in accordance with the Danish and Norwegian model. A pregnant woman could commit herself to a treatment place by signing a treatment contract valid for an agreed period, even if she later changes her mind and no longer wishes to continue the treatment. The Working Group suggests a legal amendment which would also enable involuntary treatment based on the health risk posed to the unborn child. Currently, the law allows for a person to be ordered into treatment for five days due to a health risk. According to the Working Group, this involuntary treatment period should be increased to 30 days and enable the continuation of such treatment until the end of the pregnancy.

The bill on the commitment to involuntary treatment of pregnant substance abusers is scheduled to be submitted to the Constitutional Law Committee of Parliament after preparation, since such commitment is problematic vis-à-vis basic human rights. Involuntary treatment violates the mother's right to self-determination, which is a fundamental right. On the other hand, the foetus being protected through the involuntary treatment has no protected rights at all, since basic human rights are acquired at birth. The bill forms part of a legislative package prepared by the Ministry of Social Affairs and Health that also includes provisions

for involuntary treatment for other groups of people required in the social welfare and health care sector. The bill is scheduled to be completed by the end of 2010.

The **National Action Plan to Reduce Health Inequalities 2008–2011** (Ministry of Social Affairs and Health 2008c) lays down practical guidelines for reducing socio-economic health inequalities. While closely linked to the Policy Programme for Health Promotion, it was considered a separate necessary measure because health inequalities have emerged as a difficult health and social policy problem. The action plan also seeks to address certain special needs groups, such as families suffering from substance abuse and mental health problems. The action plan seeks to improve the status of such groups for instance by requiring local authorities to include preventive substance abuse services in their health and welfare promotion systems and to integrate substance abuse services into their other social welfare and health care services.

The **Policy Programme for the Well-being of Children, Youth and Families** (Finnish Government 2007c) aims to create a service system supporting families with children, which will form a seamless network to promote the well-being of children and young people. This system will be capable of eliminating threats to well-being in advance and enable effective intervention in the case of problems. A key priority is support services for children and young people, especially in the case of violence, mental health problems or intoxicant problems in families.

A working group proposal completed as part of the policy programme (Ministry of Education 2009) suggests that for the purposes of preventing social exclusion the Youth Act should include provisions on a cross-sectoral network between local authorities, on outreach youth work and on related disclosure of information. The purpose of outreach youth work is for instance to contact young people who need help because of a substance abuse problem and to introduce them to services and other means of support conducive to their growth and independence and to their access to education and the labour market. The Act (taking effect 1.1.2011) also includes a provision on the disclosure of personal and contact information on young persons for the purposes of outreach youth work so that young people needing help can be found. In principle, the young person in question would himself/herself have to consent to such disclosure of information for the purpose of helping him/her.

Under the Youth Act (72/2006), a youth policy development programme shall be prepared every fourth year. The first **Child and Youth Policy Development Programme 2007–2011** (Ministry of Education 2007) affirms that the passing of mental health and substance abuse

problems from one generation to the next is one of the most common paths to social exclusion. The programme underlines that co-operation between child welfare services, substance abuse services and mental health services must be strengthened to meet the welfare and rehabilitation needs of children whose parents require adult services. Regarding criminal law, mental health or substance abuse services could also be included in juvenile punishments.

The **Internal Security Programme** (Finnish Government 2008) emphasises that social marginalisation is often related to long-term income problems, but also to substance abuse and mental health problems. Breaking the cycle often requires simultaneous measures by various actors and early intervention. Since intoxicants (particularly alcohol) and violence are often interlinked in Finland, the programme aims to reinforce existing support services in order to reduce violence towards children and young people. In addition, the programme focuses on national and international co-operation among the competent authorities in combating organised crime, and on sector-specific collaboration with business.

The first interim report (Ministry of the Interior 2009) on the implementation of the Internal Security Programme affirmed that alcohol and other substance-related education has emphasised the risks of accidents associated with substance abuse. Furthermore, it stated that an account had been prepared on how such a perspective is conveyed in substance-related education material. The interim assessment of the implementation of the programme in 2009 (Ministry of the Interior 2010) emphasised the pressures caused by the economic downturn and the concomitant increased risk of social exclusion, which presents an internal security risk and a challenge for the attainment of the goals specified in the Internal Security Programme. Exclusion may be economic or social in nature, and it often involves health problems and exclusion from education and the labour market. A link between the drug trade and social exclusion may emerge for instance by problem users of drugs being recruited for criminal activities.

Projects to improve drug control

The **Working Group considering how to enhance the fight against organised crime** (Ministry of the Interior 2007) has emphasised that the most urgent measure to be implemented is the collection of information on serious organised crime and integration into the national in-

formation systems of the police. Another urgent need is to ensure that organised crime is tackled primarily using methods targeted at serious crime. An essential requirement is therefore that the fight against organised crime be planned and implemented in a co-ordinated manner.

The Ministry of Education working group studying the **revoking of study rights and intoxicant testing** as means for improving the safety of social welfare and health care services has been preparing bills amending legislation concerning universities, universities of applied sciences, vocational education institutions and vocational adult education. In its final report (Ministry of Education 2010), the working group proposes the following amendments to the aforementioned legislation:

1. In study programmes for professions or occupations involving the safety of underage children or patient, customer or traffic safety, a student's study rights could be revoked if the student repeatedly or seriously endangers the health or safety of another person in the course of his/her studies or if the student presents with a health issue that significantly reduces his/her functional capacity in such a way as to endanger the health or safety of another person. The latter is considered to cover substance abuse that disrupts the student's participation in his/her studies.
2. Also, in study programmes for professions or occupations involving working with underage children, a student's study rights could be revoked if the student has been convicted of a sexual offence or a more than minor narcotics offence.
3. Drug testing could be imposed on students in connection with practical assignments, job training and internships that form part of their studies in cases where being intoxicated would seriously endanger the health of other persons or traffic safety or contribute to the risk of the illegal spreading of drugs or pharmaceuticals. Refusing to take a drug test or testing positive could lead to disciplinary measures.
4. Regulations on information disclosure and how study rights could be reinstated.

A working group memo on the importance for patient safety of background checks on health care personnel was also published in 2010 (Ministry of Education 2010).

NGO drug programme

The objectives stated in the drug action programme for 2006–2008 of NGOs engaged in substance abuse services, completed in 2006, include preventing experimentation with and use of drugs, intervention in use and increasing the versatile range of information available. Other objectives include discussion of the causes and consequences of drug use and increasing and developing services for drug users and their close friends and relatives. (Finnish Centre for Health Promotion 2006.) These general objectives were promoted through four lines of action: by supporting people and their close communities in their everyday lives, influencing decision-making and attitudes in society, developing co-operation with NGOs and other actors engaged in substance abuse work and developing the quality and structures of anti-drug work. A total of 31 NGOs committed themselves to the programme. To ensure sound co-ordination, a steering group was appointed.

The implementation of the programme was evaluated in a follow-up report drawn up at the beginning of 2009. (Tella & Opari 2009.)¹⁰ The NGOs' own evaluation of the programme's implementation was fairly positive, and a lack of resources was viewed as the main barrier to implementation. Increased co-operation and interaction between the NGOs and the creation of a common forum enabling discussion number among the programme's achievements. Despite this, many NGOs reported a need to increase co-operation. (Tella & Opari 2009.)

1.3 Economic analysis

Public expenditure from drug-related harm

The expenditure incurred from drug-related harm by the Finnish government are calculated based on a long-established calculation framework. (Salomaa 1996; Hein & Salomaa 1998.) The harm-related expenditure thus calculated has been reported since 1998 in the Yearbook of Alcohol and Drug Statistics published by the National Institute for Health

¹⁰ The evaluation initially used an electronic survey but, due to a low response rate, the NGOs' work meetings were also used for data collection purposes towards the end. All evaluation results have also been discussed in the NGOs' work meetings. (Tella & Opari 2009.)

and Welfare. The calculated public expenditure as presented in this report corresponds to the costs presented in the Yearbook in those respects where they are included in both calculation frameworks.

In 2008, public expenditure caused by drug use totalled approximately EUR 126 million.¹¹ Of this amount, a total of EUR 11.3 million had been earmarked for anti-drug activities. One of the largest funders of substance abuse work, Finland's Slot Machine Association (RAY), allocated EUR 8.6 million to drug-related work and prevention. To drug-related research conducted at the National Institute for Health and Welfare the Ministry of Social Affairs and Health allocated EUR 0.5 million. The Ministry also allocated EUR 2.2 million to drug prevention work.

The largest portion of public expenditure due to drug-related harm is incurred by the enforcement of public order and safety, accounting for an estimated EUR 69.0 million in 2008. As in previous years, the costs attributable to the prison service (EUR 36.3 million) represented the largest single expenditure item.

Expenditure attributable to the prevention of drug-related harm accounted for some EUR 15.9 million, mostly funds allocated to drug research and substance abuse work.

Harm reduction activities accounted for a total of EUR 9.8 million. Of this amount, EUR 8.7 million went to drug-related disability pension expenditure and EUR 1.0 million to drug-related sickness allowances. Compensation paid by the state, for instance to victims of crime, totalled EUR 0.1 million.

Social costs related to drugs

In 2008, costs related to the abuse of drugs and pharmaceuticals amounted to about EUR 220 to 310 million in direct costs and EUR 530 to 1,160 million in indirect costs (Table 1).¹² Social welfare costs accounted for the largest percentage, nearly one third, of all direct costs. Next came costs incurred through the enforcement of public order and safety, accounting for approximately one fourth. The largest percentage of indirect costs came from the value of life lost due to premature death.

¹¹ The data used were obtained from budget reports and final accounts reports for the year published by ministries, public agencies and other public bodies.

¹² The expenditure incurred from drug-related harm is calculated based on a framework long established in Finland. (Salomaa 1996; Hein & Salomaa 1998.) Harm-related expenditure is published annually in the Yearbook of Alcohol and Drug Statistics published by THL.

Table 1. Harm-related costs from drug use incurred by the state in 2008 (EUR million).

COFOG	Authority	Reuter's	Budget expenditures total	Harm-related costs associated with drug use	Labelled	
03. PUBLIC ORDER AND SAFETY	03.1 POLICING					
	Policing	Enforcement	646,1	18,1		
	Customs control	Enforcement	158,1	5,8		
	03.2 FIRE AND RESCUE SERVICES					
	Fire and rescue services	Enforcement	73,5	2,6		
	03.3 JURIDICIAL SYSTEM					
	District Court	Enforcement	134,6	1,8		
	Court of Appeal	Enforcement	36,9	0,9		
	Supreme Court	Enforcement	7,5	0,1		
	Legal aid	Enforcement	37,4	0,3		
	Enforcement Office	Enforcement	90,7	0,9		
	System of prosecution	Enforcement	39	1,3		
	03.4 PRISON SYSTEM					
	Prison Service	Enforcement	217,3	36,3		
	Open institution work	Enforcement	5,4	0,9		
	03.5 RESEARCH AND DEVELOPMENT RELATED TO PUBLIC ORDER AND SAFETY					
	National Research Institute of Legal Policy	Prevention	1,7	0,06		
	The European Institute for Crime Prevention and Control	Prevention	0,5	0,02		
	03.6 PUBLIC ORDER NOT ELSEWHERE CLASSIFIED					
	Ministry of Justice	Prevention	77,8	0,6		
	Certain paid compensations	Harm reduction	11,1*	0,1		
	07. HEALTH CARE	07.5.0 RESEARCH AND DEVELOPMENT IN THE HEALTH CARE SECTION				
		National Research and Development Centre for Welfare and Health (STAKES)	Prevention	25	0,5	Yes
National Public Health Institute		Prevention	35,8	1,3		
Finnish Foundation for Alcohol Studies		Prevention	1,1	0,1		
07.6 HEALTH CARE NOT ELSEWHERE CLASSIFIED						
Ministry of Social Affairs and Health		Prevention	73,4	2,2	Yes	
Finland's Slot Machine Association		Prevention	303	8,6	Yes	
Finland's Slot Machine Association		Prevention	303	2,5		
10. SOCIAL SECURITY	10.1.1 ILLNESS (IS)					
	Sickness allowance	Harm reduction		1		
	10.1.2 DISABILITY					
Disability pension	Harm reduction		8,7			
REVENUE TRANSFERS TO MUNICIPALITIES				31,4		
COSTS, TOTAL				126,1		

*) Certain paid compensations, with the exception of aid in maintaining Sámi culture and self-administration.

Classifications as COFOG (Classification of the Functions of Government) and Peter Reuter (2006).

Direct costs include drug-related costs in health care, social welfare, crime control, property damage caused by crimes, research as well as substance abuse prevention. Health care costs cover drug-induced inpatient care and drug-related outpatient visits to physicians. Social costs comprise drug-related costs in substance abuse services, income support and child welfare services. Enforcement of public order and safety encompasses costs from the legal system and those from policing, rescue services and customs. Property damage refers to the monetary value of damage arising from property crimes as well as insurance costs.

Indirect costs include production losses arising from drug use and the value of life lost due to premature, drug-related death. Production losses are calculated based on the number of days of inpatient care provided due to drug use. Statistics on inpatient days are kept in accordance with the International Classification of Diseases (ICD-10), allowing differentiation between drug-related diagnoses. The value of a life lost due to premature death is calculated to equal the alternative costs that would accumulate if the person became completely disabled and would have to be institutionalised for the rest of his/her life.

Out of all direct drug-related costs, social costs again increased the most in 2008, by approximately 18%, on the previous year. Other indirect costs increased at a more moderate rate: costs related to the enforcement of public order and safety rose by about 6.5%, and health care costs by about 3%. The costs of research and preventive sub-

Table 2. Costs of the harm caused by drugs by main group in 2007 and 2008, EUR million

	2007		2008	
	Min	Max	Min	Max
Direct costs	203	288	223	312
Health care costs	21	55	23	56
Social costs	78	84	93	99
Public order and safety	56	73	60	78
Property damage, research, substance abuse prevention	47	77	48	79
Indirect costs	487	1077	526	1164
Production losses	62	104	65	108
Value of life lost due to premature death	425	973	461	1057
Total	690	1365	749	1476

Sources: Yearbook of Alcohol and Drug Statistics 2009 and 2010, THL.

stance abuse work also increased by just over 2%. In indirect costs, the value of lives lost due to drug-related deaths increased markedly, by some 8,5%, due to the increase in the number of drug-induced deaths and days in drug-induced inpatient care.

2 Drug use in the population

In Finland, drug trends have followed international currents. Much like other countries, Finland has experienced two major drug waves: one in the 1960s and the other in the 1990s.

Studies show that the trend in drug experimentation of the 1990s was subject to gender-specific variation and was set in motion by men, followed by women only in the second half of the decade. The percentage of those having tried drugs grew until the end of the 1990s, after which the trend clearly levelled off. In 2008, it was estimated that 13% of the adult population had at some point in their lives tried cannabis. The percentage of those who had tried it during the past year was 3%. Men accounted for slightly more of those who had tried cannabis than women. The highest incidence of use was in the age group of 15 to 34.

Much like in the 1960s, the new rise in experimentation with and the use of drugs in the 1990s was a youth and generational phenomenon. The techno culture landed in Finland at the end of the 1980s, beginning as a small underground movement. This phenomenon began to gain in popularity in the mid-1990s, especially among young adults (aged 15–34). By the end of the 1990s, the phenomenon had diversified and was no longer only a marginal way of partying among urban youth. Today, drug use is much more a part of everyday life for young people and is much more firmly established as a party pastime and as a component of substance abuse.

However, it appears that the young generation born at the end of the 1980s is less interested in experimenting with drugs than that of ten years ago. Nonetheless, drug experimentation and use are still significantly more prevalent now than at the beginning of the 1990s. (Hakkarainen & Metso 2007.)

Table 3. Lifetime and 12-month prevalence (%) of cannabis use by age group, 1992–2008, %

	1992	1996	1998	2002	2004	2006	2008***
Lifetime prevalence							
All	5	8	10	12	12	13	13
15–24	12*	14**	19	25	18	19	21
25–34	10	16	19	19	22	25	25
35–44	4	8	8	11	13	16	13
45–69	1	2	3	4	5	6	5
12-month prevalence							
All	1	2	3	3	3	3	3
15–24	6**	9*	10	11	8	9	10
25–34	2	3	3	4	5	7	6
35–44	0	1	0	1	2	2	1
45–69	0	0	0	0	0	1	0

*18–24 yrs

**16–24 yrs

*** In 2008, a different data collection method was used than previously

Source: Hakkarainen & Metso 2007; Metso 2009.

2.1 Drug use in the general population

According to the population study results from 2006, the percentage of the population aged 15 to 69 who had at some point in their lives tried cannabis was 13%.¹³ The percentage was 11% among women and 15% among men. There was a heightened incidence of experimentation, 22%, in the young adult age group (aged 15–34). The percentage of those who had at some point in their lives tried other drugs was 2% for amphetamines, 1.5% for ecstasy, 1.0% for cocaine and 0.6% for opiates. Based on the survey, a total of 3% had tried cannabis during the past 12 months, and far less than 1% had experimented with other substances. The percentage of those who had tried cannabis during the past month was 1%. Hypnotics, sedatives and analgesics had been

¹³ The target group of the study comprised Finns aged 15 to 69, from whom a random sample of 5,500 people was chosen using the Finnish Population Information System. The inhabitants of Åland, people living in institutions and those without a permanent home were excluded from the study. Half of the sample was taken from the age group of 15 to 34. The aim of the oversampling was to focus the study on the most active population group in terms of drug use. In the analysis, the oversampling of young people was balanced by weighting. 3,029 people responded to the postal questionnaire.

used for non-medicinal purposes by 7% of the respondents during their lifetime, by 3% during the past year and by 2% during the past month. Age and gender differences were not significant in the case of pharmaceuticals. (Hakkarainen & Metso 2007.)

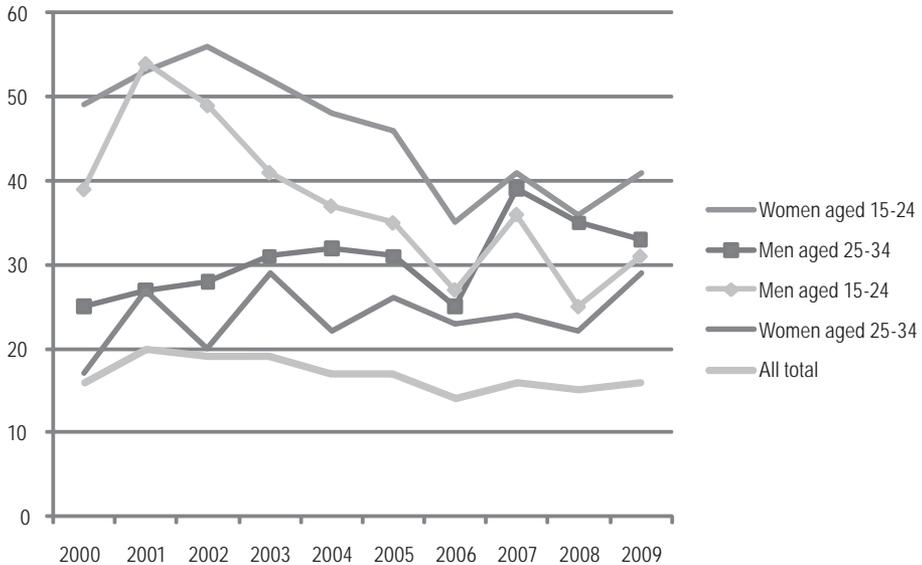
The overall percentage of those having tried cannabis seems to have remained stable throughout the 2000s. However, changes have occurred particularly within the age group of 15–34: from 2002 to 2006, the percentage of those among those aged 15 to 24 who had tried cannabis decreased by 6 percentage points, while the percentage among those aged 25 to 34 increased by the same amount. Thus, it seems that cannabis has lost some of its significance as part of youth culture whereas the generation that experimented with drugs at the turn of the millennium continues to use them. A similar trend may be seen in other drugs too: in 2006, the group with the highest percentages of people having tried amphetamines (9%), ecstasy (5%) and cocaine (3%) was that of men aged 25 to 34. (Hakkarainen & Metso 2007.)

Data from the drug survey conducted as part of the Drinking Habits Survey¹⁴ in 2008 suggests that the situation has not significantly changed since 2006. Age-specific changes are so small that they fall within the margin of error and thus do not lend their support to conclusions positing the emergence of new trends. An explanation of minor changes in older age groups may lie in the fact that the 2008 survey, unlike earlier postal questionnaires, was conducted in the context of personal interviews, where respondents over 35 years of age would have been less likely to disclose their illegal cannabis use than younger respondents. (Metso 2009.)

In Finland, alcohol use and related problems have traditionally been far more common than drug use and related problems. However, drug use has increased substantially over the past 15 years. But how are alcohol use and drug use linked in Finland? This question was approached by combining data from the questionnaires from 1998, 2002 and 2004 referred to above. The material was divided into five categories: (1) per-

¹⁴ In 1992–2006, data for the drug surveys were collected through postal questionnaires but in 2008, data was gathered through interview visits carried out in the context of the Drinking Behaviour Survey. The interviewees were selected based on random sampling from a domain including Finns aged 15 to 69. The sample size was 3,750 people, the final net sample being approximately 73%. Following the interview, the respondent was requested to fill in a questionnaire on drug use. The respondent sealed the questionnaire in an envelope and handed it to the interviewer. A total of 2,593 questionnaires were returned, the response rate being 69.1%. Since this different method of data collection may have affected the results, the results from 2008 cannot be considered fully comparable with the postal surveys of the previous years. (Metso 2009; Huhtanen et al. 2009.)

Figure 1. People who know at least one person who has experimented with drugs during the past year, %.



Source: Helakorpi et al. 2010.

sons with no contact with drug culture, (2) persons with some contact with drug culture, (3) drug experimenters and ex-users, (4) cannabis users and (5) multidrug users.¹⁵ (Hakkarainen & Metso 2009.)

Binge drinking (at least 6 units of alcohol at one time) and restaurant visits were the most common by far among cannabis users and polydrug users, and the least common among persons who had never encountered drugs. This difference remained significant even when the data were controlled for gender and age. The intoxicant use of pharmaceuticals was particularly heightened among polydrug users. The study suggests a clear correlation between alcohol consumption, particularly binge drinking, and drug use. The often-quoted hypothesis that cannabis use tends to replace alcohol use does not seem to hold true, at least not in Finland; on the contrary, cannabis use tends to occur alongside heavy drinking. (Hakkarainen & Metso 2009.)

¹⁵ The categories were more specifically defined as follows: (1) persons who had never been offered drugs and had never tried them; (2) persons who had been offered drugs but had never tried them; (3) persons who had at some time tried drugs but not used within the past 12 months; (4) persons who had used cannabis within the past 12 months and before that tried (no more than two) other drugs; and (5) persons who had been using more than two different drugs, also within the past 12 months. In all, the study included data on 7 227 persons. The data were analysed using logistic regression analysis.

In the Health Behaviour Surveys among the Finnish Adult Population (aged 15 to 64),¹⁶ the most important annual indicator depicting the development of the drug situation is the percentage of people in various age groups who know someone who has experimented with drugs. These percentages increased until the early 2000s but have been declining ever since. The change has been clearest among the age group of 15 to 24. For the population as a whole, however, the decrease halted at the 15% level towards the end of the 2000s due to sharp annual shifts in the trend since 2006, especially in younger age groups. (Piispa et al. 2008, p. 30; Helakorpi et al. 2010, p. 166.)

Summarising recent research findings, the researchers conducting the Health Behaviour Surveys (Piispa et al. 2008) suggest that although there may be fewer new users experimenting with or starting to use drugs compared to a decade ago, years of increasing use have led to drugs now playing a significantly stronger role in Finland in the partying habits of urban youth, recreational use (Salasuo 2005) and problem use of substances (Partanen et al. 2007).

2.2 Drug use in the school and youth population

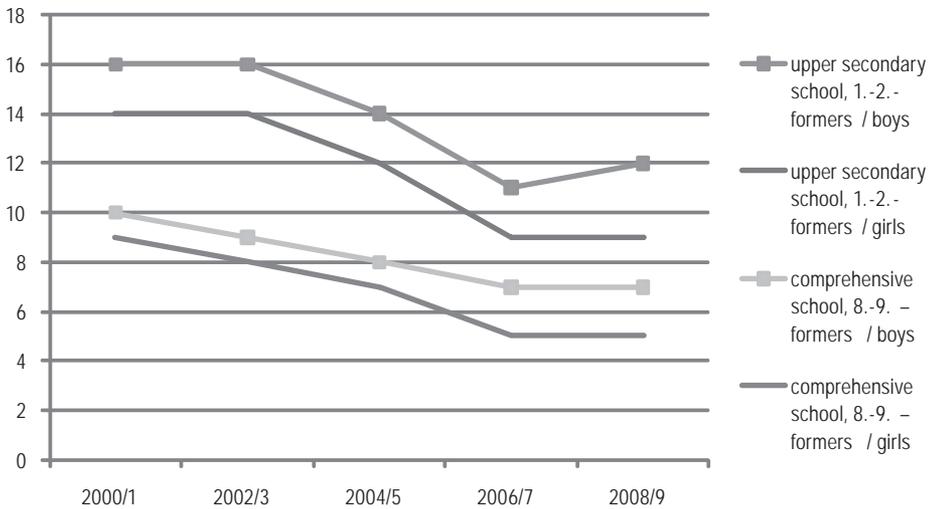
According to the ESPAD survey of school pupils,¹⁷ 8% of children aged 15 to 16 had experimented with cannabis at some time in their lives, whereas the corresponding figure was 10% in 1999 and 11% in 2003. Differences between girls and boys were not significant. The proportion of respondents who reported having tried illegal 'hard' drugs was 0% to 2%.

Similar results may be found in the national school health survey, which on a biennial cycle covers half of Finland's municipalities each year and is aimed at 8th and 9th grades in comprehensive school and

¹⁶ Data for the health behaviour surveys have been collected by a postal survey sent to a representative random sample of 5,000 persons among those aged 15 to 64 years of age and permanently living in Finland; people living in institutions were excluded from the study. Questionnaires were mailed out during the spring (in April) and those who did not respond were sent two (in 1996) or three (in 1997–2009) new questionnaires during the following two months. The number of those returning the questionnaire has varied annually between 3,000 and 3,600. (Piispa et al. 2008; Helakorpi et al. 2010.)

¹⁷ The latest of these surveys was the 2007 ESPAD survey, which involved 299 schools and 5,043 pupils in the 9th grade of secondary school. Data were collected using the same compilation method as in the 1995, 1999 and 2003 surveys. The response rate was 91% in 2003. (Ahlström et al. 2008.)

Figure 2. School health survey: Students who had tried illegal drugs at least



once, %

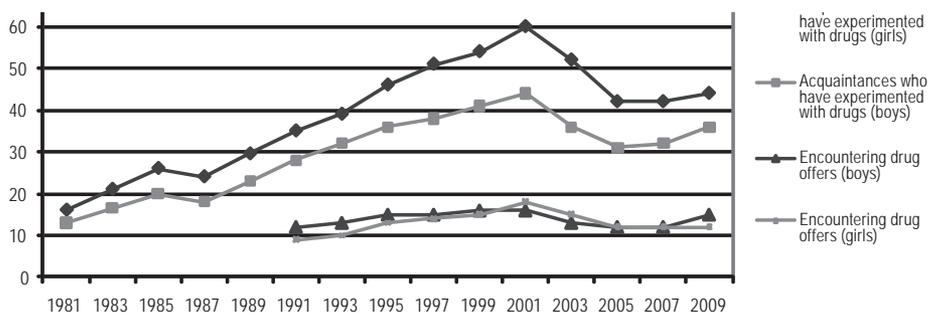
Source: Luopa et al. 2010.

the 1st and 2nd years of upper secondary school.¹⁸ The distribution data is fairly even regionally except for southern Finland, where levels were on average one third higher than in the rest of the country. However, there are differences according to educational attainment. In 2008–2009, an estimated 11% of students in the 1st and 2nd years of upper secondary school had tried illegal drugs at some time in their lives, while the figure for students in the 1st and 2nd years of vocational education was 17%. (Luopa et al. 2010.)

According to the ESPAD survey, pupils doing well in school use substances of any kind less frequently than those performing poorly. Throughout the history of the ESPAD survey, drug experimentation has

¹⁸ The national school health survey is conducted under a teacher's guidance during one class period. The respondents return their anonymous forms to the teacher, who seals all the forms for that class in an envelope in the presence of the pupils. The class envelopes are then put together in a package by the school and sent to the research group. Finland has been divided into two geographical areas, each surveyed in alternate years. In examining trends and changes, comparable material is used from those schools that have participated in the survey every time, whether in odd-numbered or even-numbered years. A total of 535 comprehensive schools and 321 upper secondary schools were included. The combined data from odd-numbered and even-numbered years included 81,057 to 83,915 respondents per year in comprehensive school and 39,084 to 43,242 in upper secondary school. The change data covered, depending on the years considered, between 61% and 65% of all pupils in the 8th and 9th grades of comprehensive school in Finland and between 51% and 58% of all pupils in the 1st and 2nd years of upper secondary school. (Luopa et al. 2010.)

Figure 3. Social exposure to drugs among 14 to 18-year-olds (percentage, age-adjusted).



Source: Rimpelä A. et al. 2009.

been low (4% to 5%) among pupils doing well in school, and in 2007, for instance, the difference in cannabis use was considerable between high-performing and low-performing pupils (3% vs. 17%). A similar phenomenon emerges based on questions gauging truancy. According to the 2007 results, 4% of pupils who had not skipped a class during the last month had experimented with cannabis at some point, while among pupils who had skipped classes at least three times, one third had experimented with cannabis at some point. By contrast, the educational background of the pupil's family does not significantly influence experimentation, notwithstanding the fact that experimenting with drug use originally (in the mid-1990s) first emerged in families with a higher education background. (Metso et al. 2009, pp. 79–81, 84–86.)

The questions in the national Adolescent Health and Lifestyle Survey,¹⁹ aimed at young people aged 12 to 18, enable the analysis of their 'social exposure to drugs'. Respondents are asked whether any of their acquaintances has experimented with intoxicants or whether they themselves have been offered such substances. The survey indicates that the percentage of young people aged 14 to 18 with at least one acquaintance who has experimented with drugs increased between 1987 and 2001 and then started to fall before levelling off in 2007. The 2009 survey indicates that the majority of drug offers are made by friends and acquaintances, which indicates that drugs have become part of young

¹⁹ The survey takes the form of a postal survey repeated every other year, the first being conducted in 1977. The survey sample is selected from among those aged 12, 14, 16 and 18. For those who have not responded, the survey includes two new questionnaires, the final one being available in electronic format. The 2009 survey covered a total of 5,516 respondents (response rate 56%). (Rimpelä A. et al. 2009.)

people's everyday lives and that availability does not depend solely on supply from external sources. (Rimpelä A. et al. 2009, pp. 42–44, 51.)

In Finland, data on twins born between 1983 and 1987 have been gathered in the *FinnTwin 12–17* studies. These data have been used to analyse the role of drug use determinants in drug experimentation: the role of individual, peer group and family variants in young people's experiments with cannabis (Korhonen et al. 2008) and the effect of early-age depression on later drug experiments (Sihvola et al. 2008). The purpose was to conduct a two-phase assessment of these interrelationships. First, the twins in the study sample were analysed as individuals. Subsequently, controls were introduced to account for any family-specific (genetic) sources of error by targeting the analysis at those twins for whom a determinant in drug experimentation (and early-age depression) actually distinguished one twin from the other in the same family.

The study examining the effects of individual, peer group and family variants on drug use²⁰ found that 13.5% of the twins included in the study had experimented with cannabis by the age of 17.5 years. These experiments had been significantly influenced by early initiation into smoking, frequent binge drinking, the number of smoking friends, the number of friends who had experimented with drugs, weekly binge drinking by the family's father and, for boys, aggressive behaviour in early youth. When the model was specified by targeting the analysis at twin pairs of whom only one twin had experimented with drugs, the results changed. Ultimately, determinants significantly influencing experimentation with drugs included the following: a teacher's report of hyperactivity or aggressiveness at the age of 12, initiation into smoking and binge drinking at 14 or earlier, a high number of smoking friends (more than 5 persons) and, at 14, at least one friend who has experimented with drugs. However, the researchers point out that many determinants of drug experimentation discovered in other research literature (family attitudes, discipline, general environmental factors, availability of drugs) had to be excluded from the study's original list of variants. (Korhonen et al. 2008.)

²⁰ Research data consisted of five full birth cohorts of twins from 1983 to 1987 (n=5,600 twins), baseline surveys targeted at the twins and their parents when the twins were aged 11 to 12 (coverage 87%), a follow-up survey when they were aged 14 (coverage 88%) and a second follow-up survey when they were aged 17.5 (coverage 92%). The data also included teacher assessments of twins aged 11 to 12 years. The cluster of determinants was selected based on a literature review and assessed using the baseline survey and the first follow-up survey, while drug use was gauged through the survey addressed at 17.5-year-olds. After cleaning and inspection, the final data comprised information on 3,118 persons (twins). This data was analysed using logistic and conditional logistic regression analyses by using the odds ratio as a measure of association. The sample population in the last phase consisting of discordant twins included a total of 246 sets of twins. (Korhonen et al. 2008.)

A twin study describing the impact of early-age depression on young people's substance use²¹ affirmed that early manifestation of the symptoms of depression (at the age of 14) predicts a higher probability of drug experimentation during adolescence (at the age of 17.5 years). Correspondingly, in such cases there is also a higher probability of smoking tobacco on a daily basis and of regular alcohol consumption. When the model was specified by narrowing the analysis down to those twin pairs of whom only one twin had both experienced depression and had different drug experimentation experiences as a youth, this interrelation no longer seemed significant. However, since the sample size in the latter case was very small, these results can be considered indicative at best. (Sihvola et al. 2008.)

The research angle was partly the same in the FinnTwin 16 survey, which explored the influence of sports activities on later drug experimentation.²² The results of the survey were used to compare the responses of two groups of twins born in the late 1970s – those who were active in sports on the one hand (physical exercise at least 4 to 5 times a week) and those who were not on the other (physical exercise less frequently than 1 or 2 times a month) – in the basic survey in the early 2000s to their responses in the follow-up survey in the late 2000s concerning experimentation with or regular use (at least 20 times) of cannabis. The findings indicate that those who said in the basic survey that they were not active in sports had a risk of later cannabis use more than three times greater (odds ratio) than those who said that they were active in sports. This is a statistically significant difference. The risk was especially heightened for women. The differences with regard to binge drinking, for example, were not nearly as great. (Korhonen et al. 2009.)

²¹ The basic data for the study were obtained based on random sampling (40% of the sample) of the above-mentioned data, consisting of a follow-up interview of the families when the twins were aged 14 (coverage 90%) and also including the SSAGA (Semi-Structured Assessment for the Genetics of Alcoholism) questionnaire. The actual follow-up data consisted of a questionnaire sent to these twins when they were aged 17.5 (coverage 83%). After cleaning and inspection, the final data comprised information on 1,545 persons (twins). This material was analysed as the previous material. The sample population in the last phase consisting of discordant twins included a total of 150 sets of twins. (Sihvola et al. 2008.)

²² Research data consisted of five full birth cohorts of twins from 1975 to 1979 who were sent basic questionnaires at the ages of 16, 17 and 18.5, and follow-up questionnaires at the ages of 22 to 27. Because of the sports orientation of the study, persons with physical disabilities were excluded; eventually, 4,240 twins responded to the questionnaire, including both twins of 1,870 sets of twins. The material was analysed as in the previous twin studies. (Korhonen et al. 2009.)

2.3 Drug use among specific groups

In 2008, a survey was conducted among students at universities and universities of applied sciences to explore their health, health behaviour, related factors and use of health care services.²³ The average age of respondents was 24 at universities of applied sciences and one year more at universities. Women accounted for 63% of the respondents. With regard to intoxicant use, it was found that more than 90% of students use alcohol and that one in four men and almost one in ten women have more than 6 units at a time each week. 22% of students reported that they had tried cannabis at some time in their lives; about one in three of these had tried it during the past year. The figure for other drugs was about 3%, of which likewise about one in three during the past year. The percentage of cannabis users was higher among men, but there were no significant differences relative to educational attainment. (Kunttu & Huttunen 2009.)

According to Kunttu & Huttunen, the lowest level of alcohol use by faculty was found among students of medicine. A voluntary survey on intoxicant use among students was conducted at a general examination session at the Faculty of Medicine at the University of Tampere in 2007.²⁴ The average age of respondents was 24, and 62% of them were women. The survey indicated that while more than 90% of students used alcohol, the percentage of those who drank more than 6 units at one time at least once a week was more than 25% among men but only about 2% among women. 23% of the students had tried cannabis, but fewer than 2% had tried other drugs. The incidence of cannabis experimentation was the same among men and women. (Meriläinen et al. 2010.)

²³ The domain of the study consisted of Finnish students aged under 35 studying for a bachelor's degree at a university of applied sciences (sample 4,984, 46% men) or a university (sample 4,983, 45% men). The total response rate, after three reminders, was 51%; the rate was higher among university students (55%). A similar study was conducted among university students only in 2000 and 2004. (Kunttu & Huttunen 2009.)

²⁴ The domain of the study consisted of 1st to 5th year students at the Faculty of Medicine at the University of Tampere. The questionnaire was distributed at a compulsory examination session. There were 497 students at the examination, and 468 acceptable forms were returned (response rate 94%).

3 Prevention

Preventive substance abuse work forms part of the wider concept of promotion of well-being and health. In municipal substance abuse strategies, preventive substance abuse work is usually seen as part of a continuum including prevention, early intervention and treatment. According to a new concept definition, substance abuse work is divided into preventive and corrective substance abuse work. Municipal substance abuse strategies usually address intoxicating substances as a whole, without making a distinction between drugs and alcohol. Preventive substance abuse work also includes the prevention of smoking and functional addictions.

Quality criteria have been determined for substance abuse prevention (STAKES 2006). The criteria are qualitative and suited to the prevention and reduction of harm related to substance abuse.²⁵ The practical implementation of the quality criteria is considered a central tool in improving the quality of substance abuse prevention. These quality criteria do not separate drug prevention from other substance abuse prevention.

In school curricula, health education is a separate subject. Substance abuse questions are key aspects of this subject. School curricula and pupil and student welfare services should also include drug prevention. For example, strategies for the prevention and treatment of substance abuse should be included in the local curriculum.

The Ministry of Education supports preventive drug and substance abuse work by providing funding for improving the potential for prevention, for training employees and volunteers, and for running long-term projects. Drug use prevention also forms a component of other youth activities such as youth workshops and afternoon clubs. Education and information projects concerning young people's lifestyle choices are also supported as and when possible.

In working life, drug tests are conducted to prevent drug-related harm and for referring individuals with drug problems for treatment as early as possible. In order to implement this, employers and employees have to co-operate in drafting a written substance abuse programme for the workplace.

Substance abuse prevention involves not only municipalities: NGOs

²⁵ Criteria: focus of the work, target group, degree of effectiveness, knowledge base, values, realistic objectives, compatibility of the objectives with other strategies, operational models, resources, monitoring and evaluation, balance in the different subsections and relationship to the original situation.

and other third-sector actors play a central role in the practical work of substance abuse prevention both as individual actors and as service providers for municipalities. The NGOs aim to promote discussion and provide information on drugs, drug use and the related causes and consequences. In addition, NGOs attempt to influence people's attitudes, organise peer support activities and provide post-care for substance abuse patients.

Drug prevention measures include electronic drug information services, discussion forums and self-testing services for evaluating one's own substance abuse. The dissemination of information and training of professionals has been developed by creating web-based expert forums in support of training.

3.1 Universal prevention

In Finland, municipalities and joint municipal boards are principally responsible for arranging and providing social and health care services. Promotion of well-being and health is highlighted through inclusion in legislation (Primary Health Care Act), in ongoing policy programmes (the Health 2015 public health programme) and the service quality recommendations which guide policies (for instance, recommendations concerning the quality of services for substance abusers, and quality criteria for substance abuse prevention).

Local authorities are required to have a mental health and substance abuse service strategy in place, defining the responsibilities of substance abuse services at health centres. (STM 2009a.) However, a study²⁶ shows that only 69% of health centres have an approved strategy for substance abuse services. Moreover, only 65% of health centres have a plan approved by management for reducing harm caused by substance abuse. In the study, 73% of health centres stated that they undertake mini-interventions aimed at reducing alcohol use. Health counselling for drug users was only provided by one in three health centres (35%), and 40% had agreed on shared practices for identifying drug users. (Rimpelä et al. 2009a.)

²⁶ Directors of health centres (n=231) were sent an online survey in October 2008, requesting a joint response from the management group. In addition to aspects of actively promoting health among the population, the questionnaire included questions on how the management viewed health promotion and key public health programmes. Responses were received from 190 health centres (82%), including all of the largest ones (50,000+ residents) and 89% of the medium-size ones (20,000 to 49,999 residents).

In order to improve substance abuse work, a network of municipal contact persons for preventive substance abuse work was established in 2000. The duties of a contact person include the promotion of preventive substance abuse work through multi-professional co-operation in the municipality, information dissemination between the actors involved in preventive work and co-ordination of the municipal or regional substance abuse strategy.

Development of the municipal and regional networks for substance abuse prevention is carried out within the framework of the national alcohol programme. The National Institute for Health and Welfare (THL) is the programme's main co-ordinator, steering the implementation of the municipal programme. In addition, THL is developing the regional developer network for substance abuse. It also collects and disseminates best practices in the field. For the period 2008–2011, the objective is to reinforce the regional and subregional prevention of alcohol-related harm. Regional State Administrative Agencies are hiring regional co-ordinators to ensure that the programme's policy lines are implemented in both regional and municipal substance abuse strategies. The Government's support for the programme is provided through the Policy Programme for Health Promotion.

Support, materials and information on actors and events concerning preventive substance abuse work may be found for instance in the following online services:

Development of Alcohol and Drugs Intervention, THL

<http://neuvoa-antavat.stakes.fi>

Materials for preventive substance abuse work, Finnish Centre for Health Promotion

<http://ep-materiaalit.dav.fi/>

Preventiimi, knowledge centre for youth substance abuse prevention

www.preventiimi.fi

AddictionLink, A-Clinic Foundation

www.paihdelinkki.fi

General prevention aimed at young people

Whereas prevention aimed at adults usually focuses on adverse health effects and risk factors, preventive substance abuse work aimed at young people may avoid mentioning intoxicants at all and instead focus on building up life management skills overall. The general preven-

tion aspect of youth work is based on giving young people guidance, help and support in growing up and in becoming a member of society, assisting them in coping with issues that they cannot necessarily handle on their own. What is essential is that the young people concerned feel that they are themselves participating in making decisions that affect their lives. (Pylkänen et al. 2009.)

Preventive substance abuse work is undertaken by local authorities and other actors at schools and other educational institutions, in social welfare and health care services, in youth work and in cultural and leisure activities. At school, preventive substance abuse work is incorporated into all basic teaching, but especially into health education classes. The Finnish Centre for Health Promotion (Tekry) co-ordinates activities such as a theme week for preventive substance abuse work, during which schools may discuss substance abuse issues widely, involving pupils, teachers and parents (cf. Tekry 2010 and Posio & Tallavaara 2010).

Preventiimi, a knowledge centre for youth substance abuse prevention, has published support materials for high-quality substance abuse education. In its guide, preventive substance abuse work with young people is considered to include social empowering, general prevention and risk prevention. The purpose of general prevention is to provide young people with current information on various intoxicants and the risks caused by their use. In addition to health risks, these include problems that substance abuse may cause in relationships with friends, in school work and in families. How these matters are discussed and from what perspectives, and which examples are used, should be as closely related to the young people's own experiences as possible. Simply dishing out information is not necessarily enough. Efforts should also be made to ensure that the young people can process the information given to them and that the understanding they gain is relevant for their world. (Pylkänen et al. 2009.)

In her doctoral dissertation on teachers' views of education and teaching aimed at drug prevention, Outi Mäkitalo set out to identify the various ways in which teachers understand the phenomenon of substance abuse and carry out drug prevention.²⁷ According to Mäkitalo's study, teachers mainly considered the concept of substances from the

²⁷ A phenomenographic research approach was used, including interview data from interviews with nine upper secondary school teachers (at that point, the researcher had estimated the collected data to be rich and to contain variation). All interviewees were interviewed for approximately one hour, first in the spring of 2001 and a second time in the autumn of the same year. The interviewed teachers represented various subjects. (Mäkitalo 2008, p. 58.)

health perspective. Alcohol and drugs were clearly differentiated from one another. Differences in teacher views related to how broadly they defined the concept of drugs and whether health impacts related to drug use were considered with regard to particular substances or at a more general level. In many cases, the conventional wisdom was that information derived from a medical frame of reference is objective. However, medical knowledge is not the same as that which teachers and students encounter in their daily lives. (Mäkitalo 2008, pp. 175–181.)

While some teachers participating in the study highlighted the importance of health impacts and the related facts, others saw drug prevention as part of a broad-based education at school. The latter involves developing traditional drug education towards life skills, ethics and value education, while the related teaching is developed based on empowerment. Under the first option, an external expert is often sought for carrying out drug education. Thus, as conducting the educational task is replaced with the presentation of facts, the development of the student's new skills and characteristics remain a secondary goal. Some teachers emphasise strong emotional experiences (such as images showing the health problems caused by drugs), while others highlight fact-based teaching rather than preaching and moralising. Since the learning content offered to students consists of substance-related information, teachers do not see themselves as competent in discussing drugs because they lack special expertise in the field. Based on the second option, teachers are broadening their own role in functioning as educators, highlighting the development of young people's interactive skills and their critical ability to form a personal approach towards drugs based on diverse information and one's own thinking. These teachers felt that their own knowledge and skills (and their development) qualified them to discuss drugs. They, too, would complement their classes with external expert visits, although they expressed doubts about the relevance of such information to the educational task in hand. (Mäkitalo 2008, pp. 175–181.)

In terms of drug prevention, an essential issue relates to how teachers view their own jobs, since the information transferred to students is filtered through the teacher and his/her own understanding of the issue. From an institutional viewpoint, the teacher's role is to help students form a responsible relationship with the world. Alongside the spread of recreational drug use, teaching too must adapt in order to meet new challenges. Furthermore, teachers should be encouraged to engage in the debate on drug education in schools. (Mäkitalo 2008, pp. 181–182, 185–189.)

Preventiimi, which is administered by HUMAK University of Applied Sciences, also provides professionals with continuing education in preventive substance abuse work for young people.

3.2 Selective and indicated prevention

THL has published a guide on early identification of mental health and substance abuse problems. This guide is intended for social welfare and health care professionals involved with clients to help them identify and screen for mental health problems and substance abuse problems among young people and adults. It provides indicators for risk assessment and practical advice for prevention. Regarding drugs, the guide stresses the importance of a confidential client relationship and of having sufficient basic information on drugs. The guide does not recommend routine drug testing as a screening procedure. Drug testing is feasible as a component of a treatment relationship encouraging a lifestyle change. (THL 2009d.)

The guide describes a motivational interview method, the point being to reinforce the individual's inner motivation for change. Motivational interviews use open questions, reflective listening and client reinforcement. The guide also discusses the three levels of preventing harm from drug use: preventing the use of drugs in the first place ("Don't use drugs."), preventing harm associated with usages ("If you do use drugs, don't inject.") or mitigating risks related to usages ("If you do inject, always use clean implements."). (THL 2009d.)

Risk prevention is an important duty of the health counselling centres.²⁸ Local authorities and NGOs also perform outreach work to find individuals not covered by services, such as school dropouts or drug users who do not use the services of the health counselling centres. Targeted information about the risks of drug use is also provided by NGOs in various relevant environments such as rock festivals or techno music events. (See e.g. Punainen Risti 2010; YAD 2008.)

Risk prevention for young people

Targeted risk prevention is needed when general methods of social reinforcement and general prevention are not enough, and the young per-

²⁸ See chapter 7.

son's personal experiences of intoxicants have to be taken into account: critical discussion of a lifestyle favouring intoxicants is required, and its true dangers in all areas of life must be highlighted in concrete terms. Risk prevention must always be conducted through networking, liaising with other parties providing help and with the young person's family. Substance abuse treatment and rehabilitation for young people is also a form of risk prevention, being aimed at discouraging them from returning to an intoxicant-favouring lifestyle. Risk prevention for young people often takes place in sheltered youth homes, rehabilitation units for young people and workshops. (Pylkänen et al. 2009.)

Related to this issue, a guidebook for parents and people working with young people has been produced on how to approach anxiety and substance abuse and identify problems. This describes the links between anxiety and substance abuse. (Fröjd et al. 2009).

In surveys for the promotion of health and wellbeing at upper secondary schools and vocational education institutions,²⁹ respondents were asked what the procedure was when drug use was suspected. In all, the number of cases of drug use reported was very low, though notably higher at vocational education institutions (n=29) than at upper secondary schools (n=13). Generally, the procedure was for a teacher, group leader or headmaster to talk to the student in question. Vocational education institutions are markedly more active in referring students to student health care in these cases and also in contacting the parents in the case of a student aged under 18 and/or child welfare services and/or the police. (Rimpelä et al. 2009b; Väyrynen et al. 2009.)

Päihdelinkki.fi

Over ten years ago, a key organisation in the field of substance abuse treatment and prevention, the A-Clinic Foundation, created a national drug information service (AddictionLink at www.paihdelinkki.fi) to support anti-drug work. AddictionLink is a low-threshold web service providing information on addictions as well as self-help tools. In spring 2010, the service logged 72,000 visits per month on average. A visitor survey conducted in spring 2010 mapped the services' visitor profile and the services used. Women used the service slightly more than men (52%), and one third (32%) of the users are aged between 17 and 26. (Päihdelinkki 2010.)

Roughly one third reported that they had sought support from the service for their own situation. The problem substance was alcohol for

²⁹ A largely coherent survey was conducted in 2008 among all upper secondary schools (n=416) and institutions with vocational upper secondary qualification programmes (n=192). The response rate was 90% for upper secondary schools and 84% for the other institutions.

a large percentage of them (more than 40%). The percentage of drugs as a subject for information searches and as the cause of a personal substance abuse problem had increased slightly compared with survey results from 2007, and what is notable that the percentage of the problem use of pharmaceuticals had increased by up to 5 percentage points. Other reasons cited by users for visits include the situation of a family member or friend, general interest, studying or work. (Päihdelinkki 2010.)

The aim of the Kuivaushuone (Drying room) discussion forum is to stop using drugs. The most popular discussion forum is *Sauna*, where the aim is to mitigate the harmful effects of substance abuse. In 2008, the *Sauna* discussion forum was visited by approximately 8,800 unique visitors per month, logging more than 30,000 visits in peak months. Based on the forum's visitor survey,³⁰ the average age of respondents was 25 years, and the distribution of men and women was almost equal. The majority of respondents were urban dwellers, approximately one third from the Greater Helsinki area. About one third of respondents were employed, and another third were students. Almost half of the respondents characterised their substance abuse as occasional and, furthermore, not all visitors in the *Sauna* forum were substance abusers. The most frequently used substance among respondents was alcohol (75%). Other substances mentioned included cannabis (60%), benzodiazepines (50%), amphetamines (one third), buprenorphine (21%) or other opiates (one third), ecstasy (23%) and GBL (16%). (Päihdelinkki 2009.)

The majority of respondents visit the *Sauna* forum regularly, read *Sauna* discussions selectively and spend under one hour per week in the forum. However, every fourth respondent stated that they visited the forum almost every day. In most cases, the *Sauna* discussions were used as a source of information (42%) or for seeking peer support (27%). According to the responses, the *Sauna* discussions had inspired around 40% of respondents to renounce the idea of experimenting with a substance and 30% to stop regular use. More than 40% reported that they had reduced intravenous use. On the other hand, 30 *Sauna* forum users stated that discussions had attracted them to use certain substances which they would not otherwise have experimented with. (Päihdelinkki 2009.)

³⁰ A total of 131 *Sauna* visitors responded to the *Sauna* visitor survey in 2008.

4 Problem drug use

The number of problem drug users in Finland is estimated based on the number of problem users of amphetamines and opiates, which came to 14,500–19,100 in 2005; this accounts for 0.6% to 0.7% of the population aged 15 to 55. Nearly four fifths of problem drug users used amphetamines. The percentage of men was 80%, while the majority of problem drug users belonged to the age group 25 to 34.

According to the 2009 data from the Drug Treatment Information System, opiates were the major primary problem substance of clients entering drug treatment (representing 55% of all drug treatment clients of the substance abuse services), followed by stimulants (16%), alcohol (18%), cannabis (10%) and pharmaceuticals (7%). These results reflect the provision of treatment, since substitution treatment is so far available only to opiate users. Buprenorphine was the primary problem substance for as much as one third of the clientele. The combined use of various narcotic substances, alcohol and pharmaceuticals typically forms part of the culture of problem substance abuse in Finland.

According to studies, alcohol is the primary problem substance in Finland. In fact, problem drug use is a very recent social problem in Finland. Typical factors underlying problem drug use in Finland are the relatively young age of users and, consequently, a relatively short history of drug use, albeit the average age of drug users has risen substantially over the past ten years. A particular feature is the central role of buprenorphine in intravenous use. Many drug users are socially marginalised in many ways and, in addition to substance abuse problems, have several other social and health-related disorders.

4.1 Prevalence and incidence estimates of problem drug use

Estimates on the prevalence of problem drug use³¹ based on administrative statistics have been made since 1997. According to these estimates, out of the population aged 15 to 54, there were some 14,500 to

³¹ The estimates of problem drug users are based on the statistical capture-recapture method in which the samples from the same group are used to assess statistically the size of the entire target population. The samples were defined based on the interventions directed by society at

Table 4. Development of the population share (%) of amphetamine and opiate problem users in Finland in 1998–2005.

	1998	1999	2001	2002	2005
Overall estimate	0,4–0,55	0,4–0,5	0,5–0,6	0,55–0,75	0,52–0,69
Amphetamine users	0,26–0,45	0,29–0,43	0,35–0,54	0,38–0,65	0,43–0,74
Opiate users	0,06–0,09	0,09–0,11	0,14–0,17	0,15–0,21	0,13–0,18
Men	0,54–0,70	0,54–0,66	0,58–0,71	0,77–1,03	0,74–0,98
Women	0,20–0,58	0,14–0,24	0,20–0,31	0,29–0,57	0,20–0,31
15–25-year-olds	0,67–1,12	0,73–1,02	0,81–1,04	0,93–1,30	0,63–0,95
26–35-year-olds	0,51–0,71	0,46–0,59	0,64–0,82	0,74–1,13	0,68–0,94
36–55-year-olds	0,14–0,25	0,19–0,46	0,22–0,36	0,25–0,50	0,30–0,54

Source: Partanen et al. 2004, 2007.

19,100 amphetamine and opiate problem users in the entire country in 2005. (Partanen et al. 2007.)

The number of problem users of amphetamines and opiates³² increased noticeably between 1999 and 2002. Since then, the proportion of problem users of amphetamines and opiates seems to have stabilised. The majority of problem users, 75% to 80%, consisted of amphetamine users, and they accounted for 0.4% to 0.7% of the population aged 15 to 54 in Finland in 2005. The estimated proportion of problem users of opiates was 0.13% to 0.18% of the population. The percentage of women was 20% to 30% in both substance groups. While the proportion of young people aged 15 to 24 was about 25% to 35%, they were no longer the largest user group, the age group 25 to 34 having already exceeded the younger age group's percentage. (Partanen et al. 2007.)

Some 50% to 60% of all problem users were from Southern Finland and more than half of them from the Greater Helsinki area. The percentage of women among problem users seems to be steadily declining everywhere in Finland, possibly excluding the Greater Helsinki area. In the

the target population (amphetamine and opiate users). The interventions employed by the system included amphetamine or opiate diagnoses recorded in hospitals, penal action for drug offences involving the use or possession of amphetamines or opiates, arrest for driving under the influence of amphetamines or opiates and hepatitis C cases recorded in the infectious diseases register due to intravenous drug use. The estimate intervals are based on 95% confidence intervals of the estimates. Different log-linear models were applied to different subgroups, so the sum of the subgroups differs from the overall estimate. (Partanen et al. 2004, 2007.)

³² According to the national definition used in the study, 'problem use' refers to the use of amphetamines and opiates which is so extensive that it causes social or health problems for the user. Furthermore, the authorities have had to intervene in one way or another, and this has been recorded in administrative registers.

light of data from 2005, it seems possible that the drug problem as well as specialised treatment services (substitution treatment, health counselling) will be concentrated in the Greater Helsinki area and possibly some other large cities. (Partanen et al. 2007.)

In international comparisons, it should be borne in mind that the estimated number of problem users in Finland is based on a fairly broad definition of problem use, particularly concerning amphetamines, and the estimate may also include occasional users. However, temporal comparisons of problem users involve uncertainties because changes have taken place during a short period of time and at the same time, the service system of society has undergone great change. (Virtanen 2004). For example, the substance abuse service system has been strongly developed in the 2000s, which may have reduced the number of people entering hospital care; the increased number of health counselling centres has reduced the occurrence of infectious diseases; the registration procedure for cases of driving while intoxicated has become stricter, which has increased the proportion of drug use in the register of cases of driving while intoxicated; and the introduction of the offence of unlawful use of narcotics has indirectly affected the way the police record different substances in their register. (Partanen et al. 2007.)

4.2 Data on problem drug use from non-treatment sources

Three maternity clinics in southern Finland monitored the health of substance-abusing women who were pregnant between 1992 and 2001, up to the end of 2007.³³ Mothers who were substance abusers had a risk

³³ In this study, mothers with an alcohol or drug problem were referred to enhanced support and monitoring treatment at intervals of 2 to 4 weeks during maternity counselling. In all, 526 expectant mothers were referred to treatment because of a substance abuse problem between 1992 and 2001 and gave birth to 626 children; the total number of children born in Finland during this period was 172,600. For the research design, 1,792 mother-child pairs were selected from the Medical Birth Register as a control group (three controls for each case studied) on the basis of the age of the mother at childbirth and the date of birth, among other factors; the excluding factor was if the mother had a substance abuse related Care Register entry at the beginning of the monitoring period. The registers used for monitoring in this study were the Medical Birth Register, the Care Registers for Social Welfare and Health Care, the Social Security Register and the National Cause of Death Register. Of the mothers with substance abuse problems, 25% had used alcohol daily before their pregnancy and 11% during their pregnancy; the figures for opiates were 12% and 6%, respectively. The data were analysed using logistic regression analysis, and the odds ratio was used as an indicator for comparison with a 95% confidence interval. (Sarkola et al. 2007; Kahila et al. 2010.)

of death during pregnancy more than 20 times higher than mothers who were not substance abusers, particularly from violence and accidents. Similarly, mothers who were substance abusers logged almost twice as many inpatient visits to health centres, slightly more than twice as many treatment days, and much more than twice the number of outpatient clinic visits than mothers who did not have a substance abuse problem during pregnancy. A particularly high morbidity risk (20 to 60 times higher than normal) was found for mental health conditions related to alcohol and drug use, and also for infectious diseases (10 to 20 times higher than normal). Similarly, the risk of being institutionalised for alcohol and drug abuse during pregnancy was almost 20 times higher for women who were substance abusers than for those who were not, and they also received 10 times as much in sickness insurance compensation for drugs for treating substance abuse problems. Moreover, mothers who were substance abusers were twice as likely to fall onto basic unemployment allowance because of unemployment and more than 10 times more likely to fall onto disability pension (primarily because of various mental health problems) than mothers who were not substance abusers. All indicators thus point to an accumulation of morbidity and social problems among mothers who are substance abusers, also in the long term. (Kahila et al. 2010.) Similar trends emerge when considering cases where children of mothers with substance abuse problems are taken into care. (Sarkola et al. 2007.)

In her dissertation, Sinikka Törmä examined the position of the most marginalised drug users within the care system – particularly from the perspective of access to treatment.³⁴ The study concluded that substances are not the only fundamental issue, individual problems rendering the treatment of the most marginalised drug users difficult. It became necessary to separate out the factors influencing the treatment threshold and related to general marginalisation, since such factors often underlie the most acute need for help. According to the study, these factors include homelessness, physical and psychological weakness and difficult life experiences. With regard to treatment, they complicated communicative interaction with the treatment system and weakened

³⁴ The doctoral dissertation comprised four articles from 2006–2008 and a conclusion. Data for the dissertation dated from 2003–2005 and consisted of (1) Client visit data (n=2,933) from a mobile unit providing health counselling, structured interviews of its clients (n=212), thematic interviews with the service's clients (n=20) and its providers (n=13) as well as an e-mail questionnaire submitted to the employees of the health counselling ambulance (n=29); (2) Structured interviews of clients (n=81) of a day centre within the substance abuse service system and five thematic interviews of the service's providers; and (3) Client and patient data on 11 drug users attending the day centre and a drug clinic. (Törmä 2009.)

the client's ability to concentrate on and commit to treatment. (Törmä 2009, pp. 107–115.)

Threshold factors related to getting treatment for substance abuse in general included the clients' state of intoxication during visits, their use of multiple substances, a deviant diurnal rhythm, appearance, shame and various substance cultures. These factors impeded the search for treatment in treatment units with traditional opening hours and in units providing treatment for people representing another substance culture. Clients who had visited a unit in a confused state of mind did not necessarily remember what had been agreed and, unawares, acted in breach of their promises. According to the study, drug-related threshold factors included fear of stigmatisation and a criminal identity, fear of the police and other enforcement agencies and fear of creditors. These factors prevented people from seeking drug-related services where the benefit of the treatment provided was not clear in relation to their stigmatisation as junkies. In fact, certain problem drug users relied on the services of users who were more courageous and in better condition, for instance, with regard to syringe and needle exchange. (Törmä 2009, pp. 107–115.)

Individual factors related to the problem user had a fundamental influence on access to care, but so too did the treatment itself. Particular problems arose in traditional treatment units and the excessively high requirements or motivational levels underlying their treatments; in the specialisation of services and fragmentation of problems; demanding procedures (reserving appointments, calling during telephone consultation times, strict screenings) and regarding the time or place of service provision (a location too difficult to approach). Even in low-threshold services, the threshold was not always sufficiently low for the most marginalised clients. In certain cases, low-threshold services actually set too strong an emphasis on empowerment in line with the ideology of harm reduction and on being an actor. This, in fact, raised the threshold to treatment for the most marginalised. On the other hand, the lowering of the threshold had the side effect of raising the threshold in traditional substance abuse treatment units. Indeed, it is easy to turn away clients approaching traditional services with a low threshold and, instead, direct them towards the specific low-threshold services designed for them. (Törmä 2009, pp. 116–128.)

Shifts in the discussion and scope of substance abuse and of addiction in general in the press between 1968 and 2006 has been analysed on the basis of articles published in Finland's leading daily newspaper.³⁵

³⁵ The study examines articles published in the *Helsingin Sanomat* newspaper, the concept of 'ad-

The findings show that four trends may be identified over the 40-year period: an increasing number of articles on the topic, the expansion of discussion of the phenomenon from alcohol use to various other kinds of divergent behaviour, the mainstreaming of a previously marginal phenomenon, and a shift from social models explaining the phenomenon to personal histories. Over the period examined, the number of articles in this area per year would seem to have doubled. As recently as in the 1970s and 1980s, the phenomenon was identified with a specific group of people who had problems with a specific behavioural pattern, usually related to a specific substance (alcohol or drugs). The problems were seen as functions of the social status of these groups and not discussed as wider phenomena. From the 1990s onwards, however, addiction has been identified in highly diverse areas (work, gaming, TV, Internet use, eating disorders, etc.), and today a large percentage of the population could be described as being addicted to something. As the problem is seen to affect an increasing percentage of the population, it is becoming less of an anomaly and more of a mainstream phenomenon. At the same time, the identification of problems with a specific social status has decreased, and addiction is now seen largely as a personal problem; this is also reflected in the treatment of addiction, particularly in the medicalisation of treatment. (Hellman 2009, 2010.)

4.3 Problem drug use in a wider context

According to the 2009 data of the drug treatment information system,³⁶ the mean age of drug treatment clients was 30 years. Among all drug treatment clients of the substance abuse services, opiates were the ma-

diction' referring to any discussion of a problematic or repeated behaviour over which the individual has little or no control, or to specific concepts such as 'alcoholism', 'problem use', 'bulimia', etc., and the treatment of same. The articles were selected from the same period of three weeks in even-numbered years. In all, 200 articles were found between the years 1968 and 2006. Analysed by decade, the number of articles varied as follows: 49 articles in 1968–1978, 26 in 1980–1988, 63 in 1990–1998, and 62 in 2000–2006. The material was analysed using the content analysis method. The daily circulation of *Helsingin Sanomat* has been between 400,000 and 500,000 since the 1990s. (Hellman 2009.)

³⁶ This data is based on anonymous data collection through the voluntary participation of treatment units. In 2009, data were obtained from 92 units (114 in 2008; 110 in 2007; 133 in 2006) and from a total of 3,321 drug treatment clients (4,109; 4,141; 4,865). Correspondingly, the number of new patients seeking care has dropped to 379 (501; 655; 884). The number of units participating in data collection has decreased substantially since the beginning of 2000s, weakening the coverage of data and, to some extent, annual comparability. Because of this, a coverage survey was circulated among 525 treatment units in 2008; the response rate was 61%.

Table 5. Substances used by clients entering treatment for the use of narcotics and pharmaceuticals (% of clientele) in 2000–2008.

	2000	2001	2002	2003	2004*	2005	2006	2007	2008	2009
Opiates	29	28	28	31	34	37	41	46	50	55
– heroin	20	13	6	3	3	2	2	2	2	2
– buprenorphine	7	12	20	24	27	29	31	33	34	33
Stimulants	28	26	28	28	26	22	21	19	16	16
Cannabis	17	20	18	16	15	14	13	10	9	10
Alcohol	18	19	20	19	18	19	17	17	18	12
Pharmaceuticals	5	6	5	6	6	7	7	7	7	7

*= data corrected

Source: Drug treatment information system, THL.

for primary problem substance of clients entering drug treatment (55%), followed by stimulants (16%), alcohol (12%), cannabis (10%) and pharmaceuticals (7%). Buprenorphine, an opiate, was the primary problem substance of 33% of the clientele (Table 5). The percentage of buprenorphine as the primary substance of those entering treatment has increased the most in the 2000s, being now about one third. (Väänänen & Ruuth 2010.)

According to the data on seeking drug treatment for the first time, the accumulative deterioration leading to problem drug use seems to reach its tipping point after a lag of 3 to 5 years from the commencement of use. In light of this, the sharp increase in drug experimentation at the end of the 1990s seems to have led to the growth in the number of problem users at the beginning of the 2000s, while the stabilisation of experimentation at the beginning of the 2000s is reflected in the latest estimates on the number of problem users. Correspondingly, the observed slight ageing of drug treatment clientele also manifests itself in the estimated age distribution of problem drug users and people experimenting with drugs.

Table 6 shows a cross tabulation of the drug treatment clients' primary substance alongside the secondary and tertiary substances they

The survey indicated that the number of drug user clients was 12,807, meaning that the coverage of the drug treatment survey is about 32% of the clientele. A similar survey was conducted in 2004, when the number of clients was 17,825 but the coverage percentage the same, even though there were at that time only 165 treatment units in the Drug Treatment Information System. It would thus seem that the Drug Treatment Information System covers as large a percentage of the client domain as it did in 2004. The principal data collection problems mentioned in the surveys were a lack of resources, a small number of drug user clients, and overlapping information systems. (Väänänen & Ruuth 2010.)

Table 6. Secondary and tertiary drugs used with the primary drug in 2009, %.

Primary drug			Use of a second and a third drug in addition to the primary drug (%)				
	No. of users	%	Opiates	Stimulants	Cannabis	Pharmaceuticals	Alcohol
Opiates	1818	55	11	34	35	51	14
– buprenorphine	1100	33	12	37	35	56	17
Stimulants	515	16	35	8	42	30	28
Cannabis	336	10	17	38	0	8	49
Pharmaceuticals	223	7	28	19	30	8	49
Alcohol	411	12	21	39	59	36	0

Source: Drug treatment information system, THL.

used. Using a parallel review of the primary, secondary and tertiary problem substances enables the definition of typical polydrug use profiles. These profiles have remained relatively unchanged throughout the 2000s. Additional use of stimulants, cannabis and pharmaceuticals was most common among opiate users. Those entering drug treatment due to stimulants use cannabis, pharmaceuticals, opiates and alcohol in parallel and on an even basis, whereas the most frequent additional drugs for those who sought treatment due to cannabis no longer included pharmaceuticals or opiates. Those entering treatment due to alcohol use also use cannabis and pharmaceuticals, but sometimes also stimulants. (Väänänen & Ruuth 2010.)

The majority (84%) of drug clients in services for substance abusers had injected drugs some time in their life; more than half of them (58%) had injected drugs during the past month, and one in six (18%) had shared needles and syringes. Opiates were most commonly used intravenously (81 %). Stimulants were injected by 82% of their users. (Väänänen & Ruuth 2010.)

Health counselling centres in Helsinki, which offer intravenous users an opportunity to anonymously exchange their dirty syringes and needles for clean ones, collected information on their clients' drug use with a voluntary anonymous questionnaire during two weeks in 2005. About 30% of the clients responded. According to the results, their mean age was 27.8 years. One fourth of them were women, on average 1.5 years younger than the men. Nearly three out of four respondents said that buprenorphine was the most common drug that they used intravenously and one in four mentioned amphetamine or methamphetamine.

However, only 28% used buprenorphine alone; the others could be classified as polydrug users. Some 55% of the clients reported that their polydrug use included amphetamine or methamphetamine. The clients had used opiates intravenously for an average of 7.3 years, but the most common period of use was 4 years. The survey sample was estimated to cover 5% to 10% of all intravenous drug users in the Greater Helsinki area.³⁷ (Alho et al. 2007.)

In drug-related death statistics, which indirectly reflect problem use, the most striking phenomenon is the increase of buprenorphine findings associated with deaths. From fewer than 10 cases in 2000, the number of such findings has risen annually and reached nearly 100 in 2008. Meanwhile, the number of cannabis findings has increased by half, from 60 cases to some 100, while the number of amphetamine findings has remained stable at about 70 cases. By contrast, the number of deaths caused by either heroin or cocaine were restricted to a few cases every year during the same period. Thus, the death statistics also indicate that the proportion of buprenorphine in problem use has increased in relation to other key drugs throughout the 2000s. Drug-related death statistics also reveal the ageing of problem drug users, as according to the Cause of Death Register, the proportion of under 25-year-olds has decreased from more than one third in 2000 to approximately one fifth in 2008.³⁸

³⁷ During the survey, 589 questionnaires were distributed; 176 of them were returned. However, the response rate is probably higher, as the clients visit the units anonymously and therefore the same client may have visited the unit several times during the survey period. (Alho et al. 2007.)

³⁸ Cf. Section 6.3.

5 Drug-related treatment

According to the Act on Welfare for Substance Abusers, municipalities must provide substance abuse services that are in accordance with the needs of the municipalities both in their content and coverage. All substances that are used for intoxication are considered intoxicants: alcohol, substitutes, pharmaceuticals and drugs. Units providing specialised services for substance abusers include outpatient care (A-Clinics, youth centres), short-term inpatient care (detoxification units), longer-term rehabilitative care (rehabilitation units) and support services (day centres and supported housing) and peer support activities.

In addition to the units providing specialised services for substance abusers, increasing numbers of substance abusers are treated within primary social and health care services, including social welfare offices and child welfare services, mental health clinics, health centre clinics and wards, hospitals and psychiatric hospitals. The Finnish system emphasises that drug treatment as such is often insufficient and the substance abuser should be assisted in solving problems related to income, living and employment.

In Finland, municipalities are in charge of organising social and health services, but local government lacks monitoring systems that would help identify client group specific welfare deficits and service needs. In particular, the most socially marginalised substance abuse clients face an increased risk of exclusion from the service network.

A quality framework for substance abuse services (STM 2002) and Current Care guidelines (Duodecim 2006) for the treatment of drug abusers have been created in order to develop substance abuse work. The development policy for drug treatment services emphasises developing low-threshold services and related training. The first health counselling centre intended for the exchange of needles and syringes was set up in Finland in 1997, and substitution and maintenance treatment was introduced as an official part of substance abuse services in 2000. As far as possible, the most difficult-to-treat substance abuse patients (multiple-diagnosis patients) are treated centrally in units providing specialised services.

It is alleged that, due to the fact that more and more drug users are receiving medical treatment, substance abuse problems, which were previously considered social problems, are now regarded as medical problems and are increasingly being handled by the health care services. Substitution treatment for opiate addicts is increasingly being

transferred to health centres and, in part, also to pharmacies. This phenomenon reflects the differences in focus between psychosocially and medically oriented substance abuse treatment services. Another reason would be that municipalities are attempting to transfer these services from the specialist level to the primary level in order to generate savings.

It is also a challenge for the substance abuse service system to see substance abuse problems as a part of broader problem spectra that include mental health problems, needs for new treatment and a vicious circle of social exclusion.

5.1 Strategy and treatment systems

According to the Government Resolution concerning the drug policy for 2008–2011, treatment services will be developed and their provision increased, in order to ensure equal access to services for all citizens. Drug users will be offered a range of treatment options, appropriate for the type of addiction in question and, for instance, access to treatment will be facilitated for opioid addicts. In addition, the objective is to increase the types of treatment, health counselling and support directed at reducing drug-related harm such as diseases, mental health problems and crime. (Valtioneuvosto 2007a.)

Organisation of services

In Finland, services for substance abusers are provided within both social welfare and health care. Specialised services for substance abusers are mainly provided under social welfare. Outpatient treatment within these specialised services is free of charge for the client, whereas inpatient treatment generally requires a payment commitment by the social welfare office of the client's home municipality. The provision of services for substance abusers currently takes multiple forms: it can form part of a municipality's own operations or co-operation with a provider of services for substance abusers (often with the largest such provider, the A-Clinic Foundation). Moreover, it can also be arranged within a municipal federation or foundation for treating substance abusers or through purchase agreements with other organisations or private companies. For instance, among A-Clinics (n=75) providing outpatient substance

abuser services for adults, 61 are municipal and 14 are maintained by the A-Clinic Foundation. In all, the A-Clinic Foundation has concluded agreements with approximately a hundred municipalities for the provision of substance abuser services. Federations of municipalities providing substance abuser services total three, each involving from 24 to 71 member municipalities. Providers of institutional, detoxification and rehabilitation units most often include foundations, NGOs or private service providers. (Kekki & Partanen 2008, p. 48.)

The restructuring of municipalities and services (the Paras project) aims to broaden the population base³⁹ for social welfare and health care services. When services are organised based on larger population bases, it is expected that service quality and availability will improve and that substance abuse clients can be served more consistently throughout the country. According to the report by Kekki and Partanen,⁴⁰ the fact that the numbers of clients among municipalities are unevenly distributed is primarily influenced by practices in referring clients for treatment and an emphasis on outpatient treatment. For instance, downscaling inpatient services is not due to a reduced need for treatment, but is in part influenced by municipalities' attempts to restrict social welfare costs. Instead of using specialised health care and specialised services for substance abusers, the current trend involves moving treatment increasingly to primary health care. (Kekki & Partanen 2008, pp. 55–56.)

Emphasising outpatient care is a characteristic feature of social welfare and health care during the 2000s: the elderly are supported in order to enable them to remain at home and people with mental health

³⁹ Municipalities are required to organise primary health care and closely related social welfare services when their population base is at least 20,000. In such cases, universal services which must be implemented locally for substance abusers comprise assessment of the risk of substance abuse, health counselling aimed at risk reduction, primary-level detoxification in health centres, referring substance abusers to specialised services for treatment, participation in long-term further treatment, and the treatment of acute problems. Furthermore, mandatory regional services requiring a large population base include the following: specialised services for substance abusers, consultation services complementing local services, demanding institutional detoxification and rehabilitation treatment for substance abusers (pregnant women, dual-diagnosis patients, drug users) and inpatient services for certain small special groups (such as language minorities, immigrants or the disabled). (Kekki & Partanen 2008, pp. 30–32.)

⁴⁰ For their study, Kekki and Partanen analysed written material produced by parties organising services for substance abusers as well as information obtained through a total of 21 telephone interviews and 2 e-mail messages during 2008, concerning the methods of organising substance abuse services and topical phenomena of substance abuse work at the local government level. Most interviewees were directors, project managers or co-ordinators in substance abuse work or social welfare. However, these results cannot be generalised for application throughout Finland, since the study analysed municipalities and regions (and their representatives) whose substance abuse services are diverse and organised. (Kekki & Partanen 2008, pp. 10–11.)

problems are offered independent housing, outpatient support and peer support groups rather than institutional rehabilitation. Such changes are also affecting treatment practices. The use of community support, individual therapy and social support has declined as the medical approach has gained ground. At the moment, municipalities are debating over how to respond to an increased need for treatment among alcohol abusers, with the development of services for drug abusers receiving less attention. Needs exist for detoxification units, emergency detoxification stations, housing service units and certain special group services (pregnant women), rather than rehabilitation units. A challenge for the future lies in the fact that substance abuser services are not considered core services within the service system. Indeed, substance abuse problems are seen as marginal, and people with such problems are deemed a source of disturbance rather than clients needing treatment. (Kekki & Partanen 2008, pp. 55–56.)

Riikka Perälä has studied the ways in which local authorities organise their social welfare and health care services through a case study involving co-operation between local authorities and Christian substance abuse service NGOs.⁴¹ The conclusions of the study indicate that on the side of the NGOs the co-operation is increasingly managerial, with increased control. Co-operation is based on business models rather than partnership. Thus, the ideological nature of the NGOs operations is in danger of being compromised. From the point of view of local authorities, the domain of NGOs with its new service packages is a sort of 'Wild West' which seems difficult to manage, and competitive tendering and strict control are emerging as the policy du jour. Competitive tendering, however, is proving inflexible, and policy outlines set in the course of tendering may cause unexpected results that often place the clients of the services at a disadvantage. In the customer-provider model used in competitive tendering, the actual clients cannot influence the content of the service, and cost consciousness often trumps quality in developing services. The author of the study also notes that local government officials and service providers also consider that they do not have enough influence on the system. The role of NGOs in generating service innovations is rather questionable in situations where NGOs are required to

⁴¹ The material for the study consists of themed interviews with 20 local government officials and representatives of Christian substance abuse service organisations collaborating with the local authorities, conducted in autumn 2008. There were 8 local authorities involved, 5 large (population more than 100,000) and 3 medium-sized; civil servants responsible for liaison with NGOs were interviewed, as were 12 persons responsible for the operations of various service points run by the NGOs involved. (Perälä 2010.)

describe their operations on a single A4 form and in such a fashion that they can be assigned point scores for competitive tendering. Although the new service culture is hoped to increase networking, to strengthen the civic society and to shape services to match citizens' needs better, the reality as outlined in the study is very different – albeit there are in fact some examples of successful co-operation. (Perälä 2010.)

In 2009, the opinions of local authorities and NGOs on substance abuse services were surveyed in the Substance Barometer of the Finnish Centre for Health Promotion.⁴² From the local authorities' point of view, there were particular shortcomings in housing services and detoxification (27% and 25% of respondents, respectively). There was a need for diverse housing services particularly for people with markedly declined functional capacity and for detoxification services available sufficiently near for local residents. From the NGOs point of view, there were particular shortcomings in acute detoxification services (30% of respondents) because of excessive waiting times and in rehabilitative institutional treatment (22%), leading the treatment chain to malfunction and clients to drop out of the services. More than half of the local authority respondents reported that the weakened economic situation had not yet affected client access to substance abuse treatment, but more than one in five municipalities were considering revising their criteria for access to treatment. In one in five municipalities, these criteria had already been tightened or the length of treatment periods curbed, and clients referred to services provided by the local authorities themselves. Nearly half of the NGO respondents considered that the economic situation had already made access to treatment more difficult. The Substance Barometer also indicated that the municipal and service structure reform, i.e. the Paras project (cf. section 1.2) had not yet had a significant impact on the availability of substance abuse and mental health services locally: nearly three out of four local authority respondents did not refer to such an impact at all, and fewer than half of the NGO respondents did. (Tekry 2009b, pp. 20–21, 25–26.)

⁴² The Substance Barometer is compiled every other year. In 2009, the survey was conducted in the form of phone interviews with 100 local government officials in charge of substance abuse services and 37 managers of NGOs. The local government random sample consisted of 130 municipalities, with regional compensation and weighted for population. The NGO sample focused on NGOs committed to the alcohol programme launched in 2004 and the drug programme launched in 2006 (cf. section 1.2). The sample included 50 NGOs. The response rate was 76%. (Tekry 2009b, p. 6.)

Drug-related treatment services

The essential aim of substance abuse treatment is for the clients' problems and the availability of services to meet. Some of the largest obstacles to receiving treatment were waiting times, the lack of knowledge and skills and negative attitudes towards substance abusers within the primary services and the physical distance of the treatment units within specialised services. One possible solution particularly for drug users is service guidance, a more personal counselling service for drug problem users.⁴³

Non-medical treatment and short-term detoxification are available for amphetamine problem users, but access to continued treatment is much more difficult to obtain. Treatment options for the use of cocaine, a stimulant, are even more limited because it is not very widespread. Some amphetamine problem users do undergo occasional treatment periods for amphetamine psychoses at hospital psychiatric wards, but there is no dedicated longer-term psychiatric care available for them. It has been alleged that amphetamine problem users must actually use other substances as well in order to qualify for treatment, so much so that a user may begin to take opiates merely for the purpose of passing the treatment screening. However, in many cases the onset of opiate use does not see the discontinuation of amphetamine use. As a consequence of seeking care, an amphetamine user may become addicted to opiates in addition. Medical treatments for amphetamine use are also under development, but in Finland at least it is extremely rare to be given medical treatment for amphetamine use. (Rönkä et al. 2010 pp. 133–134.)

The opiate addiction treatment with the best proven track record is medical substitution treatment. (Duodecim 2006.) Opioid addicts are centralised in major cities, particularly in the Greater Helsinki area and the city itself. In most parts of the country, no queues for treatment exist. The time limits imposed by the treatment guarantee (for non-urgent cases, assessment of treatment needs within 3 days and access to treatment within 3 months and, for specialist health care, assessment of treatment needs within 3 weeks and access to treatment within 6 months) are only exceeded in certain major cities. In order to improve the availability of medical treatment, a new Decree on substitution treatment was issued at the beginning of 2008, enabling pharmacies to distribute substitution treatment medication containing buprenorphine and naloxone. The aim in amending the Decree was the appropriate

⁴³ See 8.3 Social reintegration.

scaling of treatment (demanding patients being allocated to specialist health care, others to primary level; long-term care at a level which enables a normal life for the patient and is cost-efficient for the system). (STM 2009e.)

Cross-section surveys conducted by an importer of substitution treatment pharmaceuticals among treatment units indicate that the number of substitution treatment clients was about 1,500 in November 2008, of whom about 300 were treated at health centres. Similar surveys conducted in November 2009 seem to indicate that the number of substitution treatment clients had increased to 1,800. The surveys show that Subuxone®, a combination preparation containing buprenorphine and naloxon, accounts for about 60% of substitution treatment and methadone for the remaining 40%. The use of buprenorphine only, i.e. Subutex®, in substitution treatment is limited to a number of isolated cases according to the surveys. (MSD 2010.) A coverage survey for the Drug Treatment Information System in 2008 indicated that about 1,000 people had attended a medical treatment needs assessment for opiate addicts and that 2,300 clients had received medical treatment during the same time. (Väänänen 2010.)

Community-based rehabilitation

In community-based drug rehabilitation, various frames of reference and models are used for specifying the client's position and forms of interaction within the community. Instrumental and hierarchical communities primarily promote lifestyle changes with the help of the community, whereby the main effort lies in making the client adapt to the unit's social order and operational structure. Thus, the client does not have many opportunities to influence the community's everyday activities but, rather, behavioural changes are believed to occur, in part, involuntarily and through compulsion. In such hierarchical models, the difference between staff and clients is clear and client control is strict. This approach is countered by a client-oriented perspective, the 'confrontation with reality' model, whose purpose is to contribute to two-way communication. This means reduced control, a more even distribution of power and responsibility among all community members as well as the clients' participation in decision-making. While some studies concerning hierarchical communities have been conducted in Finland,⁴⁴ research on the confrontation with reality model is harder to come by. Santala's study con-

⁴⁴ Cf. Rönkä & Virtanen 2008, section 5.2.

cerned a fairly large substance rehabilitation centre seeking to abide by the key principles of a democratic and client-oriented therapeutic community.⁴⁵ (Santala 2008.)

As a main rule, clients' and community issues were decided at joint meetings at the rehabilitation centre. 'Confrontation with reality' meant that the community continuously discussed the feelings and attitudes arising from everyday crisis situations and conflicts, rather than creating a regulated ritual of feedback at a certain place and hour. In this way, conflicts were considered learning opportunities – not problems – and disturbing behaviour entailed discussion rather than punishment. In client-oriented community rehabilitation, democracy is primarily a tool for inclusion. However, the communities are not genuinely democratic since the staff always bear responsibility and wield the final decision-making power, but they attempt to exercise this power as little as possible. The objective is to pass the initiative to the clients and reduce their dependency on professionals. In Santala's view, however, follow-up findings indicate that drug users do not have common personality or behavioural characteristics which would prevent the implementation of democratic principles in everyday rehabilitation. Moreover, the successful rehabilitation of drug users does not seem to necessitate an expert-oriented and strict treatment culture. Although significant differences between the effectiveness of substance abuse rehabilitation models, in terms of post-rehabilitation intoxicant-free behaviour, have not been established in many national and international studies, it is possible that drug users are subject to more paternalistic treatment and rehabilitation methods than other social welfare and health care client groups. Santala suggests that if no significant difference can be detected between the effectiveness of two rehabilitative models, it would be ethically justifiable to select the option that is the best from the client's perspective. (Santala 2008.)

The post-rehabilitation life of participants in community-based drug rehabilitation was studied in a follow-up study which explored integra-

⁴⁵ The community can offer rehabilitation for a total of 40 patients at a time, in 8 sub-communities. One of these sub-communities is a home-like unit for drug users, offering long-term drug-free rehabilitation for young adults aged 18 to 30 in a safe and motivating environment. The sub-community is hosted in two flats in a terraced house, each patient being provided with their own room. The sub-community can accommodate 8 clients and employs 3 staff, two of whom have a college-level degree in social welfare and one with a degree in specialised psychiatric health care. Using means of participative observation, Santala studied the sub-community over three months in the spring of 2005, during which it hosted a total of 12 clients. Half of the clients had used opioids or amphetamines intravenously. A common factor for all of them was a drug-centred way of life, but crime did not necessarily play an important role in this. (Santala 2008).

tion into society, considering abstinence from intoxicants, avoidance of crime, getting a home, a job and a place to study, and establishing social networks.⁴⁶ The study showed that about 60% of participants were still sober more than a year after the rehabilitation. Most of the relapses had occurred within one year of the rehabilitation, but even following a relapse participants made an effort to prevent further relapses, and the interval between relapses had increased. However, the fear of repeated relapses was seen as a problematic shadow on everyday life. None of the participants had committed new crimes after rehabilitation; two out of three had found a job or a place to study. Most of the respondents in the study had also found accommodation. Many were worried about the future and about being stigmatised for being rehabilitees in both places of study and in the workplace: honesty, it seems, was not always the best policy. Many participants had only acquired a very thin social network, and peer support was not always available to them. Self-help groups offered an important channel for connecting with other people for many of the participants and accordingly represented the most popular form of further treatment. The author of the follow-up study concluded that community-based rehabilitation can attain good results but that results are always subjective; also, not everyone can be helped if their motivation is not good enough to achieve recovery. We should note that one third of the participants dropped out of the rehabilitation. Even in community-based rehabilitation, participants should be sufficiently considered as individuals; dropouts from rehabilitation take a heavy toll on the persons themselves and on society. (Prättö et al. 2009.)

A study comparing treatment administered to problem users of substances in Finland and in the USA assessed the impacts of the clients' capability for change (motivation for treatment) on the continuity of treatment and its cessation.⁴⁷ In Finland, the clientele included in the

⁴⁶ The material consisted of freeform interviews by 52 drug rehabilitees with persons who had been community participants between 1998 and 2007. Two out of three of them had completed the entire 15-month rehabilitation programme. Participants in the study responded to the questionnaire while participating in further treatment weekends at the community, having already completed their original rehabilitation programme. The material was collected in two stages, partly in the early 2000s and the final interviews between 2003 and 2007. (Prättö et al. 2009.)

⁴⁷ The Finnish data was collected in 2000–2003 from four samples (totalling 780 clients) in an institutional unit within substance abuser services (A-home). The unit conducts controlled, community-based 12-step facilitation therapy. Its clients were alcoholics (42%) and polydrug users (58%). The treatment programme includes a one-week arrival phase and basic rehabilitation period of approximately three weeks, following which the client had the possibility to take up longer-term, further treatment. The data were collected during the arrival phase. The study was based on the Transtheoretical Model (TTM), originally designed for monitoring the change process during recovery from the problem use of substances. The model identifies four stages (precontemplation, contemplation, action and maintenance), and the related data were collect-

comparison followed a community-based inpatient treatment, while the US sample involved outpatient clientele. When entering treatment, the Finnish clientele was clearly more marginalized, and the combined use of substances among Finns was common. In general, both groups' clientele profile was more or less similar. For the purposes of the comparison, each set of clientele was divided into two groups based on how willing or unwilling the clients were to change upon entering treatment. However, both countries' outcomes reinforced the conclusion obtained previously in other studies that a reluctance to change one's own substance use behaviour increases the probability of cessation of treatment. The study shows that, in terms of treatment results, this emphasises the importance of discussions on increasing the motivation for treatment. However, it should be borne in mind that an interruption of treatment does not necessarily entail its failure since, in practice, very few problem users of substances overcome their addiction during a single treatment process. (Saarnio & Knuutila 2008.)

Substitution treatment

In the Hospital District of Southwest Finland, substitution treatment has been organised on a shared basis so that the Addiction Clinic of Turku University Hospital chiefly conducts substitution treatment assessments and initiates treatments, while further treatment for patients is provided at treatment units in their home municipalities.⁴⁸ The Addiction Clinic always organises a transfer meeting in the transfer phase. In addition, the clinic hosts monthly a steering group meeting which the personnel of units providing further treatment can attend. There are 15 units providing further treatment in the district. Dropouts have been rare, and the annual rate of remaining in treatment has been 95%. For pregnant women, attempts are made to provide them immediate access to treatment (without waiting times) and, for dual-diagnosis patients, an integrated treatment model will be used, meaning that both substance abuse treatment and psychiatric treatment for the patient are always centralised in one unit. (Mikkonen et al. 2008.)

ed using a URICA questionnaire originally developed for following up psychotherapy clients' capability for change. The change analysis was based on hierarchical cluster analysis. The comparison target in the U.S. included clients (953) of outpatient services designed for alcoholics in Project MATCH. (Saarnio & Knuutila 2008.)

⁴⁸ The population base of the hospital district is approximately half a million people. The number of opioid addicts at the beginning of 2008 was estimated at 380, of whom 242 were in substitution treatment, meaning that the coverage of treatment was 64%. (Mikkonen et al. 2008.)

In the treatment model, patients are referred, depending on the stage which their individual rehabilitation has reached, to rehabilitative or harm-reducing substitution treatment in psychiatric specialised health care or to basic-level treatment at a health centre. Buprenorphine-naloxone treatments are begun at an outpatient clinic if the patient does not have a major polydrug addiction, while methadone substitution treatment is always begun with a two-week inpatient period. The initiation period in a university hospital ranges from 3 to 6 months, depending on availability of beds for further substitution treatment. (Mikkonen et al. 2008.)

The criteria for rehabilitation treatment are that the patient would benefit from psychosocial rehabilitation and commits to it. The long-term objective is for the patient to attain a substance-free lifestyle and to improve control of his or her life. Every two months, an assessment is made of the patient's current need and progress with regard to his or her targets. The achievement of these targets is supported through weekly meetings with the patient's personal nurse. The target schedule for rehabilitative substitution treatment is two years. Criteria for accessing harm-reducing substitution treatment include poor commitment to treatment, chaotic additional substance use or the fact that rehabilitation is currently not the patient's own target. In such cases, the key goal is obtaining a commitment to treatment, and medical treatment is conducted in a separate unit distributing medication. In this approach, the proportion of psychosocial treatment is minimised, treatment meetings are arranged every 3 to 4 months and a personal nurse is not assigned to the patient. Once a patient feels ready to take up rehabilitative treatment, he or she needs to draw up an application in which he or she defines his or her own rehabilitation targets. It should be acknowledged, however, that for some patients harm-reducing treatment is a permanent and sufficient form of treatment. At health centres, the treatment is mainly medical. A personal physician takes responsibility for treatment and, during a weekly visit to a nurse, the patient is handed a weekly dose of replacement medication to take with him or her. (Mikkonen et al. 2008.)

The recovery of clients who begun substitution treatment at two large substitution treatment outpatient clinics in the Greater Helsinki area between 2002 and 2004 has been monitored both during treatment and through a follow-up survey in 2008.⁴⁹ Two out of three clients who be-

⁴⁹ Between 2002 and 2004, substitution treatment was begun by 85 clients at the two clinics in the Greater Helsinki area included in the study. These clinics practiced medical treatment supported with a cognitively oriented psychosocial approach. In the early years, the clinics employed a one-size-fits-all treatment model, but with experience they have progressed to individual treatment plans. The first treatment plan is drawn up within one month of starting treatment with the

gun the treatment were men, and two out of three were under the age of 30. Fewer than one tenth of the clients were employed, and two out of three had completed no more education than comprehensive school. Half of the clients had a permanent residence, and one in five had been in prison. One in three was diagnosed with pharmaceutical addiction in addition to opioid addiction, and one in five was diagnosed with amphetamine or cannabis addiction. Some 40% of the clients had psychiatric disorders. In the follow-up 84% of the clients was found to have suffered a relapse in drug use by the end of 2004, and almost as many had tested positive in a drug screen at least once. However, nearly half of the clients had no entries concerning drug use in addition to opioids. Of the clients who were in treatment in 2008, about one in four had dropped out; they were on average younger than the others, and they had more arrests and additional drug use during their treatment. Half of the clients had moved on to treatment at other units, while one in four was still in treatment at the original unit. Two patients had managed to break free from opiates completely. In 2008, more than one third of the clients had been in treatment for 4 to 7 years. (Tourunen et al. 2009; Pitkänen 2009.)

The findings show that neither the patients nor the treatment unit discontinue the treatment lightly, so treatment relationships become extensive, and the number of clients increases all the time. The bottleneck here is in transferring clients to other social welfare and health care basic services to admit new clients to the specialised substitution treatment units. On the other hand, it is the treatments of the clients with the most vulnerable social status that are in the greatest danger of being interrupted – assuming they ever make it to treatment in the first place. One third of the patients had had to be referred to detoxification or inpatient rehabilitation provided by substance abuse services as a support measure for outpatient treatment. Another challenge in substitution treatment is to develop services that would complement medical treatment and meet the needs of clients. These include discussions with personal nurses, group meetings of various kinds, but also referrals to labour market policy training and sheltered housing. Peer-to-peer

client and a multi-discipline team working together, and the plan is revised every 3 or 4 months. The treatment includes, initially, controlled daily medication and weekly drug screens, but as the clients commit to the treatment, drug screens are taken less frequently and the clients are given their substitution treatment dose for a whole week at one time. At the start of the treatment, the substitution treatment doses are low (2 to 8 mg of buprenorphine per day), followed by high doses in the second stage (32 mg) and a decrease in the third stage (20 mg). The first methadone patients entered treatment at the beginning of 2003, and the naloxon-buprenorphine compound was taken into use in 2004. (Tourunen et al. 2009.)

support between patients, on the other hand, has not really caught on. (Tourunen et al. 2009.)

In interviews where clients have evaluated the impact of substitution treatment, they have noted that while the care system does not seem to be able to make much of a difference in the employment or training of clients, the treatment does have obvious and significant effects on their housing situation and also on their financial situation in the sense that the substitution treatment pharmaceuticals are free of charge for them and they no longer need to spend money in buying illegal opioids – which of course decreased the number of property crimes they committed. Children are frequently taken into care and out again during treatment, and for many clients their children represent a motivation for sticking with the treatment. However, clients who had been in treatment for a long time felt that their physical health was quite poor; contributing factors in this include the progress of hepatitis C and the side effects of the substitution treatment drugs, particularly methadone, on teeth, for instance. Although many mental conditions were diagnosed among the clients, on the whole they felt that their mental wellbeing had improved during treatment. The challenge is that in large cities clients still have to wait to be admitted to treatment, that many health centres still have not begun implementing substitution treatment, and that pharmacy distribution of substitution treatment pharmaceuticals is only just beginning. (Tourunen & Pitkänen 2010.)

The HUS addiction psychiatry unit conducts the majority of needs assessments for substitution treatment in the Greater Helsinki area. A study⁵⁰ compared the results for patients whose substitution treatment began in 2003–2005 to the results of those whose treatment began in 2000–2002. In 2003, the treatment was extended to patients aged 18 to 19 and to patients whose addiction had lasted for one to three years.⁵¹ At the same time, needs assessments for substitution treatment were transferred to outpatient consultations, and buprenorphine was introduced alongside methadone. (Vorma et al. 2009.)

In the 2003–2005 material, the average age of patients (30) was, as expected, lower than in the 2000–2002 material (34). Also, the patients had on average been using opioids for two years less (8 years vs. 10

⁵⁰ Treatment outcomes were examined retroactively based on patient documentation from HUS and further treatment units (municipal health care and social welfare services, the A-Clinic Foundation, the Deaconess Institute in Helsinki and health care services in the prison system). Intoxicant use was assessed on the basis of the drug testing of urine samples. The study involved 114 patients from 2003–2005 and 70 patients from 2000–2002.

⁵¹ Before 2003, opioid addicts over the age of 20 whose compulsive use of opioids had lasted for at least four years were admitted to treatment.

years). Almost all (90%) of the patients had another substance abuse problem in addition to opioid addiction. The most common substances involved in problem use or addiction were benzodiazepines for 85% of the patients (94% in 2000–2002), amphetamines for 56% (59%), and cannabis for 51% (51%). Problem use or addiction to alcohol was found in 18% of the patients, as opposed to 10% in the earlier material. Two thirds of the patients presented with a simultaneous psychiatric disturbance. Both mood swings and anxiety were found in about one in five patients. Schizophrenia, a schizoid personality disorder or a delusional disorder was found in 5% of the patients. A personality disorder was diagnosed in 51% of the patients, as opposed to 86% in the 2000–2002 material. This decrease in diagnoses was explained by the lower average age of the patients and the transfer of interviews to outpatient consultations. (Vorma et al. 2009.)

Waiting times for treatment have varied widely in the Greater Helsinki area (3 to 12 months). Normally, substitution treatment includes medical treatment and monitoring but also treatment of any simultaneous mental health disorders, any other substance abuse services required, including detoxification if necessary, and psychosocial and occupational rehabilitation. One third of the patients who began their treatment at HUS went on to further treatment elsewhere. (Vorma et al. 2009.)

In 2003–2005, 80 patients were started on methadone and 34 on buprenorphine. With 10 patients, buprenorphine was replaced with methadone in the course of the treatment. During the monitoring period, the average daily dose of methadone was 102 mg (varying from 20 to 190 mg). In buprenorphine substitution treatment, the average daily dose was 16 mg (varying from 2 to 28 mg). For the majority of patients with personality disorders, methadone was used for the substitution treatment. Of those who began treatment in 2003–2005, 63% were on benzodiazepine, as opposed to 87% of those who began treatment in 2000–2002.⁵² (Vorma et al. 2009.)

The percentage of patients who stayed the entire 18-month course of treatment was 77% (89% in 2000–2002). For two patients treatment was discontinued because of drug-related crime, and for five others because of violence or threat of violence. In the remaining cases, either the patient dropped out or the treatment was discontinued as ineffective. Four patients withdrew from the treatment. During the 18-month monitoring period one of the patients died, and certain others found em-

⁵² The downward trend has continued, and at the time of this writing only 35% of patients at the opioid addiction outpatient clinic at HUS are on benzodiazepine.

ployment or were granted rehabilitation support or a pension. (Vorma et al. 2009.)

The findings⁵³ for simultaneous use of other intoxicants were less encouraging than before. Only in one case out of ten (12%, as opposed to 30% in 2000–2002) all the drug screens came back negative. Only 44% of the patients tested negative for opiates other than the substitution treatment drug (75% in 2000–2002), 29% tested negative for amphetamine (43%), and 32% tested negative for cannabis (48%). These findings were attributed to the assumption that since the threshold of substitution treatment used to be higher, polydrug use was probably taken more seriously, too. (Vorma et al. 2009.)

The various models of implementing substitution treatment emphasise different aspects of the relationship between psychosocial and medical treatment. Particularly at university hospitals, medicine and rehabilitation are highlighted. The staggered treatment focuses on the idea that psychosocial treatment is prioritised when the patient feels ready for rehabilitative treatment and is able to define realistically his or her own rehabilitation targets. An alternative to the above-mentioned model is a holistic approach of commitment to treatment and preparation for rehabilitative substitution treatment which includes, particularly at the beginning, basic social work, ensuring livelihood and housing as well as seeking social support to foster recovery. Both of these models find support in various follow-up studies. Common to the models is, however, that both of them highlight how important it is to progress according to the particular circumstances of the client and his or her own treatment targets – in other words, the client’s motivation for treatment.

Low-threshold services

In the social welfare and health care system, ‘low-threshold services’ generally mean services designed to emphasise that users can seek them easily and without fear of consequences. The concept is, however, a problematic one; in Finland, as originally coined it referred to syringe and needle exchange points or health counselling centres for drug users. Later, the concept expanded to include a wide range of services for the marginalised, such as overnight shelters, day centres and

⁵³ Out of the 2003–2005 material, data on drug screening of urine samples were collected for 87 patients over the last 12 months of the 18-month monitoring period, and for 56% of the patients who began treatment in 2000–2002. Data were also collected from further treatment units if samples had been taken continuously at least twice a month.

night cafés – and, increasingly, substitution treatment. The latter highlights the downside of the concept: even in low-threshold services there is a threshold, especially where the most marginalised people are concerned, and the criteria for staying in treatment cannot be satisfied. Interviews with the most marginalised drug users have highlighted the question of whether the concept of low-threshold services should be shifted from the technical service model perspective to a broader perspective of integration into society. With such a perspective shift, the concept would present mixed messages: on the one hand, its aim would be to guarantee drug problem users the basics of a feasible life, but on the other hand, it casts the persons who need help the most as a special needs group, which at the same time marginalises them. The low threshold would thus simultaneously be pulling them into and pushing them out of society at large. The author of the study expresses the wish that ‘low-threshold services’ would turn out to be a transitional concept principally reflecting the inability of the social welfare and health care system to adapt to new treatment needs and that the need for this concept will eventually disappear. The increasing incidence of clients with multiple problems and polydrug users requires a different, reality-based approach from the system. (Törmä 2009.)

Two kinds of low-threshold service points – a health counselling centre and a maternity clinic for substance abusers – were evaluated in a study to explore differences in defining low-threshold services in the meeting of clients’ new needs and the service systems in day-to-day operations.⁵⁴ Although both service points offered services to a particularly problematic client group while emphasising a pragmatic and soft approach, i.e. keeping the threshold low for clients to use the services, there were great differences between the units. The health counselling centre was a small unit run by an NGO and focusing on the psychosocial approach, whereas the maternity clinic was part of a large, public hospital with a primarily biomedical approach to problem drug use. The former could be approached anonymously and informally, while the latter in practice required a referral from a physician. The latent threshold in these two services was thus very different. Also, the health counselling centre depended on the client taking the initiative or on the interaction of the client and the care personnel, while the maternity clinic focused on pregnancy monitoring, and treatment was pursued on the

⁵⁴ The data were collected over a period of 12 months through participatory observation and interviews at a health counselling centre and a major maternity clinic in the Greater Helsinki area. (Leppo & Perälä 2009.)

terms of the medical personnel. Both services emphasised the client's freedom of choice, although at the health counselling centre control measures were mainly only in place to safeguard the internal and external safety of the unit, whereas at the maternity clinic pressure and control was exerted on the client if she persisted in her substance abuse; the principal focus of the personnel was in such a case the safety of the child. At the health counselling centre, lifestyle changes in individuals were motivated indirectly, with respect for their autonomy, while at the maternity clinic pregnant women were directly encouraged to change their lifestyle. There was thus a clear difference in the treatment approach of the two low-threshold service units: reduction of harm at the health counselling centre and professional treatment at the maternity clinic. (Leppo & Perälä 2009.)

Role of substance abuse counsellors in treatment

According to the Current Care recommendations for drug-related treatment, psychosocial methods form the basis for the treatment, even though the evidence for their effectiveness in the treatment of certain drug problems is thin. Medication often only alleviates symptoms, although substitution treatment has proved effective for opioid addiction in particular. An open and confidential treatment relationship between the client and the substance abuse counsellor is an important tool in the identification and treatment of a drug problem. (Duodecim 2006.)

This perspective was highlighted in a study on the personalities and interaction skills of substance abuse counsellors.⁵⁵ The study indicates that counsellors may be divided into three groups according to their personalities: firstly, those who scored high in social activity, friendliness and openness but low in diligence; secondly, those whose scores were almost completely the opposite, except that their low points were not in openness but in balance; and thirdly, those whose personality traits

⁵⁵ The data for the study were collected at inpatient substance abuse service units (n=17), through interviews with 162 therapists. In the interviews, the participants filled in a background information form and took a personality test. They were also given for evaluation a form with five personal and treatment histories related by five clients of substance abuse services and their family members. Three out of five respondents returned the evaluation questionnaire. The questions in the personality tests were allocated to PK5 factors estimating the social activity, friendliness, diligence, balance and openness of the respondent. The purpose of the evaluation questionnaire was to explore the interaction skills of the respondents, and the responses were analysed by an external group of experts who ranked the responses according to four dimensions: empathy, sincerity, respect for clients and concrete action. The results were analysed using one-way analysis of variance and the t test. (Saarnio 2009; 2010.)

were close to average in all areas. The findings were surprising in the sense that the first two groups were practically equal in their interaction skills, whereas the third group ranked considerably lower. A similar level of achievement in interaction may thus be achieved by almost diametrically opposed personalities, which according to the author of the study demonstrates that it is possible to learn a wide range of interaction skills through training and professional experience. Analysed by gender, the results were embarrassing for men, as women proved to be better in interaction skills in all dimensions of the evaluation survey. Another interesting finding was that counsellors with substance abuse recovery experiences of their own (about 10% of them) were on a par with the rest in their interaction skills, even though they were less diligent and balanced personalities. (Saarnio 2009; 2010.)

Peer support

In her doctoral dissertation, Elina Kotovirta studied the non-profit, peer-support-based fellowship of Narcotics Anonymous (NA), its recovery programme, and the former drug users who regard themselves as members of the fellowship.⁵⁶ According to Kotovirta, at its simplest NA's recovery theory can be described in two sentences: (1) there are drug dependent addicts who have an addiction disease, and (2) through an NA way of life recovery is possible. According to Kotovirta, NA may appear as strictly normative viewed from the outside, but in practice each member can adapt the programme in the way that best suits him/her. However, in the absence of more extensive knowledge of the fellowship, the norms reflected in NA texts or the fanaticism of individual NA members may drive some people away. (Kotovirta 2009, p. 5.)

⁵⁶ The study data consists of NA fellowship's programme texts, episodic interviews (n = 24) and questionnaires (n = 212). The interview material was collected during summer and autumn 2003. 11 women and 13 men were interviewed. At the time of the interview, the interviewees were between 20 and 49 years old and had all been members of NA for at least a year. To discover the recovery status of the interviewees, they were contacted again one year after the initial interview. 23 of the original group could be reached. One of them no longer participated in the NA programme. Questionnaire data were collected at the NA's annual jubilee conventions in 2003 and 2004. The author participated in the NA events, reporting on the research and distributing questionnaires to be completed on site. Interested participants also took forms away to give to those who could not participate in the event. The objective of the questionnaires was to collect data from all those who regard themselves as members of NA, on their views of their personal recovery and the NA programme. The questionnaire was divided into five subsections: participation in the NA programme, treatment history, personal history of substance abuse, assessment of situation in life, and social relationships. Collected data were analysed using explorative factor analysis. (Kotovirta 2009, pp. 24–30.)

A recurring observation of the study was that a fellowship can help fill the void left by the absence of drug use and contributes strongly to the building of social capital. Fellowships offer uninterrupted support but cannot replace acute treatment. NA has been shown to be a significant factor supporting abstinence in parallel with, and as an extension of, an official treatment system, but seldom independently. NA can never fully replace professional support, nor should it be left with sole responsibility for treatment. The interaction between NA and the official treatment system is clearly demonstrated in the study. NA receives new members through treatment units and recommendations by individual professionals, while participation in NA improves the results of the official treatment system by supporting abstinence and community involvement. Simultaneously, fellowships significantly reduce the expenditure of the official treatment system. In the opinion of the interviewees, the NA programme is suitable for everyone and can be applied to anyone's life. They also regarded NA as being best capable of fulfilling its fellowship function as a single-issue movement focusing solely on drug addiction, and not on mental problems, for example. None of the interviewees mentioned the spirituality of the 12 steps recovery programme as an obstacle to joining NA, although for some this had contributed to a negative first impression of NA. (Kotovirta 2009, pp. 168–172.)

New and broader perspective on rehabilitation

A dissertation published in 2009 discussed rehabilitation from the perspective of the participation of the rehabilitee.⁵⁷ The study highlighted three kinds of participation. At the early stage, rehabilitation is mainly based on managing a new, intoxicant-free lifestyle (life management participation), where the rehabilitee adapts to the discipline required in inpatient rehabilitation. As the rehabilitee begins to trust himself/herself to abstain from intoxicants, he/she begins to make independent decisions concerning rehabilitation and to seek experiences of meaningful participation beyond the rehabilitation itself (life politics participation) and can thus gain independence from the institutional mindset. Further, the rehabilitee must discover a path to establishing social relationships in order to develop his/her self-esteem and ground rules (life orientation

⁵⁷ This phenomenon was studied by interviewing 13 former problem drug users who had been using drugs for an average of 15 years and had been clean for about 7 years. Five of the interviewees had a physical disability. Also, 34 professionals and lay people named by them as their helpers were interviewed. (Mattila-Aalto 2009.)

participation). The rehabilitation process thus transcends official administrative boundaries and extends to the realm of social interaction which is difficult for the counsellors to even analyse. (Mattila-Aalto 2009.)

As the rehabilitee is in continuous interaction with the environment, analysis performed within the rehabilitation institution is inadequate for explaining the rehabilitation process, and the system in itself does not guarantee rehabilitation. Rehabilitation rules do not necessarily help the rehabilitee to attain the goals set for the rehabilitation, such as gaining employment and establishing himself/herself in areas of life where interaction follows different principles. As rehabilitation as a participatory and energising action is a process more complex than just individual participation, we should perhaps turn our notion of rehabilitation on its head and consider what kind of participation generates rehabilitation, and what rehabilitation programmes should offer in order to enable this. Parties commissioning and providing rehabilitation services are encouraged to engage in partnerships to export rehabilitation outcomes beyond the boundaries of the rehabilitation service itself. In substance abuse services, there is now a trend towards seeking outcomes in therapeutic interaction relationships in addition to developing treatment methods; this means the counsellor and the client forming an 'alliance' to help the client. Developing the quality of the interaction relationship may even prove to be a potential solution for one of the major problems of substance abuse services, dropouts. (Mattila-Aalto 2009.)

5.2 Characteristics of treated clients

The Drug Treatment Information System involves the anonymous collection of information concerning problem substance users who have sought treatment due to drugs. Treatment units supply information for the system on a voluntary basis. The Information System is estimated to contain information on about one third of the drug-related treatment provided in 2009.⁵⁸

⁵⁸ These data are based on anonymous data collection through the voluntary participation of treatment units. In 2009, data were obtained from 92 units (114 in 2008; 110 in 2007; 133 in 2006) and from a total of 3,321 drug treatment clients (4,109; 4,141; 4,865). Correspondingly, the number of new patients seeking care has dropped to 379 (501; 655; 884). The number of units participating in data collection has decreased substantially since the beginning of 2000s, weakening the coverage of data and, to some extent, annual comparability. Because of this, a coverage survey was circulated among 525 treatment units in 2008; the response rate was 61%. The survey indicated that the number of drug user clients was 12,807, meaning that the cover-

According to the 2009 data in the Drug Treatment Information System, the mean age of drug treatment clients was 30.1 years. The men were on average 2.4 years older than the women. The mean age of those seeking treatment for the first time was 25.9 years. The percentage of those seeking drug treatment for the first time has decreased steadily since 2000. In 2009, they accounted for 12% of those who sought treatment, while in 2000, the figure was nearly one third. Meanwhile, the mean age of everyone entering treatment has increased from some 26 to nearly 30. For one in five clients, the treatment relationship had continued for at least one year. (Väänänen & Ruuth 2010.)

Among all drug treatment clients of the substance abuse services, opiates were the major primary problem substance of clients entering drug treatment (55%), followed by stimulants (16%), alcohol (12%), cannabis (10%) and pharmaceuticals (7%). Buprenorphine, an opiate, was the primary problem substance for as much as 33% of the clientele. The percentage of buprenorphine as the primary substance of those entering treatment has increased the most in the 2000s, being now about one third. In 2009, the most common single substance among clients entering drug treatment for the first time was cannabis (27%) or buprenorphine (22%). Other common primary problem substances were stimulants (16%) and the combined use of alcohol and drugs (19%). Problem drugs are analysed in more detail in section 4.3. (Väänänen & Ruuth 2010.)

The reasons for entering treatment were almost equally divided: clients either came of their own volition (32%) or were referred from social welfare and health care basic services (30%) or from specialised substance abuse services (29%). Of clients under the age of 18, 60% were referred to treatment by child welfare services, and only one in five were assisted by their own families in seeking treatment. (Väänänen & Ruuth 2010.)

Two thirds (67%) of the clients included in the Drug Treatment Information System were in outpatient care, and one third in inpatient care. The most common forms of treatment were a period of assessment of treatment needs in outpatient care (19%), outpatient rehabilitative treatment (13%) and inpatient detoxification treatment (11%). Half

age of the drug treatment survey is about 32% of the clientele. A similar survey was conducted in 2004, when the number of clients was 17,825 but the coverage percentage the same, even though there were at that time only 165 treatment units in the Drug Treatment Information System. It would thus seem that the Drug Treatment Information System covers as large a percentage of the client domain as it did in 2004. The principal data collection problems mentioned in the surveys were a lack of resources, a small number of drug user clients, and overlapping information systems. (Väänänen & Ruuth 2010.)

of the clients had another, concurrent treatment contact, most commonly substance abuse service outpatient care (47%). Treatment was also sought at health counselling centres (28%), social welfare and health care basic services (19%) and peer support groups (11%). (Väänänen & Ruuth 2010.)

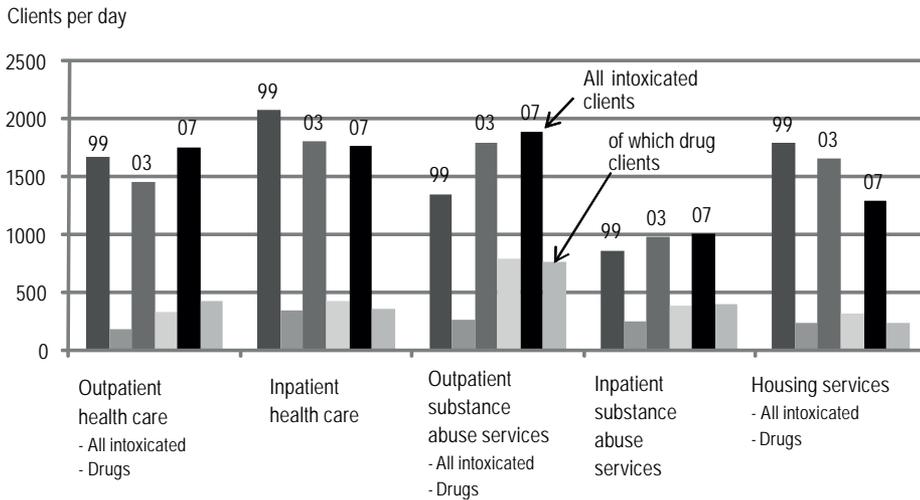
5.3 Client trends in substance and drug treatment

As discussed above, the Finnish substance abuse service system is heterogeneous; both social welfare and health care services must be taken into account. The numbers of cases of drug-related treatment have been estimated using general care statistics (cf. section 6.2 Drug-related treatment periods in hospitals and Figure 5) and three separate studies conducted by the National Institute for Health and Welfare. The *substance abuse census* is conducted during one day and collects information concerning clients who used the services of social welfare or health care units due to an injury caused by substance abuse or while intoxicated. This census, implemented at four-year intervals, enables an estimate to be made as to how large a percentage of all clients of social welfare and health care services are substance abusers. *Collecting of information on drug-related treatment* is a voluntary, continuous system of information collecting at treatment units for compiling anonymous, individual information on clients undergoing drug-related treatment (see section 4.3 for problem drug use and section 5.2 for clientele). A *coverage survey* was used to estimate the overall volume of drug-related treatment by treatment unit and by region for 2003 and 2008.

Substance abuse census

A census of intoxicant-related cases took place in 2007. The census is conducted during one day and collects information concerning clients who used the services of social welfare or health care units due to an injury caused by substance abuse or while intoxicated. This census is carried out every four years and, since 1995, in a format allowing comparison. The percentage of drug users among all clients included in the

Figure 4. Intoxicant-related cases in social welfare and health care 1999–2007.



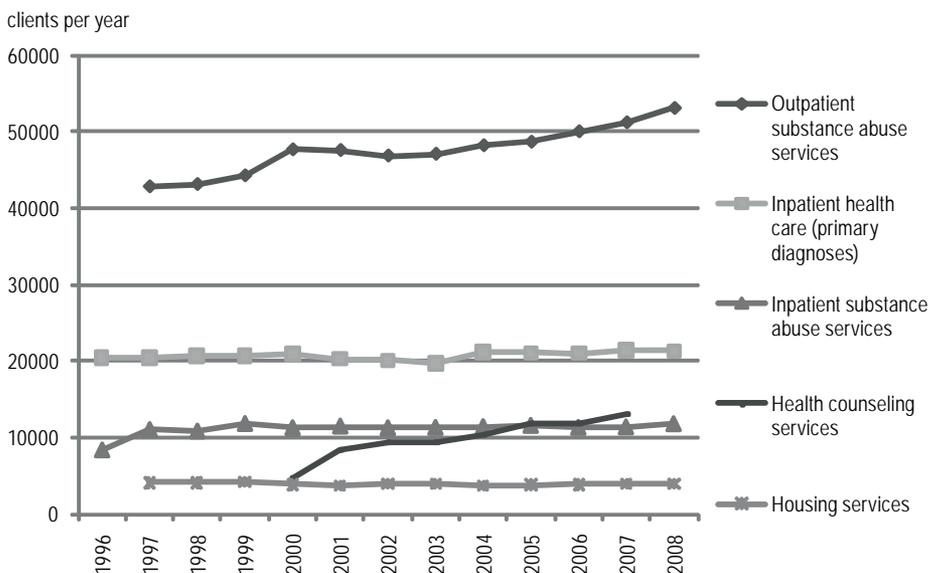
Source: Huhtanen 2008.

census of intoxicant-related cases was 11% in 1995, 16% in 1999, 27% in 2003 and 24% in 2007. (Nuorvala et al. 2008a.)⁵⁹

The causes behind the rapid growth in 1999 and 2003 include not only increased demand for treatment services but also changes in the service structure. The first health counselling centres for intravenous drug users were established in the late 1990s, and this manifested itself as an increase in the use of outpatient substance abuse services. Substitution treatment was not initiated on a wider scale until 2002, which is reflected in the number of drug treatment clients using substance abuser services or outpatient health care in 2003 and 2007. While the range of substances abused included drugs with 20% of the outpatients in substance abuse services in 1999, this figure had risen to 35% in 2003 and 40% in 2007. On the other hand, a cut in alcohol tax in Finland in 2004 increased the consumption of alcohol, and its delayed impact may be seen in the increased relative proportion of alcohol abusers in the 2007 census of intoxicant-related cases. This impact is particularly visible in the group of those over 50 years old. In the 2007 census of intoxicant-related cases, relatively little information was obtained

⁵⁹ Intoxicant-related visits refer to visits which either directly or indirectly involve intoxicants. The data were based on reports made by service unit personnel. The most recent census was carried out on 9 October 2007, when intoxicant-related cases reached a record high of 12,045.

Figure 5. Intoxicant-related clients in social welfare and health care services 1996–2008.



Source: Statistical Yearbook on Social Welfare and Health Care 2009.

from health counselling centres for intravenous drug users and, consequently, the proportion of drug users may have been underestimated in the 2007 census. (Huhtanen 2008; Nuorvala et al. 2008b.)

Based on the findings, drug-related problem use manifests itself in approximately 40% of the users of outpatient or inpatient substance abuse services, 25% of the users of outpatient health care and 20% of the users of inpatient health care. Among the clients included in the census, female drug users accounted for some 30% of those in outpatient care and 20% of those in inpatient care. In comparison to problem users of other substances, drug-using clients were relatively young. Among patients in substance abuse treatment, two thirds of those aged under 35 used drugs in addition to other substances, while among clients aged 35 to 44 drugs were used by only one third, and the figure for clients older than that was less than 10%. (Huhtanen 2008.) In addition to their age structure, drug-using clients differed from other users of substance abuse services in terms of marginalisation and mental health problems. Homelessness was significantly more common among drug users than other client groups, and over half of clients with a his-

Table 7. Intoxicant and drug abuse clients reported by treatment units in 2008.

Treatment units that responded to the survey						Coverage of the TDI* out of all clients of drug-related treatment	
	No. of users	Intoxicant abuse clients	Unit gives treatment to drug user clients (%)	Drug abuse clients	%	clients	%
Outpatient substance abuse services	85	36 225	93	5 937	16	2 003	34
Inpatient substance abuse services	36	3 414	81	1 146	34	315	27
Health care outpatient treatment / addiction psychiatry outpatient treatment	77	13 419	82	2 675	20	1 111	42
Health care inpatient treatment / addiction psychiatry inpatient treatment	45	3 530	49	1 418	40	352	25
Prisons	26	1 707	85	892	52	17	2
Other	52	11 764	65	739	6	311	42
Yhteensä	321	70 059	78	12 807	18	4 109	32

* National Drug Treatment Information System
Source: Väänänen 2010.

tory of drug abuse suffered from depression or other mental disorders. (Nuorvala et al. 2008b.)

The overall trend suggested by long-term client monitoring in substance abuse service systems is in accordance with the census findings. The greatest changes include the increased number of low-threshold health counselling centres and their higher number of clients since 2000; more frequent use of outpatient substance abuse services (including substitution treatment) throughout the 2000s; and the higher number of inpatients within health care, particularly in 2004. (Statistical Yearbook on Social Welfare and Health Care 2009.)

Coverage survey

In 2009, about 60% of the substance abuse service units that received the survey responded.⁶⁰ The reported number of clients in drug-related treatment was 12,807, or 18% of all substance abuse service clients. In considering this figure, we should note that the survey was not targeted accurately, nor were responses comprehensive. On the other hand, there was no provision for eliminating overlapping client relationships in the survey. A similar survey was conducted regarding clientele for 2004. At that time, 324 units responded, reporting 75,018 substance abuse service clients and 17,825 (24%) drug user clients. The coverage of the Drug Treatment Information System compared to the domain of clients in drug-related treatment was the same in both surveys (32%). (Väänänen 2010.)

The majority of the units that responded (78%) reported that they provided substance abuse services for drug user clients. The percentage of drug users out of all substance abuse service clients was the highest at outpatient and inpatient units specialising in drug-related treatment (58% and 89%, respectively), at the inpatient unit conducting medical treatment needs assessments for opiate addicts (78%) and in addiction psychiatry outpatient treatment at hospitals (75%). Drug users also accounted for a high percentage of substance abuse service clients in prisons (52%). By contrast, the percentages were considerably lower in outpatient substance abuse services at A-Clinics (10%), health centres (17%), detoxification stations (11%) and rehabilitation units (23%). The data in the Drug Treatment Information System cover the different types of treatment unit fairly representatively, although the clientele in prisons and in outpatient treatment at health centres is under-represented. Specialised drug-related treatment was widely provided. The most common criteria for specialised drug-related treatment were the unit's right to provide medical treatment for opiate addicts (43%) and a treatment programme dedicated to drug users (38%). Just under 20% of the units had a specialised ward for drug-related treatment. (Väänänen 2010.)

Based on the survey data for 2008, drug user clients were concentrated in the Province of Southern Finland (43%) and the Province of

⁶⁰ The survey was relatively comprehensive with regard to specialised substance abuse services, but not so much with regard to health care outpatient services, for instance at municipal health centres. There was no provision for eliminating overlapping client relationships in the survey. Nevertheless, nearly two out of three treatment units responded, and the overall number of clients corresponds quite well to the annual number of substance abuse service clients obtained by combining data from other separate registers (cf. section 5.3, Figure 5).

Western Finland (36%), with 16% of them in Helsinki alone. The coverage survey for 2004, on the other hand, showed that no fewer than 70% of clients were located in the Province of Southern Finland and 17% in the Province of Western Finland, the figure for Helsinki being 43%. This indicates that, compared with the data for 2003, the drug user clientele had spread out more widely in southern and western Finland. Also, the coverage of the Drug Treatment Information System would seem to have improved for southern Finland but weakened for the rest of the country. (Väänänen 2010.)

6 Health correlates and consequences

The number of HIV infections caused by intravenous drug use and hepatitis C, B and A cases recorded in the National Infectious Diseases Register has clearly declined over the past decade. Health counselling centres and hepatitis A and B vaccinations have played an important role in reducing the spread of drug-related infectious diseases.

An increase in the number of vasculitis cases and amputations has been reported, due to the intravenous use of pharmaceuticals including excipients, such as lime and starch, which are harmful to the veins. The number of cases of mental health problems appearing concurrently with drug use quadrupled in the 1990s, but in the 2000s the trend has levelled off.

The number of drug-related deaths grew along with other detriments at the turn of the millennium (Figure 6), which was a consequence of the increased drug use in the 1990s. In the early 2000s, the number of deaths remained at this higher level. Over the past few years, the number of drug-related deaths has shown signs of rising again.

6.1 Drug-related infectious diseases

More than 67% of the drug user customers of substance abuse services had at some time in their lives taken all three tests: HIV, hepatitis B and hepatitis C: 72% had taken an HIV test, 69% a hepatitis B test and 76% a hepatitis C test. A hepatitis A test had been taken by 58% of clients. (Väänänen & Ruuth 2010.)

HIV

According to the HIV infection statistics maintained by the National Institute for Welfare and Health, 178 new HIV infections were reported in 2009 (148 cases in 2008). Since 2000, the number of HIV infections has increased, due to the rise in sexually transmitted HIV infections. The number of intravenous infections, by contrast, has remained low: in 2009, only 12 infections caused by intravenous drug use were reported, which is only 7% of the reported total (5% in 2008).

In addition to this passive monitoring required for the National Infectious Diseases Register, the National Public Health Institute (currently the National Institute for Health and Welfare) has been co-ordinating prevalence surveys⁶¹ conducted approximately once a year. These surveys have aimed to assess the prevalence of infections among those intravenous drug users who do not seek diagnostic testing. According to the survey results, the prevalence of HIV among intravenous drug users has remained, in spite of the epidemic of the early 2000s, at some 1% to 2%, which by international standards is very low. (Arponen et al. 2008.)

According to a recent study, HIV positive intravenous drug users who live in the Greater Helsinki area (Helsinki, Espoo and Vantaa)⁶² are marginalised both socially and regionally. There was an HIV epidemic among intravenous drug users in the Greater Helsinki area in 1998, but the epidemic took a downward turn in 2000. All areas outside the centre of Helsinki where users said they had spent time or used drugs at the time of the HIV diagnosis were areas in which men had the lowest rate of employment (less than 70%). The HIV infections of intravenous drug users were concentrated in areas described as poverty areas. The conclusion drawn from the study was that when the HIV prevalence is low, preventative measures should be targeted, especially at socially marginalised drug users who practice at-risk behaviour and spend their time outside the city centre. (Kivelä et al. 2007a, 2007b.)

⁶¹ Generally, the survey has been arranged at several health counselling centres during two weeks on a total of eight occasions between 1998 and 2009. The respondents were clients of health counselling centres, numbering between 150 and 700. The respondents fill in an anonymous risk questionnaire and give a saliva sample, which is analysed for hepatitis C and HIV antibodies. Both the form and the sample bear the same anonymous participant number, enabling the comparison of individual risk factors against the antibody result. The test is not a diagnosis and, due to the anonymity observed, the results cannot be returned to participants. This fact is emphasised to the participants and it is also essential in terms of the survey's representativeness, since it enables participation by those who do not necessarily wish to learn of their infection. All clients of the health counselling centres are encouraged to participate in the study regardless of their HIV or HCV status.

⁶² The material for the study consisted of HIV positive drug addicts who visited the clinic for infectious diseases at Helsinki University Central Hospital at least once between 1998 and 2003. Of the 213 clients, interview data on 176 (82.6%) was available for the study. The data related to drug use, sources of income, living conditions, education, employment, substance abuse treatment and imprisonment. The clients were also asked to name a maximum of four areas where they had spent time or used drugs at the time their HIV infection was diagnosed.

Table 8. Hepatitis C according to physicians' reports, arranged by means of transmission, years 1998 to 2009*).

	1999	2001	2003	2005	2007	2008	2009
Injection drugs	1001	822	627	621	416	508	433
Sexual exposure	35	42	46	61	63	68	65
Perinatal	10	3	1	5	4	9	9
Blood products	23	19	22	24	17	15	1
Other	40	31	34	35	23	31	26
Not identified	643	574	533	497	634	513	527
Total	1753	1492	1264	1244	1157	1144	1061

Source: The National Infectious Diseases Register, the National Institute for Health and Welfare.

*) In the period from 1995 to 2003, four known cases of HBV infections transmitted via the transfusion of Finnish blood components have been reported. Since 2000, no HCV infections transmitted via the transfusion of Finnish blood components have been reported. Monitoring the means of HCV transmission was initiated in 1998.

Hepatitis C

In 2009, the number of new hepatitis C infections reported was 1,061 (1,144 in 2008). The means of transmission was identified in about half of the cases, and in the majority of these (81%) the infection had been contracted through intravenous drug use. For cases where the means of transmission could not be identified, there is strong reason to suspect intravenous drug use, since hepatitis C is known not to be readily transmitted in sexual contact and no community infections have occurred. (THL 17/2010.)

The overall number of new hepatitis C cases has declined slowly but surely since 2000 and, at the same time, the number of infections caused by intravenous drug use has decreased. However, acute infections are not easily distinguished from older cases, and therefore caution should be practiced when interpreting results. Nevertheless, the prevalence of hepatitis C among intravenous drug users is at such a high level that any changes will occur slowly, even when the risks are controlled. (THL 17/2010.)

Based on the prevalence surveys⁶³ of the National Public Health Institute (currently the National Institute for Health and Welfare), the prevalence of hepatitis C is 50% to 65% among intravenous drug users. According to the 2009 material of the drug treatment information sys-

⁶³ For more details on the surveys, see Subsection 'HIV' above.

tem, 74% of clients who had used drugs intravenously and had been tested (n=2,251) had hepatitis C. (Väänänen & Ruuth 2010.)

Regional differences exist. The number of infections has declined in Southern, Western and Eastern Finland whereas in the northern province of Oulu the situation is alarming – infection prevalence has increased steadily since 1995. The reasons underlying this increase require further study, since active testing can not sufficiently explain the clear increase over the past few years. To reduce the number of infections in northern Finland, provision of health counselling for intravenous drug users should be increased, as necessary. (THL 2009b.) Indeed, health counselling is available in only a few localities in northern Finland.

Hepatitis B

The number of acute hepatitis B cases recorded in the National Infectious Diseases Register has shown a significant decline over the past decade, and infections contracted through intravenous drug use have decreased the most. In other words, hepatitis B vaccinations for risk groups and the work conducted at health counselling centres aimed at drug users have produced results. In 2009, not a single case of infection through intravenous drug use was reported (one case in 2008). Altogether there were 34 new infections, and the means of transmission was identified in 23. During the peak in 1998, the number of new infections was 256. (THL 17/2010.)

Hepatitis A

In 2009, the number of new hepatitis A cases reported totalled 22. At least 8 of these had been contracted abroad. During the past few years, the number of infections has remained low. In 2002–2003, a hepatitis A epidemic emerged among intravenous drug users in the Greater Helsinki area, causing the number of new cases to soar (393 cases reported in 2002 and 243 in 2003). This growth levelled off in 2004, after which the prevalence has remained low owing to the vaccination of risk groups. Intravenous drug users, their sexual partners and persons living in the same household have had access to hepatitis A vaccination free of charge under the national vaccination programme. Seeking a hepatitis A vaccination is also common among those who are planning to travel abroad. (THL 17/2010.)

Sexual risk behaviour among intravenous drug users

Kivelä et al. (2009) studied the prevalence of sexual risk behaviour and factors associated with inconsistent condom use of Finnish intravenous drug users. Data for this study⁶⁴ comprised two cohorts: HIV positive and HIV negative intravenous drug users. In the HIV positive group, 96% had hepatitis C, while the corresponding figure in the HIV negative group was 51%. The HIV negative users were sexually more active than the members of the HIV positive group. During the past six months, 13% of the HIV negative group and 32% of the HIV positive group had not had a single partner. Some 63% of the sexually active HIV positive and 80% of the sexually active HIV negative users used condoms irregularly.⁶⁵ The importance of safe sex is explained to each HIV positive patient on his/her first visit to the infectious diseases clinic after being diagnosed with HIV. This might have an effect on risk behaviour.

According to this study, irregular condom use could not be independently associated with age, sex, marital status, number of partners, prostitution, sexually transmitted infections, drug use density, visits to health counselling centres or duration of intravenous drug use. Furthermore, inconsistent condom use could not be independently associated with education, living conditions, unemployment, recent imprisonment (within the past 6 to 12 months) or the number of prison sentences either. Thus, rather than targeting efforts at the socially marginalised or those engaged in prostitution, for example, attempts should be made to reduce sexual risk behaviour in all intravenous drug users. (Kivelä et al. 2009.)

Inconsistent condom use was associated with recent treatment periods (within 6 months). For the HIV positive, inconsistent condom use was associated with treatment periods in institutional and outpatient care. For the HIV negative, this association existed only for those who

⁶⁴ HIV negative users (n=207) were recruited by health counselling centres in Helsinki in 2000–2002. Saliva tests were used to determine negative HIV test results. Members of the other cohort were selected at Helsinki University Central Hospital, to which all HIV positive intravenous drug users in the Greater Helsinki area are referred for treatment following diagnosis. This cohort included users who had tested positive between 1998 and 2004, and who had previously (max two years) tested negative. Members of both cohorts were over 18 years old. Participants were interviewed based on a structured interview form. Logical regression was applied in risk factor analysis. The model included variables which were significant in single variable analysis. The small sample limits the generalisation of these study results.

⁶⁵ Condom use was determined as inconsistent in cases where condoms were never, sometimes or often used. Condom use was determined as consistent when a condom was always used.

had been in institutional care. Explaining this association was beyond the scope of this study. (Kivelä et al. 2009.)

Interview study with HIV positive women using intravenous drugs

The objective of this study⁶⁶ was to interview women who had been infected with HIV when under 26 years old and who were using or had used drugs intravenously, to examine their opinions and views on sex, drugs and HIV infection. These topics were applied to determine the development that led to HIV infection. The majority of the women had begun sexual relationships at a very young age (12 to 13 years). They had had a relaxed attitude towards contraception, in particular not using condoms prior to contracting HIV. Substance abuse had started at an early age (12 to 15 years) based on alcohol, cannabis or amphetamine. The interviewees' personal history of intravenous drug use varied between 4 and 10 years. Initially, contracting HIV was considered a distant possibility, but the increased number of infections among intravenous drug users raised awareness. Some preventive measures were taken, but addiction and general indifference towards oneself reduced their interest in infection prevention. (Kaivola et al. 2007.)

For the interviewees, substance abuse and despair were contributing factors in their contraction of HIV. Their lives were controlled by drugs, which rendered them unable to attend to their own well-being. Psychological malaise, homelessness and accumulated problems increased their indifference towards themselves. Sharing needles and syringes was common, and many had never realised that sharing a mixing dish could constitute an infection risk. Due to the withdrawal symptoms, opioid users in particular were usually in such a hurry they no longer cared what they used for injecting the substance. In these cases the only method for minimising the infection risk was to ask if others were HIV positive. Access to clean needles and syringes is limited in prisons (see Section 9.4) and elsewhere during the night when pharmacies do not

⁶⁶ The interviewees were recruited from among the clients of HUS Aurora Hospital's outpatient clinic for infectious diseases and the Helsinki Deaconess Institute's Munkkisaari Service Centre for HIV positive drug users. Of the 17 women who matched the research criteria, 12 could be contacted and 8 agreed to participate in the study. Participants were interviewed between August and December 2003. At the time of the interview, they were between 20 and 30 years old. When they had tested HIV positive, the women had been 17 to 25 years old. They did not receive any remuneration for their participation in the study. The interviews were recorded, transcribed and analysed. The applied analysis method was inductive content analysis.

sell needles and syringes, for example. Furthermore, the interviewed women criticised the health counselling centres' quotas on needles and syringes – one successful injection may require as many as three needles if the veins are in poor condition. Some had been infected soon after starting intravenous drug use while they were still practicing usage routines. In the early stage of intravenous use, injections had been given by someone else with their needles and syringes. Exchanging needles and syringes in pharmacies or health counselling centres was often considered to stigmatise users, and visits were shunned. (Kaivola et al. 2007.)

The random as well as the more permanent sexual partners of the interviewed women were often drug users. Sudden mood swings, violence, abuse and sharing needles and syringes were characteristic of these relationships. Many of the women had been infected by their partner. For some users, the infection diagnosis had resulted in abstinence or reduced substance abuse, while in others it had had no impact. However, the positive result had been a shock to everyone and did have a cooling effect on their sex lives at first. Being infected themselves, the women became better aware of their partners' infection risk, which resulted in more consistent condom use. (Kaivola et al. 2007.)

6.2 Other drug-related health correlates and consequences

Vasculitides and amputations

Between 2000 and 2005, two hospitals in Helsinki⁶⁷ treated 24 patients who had entered care due to either infections (8 cases) or acute limb ischaemia (16 cases) arising from the injection of medicine tablets. The medicines had been crushed and diluted in hot tap water, with only one patient mentioning the use of a filter prior to injection. During the same period, the hospitals received only one other patient with a sim-

⁶⁷ The study was conducted by assembling all cases entered in the Care Registers of Töölö and Meilahti Hospitals between 1 January 2000 and 31 December 2005 with the ICD-10 codes X44, T40.4, I74.2, I74.3 and L02. Among these patients, those who had injected crushed tablets into a vein or subcutaneous tissue were selected. The case records were analysed by defining the socio-demographic background, date of seeking treatment as well as examinations and treatment procedures conducted. (Partanen et al. 2008.)

ilar condition, whose injuries had been caused by injecting so-called traditional drugs (amphetamines). During the intra-arterial administration of tablets, their solid binding agents such as starch or chalk decelerate the blood flow, which may lead to arterial thromboses. In many cases, the solution also contains micro-organisms, which only adds to the risks. Since, on several occasions, previous intravenous use has caused veins to clot, instead of injecting into a vein the user may hit an artery or subcutaneous tissue, entirely missing the blood vessels. (Partanen et al. 2008.)

The patients' average age was 26 years (age range from 20 to 39 years); 5 of them were women and 19 men. All of the patients had been using drugs intravenously for years. Most of those included in the study had injected crushed tablets into the inside of the elbow. The most frequent substance involved benzodiazepine derivatives (11 patients). A total of 10 patients had injected buprenorphine, either solely or combined with another sedative medical agent or narcotic substance. Injections – some patients having performed several of them – had hit an artery (16), vein (2) or subcutaneous tissue (10). The time from injection to arrival at the emergency services ranged from 3 hours to 10 days. Referral ensuing from seeking treatment had been slow and complicated, usually taking more than 24 hours. (Partanen et al. 2008.)

The patients spent an average of 14 days in inpatient care and 0 to 6 surgical procedures were performed on them, the average being 2. Such procedures included abscess incision, the fasciotomy of limbs if necessary and surgical debridement of gangrenous tissue. Embolectomy was attempted in three cases, but in spite of these efforts the cases resulted in amputation. The total number of amputations was nine, including the amputation of a finger (5), toe (1), elbow joint (1), forearm (1) and thigh (1). (Partanen et al. 2008.)

Drug-related treatment periods in hospitals

In 2009, inpatient wards registered 7,117 drug-related treatment periods in which a drug-related disease i.e. a disease related to narcotics or medicines, was the primary diagnosis, and 10,044 treatment periods in which a drug-related disease was the primary or secondary diagnosis. Half of the treatment periods involved various kinds of pharmaceutical poisoning. The number of all drug-related treatment periods and of cases of pharmaceutical poisoning has increased by about 15% since 2005. Over the same period, the number of clients has increased

Table 9. Care periods for drug-related diseases in 1999–2009, drug-related disease as the primary or secondary disease.

	2005	2006	2007	2008	2009
State of intoxication	635	667	659	689	776
Behavioural and mental health disorders caused by drugs	714	705	707	676	818
Drug and pharmaceutical addiction	2 614	2 716	2 562	2 868	2 909
of which drug addiction	823	948	936	1 040	1 136
of which as primary diagnosis	577	664	625	726	773
Drug and pharmaceutical poisoning	4 238	4 433	4 481	4 653	4 948
of which drug poisoning	116	141	140	172	211
of which as primary diagnosis	103	126	122	145	197
Other	554	507	591	625	593
TOTAL	8 755	9 028	9 000	9 511	10 044

Source: Institutional health care. Official Statistics of Finland (OSF).

by 12% (5,631 in 2009), but the number of treatment days by only 2% (38,767 in 2009).

As in earlier years, half of the drug-related inpatient care treatment days at hospitals were used for treatment of drug addiction, i.e. detoxification (19,242 treatment days). On the other hand, the number of inpatient treatment periods for drug addiction has increased by one third since 2005 while the average length of treatment periods has decreased.⁶⁸ The number of inpatient treatment periods for pharmaceutical addiction has remained stable since 2005, while the number of inpatient treatment periods for drug poisoning has almost doubled. However, drug poisonings only represent a small percentage of all the cases where pharmaceutical poisoning was the primary diagnosis (4,338 in 2009). The number of inpatient treatment periods for drug and pharmaceutical poisoning combined has increased by 16% since 2005, the average length of a treatment period being 1.9 days in 2009.

The number of inpatient health care treatment periods for drug-induced behaviour and mental health disturbances is now permanently lower than in the 1990s, which probably reflects changes that have occurred in the service system, such as an increased reliance on outpatient care and improved drug-related treatment. In 2009, however, the number of inpatient care treatment periods spiked by one fifth. It is pos-

⁶⁸ Taking medication into account, 7.3 days > 6.6 days.

sible that the economic recession has increased the need for caring for acute cases within the health care system rather than in inpatient care in substance abuse services, which are outsourced. The average length of a treatment period was 8.6 days in 2009.

A client may be admitted to inpatient care because of intoxication. The number of treatment periods for drug intoxication has also been slightly increasing in recent years. However, treatment days in inpatient care for alcohol intoxication outnumbers those for drug intoxication by a factor of 13.

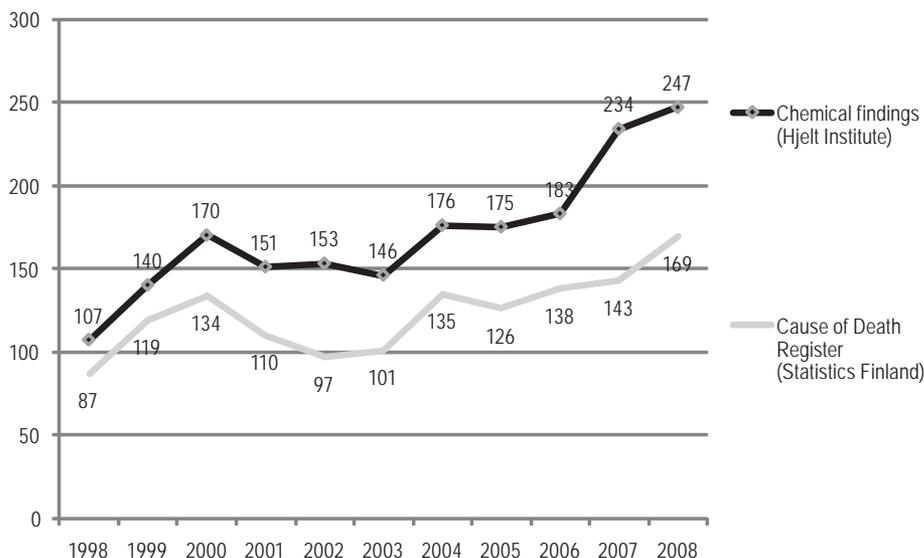
6.3 Drug-related deaths and mortality of drug users

Drug-related death cases in Finland can be analysed using three categorisations: chemical findings, causes of death and accidental poisoning. Chemical findings are based on positive drug findings in forensic autopsies. Therefore the drug itself is not necessarily always the direct cause or a major indirect cause of death. In Finland, all cases involving an unclear or doubtful cause of death are examined for drugs. Statistics by cause of death are kept based on the EMCDDA protocol,⁶⁹ under which drug-related deaths include cases of intentional and accidental poisonings and mental and behavioural disorder due to drug use. In Finland, the causes of death statistics are produced by Statistics Finland. Accidental poisonings were analysed in a special study for 2007. The three categorisations are gathered to the Table 12 by age group. The collation demonstrates that the statistics by cause of death highlight older age groups.

In Figure 6, the trend in drug-related deaths is illustrated on the basis of causes of death and drug findings. In these drug-related death statistics, changes occurring since 2000 are highly consistent. An exception to this rule arises in the sharp increase in the number of findings in 2007 and in the number of entries in the National Cause of Death Register in the following year. The findings for 2007 were analysed by Salasuo et al. (2009).

⁶⁹ Data is extracted from national causes of death statistics by using the ICD 10 codes according the EMCDDA protocol (available as a PDF document at: <http://www.emcdda.europa.eu/?nnodeid=1419>).

Figure 6. The number of drug-related deaths based on causes of death and drug findings in 1998–2008.



The number of chemical findings increased by 46 on the previous year in 2007 and by 13 in 2008. The Hjelt Institute Department of Forensic Medicine expects the growth trend to continue in 2009. According the preliminary data of 2009 (Table 10) especially findings of cannabis and gamma have proliferated. The number of deaths caused by either heroin or cocaine has remained at a few cases every year. The intoxicant use of buprenorphine, on the other hand, continues to grow. (Hjelt Institute 2010.)

The chemical findings referred to here are findings made in forensic toxicology investigations. A forensic toxicology investigation is always conducted when there is reason to suspect drug use. However, even if a positive result is found for a blood sample in such an investigation, this is only entered on the death certificate and officially registered if the forensic physician considered the finding a substantial one. For cannabis, only 53% of positive blood samples were entered on the death certificate, but the figures for findings of amphetamine and opiates were 81% and 91%, respectively. (Lahti et al. 2009.)

Table 10. Drug findings in forensic toxicology investigations of cause of death 2003–2009.

	2003	2004	2005	2006	2007	2008	2009
Heroin	4	0	3	2	1	3	3
Buprenorphine	73	72	83	88	97	104	–
Cannabinoids	82	80	71	99	94	93	119
Amphetamines	51	52	66	64	94	73	94
Methadone	3	11	14	21	26	33	–
Cocaine	1	3	2	1	3	3	4
Gamma	1	1	2	6	2	1	9
Total	147	176	179	191	234	247	–

– Data not yet available. Illegal use is determined by the death certificates, which are not yet all available.

Source: Hjelt Institute Department of Forensic Medicine (2010).

Drug-related deaths in 2007

A research team reviewed⁷⁰ all of the positive drug findings for 2007 in attempting to describe what Finnish drug-related deaths are like and what the substances are that cause them. A wide spectrum of opioids used pharmaceutically was found. It was conspicuous how the combined use of various substances contributed to drug-related deaths. Tranquillisers, sleeping pills, painkillers and alcohol played a significant part in numerous cases. (Salasuo et al. 2009.)

The classification was not done by ICD 10 codes, but by reviewing descriptions of the events from the documents. Using this method it was concluded that the cause of death was suicide in 45 cases, an accident (excluding poisonings) in 21, disease in 20 and homicide in 6; accidental poisoning was ruled in 142 cases, and the primary drug findings for these cases are shown in the table below. (Salasuo et al. 2009.)

The authors of the study highlight the high incidence of deaths from an overdose of opioids. The number of methadone deaths had increased (19), and the findings also included a wide spectrum of pharmaceutical opioids: tramadol (14 cases), oxycodone (6), fentanyl (6), codeine (6), morphine (3) and dextropropoxiphen (1). (Salasuo et al. 2009.)

⁷⁰ The material for the study consists of documentation on drug-related deaths compiled by the Hjelt Institute Department of Forensic Medicine at the University of Helsinki, including death certificates, examination certificates and any appendices. In all of the cases studied (n=234), there is evidence either of actual illegal drugs or of pharmaceuticals similarly abused. Intoxicant use of pharmaceuticals is cited under the cause of death.

Table 11. Primary drug findings in cases of death by accidental poisoning. (Salasuo et al. 2009.)

	Total	Benzodiazepine also found	Alcohol also found in blood
Amphetamines	17	–	1
Opioids	95	91	38
of which buprenorphine	40	38	22
of which methadone	19	19	5
of which other opioids	36	34	11
Unspecified*	6	6	4
Benzodiazepines	5	5	4
Alcohol	5	5	5
Pregabalin	4	–	1
Other drugs	10	–	6
Total	142		59

* The findings are so similar in their relative levels that no individual substance can be ruled as the primary cause of death. Opioids were found in five cases and amphetamine in two.

– Data not included in the report.

Source: Salasuo et al. 2009.

The most common finding by far was buprenorphine, the primary drug found in 40 cases. Intoxicant use of buprenorphine has increased sharply in Finland in the 2000s. Unlike other opioids, buprenorphine should carry a low risk of respiratory depression. However, the risk of respiratory depression increases markedly if buprenorphine is combined with benzodiazepines and/or alcohol. The material provides solid support for this conclusion. Out of the 40 cases where buprenorphine was found to be the primary cause of death, benzodiazepines were also found in the blood in 38. Alcohol was also a significant contributing factor, being found in the blood in 22 cases.⁷¹ (Salasuo et al. 2009.)

Although polydrug use is characteristic of the entire research material, amphetamine poisonings differ from other drug poisonings. Firstly, alcohol combined with amphetamine does not exacerbate the risk of poisoning in the same way as it does with opioids. Secondly, only 12% of the cases involve amphetamine as the primary cause of death, whereas estimates of problem use rank problem use of amphetamine substantially higher than problem use of opioids. Indeed, there are plen-

⁷¹ Alcohol was also found in the urine of several of the subjects, but this was not taken into account in the examination.

ty of amphetamine findings in cases of drug-related death not caused by poisoning. The authors of the study noted that in a remarkably high number of cases of amphetamine poisoning the death certificate has a job or occupation listed for the deceased. Out of a total of 17 cases of amphetamine poisoning, 3 were caused by methamphetamine and 3 by ecstasy. (Salasuo et al. 2009.)

Mikko Piispa, a member of the research team, continued to analyse the material in his pro gradu thesis, categorising the causes of death as drug addiction, going crazy and self-medication. Piispa considers that in about half of the cases of drug-related death the deceased can be considered to have been actual drug addicts, characterised by compulsive use and diagnosed with intoxicant addiction, for instance. The subjects in these cases were over 20 years of age. In the 'going crazy' category are subjects aged 15 to 30 whose drug use had not (yet) become compulsive. The culture of going crazy involves deliberate risk-taking, not only in the use of intoxicants but other activities too. Indeed, the typical cause of death for them is accidental poisoning or an accident of some other kind. Self-medication involves people who use drugs to alleviate their mental health problems (subjects over the age of 20) or somatic illnesses (subjects over the age of 30). Several of these actually have prescribed medication but use other drugs too. These subjects typically die of accidental poisoning or of suicide or somatic illness. Regardless of how they die, the self-medication subjects typically die a lonely death. (Piispa 2010.)

Piispa notes that drug problems are no longer the exclusive province of the Greater Helsinki area and other large cities. Drug-related deaths also occur in smaller communities, especially along the coasts of southern and western Finland. (Piispa 2010.)

Table 12. Drug-related deaths by age group in 2007, according to various categorisations.

	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–	YHT
Drug findings / drug-related deaths (Hjelt Institute)	16	58	54	31	29	23	12	8	3	234
Deaths by accidental poisoning (Salasuo et al. 2009)	10	35	35	20	22	11	4	3	2	142
Cause of Death / EMCDDA definition (Statistics Finland)	6	22	28	19	18	15	12	11	12	143

Source: Piispa (2010); Statistics Finland (2008).

In 2007, one in six (17%) of all deaths of young adults (aged 15 to 34) were drug-related. Accidental poisoning from drug use or polydrug use accounted for about one in ten (8% to 11%)⁷² of all deaths of persons aged 15 to 34. The major causes of death in this age group in 2007 were: disease 29%, suicide 27%, road accidents 17%. By contrast, alcohol poisoning accounted for only 3% of deaths in this age group. In examining the larger age group of 15 to 44, we find that drugs are involved in 11% of all deaths, accidental drug poisoning being the cause of death in 5% to 7% of cases.⁷³

Mortality of persons driving while intoxicated

A register study⁷⁴ shows that over a five-year monitoring period mortality among persons suspected of driving while intoxicated was almost ten times higher than among sober drivers. Particularly at risk were those suspected of driving while intoxicated whose first offence of this kind yielded findings of a drug, a pharmaceutical impairing driving ability and alcohol all together. The risk of an untimely death among these drivers was 25 times higher than among sober drivers. A combined finding of drugs and alcohol or drugs and pharmaceuticals raised the aforementioned risk to 15 times higher than among sober drivers. (Karjalainen 2009.)

The most common cause of death among persons suspected of driving while intoxicated was suicide. Other common causes of death included accidental overdose of drugs or pharmaceuticals and alcohol-related diseases such as fatty liver disease or accidental alcohol poisoning. Two thirds of those who drove while intoxicated were intoxicated at the time of their death, as opposed to one fifth of the control population. The significance of intoxication as a contributing cause of death was elevated in cases where the primary cause of death was a traffic accident or homicide. (Karjalainen 2009.)

The most common pharmaceutical finding was benzodiazepine, either alone or, more usually, combined with some other substance.

⁷² The figure is 8% according to the National Cause of Death Register maintained by Statistics Finland (Tilastokeskus 2008) and 11% according to Salasuo et al. (2009).

⁷³ The figure is 5% according to the National Cause of Death Register maintained by Statistics Finland (Tilastokeskus 2008) and 7% according to Salasuo et al. (2009).

⁷⁴ The study included drivers apprehended by the police and suspected of driving while intoxicated between 1993 and 2006 (n=5,832); their mortality was compared against the mortality of the Finnish population in general. The mortality was assessed using the Kaplan-Meier method and Cox regression.

Mortality was higher among those driving while intoxicated whose first offence yielded a finding of benzodiazepine alone or with alcohol, as opposed to those driving while intoxicated whose first offence yielded a finding of amphetamines. (Karjalainen 2009.)

7 Responses to health correlates and consequences

The prevention of drug-related deaths is carried out as part of health counselling related to infectious diseases and in problem user peer group activities. To prevent overdosing, awareness has been raised of the importance of the correct dosage and calling for help in time. The issue is also dealt with in drug treatment units with users, when necessary. Some training concerning the prevention of drug-related deaths is provided as part of basic training in social welfare and health care.

The treatment and prevention of infectious diseases related to drug use is provided within primary health care services, specialised services within health care and substance abuse services, health counselling centres and pharmacies that sell syringes and needles. HIV infected patients are treated at university hospitals and at central, regional and psychiatric hospitals in the area.

Low-threshold services in particular have been essential in preventing and reducing infectious diseases spread by intravenous drug use. Drug users can exchange used syringes and needles for clean ones at health counselling centres. An essential part of this operation is health counselling on drug-related infectious diseases and other serious risks related to drug use, such as overdoses and sexually transmitted infections. Health counselling centre services are free of charge for clients, who can visit the centres anonymously.

Under the Communicable Disease Act of 2003, municipalities must, within their health centres' operating areas, conduct prevention work against infectious diseases, including the dissemination of information on infectious diseases and health counselling. The scope of the Act encompasses health counselling for intravenous drug users, and exchanging syringes and needles where necessary. Free hepatitis A and B vaccinations have been included in the vaccination programme for intravenous drug users. Pharmacies play an important role in exchanging syringes and needles in areas where there are no health counselling centres.

7.1 Prevention of drug related emergencies and reduction of drug-related deaths

Information for drug users on what to do in an emergency situation and how to prevent death from overdoses is provided in connection with all health counselling. However, the increase of drug-related deaths has also been taken into account by the authorities,⁷⁵ although at the moment new procedures and more extensive prevention campaigns are still on the drawing board.

7.2 Prevention and treatment of drug-related infectious diseases

More than 67% of the drug user clients of substance abuse services had at some time in their lives taken all three tests: HIV, hepatitis B and hepatitis C: About 1% of the drug user clients of substance abuse services who had at some time used drugs intravenously⁷⁶ were HIV positive, while 74% tested positive for hepatitis C and about 5% for hepatitis A and B. Based on the data available in the drug treatment information system, of those drug treatment clients who had used drugs intravenously at some point in their lives, approximately two-thirds (76%) had received at least one of the vaccine doses for hepatitis B. A total of 56% had received all three vaccine doses. (Väänänen & Ruuth 2010.)

Health counselling centres offer exchange of syringes and needles and also provide counselling on health issues, small-scale health care, testing and vaccination services and case management. Health counselling centre services are provided in all municipalities with more than 100,000 inhabitants and, overall, in more than 35 localities.

According to the study, the services of health counselling centres have played a central role in the prevention of HIV, hepatitis A and B and, to some extent, hepatitis C, as well as in combating epidemics

⁷⁵ Examples of this include publications on drug-related deaths, a seminar organised by the Ministry of Social Affairs and Health on drug-related deaths in 2008, and the workshop at the *Päihdepäivät* [Intoxicant seminar] organised by the Finnish Centre for Health Promotion in 2010.

⁷⁶ Self-notified testing and result (n=2,119).

Table 13. Activities of health care counselling centres, 2000–2007

	2000	2002	2004	2006	2007
Health care counselling centres	12	22	24	38	38
Clients	4 800	9 300	10 400	11 900	13 000
Visits	32 900	55 300	83 400	73 900	92 000
Exchanged syringes or needles	564 500	1.1 million	1.8 million	2.3 million	2.6 million

Source: Anturiverkosto 2008.

among intravenous drug users and therefore indirectly in the population at large. The ambitious objectives set for the HIV infection situation have been attained, namely stopping the epidemic and bringing the annual number of new cases below 30. The health counselling centre model has proven to be a very cost-effective health intervention, and safeguarding its continuation and further development is very important. (Arponen et al. 2008.)

Under the Communicable Diseases Act and Decree, health centres / local authorities must provide health counselling for users of intravenous drugs and, as necessary, syringe and needle exchange and free vaccination against hepatitis A and B. According to a study on health promotion action undertaken by health centres,⁷⁷ only half of Finland's health centres (51%) reported that they offer hepatitis vaccinations to users of intravenous drugs and their sex partners, and only about one in four (27%) reported that they offer syringe and needle exchange. The study poses the question of whether these low figures are due to low demand or whether health centres are simply not bothering to provide the service, statutory requirements notwithstanding. It is also possible that in responding to the survey, health centres did not mention services that were outsourced (for instance from the A-Clinic Foundation). (Rimpelä et al. 2009.)

Drug-related harm reduction through peer group activities

During the period from 2004 to 2008, the A-Clinic Foundation carried out the Linkki Project to reduce drug-related harm through peer group activ-

⁷⁷ See 3.1 Universal prevention.

ities at the Vinkki Health Advice Centre in Helsinki. The modus operandi of the Linkki Project was to develop versatile peer group activity models for peer educators. The 'Lumipallo' (Snowball) training⁷⁸ focused on the following topics: sexually transmitted and blood-borne infections, risks related to drug-use, overdose situations and first aid. Attitudes towards and opinions on drug-use are openly discussed at the meetings. The trainees are also granted a larger needle and syringe exchange quota at health counselling centres. Customised *Lumipallo* training has been organised for specific target groups, such as women and Russian speakers. (Malin-Kaartinen et al. 2008.)

Passi satoihiin (Finnish for 'passport to hundreds') is a form of peer training organised as part of the Linkki project, but comprising only two meetings (safe injections and infectious diseases). In *Verto* training, long-term clients of the Vinkki Health Advice Centre were trained in providing health counselling and needle and syringe distribution to users who do not visit Health Counselling Centres. This type of peer work in the field was initiated upon the discovery that the field operations of the Vinkki Health Advice Centre were no longer able to reach users as they had before. Continued co-operation with the peer workers who had received training prior to the project's initiation formed the third subsection of the Linkki project. Peer workers, or Helpers, have been regularly or sporadically active, exchanging needles and syringes with their personal networks, participating in outreach work with employees, and providing assistance at the contact café. (Malin-Kaartinen et al. 2008.)

According to the project final report,⁷⁹ the key objectives were achieved: the training sessions enhanced clients' involvement and empowerment. Customised training was successfully utilised to enable clients in poor condition to commit to peer activities. Furthermore, peer operations provided an information channel to drug-user networks not accessible through other methods. For peer workers, the training was an empowering experience. This was demonstrated by the workers' greater openness, their improved perception of their own lives, their enhanced ability to care for themselves and their entry into care and training courses. (Malin-Kaartinen et al. 2008.)

⁷⁸ The Correlation Network (2008) has published a report on *Lumipallo* training in English: *Peer training in a multicultural environment. Snowball and individual training at the Vinkki Health Advice Centre in Helsinki during 2005–2006*, also published in Finnish in 2010.

⁷⁹ The data comprise interviews with 11 persons who participated in *Lumipallo* training between 2004 and 2006 and interviews with 10 employees of the Vinkki Health Advice Centre in Helsinki in 2006. The content analysis method was applied in the recording, transcription and analysis of the interviews.

7.3 Prevention and treatment of other drug-related health correlates and consequences

Substance abusers who are pregnant or who have recently given birth

The services of maternity clinics and child care clinics are used by 99.5% to 99.8% of pregnant women and families with newborn babies. These clinics are in a key position to promote abstinence from intoxicants, to identify substance abusers among pregnant women, and to refer clients to special services. (STM2009b.)

All maternity clinics at university hospitals have HAL services (from the Finnish acronym for drugs, alcohol and pharmaceuticals); two thirds of the clients of these services are referred from maternity clinics and the rest from substance abuse services or other places such as emergency outpatient clinics. HAL services treat about 400 mothers who are substance abusers each year; most of them are polydrug users or simply have a drug problem. Although alcohol is by far the most common intoxicant in Finland, drugs are the principal reason for referring a pregnant woman to treatment. (STM2009b.)

In HAL services, an obstetrician monitors the somatic progress of the pregnancy and the health of the foetus. However, the treatment team covers multiple disciplines and also conducts a survey of the social situation of a pregnant substance abuser, support her maternity in every way and aim to motivate her to abstain from intoxicants during her pregnancy. HAL services are voluntary and are based on establishing a good treatment relationship between the mother and the professionals. Those requiring further treatment are generally referred to such treatment during their pregnancy so as to guarantee smooth continuity of that treatment after childbirth. Pregnant women with opiate addictions are entitled to opiate substitution treatment because of their pregnancy; depending on hospital policy, this treatment may be co-ordinated at the maternity clinic or at the substance abuse unit. (STM2009b.)

The mother and child homes operated by the Federation of Mother and Child Homes and Shelters specialising in substance abuse services have developed a treatment model where a mother can be admitted even before childbirth for institutional care in a home-like environment for mother and child. The reasoning behind this is to provide support for

motherhood and parenting while encouraging abstinence from intoxicants. Pajulo (2010) explored the effectiveness of this model by studying 34 recent mothers of whom 60% principally had drug problems and 21% were polydrug users. Of the mothers participating in the study, 79% used intoxicants during pregnancy; 31% of the babies presented with withdrawal symptoms on birth. The most commonly used intoxicants were buprenorphine, hashish and amphetamine. One third of the participants had had treatment for mental health symptoms. About one third of the drug users was undergoing buprenorphine substitution treatment. (Pajulo 2010.)

A passive attitude to the baby and weak interaction after childbirth were worryingly common, but there was individual variation. The children's development progressed within normal parameters during the time that the mother and baby stayed at the mother and child home, but the percentage of sub-normal children increased substantially during the follow-up after this period, up to the age of two years. During the two years of follow-up study, 14 of the children (42%) required short-term, repeated or permanent taking into care because of the mother's lapses into substance abuse. The nature and incidence of mental health symptoms in the mother and the mother's capacity for understanding the child's experiences in various everyday situations (mentalisation) would seem to correlate with predictions of the child's development. (Pajulo 2010.)

Dual diagnoses

From 2002 to 2007, Finland's Slot Machine Association (RAY) contributed to the dual-diagnosis projects of four organisations. An assessment⁸⁰ was commissioned to determine how specific care and rehabilitation were organised within these projects. The majority of the clients concerned were young homeless men with severe substance abuse and various mental health problems. They were also unemployed and did not have families of their own. The clients' situation posed an extreme challenge to care and rehabilitation efforts. All of the projects showed that success depended on abstinence. If the unit was unable to main-

⁸⁰ The assessment indicators were designed to measure changes in the housing situation, employment and subsistence, safety index, working capacity and functional capacity, self-management, personal finances, personal relationships, self-expression, self-respect, self-esteem, locus of control, coherence and planning for the future, changes in values and attitudes, hobbies and behavioural changes on different levels.

tain an intoxicant-free lifestyle for the client, other rehabilitation efforts were also bound to fail. (P. Niemelä 2008.)

According to the assessment, the best results were achieved through a staged rehabilitation approach for clients with dual or multiple diagnoses. Following the initial step of specialised care, there is a need for rehabilitative care organised at care homes or similar group settings as the second step. A separate rehabilitation unit for care and a group home offering peer support and peer control comprise the third step. The fourth consists of outpatient rehabilitation and living independently. The fifth and final step comprises independent living, with support available when necessary. (P. Niemelä 2008.)

8 Social correlates and social reintegration

The results of the drug treatment information system revealed the same facts as many other studies on the risk behaviours, substitution treatment and HIV infections of problem drug users: they have more social problems than the general population. More than three out of five drug treatment clients are unemployed and approximately one tenth are homeless, and clients have a low level of education. As drug use is punishable under criminal law, many clients are also in a vicious cycle of crime and prison.

Multi-professional co-operation between authorities has been emphasised in after-care adjustment activities. This includes social rehabilitation, employment and supported housing services. Education authorities are also involved, particularly in work aimed at helping young problem users.

The planning of education and vocational guidance are automatically included in the treatment of young people. One example of employment activities is youth workshops which are designed for all young people, from non-users to problem users.

According to the Act on rehabilitative employment activities (189/2001), such activities are meant for the long-term unemployed, in order to improve their possibilities of finding employment. The Act obliges municipalities and employment offices to co-operate in providing client-specific service packages. However, it is not expedient to start rehabilitative employment activities if the client has an acute substance abuse problem; instead, the client should be directed primarily to substance abuse services.

In Finland, financially supported housing for substance abusers can be arranged within municipal social services. Housing service units for substance abusers form part of the Finnish substance abuse services. They are intended for substance abusers who need daily support for independent living.

8.1 Social exclusion

The drug information system provides information annually on the socio-demographic situation of drug treatment clients and reveals that the situation has remained surprisingly unchanged for years. According to the 2009 data (n=3,321), 65% of drug treatment clients were unemployed and the clients' level of education was low. For two thirds, the highest level of education achieved was comprehensive school, and 4% had dropped out of comprehensive school. Moreover, 12% of them were homeless. About a quarter were married or cohabiting, approximately half of these with a partner who also had substance abuse problems. More than one in three had children under the age of 18. Two thirds of these children did not live with their parents. (Ruuth & Väänänen 2010.)

Child welfare services

Preventive child welfare work is undertaken in family services, but also in substance abuse services for adult users, by investigating whether children involved have a need for care and support. If a child is living in conditions that may endanger his/her health, growth and development, non-institutional child welfare support services can be provided in the form of therapy, a support person or recreational activities. The local authority must also provide sufficient financial support or organise adequate housing. If the child is in immediate danger or otherwise in need of foster care, he/she can be taken from home on an urgent placement to a foster family or children's home. (Ministry of Social Affairs and Health 2010.)

If non-institutional child welfare support measures are not sufficient, the child may be taken into care if 1) shortcomings in the child's care or growing circumstances seriously threaten to endanger the child's health or development; or 2) the child himself/herself seriously endangers his/her health or development by using intoxicants, committing more than minor offences, or behaving in some other comparable way. (Ministry of Social Affairs and Health 2010.)

Two thirds of all cases of children taken into care are at least partly due to intoxicant abuse. According to the study by Hiitola and Heinonen, drug use by the mother was mentioned as at least one reason in 5% of cases, drug use by the father in 2% of cases, and the child's own drug

use in 4% of the cases. Alcohol use is by far a more common reason for a child being taken into care, whether by the mother (22%), the father (10%) or the child himself/herself (19%). (Hiitola & Heinonen 2009.) In Helsinki, intoxicant abuse by parents was a contributing factor in taking children into care in 70% of cases; in 16% of cases there was problem use of drugs or pharmaceuticals, and in 14% of cases there was poly-drug use. (Mikkonen 2008.)

The study by Kuula and Marttunen focused on those adolescents aged 10 to 17 (n=235) whose own behaviour was cited as the reason for taking into care in the official decision. The young people in this material had multiple problems: over half of them had a history of domestic violence, alcohol abuse and behavioural disorders that can be described as mental health problems. Nearly half of the underage children were suspected of property crimes and nearly one third of violent behaviour. Drug use was suspected or confirmed in 21% of the cases (18% of the girls and 23% of the boys). Immigrants accounted for a higher percentage than average of the sample (28%). (Kuula & Marttunen 2009.)

In a study focusing on the stories of drug user women about the taking of their children into care,⁸¹ the clientele of one treatment unit providing drug-related treatment for mothers and of one forum providing peer support for women who had managed to beat an acute drug problem, both in the Greater Helsinki area, were studied. The conclusions of the study indicate that motherhood is a powerful incentive even for mothers who are drug users; they find it shameful to be branded bad mothers even if their lifestyle had already stigmatised them otherwise. Nearly all of the interviewees said that it was impossible to be a good mother and a drug user at the same time. But they did also say that in their own lives, drug use and all, they had tried to be good mothers. (Sinko & Vironkangas 2009.)

For a child, life with parents who have intoxicant abuse problems is arduous, and they may have to assume responsibilities for everyday life that are wholly inappropriate for their age; therefore children too need

⁸¹ The criteria for including a person in the study was that she was a mother or pregnant and that she had used illegal drugs. The interviews lasted for an average of 2 hours. There were 18 interviewees in all, of which 6 had had their child taken into care. Of the remaining ones, 5 were in inpatient care with their baby at the time of the interview; 3 had had their children at home with them for the whole time; one had had her child taken into care; one had her child being looked after by the child's father; and in the case of one she and the father had joint custody of the child. The material was collected between June 2006 and January 2007. The mothers told their stories from the perspective of the time of the interview, by which time the taking of their children into care had happened some time ago, the children had been returned to them, and they had been sober for a longer period of time. (Sinko & Vironkangas 2009.)

help to recover from a family life of drug use. Children must be taken into account when providing substance abuse services for adults. If a child is taken into care, the child-parent relationship must be maintained, and taking into care must be considered as a temporary measure in the first instance. For mothers with intoxicant abuse problems in particular, rehabilitation plans should be drawn up so that taking their children into care will not trigger a vicious circle of intoxicant abuse. Support measures can help such mothers to care for their children, and parenting may be a mental resource for her, supporting her efforts to recover from intoxicant abuse. On the other hand, other studies suggest that the returning home of children taken into care because of their parents' intoxicant abuse is problematic, and recovering from an intoxicant abuse problem does not automatically mean being able to be a competent parent. Concrete measures for learning how to be a parent are also needed, and the authors of the study emphasise the point that parents who have had their child returned to them also need peer support groups to discuss the challenges of parenthood and how to cope with everyday life with a child. (Sinko & Vironkangas 2009.)

In a study describing the everyday work of three professional foster homes from the perspective of children and adolescents,⁸² Petra Kouvonen (2009) identified three different approaches to young people: abstinence-oriented, harm reduction oriented and punishment-oriented. Out of the three professional foster homes studied, one was capable of running a completely intoxicant-free programme (including parents' abstinence during visits home by the children and adolescents), because the children in care there were rather young, their average age being 12. The other two foster homes had to relax this approach somewhat as the adolescents in care included some who were almost of age, especially boys.

The most support from adults was provided at the homes that relied on abstinence, whereas in the more permissive environments the responsible of individuals for their own behaviour was emphasised – and

⁸² The three professional foster homes studied were selected from among all private foster homes in the Greater Helsinki area (n=12) in spring 2007 on the criteria that the children placed there have intoxicant abuse in their backgrounds in some form and that the foster homes in question address intoxicant abuse problems in their activities. The foster homes housed an average of 6 children at one time, and the author collected the material by participating in the everyday life of the foster home (client meetings, family meetings, staff meetings, etc.) for 2 to 3 days a week over a period of 9 months from September 2007 to May 2008. During this period, the foster homes housed a total of 15 children and adolescents aged from 8 to 18. The foster homes employed at least one adult staff member, and in one case the foster family lived with the children all the time. (Kouvonen 2009.)

also to some extent a reliance on punishment. Similarly, children who did not use intoxicants or whose intoxicant use caused no problems were given preventive counselling, while adolescents with intoxicant abuse problems were called on to exercise self-discipline or, in extreme cases where neither the adolescent nor his/her family were capable of managing their problems themselves, the adolescent was subjected to punishment. Kouvonen considers this practice unusual and diametrically opposed to the practice employed for instance with children subjected to physical abuse by their parents. (Kouvonen 2009.)

Social exclusion of young people and crime

Being socially disadvantaged and being likely to turn to crime show a positive correlation: the weaker a family's financial standing is, the more likely it is that an adolescent in that family has committed criminal offences and been subject to violence. A recent survey⁸³ shows that the probability of experimenting with cannabis is the higher the worse off the family is. Of the young people who described the financial situation of their family as very good, only 5% reported that they had used cannabis during the current year. Similarly, of the young people who described the financial situation of their family as extremely poor, 14% reported that they had used cannabis during the current year. Cannabis use was also the more probable the less support and control the young person's parents provided (4% of young people under strong control, 9% of those under weak control). (Kivivuori et al. 2009.)

Finnish studies have shown that the majority of young people who commit homicide have similar family backgrounds (instability, lack of care, intoxicant abuse, domestic violence), an early history of disruptive behaviour (learning problems and behavioural problems at school, petty crimes) and problem use of intoxicants begun at a young age. Half of all young offenders who have committed a homicide have been diagnosed as drug users in the psychological evaluation following the offence. For a significant percentage of them, the parents or at least one of them had a history of problem use of alcohol. (Kivivuori et al. 2009.)

⁸³ In 2008, 5,826 young people responded to a questionnaire about self-declared crime. The sample space consisted of all pupils in the ninth grade (aged 15 to 16) in Finnish-language schools in Finland. The National Research Institute of Legal Policy conducts a survey on youth crime at regular intervals. The questionnaire contains questions regarding 21 forbidden or criminal acts. For each, the respondents are asked whether they have ever committed such an act in their lives, and if so, whether they have committed that act less than one year prior to the survey.

Young people who receive a suspended sentence for a narcotics offence have a high risk of recidivism. The study showed that the social ties, use of time and cognition of young probationers influenced the risk of recidivism the more the poorer their education, housing situation and work or study situation was. Obvious or worrying drug use was found in 11% of probationers, and slight or occasional use in 14%. Problem users of drugs were subjected to somewhat more effective surveillance during their suspended sentence than other probationers. The more severe the probationer's drug problem was considered, the more the probation focused on that particular problem. (Harrikari 2010.)

In a study of short-term prisoners (see section 9.4) the most unfortunate were those young prisoners who had begun their criminal careers in their childhood or youth. They were the most active as criminals in adulthood too, and they used more alcohol and drugs and began earlier than others. They were also the least confident of finding legal paid employment after their release. (Kivivuori & Linderborg 2009.)

8.2 Social reintegration

The Decree on the detoxification and substitution treatment of opioid addicts with certain medicinal products (Ministry of Social Affairs and Health 2008b) requires psychosocial rehabilitation to be provided alongside pharmaceutical treatment. However, the Substitution Treatment Decree does not specify the content of the psychosocial rehabilitation, and in practice these treatments vary widely. In Turku, psychosocial treatment is focused on patients who are committed to the treatment and who have a long-term goal of living an intoxicant-free life and finding work. This treatment involves weekly appointments with a personal nurse and use of the existing resources of psychiatric care and other services such as employment services. Clients wishing to enter this rehabilitation must have their substance abuse under control. (Mikkonen et al. 2008.) At the Helsinki outpatient clinics in the study, rehabilitation included discussions with a personal nurse, various group meetings, labour market training and other courses, and subsidised housing in the Verkko project. Peer-to-peer support between patients, on the other hand, has not really caught on. (Tourunen et al. 2009.)

The City of Helsinki has published a guide for professionals entitled *Arjen palapeli – palveluohjaus korvaushoidon tukena* (The everyday jigsaw puzzle – service guidance supporting substitution treatment, 2009),

where social work provides the foundation for alleviating adverse effects. The introduction to this guide notes how professionals in Helsinki suddenly became aware that the rehabilitation of patients did not progress as well in pharmaceutical opiate replacement treatment as in programme-based community care, where patients were able to maintain contact with normal everyday life. The purpose of service guidance is to help clients utilise their own resources and to guide them in performing the routines of everyday life: housing, earning a living and leading a life without crime. Service guidance is intended to prevent the occurrence of crises that become costly for both the client and society: evictions, prison sentences and severe health complications, for instance. (Liukkonen & Feirikki 2009.)

The guide describes many challenges involved in building up a trustful service guidance relationship. Drug users themselves, however, value the flexibility of service guidance. (Liukkonen & Feirikki 2009; Autio & Rauhala 2010.)

Local authorities and NGOs offer group activities to substance abuse rehabilitees, intended to improve the clients' potential for rehabilitation and employment and to support life their management skills. Local authorities and NGOs also maintain day centres and other low-threshold activities intended to keep clients active, to promote an intoxicant-free life, to provide structure for their everyday lives, to enable peer support and to foster a sense of community. (e.g. City of Helsinki Social Services Department 2009a.)

Reception units for the homeless in the Greater Helsinki area

According to one study,⁸⁴ 82% of the homeless people in the Greater Helsinki area have a substance abuse problem. Homeless people with a substance abuse problem may be divided into three groups: those with alcohol problems (59%), those abusing alcohol and pharmaceu-

⁸⁴ The study sample comprises 158 homeless persons who had stayed overnight in a reception centre in the Greater Helsinki area on two dates (16 June 2008 and 16 September 2008). Electronic client and patient information systems of the cities of Helsinki, Espoo and Vantaa were used to assess the social situation and health of these homeless people, and the register data thus obtained were analysed through classification and tabulating. The register data were supplemented with interviews of a social worker and a physician, and a clinical examination. For the supplementary section, 64 of the 158 homeless persons in the original data were reached, and 36 of them consented to an interview. The data form a representative sample of people who have spent a night outside or in overnight shelters i.e. reception units, and who numbered 162

ticals (8%) and drug or polydrug users (15%). The use of substances among the homeless varies by age group. Drug or polydrug use is most frequent among the under-30s. Of the 21 homeless persons under 30 years of age included in the data, ten were problem users of drugs. Among problem drug users (n=24), opiates were entered as the problem substance for 15 persons. However, heroin is not mentioned at all; almost always the substance is buprenorphine. Amphetamines are almost as frequent as opiates, and their problem use was referred to with respect to 14 persons. (Erkkilä & Stenius-Ayoade 2009.)

There are four reception units providing temporary accommodation and housing for the homeless in the Greater Helsinki area. These are divided into overnight shelters that do not allow clients to stay in the daytime, short-term accommodation, and actual housing units. Principally, the premises for intoxicated and non-intoxicated clients are separated from one another at the unit. (Erkkilä & Stenius-Ayoade 2009.)

in November. According to statistics by the Housing Finance and Development Centre of Finland ARA, there were 4,247 homeless persons in the Greater Helsinki area in November 2008. Thus, the sample represents some 4% of the people in the Greater Helsinki area who lack a permanent home.

9 Drug-related crime, its prevention and drug use in prisons

Documented drug-related crime increased alongside use and other detriments in the 1990s, but in the 2000s this increase has slowed down, and crime levels reported by the police have stabilised. Crime accompanying drug use, such as crime against property and driving under the influence of drugs, also increased in the 1990s. The statistical increase in the proportion of drug driving cases was boosted by the zero tolerance approach with regard to drugs while driving, adopted in 2003.

Finnish professional crime has typically been loosely structured, but is now closing ranks and becoming more disciplined. In particular, criminal motorcycle gangs have an established role in Finland as wholesale distributors and deliverers of illegal substances. The prominent role played by organised crime groups in Finnish drug crime can be seen, for instance, in the more frequent presence of weapons, particularly gas sprays, as well as in the larger amounts of cash seized in the context of narcotics offences. Organised drug crime groups have expanded their activities into financial crime and fraud in particular, which is used as a means of financing drug crime. (National Bureau of Investigation 2010.)

The amendment to the Penal Code concerning unlawful use of narcotics (654-657/2001) introduced the possibility of alternative penal sanctions. The focus was on two special groups: underage offenders should be reprimanded instead of imposing a fine on them, and problem drug users should be referred to treatment. A multi-professional reprimand is considered a more efficient sanction for young offenders than a fine. Treatment referral reduces the social exclusion of problem users as well as drug-related crime. According to studies and surveys, both of these measures have seldom been used.

According to Act 878/1995, prison health care must be organised so that inmates have equal opportunities with the rest of the population to improve their health and prevent illness. They must also have access to sufficient health care services. Prison health care provides inmates with information on the effects of intoxicants, health risks related to substance abuse and treatment programmes available in prison as well as outside prison after release. No new substitution treatment periods are

initiated in prisons, but for prisoners whose substitution treatment period began before imprisonment, treatments are continued.

9.1 Drug-related crime

Narcotics offences

The total number of narcotics offences increased on the previous year. A total of 17,454 narcotics offences were reported to the police in 2009, 13% more than in 2008 (15,482). The number of drug use offences also increased by 13% on the previous year, to 11,119. The percentage of drug use offences out of all narcotics offences has remained steady (64% in 2009).

The number of ordinary narcotics offences (5,486) showed an increase of 13% on the previous year, the total increase over two years being almost one third. This increase is partly explained by an increase in offences of cultivation and manufacture of narcotics. There was no change in the number of aggravated narcotics offences (782) on the previous year. In 2009, 4% of all narcotics offences were aggravated narcotics offences. In three out of four aggravated narcotics offences, the police suspected selling or distribution of drugs. (Statistics Finland 2010.)

In 2009, there were 16,535 suspects in narcotics offence cases. This is similar to the figure for the previous year. Women accounted for 16% (2,587) of all suspects. Underage people (under 18 years of age) represented 4% (655) of all suspects, and out of these cases 78% (509) were related to the unlawful use of narcotics. (Statistics Finland 2010.)

Table 14. Narcotics offences reported by the police in 2000-2009.

	2000	2002	2004	2006	2007	2008	2009
Narcotics offences in total	13,445	13,857	14,486	13,317	15,448	15,482	17 454
Narcotics offence	12,687	5,821	4,672	4,168	4,206	4,835	5 486
Unlawful use of narcotics	-	7,24	9,217	8,48	10,333	9,823	11 119
Aggravated narcotics offence	741	760	582	657	883	789	782
Preparation or abetment of narcotics offences	17	36	15	12	26	35	67

Source: Statistics Finland (2010).

Of course, the same persons may commit several narcotics offences in the course of a year. In 2009, the police suspected a total of 5,605 individual persons of narcotics offences. The number of suspects has increased by one fourth in recent years,⁸⁵ which according to the police reflects the effectiveness of crime prevention. (National Bureau of Investigation 2010.)

The percentage of suspects of foreign origin in aggravated narcotics offences has been steadily growing in recent years, according to the police. In 2009, 20% of the people suspected of committing aggravated narcotic offences were foreigners. (Statistics Finland 2010.) Estonians have formed a clear majority among these suspects in recent years, followed by Russians. The year 2009 was characterised by a high number of Nigerian suspects and a broadening of the range of nationalities involved. On the Finnish market, Finnish criminals generally manage the reception and distribution of drugs in Finland, while foreigners are engaged in import and smuggling. (National Bureau of Investigation 2010.)

Foreigners accounted for about 5% of all persons suspected of narcotics offences of some kind. (Statistics Finland 2010.) However, in the category of ages 15 to 20, foreign nationals resident in Finland were less frequently suspected of narcotics crimes than Finnish citizens, in relative terms. This difference was particularly clear for girls. Adult women who are foreign nationals were also less frequently suspected of narcotics crimes than women who are Finnish citizens. (Kivivuori et al. 2009.)

In 2009, the authorities confiscated nearly EUR 990,000 in cash (about EUR 1.3 million in 2007 and about EUR 1.1 million in 2008) in connection with investigating narcotics and doping offences. (National Bureau of Investigation 2010.)

Narcotics convictions

In 2008, 11,186 sanctions were imposed for narcotics offences. Fines accounted for slightly over 7,000 of these. A prison sentence was mandated in about 3,700 cases, more than half them (n=2,499) unconditional imprisonment. Charges were waived by the prosecutor for about 400 persons, and 37 persons were acquitted by a district court. The number of sanctions imposed for narcotics offences has remained fairly stable over the past few years. (Kainulainen 2010.)

⁸⁵ Between 2005 and 2008, there have been between 3,300 and 4,550 suspects per year.

The usual consequence of unlawful use of narcotics⁸⁶ is a summary fine. Summary fines are issued by the police, and in these cases they have averaged 15 day-fines in recent years. In cases where unlawful use of narcotics was the principal offence,⁸⁷ the sanction was a summary penal order in 87% of the cases (3,756) and a fine imposed by a court in 9% of the cases (367), while in 4% of the cases (189) the charges were waived.⁸⁸ Punishment was waived in 15 cases, and a prison sentence imposed in 11 cases. There has been no significant change in sanctions in recent years. (Kainulainen 2010.)

The most common consequence of a basic narcotics offence⁸⁹ was a fine imposed by a court, 36 day-fines on average in recent years. In addition to day-fines (986 cases in 2008), sanctions imposed for narcotics offences include suspended prison sentences (185 cases in 2008) and unconditional prison sentences (185 cases in 2008). Both the suspended and the unconditional sentences were about four months in length on average. (Kainulainen 2010.)

An unconditional prison sentence is generally imposed for an aggravated narcotics offence. The average length of such sentences between 2004 and 2008 was three years and three months (39 months). A suspended sentence was imposed in about one case in four, the average length of the sentence being about one year and three months in recent years. (Kainulainen 2010.)

Driving while intoxicated

In 2009, the total number of cases of driving while intoxicated decreased by 10% on the previous year. However, the number of cases involving drugs (3,073) and polydrug use (769) remained steady, and the percentage of cases involving alcohol thus decreased. In 2009, the cause of driving while intoxicated was alcohol use in 83% of the cases, drug use in 13%, and polydrug use in 3%. (Statistics Finland 2010.)

⁸⁶ This usually involves possession of a small quantity of a mild narcotic for personal use. According to material collected for the years 2001 to 2003, offenders who were fined were guilty only of drug use in almost one case out of four, and no drugs were found on the person. (Kainulainen 2006, pp. 68–69.)

⁸⁷ Unlawful use of narcotics may be included as a secondary offence in decisions issued by district courts for other offences, and these cases are not usually included in the 'principal offence' statistics.

⁸⁸ See 9.3 Alternatives to prison.

⁸⁹ Convictions involving only one offence.

All suspected cases of driving while intoxicated are centrally investigated at the alcohol and drug laboratory at the National Institute for Health and Welfare (THL); 4,419 cases were investigated in 2008. Actual drugs were detected in 67% of the cases. The most frequently used drugs in such cases in 2009 were benzodiazepines (71%), amphetamines (51%) and cannabis (42%). (National Bureau of Investigation 2010.)

A recent register study⁹⁰ assessed the manifestation of, and trends in, driving under the influence of drugs or pharmaceuticals in Finland between 1977 and 2007. During this period, driving under the influence of drugs or pharmaceuticals increased by a factor of 18. Of all suspects during the monitoring period, a total of 89.6% were men, but the annual percentage of women increased slightly. Women accounted for 6.9% of suspects in 1977 and 10.3% in 2007. This trend has statistical significance. The most frequently detected substances were benzodiazepines (75.7%), amphetamines (46%), cannabis (27.7%) and opioids (13.8%). The most frequent narcotic substances, amphetamines and cannabis, began to appear during the late 1980s, and the number of drug use cases began to grow as Finland adopted a zero tolerance approach to drugs and driving in 2003. (Ojaniemi et al. 2009.)

Most (77.1%) of those caught driving while under the influence of drugs tested positive for more than one substance. The most common findings in cases of polydrug use were benzodiazepines with alcohol (20%) and benzodiazepines with amphetamines (18%). Benzodiazepines were present in the five most frequently found combinations. The percentage of polydrug use cases where alcohol was involved have decreased during the monitoring period (one fifth of samples in 2007). (Karjalainen 2010a.)

Other drug-related crime

In 2009, there were 109 cases of burglary with the intent of obtaining drugs or pharmaceutical preparations. This is similar to the figure for the previous year and the early years of the 2000s. Between 2005 and 2007, however, the number of such offences per year was a third lower. The recent increase in burglary is probably to some extent due to the re-

⁹⁰ The study was conducted as register-based research, including all cases of driving under the influence of drugs or pharmaceuticals (n=31,963) in Finland between 1977 and 2007. All toxicological analyses were conducted on blood and/or urine in the same laboratory (alcohol and drug laboratory of the National Institute for Health and Welfare, formerly under the National Public Health Institute).

duced availability of Subutex. (National Bureau of Investigation 2010.)

In certain categories of crime the perpetrators are intoxicated in a large percentage of cases, but alcohol use is far more common than drug use or polydrug use. Out of all cases of all types of assault (assault, petty assault and aggravated assault), 59% were committed under the influence of alcohol but only 0.4% under the influence of other substances and 1% under the influence of both alcohol and other substances. The comparable figures are 34%, 2% and 7% for all robberies; 13%, 2% and 1% for theft offences (petty theft, theft, aggravated theft); and 25%, 8% and 3% for stealing a motor vehicle for temporary use. (Statistics Finland 2010.)

Money laundering offences in Finland are mainly associated with drug-related or financial crime. In recent years, well above half of all reported cases of money laundering in Finland have involved the trans-border movement of funds, usually from Finland to abroad. There are relatively few professional criminals in Finland specialising in money laundering, which is usually undertaken by persons in criminals' immediate circle of acquaintances. The Financial Intelligent Unit of the National Bureau of Investigation has compiled a report⁹¹ on Finnish money laundering cases for the period 1994 to 2006. Of the 61 judgments issued, 30 involved a narcotics offence as a predicate offence. With respect to the rest of the cases, many judgments involved a financial crime as a predicate offence, other predicate offences including hormones trade, alcohol smuggling, bank robbery, appropriation, means of payment fraud, fraud or usury. The most common sentence included in the study was conditional imprisonment. Of unconditional prison sentences, nearly all were joint sentences involving several offences – chiefly narcotics offences. (National Bureau of Investigation 2007a.)

Study on habitual offenders using drugs

Kekki and Noponen (2008) studied the criminal history of habitual offenders using drugs.⁹² Their analysis confirms the results suggested by

⁹¹ The study data included judgments issued by District Courts and Courts of Appeal. The collecting of cases began with the year 1994, when money laundering was criminalised in Finland. The dataset covers nearly all cases between 1994 and 2002 and contains some judgments from the years 2003 to 2006. A challenge in data collection lay in the fact that, until 2003, no essential elements required were specifically defined for money laundering crimes; instead, these were punished as receiving offences.

⁹² For the study, the information system (PATJA) of the police was used in order to identify all those suspected of unlawful use of narcotics or narcotics offences in Helsinki during 2002 and

other studies: the first suspected narcotics offence occurs 3–4 years after an individual is suspected of a first crime of any sort. During the year of their first criminal entry in police records on suspicion of having committed a crime, 66% (n=33) of these persons had been suspected of property offences at least once, commonly more than once. During this year of the first entry, over half of the offenders were aged 15 or under. Generally, these offences were committed with an accomplice of similar age or in a group of 4 or 5 people. The second most common (n=6) first entry was an offence involving violence.

Generally, the number of suspected offences of these young people did not increase during the first year; instead, the trend began later. Criminal careers can be analysed according to the prevalence of various types of crime: property offences and fraud (n=20), narcotics offences (n=12), offences of violence (n=9) and traffic offences (n=9). Of all other offences, theft was the only offence type of which each of these young people had been suspected at least once. The data indicated that certain individuals had continued to commit similar types of offence from the beginning of their criminal history, with no criminal career 'development' towards increasing the benefit from their crimes or getting caught less often. (Kekki & Noponen 2008.)

All those included in the research data had been suspected of possession of drugs. There were drug use entries for 82% of the persons, while 68% had an entry referring to trading, supplying or conveyance of drugs. The most frequent substance-specific entry referred to pharmaceuticals classified as drugs. Up to 80% of the persons had been suspected of illegal possession, use, trading or attempts to obtain pharmaceuticals other than buprenorphine. The second most frequent substance entry concerned hashish (78%), followed by illegal buprenorphine (70%) and amphetamines (68%). The fact that all of the persons involved had been caught for use or possession of more than one substance suggests polydrug use. (Kekki & Noponen 2008.)

Crime planning became less frequent for some persons as their drug use increased. They committed crimes under the influence of drugs or whenever the opportunity arose, even where to an outsider such acts

who had, in addition to drug entries, at least 15 criminal entries in their record. The search was limited to persons aged 25 or under at the time of the first entry. A total of 162 persons fulfilled the criteria in 2002. Using random sampling, 50 of them were chosen and their criminal data were saved as data for the study. These 50 persons had been suspected of a total of 7,627 crimes. The persons in the sample were 42 men and 8 women, born between 1969 and 1986. Although the criminal entries made by the police do not correspond to the actual criminal history of criminals, the data allow an indicative analysis of the early stages and the intensity of habitual offenders' criminal careers.

would seem hopeless and the risk of getting caught very high. In all phases in the persons' criminal histories, crimes were committed together with friends, mostly even with the same circle of friends. They had had several encounters with the authorities, who had offered support as well as punishment. However, on the basis of the data, it was impossible to evaluate whether these support measures had been sufficiently intensive or long-lasting. (Kekki & Nojonen 2008.)

9.2 Prevention of drug-related crime

Police investigation into changes in drug-related crime and police operations

A study by Tuula Kekki (2009)⁹³ examined police officers' views on changes in drug-related crime and police operations. These interviews suggest that police officers are in favour of a zero tolerance approach to drug use, justifying this based on the criminalisation of use currently in force, the clearing up of the user's accompanying crimes and discovery of the users' drug-user acquaintances. Drug use is deemed part of organised crime and, consequently, a factor undermining public order and safety. Police officers considered their most important objective to be increasing safety on the streets. Among various police units, patrolling police encounter drug users most frequently, often in connection with an accompanying crime committed by the user. Individuals with a criminal background are more likely to draw the attention of street patrols.

According to the police officers, prioritisation has led to a smaller number of staff participating in the prevention of actual drug crime. Such prioritisation is due to a lack of resources, investigation potential and assessment of the degree of harmfulness. Experienced police officers emphasised that in order to increase job satisfaction, professional skills and effectiveness, the police should resume traditional crime prevention

⁹³ The study data included police interviews (n=23), a police survey (n=165), pre-trial investigation records of unlawful use cases in Tampere from 1 September 2001 to 31 August 2002 and notices of investigation concerning drug-related and accompanying crime in Helsinki in 2002 and 2003. The interviews were conducted between 2003 and 2006, and thematic analysis was applied after they were transcribed. The police survey used a questionnaire issued to police officers serving in Tampere, and a quantitative analysis of the data was made. Pre-trial investigation records and notices of investigation were coded and analysed using SPSS statistical analysis software.

methods: intelligence operations, observation and establishing contacts with the underworld. Now they spend time preparing reports on offences and conducting interviews, leaving no time for investigation. (Kekki 2009.)

International studies highlight the role of the police in curbing the visible drug culture and abolishing drug dealing locations. However, Finnish police officers do not feel that such objectives are appropriate in the Finnish context since drug use and dealing in Finland mainly take place indoors. Police officers did not view that the purpose of their work is to attempt to raise drug prices or wind down dealer organisations, nor did they assess the effectiveness of their work in relation to the structure of the drug market or the availability or price of certain substances. (Kekki 2009.)

9.3 Alternatives to prison

Referral for treatment, and reprimand

Alternative sanctions to prison have been developed for drug users: a reprimand procedure for young users and referral to treatment for problem users. Based on the amendment to the Penal Code concerning unlawful use of narcotics (654–657/2001), the Prosecutor General's instructions for prosecutors in autumn 2002 (Prosecutor General 2002), which were updated in autumn 2006 (Prosecutor General 2006), recommend that prosecutors arrange a reprimand session for 15-17-year-olds who have been arrested for unlawful use of narcotics for the first time. The young offender, his/her guardian, a representative of the social welfare authorities and the police participate in the session where the young offender is informed of the criminal and reprehensible nature of drug use as comprehensively as possible, the offender's life situation is examined and appropriate further measures are decided. After the session, the prosecutor may decide to waive charges.

In the same instructions (Prosecutor General 2002; updated in Prosecutor General 2006), the Prosecutor General encourages prosecutors to agree on appropriate treatment referral procedures in their local communities. Especially problem drug users should not be fined for unlawful use of narcotics before exploring whether the user would be willing to seek treatment. In October 2006, the Prosecutor General up-

dated the guidelines and issued instructions whereby in minor cases the police should confiscate the substance, give an oral warning and waive further charges. (Prosecutor General 2006.)

Nonetheless, surveys and research indicate that the numbers of reprimands and treatment referrals have remained relatively low. A survey conducted in 2009 revealed that offenders under the age of 18 had been reprimanded in 66 cases (40 in 2008) and that problem users of drugs had been referred to treatment in 30 cases (40 in 2008). (Prosecutor General 2010.)

Dissertation on the criminal control of drug users in Finland

In her doctoral dissertation, Heini Kainulainen (2009a) examined the criminal control of drug users in Finland. The dissertation contains multiple sections, and its empirical section discusses alternative sanctions such as waiving measures and waiving prosecution, as well as referral to treatment and reprimands, which were added to alternative sanctions during the reform concerning the unlawful use of narcotics during the 2000s. The analysis indicates that proper consideration of sanctions has not been possible in the current processes. For instance, drug users have repeatedly been fined in summary penal proceedings.

The data indicate that the waiving of measures has been used very seldom, although there is a particular need for it especially in relation to narcotics offences. For decades, the police have been reluctant to apply this procedure, since they consider it crucial to intervene in drug users' actions. Prosecutors largely agreed with this view from the 1960s to the 1980s. Waiving punishment was common in the early 1970s, but within a few years practices became stricter. In the 1990s the procedure for waiving measures was reformed, after which waiving prosecution became more common. (Kainulainen 2009a.)

Alongside the reform concerning the unlawful use of narcotics in the early 2000s, sanctioning practices became stricter, since fining drug users in summary penal proceedings became more frequent and the number of cases where prosecution was waived declined. According to Kainulainen, the reform in question failed, since waiving measures for users who agree to seek treatment remains extremely rare. (Kainulainen 2009a.)

9.4 Drug use and problem drug use in prisons

In 2010, a narcotics offence was the cause of imprisonment for 16% of prison inmates.⁹⁴ This percentage remained stable between 2005 and 2009. In 2009, 90% of prison inmates with narcotics offence convictions were aged between 21 and 49; 7% of them were women. (Criminal Sanctions Agency 2010a and 2010b.)

The number of intoxication misdemeanours (491) and drug confiscations in prisons remained at the level of previous years. More efficient enforcement and measures such as regular use of drug dogs, increasing number of intoxicant-free cell blocks with mandatory drug tests have increased the likelihood of those using intoxicants in prison being caught. Losing one's placement in an open prison and denial of prison leave are also effective disincentives. (Criminal Sanctions Agency 2010a.)

Study on prison inmate health

Matti Joukamaa and his working group (2010) studied the state of health of prison inmates in an extensive study conducted in 2006.⁹⁵ Mental health problems were quite common. Two thirds of the examinees had a personality disorder, most commonly antisocial personality disorder or emotionally unstable personality disorder. Psychoses was the only group of disorders the incidence of which was similar to that in the general population. Physical disorders were also common. Hepatitis, particularly type C, was very common. The physician estimated that only half of the examinees were capable of work; one third had a reduced working capacity, and almost one in five were completely disabled. Only one third of the women examined were capable of work, and nearly half were completely disabled. (Joukamaa 2010.)

Intoxicant addiction was ten times as prevalent among prison inmates as in the general population. Only 16% of prison inmates had never had an intoxicant addiction. Although alcohol addiction was the

⁹⁴ The census is conducted on 1 May. A narcotics offence was the principal offence of 424 prisoners in 2010 and of 413 prisoners in 2009. The total number of prison inmates was 2,726 in 2010 and 2,924 in 2009.

⁹⁵ The sample consisted of male prisoners (n=309), female prisoners (n=101), fine default prisoners (n=100), life prisoners and prisoners in preventive detention (n=100), and community service prisoners (n=101). The study methods used were questionnaires, interviews conducted by nurses, psychiatric interviews, laboratory tests and a medical examination.

Table 15. Incidence (%) of intoxicant abuse diagnoses among prison inmates.

	At some time in their lives	At the time of the examination	Most common in sub-sample
Some kind of addiction	84	17	Fine default prisoners 97%/33%
Alcohol addiction	66	11	Fine default prisoners 87%/ 24%
Opioid addiction	22	4	Fine default prisoners 35%/ 7%
Cannabis addiction	19	1	Fine default prisoners 26%/ 0%, Male prisoners** 23%/2%
Cocaine addiction	4	0	-
Amphetamine addiction*	40	5	Male prisoners** 48%/6%; Female prisoners 44%/6%
Addiction to tranquilisers	23	3	Fine default prisoners 32%/2%; Male prisoners** 27% 3%
Hallucinogen addiction	4	-	Fine default prisoners 9%
Solvent addiction	3	-	-

* Addiction to other stimulants, in practice amphetamines.

** 'Male prisoners' here refers to prisoners who are male and who are serving a fixed-term unconditional prison.

Source: Joukamaa 2010, p. 48.

most common addiction, no fewer than 40% of the prisoners had had an amphetamine addiction at some time in their lives. (Joukamaa 2010.)

Amphetamine addiction was common among all prison inmate groups. Nearly half (40% to 48%) of the male prisoners**, fine default prisoners and female prisoners had had an amphetamine addiction at some point in their lives; the figure was 29% for life prisoners and 20% for community service prisoners. At the time of the examination, 6% of the male prisoners had an amphetamine addiction, this being the most common type of addiction in this group. Among female prisoners, there was an equal incidence of amphetamine and opioid addiction (6%) at the time of the examination. Opioid addiction was the most common among short-term fine default prisoners, 7% of whom were diagnosed as addicted at the time of the examination and 35% of whom had been addicted at some point in their lives. Among male prisoners, 27% had had an opioid addiction at some point in their lives. (Joukamaa 2010.)

Study on short-term prisoners

The life history of short-term prisoners was studied in a questionnaire and interview survey.⁹⁶ The responses show that 62% of short-term prisoners had experimented with or used one drug or another at some point in their lives: cannabis (51%), tranquilisers (47%), amphetamine/methamphetamine (46%), ecstasy (35%), Subutex (32%), hallucinogens (23%), heroin (23%), cocaine (23%), GHB/GBL (15%), sniffing solvents, or crack (2%). Intravenous drug use had been practiced at some point by 42% of the prisoners. Drug use was the most common (82%; 61% intravenously) among those young prisoners who had begun their criminal careers at an early age. Kivivuori and Linderborg concluded that migrating to hard drugs was one of the clearest factors in steering individuals to a career in crime. The interviewees reported that amphetamine use did heighten the importance of money, but it also boosted crime. (Kivivuori & Linderborg 2009.)

One third of the short-term prisoners considered that the prison sentence they were undergoing at that moment was helping them in some way to kick their drug habit. Indeed, 19% of them wished for a resolution to their drug problem, and 37% of them were receiving treatment. Half of the short-term prisoners feared a relapse into drug use after their release from prison. This pessimism was the most common (62%) among prisoners over the age of 35 who had begun their criminal careers at an early age. On the other hand, 10% of the interviewees reported that they had encountered new drugs during the prison sentence they were undergoing at the moment. (Kivivuori & Linderborg 2009.)

9.5 Responses to drug-related health issues in prisons

According to Act 878/1995, prison health care must be organised so that inmates have equal opportunities with the rest of the population to improve their health and prevent illness. They must also have access

⁹⁶ The survey was aimed at everyone serving a prison sentence of less than eight months at the time of the study. The response rate among the short-term prisoners was 72% (n=371). Only the men were included in the study (n=351). A control dataset was prepared from a random sample of men aged 20 to 59 who were free. The most common principal offence among short-term prisoners was driving while intoxicated (45%). Only 5% of short-term prisoners had a narcotics offence as their principal offence.

to sufficient health care services. Prison health care provides inmates with information on the effects of intoxicants, health risks related to substance abuse and treatment programmes available in prison as well as outside prison after release (cf. 9.5). Withdrawal symptoms that accompany quitting substance use are usually treated in prison in line with the instructions given by the prison physician. If an inmate suffers from severe withdrawal symptoms, he/she can be placed in a prison hospital or hospital care outside prison. No new substitution treatment periods are initiated in prisons, but for prisoners whose substitution treatment period began before imprisonment, treatments are continued.

Finnish prisons do not distribute or exchange needles for intravenous drug users. On arrival, inmates receive a cleaning package which includes disinfectant for cleaning needles. In addition, disinfectant should be available at all times on the premises, enabling its discreet use, but in practice this is not always possible. (Criminal Sanctions Agency 2009.)

In co-operation with actors in the prison administration and health counselling, the TERVE project (Finnish for 'healthy') run by Probation Foundation Finland developed a model for low-threshold health counselling for prisons in 2005–2008. At the time when the project was launched, morbidity rates among inmates had been increasing for decades, particularly with regard to blood-borne contagious diseases, substance addictions and mental health problems. The project aimed to reduce the health risks arising from drug use during imprisonment and to improve capabilities for harm-reducing behaviour after release. The target group involved inmates who had used or were still using drugs and prison administration employees to be trained in harm-reducing operating methods. According to the project evaluation, the project was successful and received positive feedback with respect to ensuring transferability and sustainability. (Probation Foundation Finland 2009a.)

It was found in a study⁹⁷ that nearly half (42%) of all prisoners are infected with hepatitis C; 9% had hepatitis A and 8% had hepatitis B. An HIV infection was found in 1.0% of prisoners. (Joukamaa 2010.) Every year, 1,200 to 1,300 HIV tests and 500 to 800 hepatitis B tests are taken in prisons. The number of hepatitis C tests has decreased in recent years (662 in 2008), but the percentage of positive findings (one in four) has remained stable. (Criminal Sanctions Agency 2009c.)

⁹⁷ Prisoners examined in 2005–2007.

9.6 Reintegration of drug users after release from prison

In co-operation with the relevant organisations, the Prison Service has prepared various alcohol and drug programmes for inmates in prisons and for drug users released from prisons. Nowadays, there are rehabilitation programmes as well as contractual wards supporting an intoxicant-free lifestyle in almost all prison institutions. Rehabilitation programmes are also available in open institutions. Alcohol and drug programmes are usually based on the cognitive-behavioural theory. Community treatment programmes are also implemented in prisons. Prisons aim at close co-operation with substance abuse services outside prison, and in some prisons substance abuse services are outsourced. Inmates have the possibility to participate in AA and NA groups.

The various rehabilitation programmes in prisons involved 1,260 inmates in 2009 (1,835 in 2008). A total of 444 inmates participated in substance abuse rehabilitation programmes, 288 in programmes to minimise recidivism and 528 in other types of social rehabilitation. The purpose of the programme steering group set up in 2009 is to inspect the content of social rehabilitation in prisons. (Criminal Sanctions Agency 2010a.)

Inmates serving a sentence of over six months on average are referred to an assessment and placement unit where a personal risk and service need assessment and a plan for the term of sentence are drawn up. The risk and service needs assessment considers factors related to the inmate's life situation and personality that sustain criminal behaviour. Special attention is paid to inmates' substance abuse. Based on the assessment, a preliminary plan for the term of sentence is drawn up at the assessment and placement unit, and specified and updated at the placement institutions. The aim is to enable systematic use of the sentence term to improve the inmate's capability to cope after release without committing further crimes. The plan also includes a release plan compiled well in advance of an inmate's release and a surveillance plan compiled by the Probation Service for inmates who will be released on supervised probation. In the study on short-term prisoners, sentence-term plans were criticised for being purely formalities, or else tools for control rather than genuine aids to rehabilitation. (Kivivuori & Linderborg 2009.)

A probationary freedom system was adopted at the end of 2006, with the aim of promoting an inmate's reintegration into society after re-

lease. The maximum length of probationary freedom is six months; it is a measure between imprisonment and parole. During probationary freedom, the inmate must participate in an activity, such as work, studying, rehabilitation or completing compulsory military service, and commit for instance to an intoxicant-free life and to respecting the obligation to remain in contact. While in probationary freedom, the inmate can be supervised using technical tools. Currently, GSM surveillance is used. In 2008, the daily number of inmates in probationary freedom averaged 50. Based on the experience gathered, probationary freedom appears to be an effective means of reducing the risk factors associated with release from prison, such as relapsing into substance abuse and subsequently returning to a vicious circle of crime. The aim of the Criminal Sanctions Agency is to raise the daily number of inmates in probationary freedom to 200 by 2010. (Mohell 2009.)

Probation Foundation Finland is currently running a project called Placement into Controlled Housing (2007–2010). The aim of the project is to create a co-operation model for an intensively supported release period between the foundation, prison administration and the municipality. In the co-operation model, the inmate is first placed in a steered and rehabilitative housing phase and, after release, is transferred either to a housing community or some other form of supported housing. An inmate can be transferred to the steered and rehabilitative housing phase six months prior to release at the earliest. At this point inmates will live at the foundation's housing service unit, where they will each have their own room. Daily activities consist of rehabilitative employment activities in youth workshops, training provided by educational partner institutions or work/studies arranged independently. Staying clean is verified using breathalyses and substance screening. This co-operation model is a new way of linking rehabilitation during imprisonment with planned release, which prevents the high risk of relapsing and recidivism associated with the release period. (Probation Foundation Finland 2009b.)

Since 1999, the Regional Prison of Southern Finland and City of Helsinki Social Services Department have been engaging in rehabilitation work for prisoners with substance abuse problems; prisoners enter the system when they are transferred to open prison and continue with the same contact persons as during their imprisonment. Selected prisoners participate in work rehabilitation provided by the City and therapeutic outpatient rehabilitation provided by A-Clinic substance abuse services. Financial matters and debts can be settled with the execution authorities and debt counselling. Prisoners also have peer support group meetings. The aim is for prisoners to become accustomed

to working regularly while still in the open prison and to continue working in the same job immediately after their release. The majority of participants have no permanent place to live and are clients of the municipal social services for the homeless. By the end of 2008, 100 prisoners had entered rehabilitation, of whom 35 have participated in work rehabilitation after their release. Some 25 of them have been able to support themselves after their release. (City of Helsinki Social Services Department 2009b.)

10 Drug markets

The drugs on the Finnish market are mostly cannabis products, particularly home-grown marijuana or hashish; amphetamines and ecstasy and other synthetic drugs; the substitution treatment preparation, Subutex®; and many pharmaceuticals classified as narcotic substances, particularly benzodiazepines. The number of marijuana and cannabis plant seizures has particularly grown in the 2000s, which indicates that the fairly small-scale cultivation of drugs partly intended for sale has become more common. The quantity of synthetic drugs seized has remained fairly constant. The growing use of GHB and its precursor GBL seems to have peaked. Instead, there is now an increasing number of designer drugs and intoxicating herbal products (such as Spice) on the market. MDPV showed particularly robust growth on the Finnish drug market in 2009.

Heroin is still fairly rare in Finland. The amount of seized heroin plummeted after 2001, and at the same time seizures of Subutex® tablets began to increase. While seizures of Subutex® declined from 2005, they have recently begun to increase again. (National Bureau of Investigation 2010.)

In drug supply in Finland, organised crime groups from Estonia have played an important role – at the beginning of the 21st century in terms of smuggling and importing drugs and later on as collaborators with Finnish crime groups, supplying drug consignments for distribution and delivery. Estonian criminals chiefly function outside Finland. The importance of criminals of other nationalities in the drug trade directed at Finland is also increasing. The group of foreign players importing drugs in Finland has become more diverse and the role of Lithuania in particular in the Finnish drug trade is clearly strengthening. (National Bureau of Investigation 2010.)

10.1 Availability and supply of drugs

No truly open drug market, such as those found in some major cities in Europe, exists in Finland; most of the sale and use of illegal drugs takes place in private homes. (Kinnunen 2008.) Home cultivation of cannabis has become more popular in recent years. Only small patches have been found in the cases reported to the police, mainly intended for the personal use of the grower. (Kainulainen 2009b.)

By early 2010, no websites selling drug-like substances aimed specifically at the Finnish market had been detected. However, people are increasingly ordering cannabis seeds, designer drugs, intoxicating herbal products and GBL online from abroad for their personal use. (National Bureau of Investigation 2010.)

No great changes have occurred in the offering of drugs for free or for sale in recent years.⁹⁸ The number of drug offers increased in the youngest age groups until 2000; the figure then decreased from 23% in 2001 to 18% in 2008 among men aged 15 to 24. An upward trend in the 1990s and a downward trend in the 2000s can be detected among young women too. The number of drug offers encountered by 15–24-year-old women rose to 20% by 2000, but in recent years it has returned to 12%, the level observed in the first surveys. On the other hand, the percentage of those who have been offered drugs in the age group 25 to 34 is now higher than ever before. (National Institute for Health and Welfare 2010a.) (Piispa et al. 2008.)

Import

The import of drugs is an international crime, and in recent years 15% to 30% of those suspected of aggravated narcotics offences in Finland have been foreigners. Organised Estonian crime groups play an important role in the acquiring abroad and smuggling into the country of almost all drugs found in Finland. Merchandise on the criminal markets includes maps of hidden wholesale drug batches which Finnish criminals purchase from their foreign collaborators. (National Bureau of Investigation 2010.)

The majority of drugs are smuggled onto the Finnish market through various routes, particularly from the south and west. About 90% of the amphetamines on the Finnish market come either from Estonia or via Estonia and mainly from Lithuania. Hashish, in turn, originates in Morocco, passing first through Spain, the Netherlands or Germany and then by sea, through Scandinavia or the Baltic countries. Russia has been a significant route, especially for smuggling heroin and more recently amphetamine, but heroin also reaches Finland via other routes. The lack of treatment services and the decreased supply of Subutex® on the illegal market may increase the demand for heroin. In addition,

⁹⁸ Since 1997, the annual Health Behaviour Survey among the Finnish Adult Population has asked people if they have been offered drugs during the past year.

Finland is a potential route for the international smuggling of heroin from Russia to elsewhere in Europe. It is also possible that drugs are smuggled into Russia through the Nordic countries, Finland included. The popularity and supply of cocaine seem to have risen slightly since 2006, but it is still quite rare on the Finnish drug market. (National Bureau of Investigation 2010.)

Smuggling of pharmaceuticals classified as drugs

Using intoxicating pharmaceuticals as drugs is very common among Finnish substance abusers. Acquiring intoxicating pharmaceuticals is done by exploiting the lack of centralised monitoring of the dispensing of pharmaceuticals: prescriptions are obtained from several physicians, and the pharmaceuticals thus obtained are both sold on the illegal market and used by the users themselves. (National Bureau of Investigation 2010.)

The latest enlargement of the Schengen area has enabled drug users living in Finland to import Subutex® legally for instance from Estonia under prescriptions signed there. Larger quantities of Subutex® have been smuggled into Finland, mainly from France, but as drug tourism to Estonia waned, the role of Sweden as a source of Subutex® strengthened. Britain, which lies outside the Schengen area, is becoming an important source alongside France, and Norway is also emerging. Subutex® is available on prescription in Lithuania too. The potential offshoring of Subutex® production to the Far East will probably increase online sales in particular. (Finnish Customs 2010b.)

Finnish users continue to acquire other intoxicating pharmaceuticals from Estonia which are registered as prescription drugs in Finland, such as benzodiazepines, but Estonia joining the Schengen area has re-oriented drug tourism. Opportunities for legal drug tourism have decreased, and at the same time smuggling of intoxicating pharmaceuticals from the Baltic states has increased. (National Bureau of Investigation 2010.)

Drug production facilities

No synthetic drugs production facilities have been discovered in Finland. Overall, during recent years, only a handful of small facilities for the precipitation of amphetamine sulphate have been found. These have been procuring the necessary chemicals by ordering them from players in

the chemistry field or by stealing them from research institutes or workplaces in the chemistry sector. Thus, combating illegal activities is also highly dependent on the alertness of the sector's players. Trade in the precursors required for drug production is often associated with legal business operations, but some legally transported chemicals may also end up in the production of drugs in Finland's neighbouring areas. In terms of the trade in precursors, Finland occupies a high-risk position: there are illegal drug production facilities in Russia and in all the Baltic states, and Finland engages in trade in chemicals or through transport of precursors with all these countries. No significant precursor seizures have been conducted in Finland. Precursor seizures are an effective means of preventing drug production and rendering it more difficult. (Finnish Customs 2010, National Bureau of Investigation 2010.)

In May 2010, the police made a unique discovery in Helsinki, including nearly 60 kg of mCPP, a substantial number of Bromo-Dragonfly blotters and a tablet-making machine. Often marketed as a substitute for ecstasy, mCPP is classified as a pharmaceutical in Finland. The police estimate that the quantity of mCPP seized would have been sufficient for about 800,000 tablets. The cumulative total of ecstasy tablets seized in Finland since 1993 is 525,000, so it is likely that only a small part of this quantity of mCPP had been intended for the Finnish market. A substantial number of Bromo-Dragonfly blotters was discovered in the same raid. Resembling LSD and considered highly dangerous, Bromo-Dragonfly is banned from pharmaceutical use in Finland. (National Bureau of Investigation 2010.) In the near future, drug manufacturing may spread to Finland from countries that already have illegal drug production facilities.

MDPV

Methylenedioxypropylvalerone (MDPV) is a designer drug that gained popularity in Finland in 2009–2010 and became a phenomenon. It was first noted in Finland in November 2008, the date of Finland's first official notification concerning the substance. The National Agency for Medicines (now Fimea) classified MDPV as a pharmaceutical on 20 January 2009. The classification decision notes that MDPV is reported to cause hypersexuality among other things, and as a result the press referred to it misleadingly as the 'sex drug' for quite some time. By May 2010, so much evidence of the health hazards of the substance and the increasing crime associated with it had been accumulated that MDPV

was banned; the procedure was highly exceptional, as MDPV was classified a drug through an amendment to the Narcotics Act passed by Parliament that entered into force on 28 June 2010. (Forsell et al. 2010.)

MDPV is a synthetic stimulant derived from pyrovalerone/cathinone. It is similar to amphetamines in appearance and in effect. MDPV, known on the street as 'alphabet', became popular among amphetamine users probably because it was more profitable for dealers thanks to the pharmaceutical status of the substance. The duration of an MDPV hit is short, lasting only 3 to 6 hours, with extreme lows and highs, so a period of use may be quite chaotic, especially with intravenous use. Users are often described as aggressive, and the substance is suspected of promoting the spread of infectious disease, the risk of infection and powerful though short-lived episodes of psychosis. By May 2010, MDPV had been found in 16 deceased persons, being the principal finding in at least two cases. (Forsell et al. 2010.)

In early 2010,⁹⁹ MDPV was detected in 110 cases of driving while intoxicated. Amphetamine was detected in addition to MDPV in 72 of these cases. In all, amphetamines were detected in 816 cases, and 8,458 suspects tested positive for drugs or pharmaceuticals in investigations of driving while intoxicated over the same period. (National Bureau of Investigation 2010.)

10.2 Drug seizures

Data on drug seizures indicate that the situation prevailing in the Finnish drug market is fairly stable. Criminal cases concerning cannabis cultivation and narcotic pharmaceuticals have become more common in 2009. An increase in the online ordering of designer drugs and intoxicating herbal products has been noted by the customs authorities. In 2009, the Customs Laboratory detected designer drugs in 296 samples (114 in 2008), totalling 62 kg (3.3 kg in 2008). There were 30 individual designer drug compounds found (16 in 2008) and 11 herbal products (13 in 2008). (National Bureau of Investigation 2010, Finnish Customs 2010a.)

The total number of **hashish seizures** in 2009 was remarkably large, since extensive seizures were made in Finland in connection with the investigation of a major international hashish smuggling network that re-

⁹⁹ Between 1 January and 8 June 2010.

Table 16. Drugs recorded as seized by the police and Customs in 2000-2009 (kg).

	2000	2002	2004	2006	2007	2008	2009
Hashish	197	482	467	283	360	47	440
Marijuana	16	32	26	33	36	56	100
Cannabis plants (kg)			7 840	7 510	7 600	14 000	12 500
Cannabis plants (number)*		16		36	87	41	45
Amphetamines + Methamphetamines**	80	129	109	129	152	130,0 + 17,0	110,0 +5
MDPV							4
Cocaine	39	0	1	7	4	3	3
Khat	348	1 039	2 118	3 283	3 300	2 250	3 300
Heroin	6	3	0	0	0	0	2
Subutex® (tablets)	12 951	18 700	32 970	22 979	20 600	12 000	17 000
Ecstasy (tablets)	87 393	45 100	23 243	39 185	83 000	34 000	15 100
LSD (doses)	2 355	4 629	195	171	2 138	3 082	620
GHB + GBL (litres)				24	91	150 + 9	84+2

* = In addition to the amount of cannabis plants indicated in kilograms.

** = Total for 2001–2007, separately for 2008.

Source: National Bureau of Investigation (2010).

Table 17. Number of drug seizures recorded by the police and Customs in 2000–2009*

	2000	2002	2004	2006	2007	2008	2009
Hashish	2 482	3 012	2 626	2 599	1 900	1 500	1940
Marijuana	663	1 275	2 067	2 269	2 400	3 000	3700
Cannabis plants (kg)	-	923	1 406	1 378	1 900	2 100	2650
Amphetamines + Methamphetamines**	2 369	3 399	3 392	3 101	2 990	2900 + 120	2910 +125
Cocaine	40	45	65	82	92	107	102
Heroin	437	145	45	25	20	25	26
Subutex® (tablets)	-	741	844	840	800	850	940
Ecstasy (tablets)	393	329	328	297	340	250	190
LSD (doses)	34	10	21	15	50	73	52
GHB + GBL (litres)				54	184	170 + 80	112 +28

*) In 2003–2005, the statistics were adjusted in order to take account of seizures related to those unlawful use cases which remained unregistered.

Source: National Bureau of Investigation (2010).

sulted in seizures in several EU Member States. Seizures of **marijuana and cannabis plants** have continued to increase and, in particular, the number of cannabis plants seized by the police has risen. Nowadays, growing cannabis plants at home for personal use, but also for sale to some extent, is becoming more frequent in Finland; in some cases, the cultivation is obviously on a professional basis. (National Bureau of Investigation 2010.)

The volume of seized **amphetamines** (115 kg) was of a similar order to a year ago. The largest amphetamine seizure in 2009 was a 15.5 kg batch found in a cache in the ground. One seizure of 12.5 kg, one seizure of 9 kg and 18 seizures of 1 to 5 kg were also made. Only 5 kg of methamphetamine was confiscated in 2009. Law enforcement authorities have intervened effectively particularly in the wholesale trade in amphetamines, which has also led to a higher price level for amphetamines in street trading. A new problem alongside amphetamine emerging in 2009 is methylenedioxypyrovalerone (**MDPV**),¹⁰⁰ seizures of which amounted to just over 4 kg (the total number of confiscated items containing MDPV being more than 200).

The volume of **ecstasy** confiscated continued to decline, being only 15,000 tablets in 2009. Indeed, designer drugs seem to be edging out substances such as MDMA,¹⁰¹ and even amphetamines to some extent. Some 2,000 tablets of **mCPP** (chlorophenylpiperazine),¹⁰² marketed as an alternative to ecstasy, were confiscated in Finland in 2009.

Only small amounts of **LSD** have been confiscated in Finland (620 blotters), but substantial amounts of **Bromo Dragonfly**¹⁰³ have been found (1,230 blotters in 2009).

More than 60 kg of the **Spice herbal product**¹⁰⁴ was confiscated by Customs in 2009. In fact, more Spice than marijuana was seized by Customs. According to the labels, the herbal products contain a combination of plants, but the ingredients do not list the synthetic cannabi-

¹⁰⁰ The National Agency for Medicines (now Fimea) classified MDPV as a pharmaceutical on 20 January 2009. MDPV was declared a prohibited drug as of 28 June 2010. See also 10.1 MDPV.

¹⁰¹ After the emergence of benzylpiperazine (BZP, classified as a drug in Finland, Fimea 1 September 2008) as an alternative to ecstasy, the European market has seen 'party pills' containing substances such as 1-(3-chlorophenyl)piperazine (mCPP), which is legal in most EU Member States.

¹⁰² The National Agency for Medicines (now Fimea) classified mCPP as a pharmaceutical as of 25 August 2005. See also 10.1 Illegal drug production facilities.

¹⁰³ Fimea classified Bromo Dragonfly as a pharmaceutical as of 1 January 2010. See also 10.1 Illegal drug production facilities.

¹⁰⁴ Synthetic cannabinoids have been included in the pharmacopoeia as they have been identified.

noids (such as JWH-018) that give the product its intoxicating properties. (Finnish Customs 2010a.)

The volume of **cocaine** seized remained at the previous, relatively low level. Seizures of **GHB** and **GBL** fell to about half to what they were in the previous year. By contrast, seizures of **khat** increased (3,300 kg). (National Bureau of Investigation 2010.)

The amount of seized **heroin** in Finland plummeted at the beginning of the 21st century (2004: 0.2 kg). Heroin continues to maintain a very minor presence on the market, although slightly larger seizures involving hundreds of grammes of the drug were made during 2009, the largest being a 800 g seizure in Helsinki in December 2009. (National Bureau of Investigation 2010.)

Seizures of the buprenorphine preparation **Subutex®** began to increase again in 2009 towards their mid-2000s levels. (National Bureau of Investigation 2010.) However, seizures conducted in Estonian traffic have been decreasing, and acquisition is undergoing a redirection process. The quantity seized of **other pharmaceuticals classified as narcotic drugs** (mainly benzodiazepines and some opiates) was markedly higher than in the previous year, some 96,000 tablets. (National Bureau of Investigation 2010; Finnish Customs 2010b.)

10.3 Price and purity of drugs

Street prices of drugs remained fairly stable in 2009. The average street price per gramme in 2009 was EUR 6 to 20 for hashish, EUR 120 to 200 for white heroin, EUR 15 to 60 for amphetamines, EUR 60 to 150 for cocaine, and EUR 10 to 20 for ecstasy tablets. Before MDPV was classified as a drug, its street price is reported to have been EUR 60 to 80 per gramme, but lower prices of EUR 25 to 40 have also been reported. Finnish street prices for drugs vary greatly depending on the sales location: in Helsinki and the Greater Helsinki area, prices are clearly lower in general than in regional centres. A study conducted in the autumn of 2008 suggests that in regional centres the price of amphetamines, popular among hard drug users, may be well be double what it is in Helsinki. Hashish and Subutex® are also clearly more expensive outside the Helsinki area. No corresponding differences exist for home-grown marijuana. However, under special conditions, such as when drugs are smuggled into a prison, prices may be very high on a case-by-case basis. (National Bureau of Investigation 2010.)

The laboratory identification of drugs and testing the purity of drug consignments are done at the Crime Laboratory of the National Bureau of Investigation or at the Customs Laboratory. In Finland, routine analyses of concentrations of seized drugs are only conducted for amphetamine and methamphetamine if the seized quantity exceeds 10 grammes or, for heroin, 2 grammes. On request, concentrations of cannabis plants and marijuana are analysed for consignments exceeding 150 grammes. In other respects, concentrations are not analysed.

Average concentrations of the amphetamine samples analysed continued to decrease (29% by weight in 2007, 24% by weight in 2008, 20% by weight in 2009). The average concentrations based on analyses of cannabis plant and marijuana seizures have slightly increased in recent years, but since the number of samples is small and differences between averages are minor, no conclusions should be drawn based on these results.

B. SELECTED ISSUES

11 Drug use treatment recommendations

Background

In the early 2000s, there were two recommendations valid in Finland concerning substance abuse treatment: the general substance abuse service quality recommendations published by the Ministry of Social Affairs and Health and the Association of Finnish Local and Regional Authorities (*Päihdepalvelujen laatusuosituksset*, 2002) and the Current Care guidelines for drug abuser care published by the Finnish Medical Society Duodecim (2006). The Current Care recommendations are evidence-based clinical practice guidelines which the Finnish Medical Society Duodecim has been publishing since 1997; there are now 97 recommendation documents covering a variety of areas of medicine.

The preparation and application of general quality recommendations represents a type of control by information that was typical of the early 2000s.¹⁰⁵ The various quality recommendations for substance abuse services are considered to have helped substance abuse service units, local authorities and regional licensing and control authorities in implementing the Act on Welfare for Substance Abusers and to have specified in more detail what exactly is meant by high quality in substance abuse services. These recommendations have been the most useful in helping substance abuse care units to self-evaluate the quality of their operations. The structured quality assessment forms drawn up for substance abuse care units on the basis of the quality recommendations have been a good tool for developing the general circumstances of the units (personnel, facilities, treatment processes) and for comparing units. However, the quality recommendations for substance abuse services have not contained any specific recommendations for treatment for substance abusers.

The drug use treatment recommendation in the Current Care series published by Duodecim is the only Finnish recommendation that specifically addresses drug use treatment. Entitled *Treatment of Substance Abusers*, it was published online and in print on 23 January 2006. This guideline was drawn up by a working group appointed by the

¹⁰⁵ Other quality recommendations besides those for substance abuse services pertaining to client groups of the social welfare and health care services include those for mental health services and for services for the elderly.

Finnish Medical Society Duodecim and the Finnish Society of Addiction Medicine, consisting of physicians and other top experts in the field. The document is an evidence-based clinical guideline whose recommendations fall into four categories according to the strength of the evidence backing them up.

Treatment of Substance Abusers, Current Care Guideline

The Current Care Guidelines are summaries of the diagnostics of and effectiveness of treatment for individual disorders, drawn up by the best experts in the field. They are not a substitute for the personal judgement of a physician or other health care professional in diagnosing any individual patient or in deciding on his/her care.

The purpose of the Guideline is to provide information to clarify treatment of drug problems, to improve cross-discipline co-operation, to promote networking and to influence attitudes. The Guideline is intended for personnel in both basic and specialist medical care, for private physicians, for special substance abuse services, for social services, and for substance abuse NGOs.

In the Current Care Guidelines, the scientific value of evidence is rated by a four-tier ranking. The Guideline is grouped into evidence reviews separated by sub-headings, the statements in these reviews being explained with a brief description of the original research or system survey behind them. The scientific validity of each of these is given as a letter (A to D) immediately after the description, and the bibliography references are given as endnotes.

The key message of the Treatment of Substance Abusers Current Care Guideline is about the problems of drug use and the importance of a diversity of treatment. Drug addiction involves significant threats to personal health. Drug use is often linked with mental health problems, and psychiatric expertise is needed in coping with these. An open, neutral and non-judging approach is needed for treating drug problems and preventing their adverse impacts. The Guideline emphasises the importance of a relationship of trust in treatment and psychosocial methods as the basis for care. Substitution treatment for opioid addiction is noted to be effective. Providing treatment for a drug abuser is ultimately less expensive for society than not providing treatment.

The Guideline covers health problems caused by intoxicating substances and the mixed use of drugs and benzodiazepines, how to iden-

tify them, what treatments are given for the various substances, and the care system. Other addictive substances (such as nicotine) and abuse of pharmaceuticals are not discussed. There is a separate Guideline for Treatment of Alcohol Abuse. Legal problems are only addressed as regards drug testing and working life. The Guideline does not discuss primary or secondary prevention of drug problems. The problems of children and young people are only addressed as child welfare issues.

There is a summary of the Guideline in English at <http://www.kaypahoito.fi/web/kh/suositukset/naytaartikkeli/tunnus/ccs00013>. The contents of the Guideline follow the treatment recommendation for opioid addiction published by the WHO.

Implementation

The Guideline is available in the online databases most commonly used by Finnish physicians, such as www.terveysportti.fi. A printable version of the Guideline (<http://www.terveysportti.fi/xmedia/hoi/hoi50041.pdf>, PDF) in Finnish, summaries in Finnish and in English, as well as versions for patients in Finnish and in Swedish are available at www.kaypahoito.fi.

Also, the Finnish Society of Addiction Medicine has held several training sessions for presenting the contents of the Guidelines to health care professionals.

When the Current Care Guidelines are updated in the future, a suitable indicator will be determined for each Guideline. The aim is to evaluate the introduction of a recommended procedure or treatment and changes in treatment practices in individual organisations or nationwide. The proposed indicators mainly reflect changes in processes. This project was launched in spring 2009.

12 Costs of drug use treatment in Finland

Finnish substance abuse service system

In Finland, local authorities are required by law to provide substance abuse services for local residents. The relevant provisions are in the Act on Welfare for Substance Abusers (41/1986), which stipulates that local authorities must provide substance abuse services commensurate in content and quality with the actual needs in the municipality.

Local authorities can provide these services in many different ways: they may be organised by the local authority itself, a municipal federation or social welfare and health care municipal federation, or outsourced from NGOs and private businesses, or provided jointly with the A-Clinic Foundation. Principally, the municipal substance abuse service system consists of general social welfare and health care outpatient services, institutional services at hospitals and housing services, and special institutional and non-institutional substance abuse services. More than half of the special substance abuse services are produced by NGOs or private service providers. (Kekki & Partanen 2008.) The largest individual substance abuse service provider in Finland is the non-profit A-Clinic Foundation. It is estimated that the A-Clinic Foundation accounts for about 40% of all special substance abuse services. (op. cit.)

The providing of substance abuse services is largely paid for by the local authorities themselves. The central government contributes to municipal social welfare and health care with income transfers that cover about one fourth of the costs. (Mellin et al. 2006.) The budget for special substance abuse services is included in the social services budget. There is no separate budget for drug use treatment; instead, the costs of drug use treatment are determined in practice by the actual number of drug users requiring treatment in any given year and the level of service they need. Because drug users are treated both in general social welfare and health care services and in special substance abuse services, it might in fact be practically impossible to earmark budget funds specifically for drug use treatment. The annual accounts of local authorities also do not itemise the costs of drug use treatment. This may be due to the fact that client-specific cost data are not available from general social welfare and health care services and not even from special substance abuse services.

Substance abuse service statistics

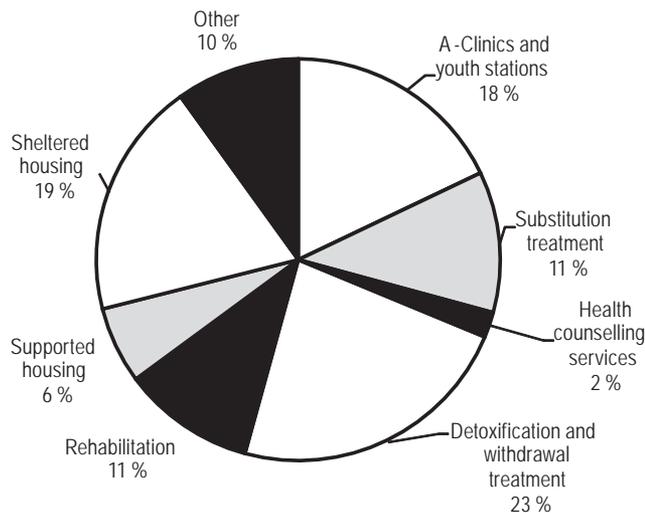
The current statistical system in substance abuse services does not support substance-specific analysis of the data. Data are only available at the national level for substance abuse services as a whole, including services for alcohol problem users and for drug problem users, and increasingly also services for clients suffering from other addictions. At the national level, municipal data are collated by Statistics Finland, which does request cost and operating data on substance abuse services as a whole, but not substance-specific information. The social services care notification system maintained by the National Institute for Health and Welfare (THL) collects information on all kinds of social services, including institutional substance abuse treatment. In principle, it would be possible to enter into this system the substance for which each client has been referred to treatment, but in practice only some institutions enter this information on their care notifications. Cost data are not required for the care notification system, nor for the drug use treatment information system co-ordinated by the National Institute for Health and Welfare, which compiles statistics from non-institutional and institutional treatment units providing substance abuse services to drug users.

Therefore it is currently impossible to obtain precise substance-specific cost information at the national level. Some local authorities have proprietary electronic client information systems and enter more specific information on substance abuse services clients than the national data systems require. However, this information is only available to these local authorities themselves.

The exception to this is the working group known as *Kuusikkokunnat*, formed by social welfare and health care professionals from Finland's six largest municipalities [the Finnish word *kuusikko* meaning a 'cluster of six']. This working group generates comparisons on social welfare and health care services and their costs. The combined population of the six municipalities involved comprises almost 30% of the total population of Finland. In 2010, the working group published a report on substance abuse services and their resources (EUR 83 million) in 2008. (Sulander et al. 2010.) The report discusses substance abuse services as a whole and does not include substance-specific analyses. The report covers not only outpatient and inpatient treatment services but also preventive work and sobering-up stations provided by local authorities (the category 'Other' in Figure 6) and the costs of substitution treatment and health counselling centres (Figure 6).

In these six municipalities, substance abuse outpatient treatment (A-Clinics, youth stations, substitution treatment and health counselling centres) take up one third of the substance abuse resources, inpatient treatment (detoxification, withdrawal treatment and rehabilitation) also take up about one third, and housing services about one fourth. Two services that are unequivocally aimed at problem drug users may be identified in the report: substitution treatment (which takes up about 11% of the total costs of substance abuse services) and the health counselling centres (about 2%). In 2008, the costs of substitution treatment and the health counselling centres were about EUR 9.4 million and EUR 1.7 million, respectively. Compared with the nationwide figures, these six municipalities account for more than half of all substitution treatment clients (940 clients) and two thirds of all health counselling centre clients (8,690 clients). Assuming that the cost levels are similar throughout the country, we may roughly estimate the total costs of substitution treatment and the health counselling centres in Finland in 2008 to have been about EUR 17 million and EUR 2.6 million, respectively. (Sulander et al. 2010.)

Figure 7. Distribution of substance abuse services costs in the six municipalities making up the 'Kuusikkokunnat' in 2008.



Source: Sulander et. al 2010.

Estimation of the costs of drug-related treatment

As no data on drug use treatment costs are available in statistics, annual accounts or similar sources, the costs have to be estimated. There is an established method in Finland for estimating the costs of drug use and alcohol use services. (Salomaa 1996; Hein & Salomaa 1998; see also 1.3 Economic analysis in the present publication.) In this method, drug use treatment costs are estimated by taking the net costs of municipal substance abuse services as listed by Statistics Finland under *Finances and activities of municipalities* and dividing them into alcohol use treatment costs and drug use treatment costs according to the census of intoxicant-related cases.¹⁰⁶

According to the census of intoxicant-related cases, about 70% of social welfare and health care clients in these cases were primarily alcohol users, leaving 30% as primarily drug users. The costs of drug use treatment (including both institutional and non-institutional care) can thus be estimated at EUR 48.6 million in 2008. This does not include the health care costs incurred in the treatment of drug users. Drug-induced costs in outpatient care are calculated to have been EUR 10.3 million, and drug-induced costs in inpatient care in basic health care and specialist medical care are calculated to have been EUR 19.3 million.

Future challenges

The statistics on substance abuse services should be improved in the future so that information could be gained on a substance-specific basis about costs and the various measures used in the services. There are several challenges to the development of the statistical system at the moment. Finnish municipalities (348 in 2009) provide substance abuse services in a variety of ways, such as through various municipal federations, sub-regional partnerships and outsourced services, which makes it difficult to classify and compile statistics on substance abuse service measures and their costs. The diversity of IT solutions in recording client information also poses a challenge for nationwide compilation of data. It will no doubt be very difficult to co-ordinate these disparate IT systems to enable uniform electronic compilation of data. Also, it may

¹⁰⁶ The National Institute for Health and Welfare conducts the census of intoxicant-related cases every four years. The most recent census was in 2007. The purpose of the census of intoxicant-related cases is to compile information on drug-induced appointments at all social welfare and health care units (except children's daycare) during one 24-hour period.

prove difficult in the day-to-day work of substance abuse services to distinguish between substances and to assign a client's addiction to any particular single substance.

However, obtaining substance-specific cost and operating data from substance abuse services is a requirement for making precise cost calculations and therefore for performing cost-effectiveness analyses or cost-benefit analyses on the service system.

13 References

- Ahlström S, Metso L & Huhtanen P (2008). Missä nuorisoryhmissä päihteiden käyttö on vähentynyt. [In which youth groups has intoxicant use decreased?] Suomen ESPAD-aineiston tuloksia 2007. Yhteiskuntapolitiikka 73 (1), 73–83.
- Alho H, Sinclair D, Vuori E & Holopainen A (2007). Abuse liability of buprenorphine-naloxone tablets in untreated IV drug users. Drug and Alcohol Dependence 88 (1), 75–78.
- Anturiverkosto (2008). A-klinikkasäätiön, Kansanterveyslaitoksen, Stakesin ja terveysneuvontapisteiden tietoverkosto. [Information network of the A-Clinic Foundation, the National Public Health Institute, STAKES and health counselling centres.] Unpublished statistics.
- Arponen A, Brummer-Korvenkontio H, Liitsola K & Salminen M (2008). Luottamus ja vapaaehtoisuus terveysneuvontapistetoiminnan onnistumisen edellytyksinä. Poikkeittieteellinen arviointitutkimus ruiskuhuumeiden käyttäjien terveysneuvonnan vaikuttavuudesta tartuntatautien ehkäisyssä ja torjunnassa. [Confidence and volunteering as prerequisites for success at health counselling centres. A cross-discipline study on the effectiveness of health counselling for intravenous drug users in the prevention and combating of infectious diseases.] Kansanterveyslaitoksen julkaisuja B15/2008. Helsinki: Kansanterveyslaitos.
- Autio K & Rauhala H (2010). Avoimet ovet. Miten toiminta tukee nuoria huumeiden käyttäjiä ja mitä he tarvitsevat asiakkaina. [Open doors. How action supports young drug users and what they need as clients.] B Raportteja 41. Helsinki. Diakonia-ammattikorkeakoulu.
- Correlation Network (2008). Peer training in a multicultural environment. Snowball and individual training at the Vinkki Health Advice Centre in Helsinki during 2005-2006. <http://www.correlation-net.org/products/snowball.pdf> [15.7.2008]
- Duodecim (2006). Käypä hoito suositus huumeongelmaisten hoitoon (2006). [Current Care guideline for treatment of problem drug users.] Suomalainen lääkärisseura Duodecim ja päihdelääketieteen yhdistys. Duodecim 122 (5), 596–614. <http://www.kaypahoito.fi/xmedia/extra/hoi/hoi50041.pdf>
- Erkkilä E & Stenius-Ayoade A (2009). Asunnottomat vastaanottoyksiköissä. Asunnottomien vastaanottoyksiköiden asiakkaiden sosiaalinen tilanne ja terveydentila pääkaupunkiseudulla. [The homeless at reception units. Social status and health of clients at homeless reception units in the Greater Helsinki area.] Socca - Pääkaupunkiseudun sosiaalialan osaamiskeskus. Työpapereita 2009:2. Helsinki: Socca. http://www.socca.fi/aineistot/Asunnottomat_vastaanottoyksikoissa.pdf
- Forsell M et al. (2010). MDPV Suomessa. [MDPV in Finland.] Terveystieteiden tutkimuskeskus. http://www.terveyslaitos.fi/aineistot/MDPV_Suomessa.pdf

- http://neuvoa-antavat.stakes.fi/NR/rdonlyres/E2CB23D4-1595-44AE-A002-E5586383DF64/16607/MDPV_28062010.pdf [8.7.2010]
- Fröjd S, Kaltiala-Heino R, Ranta K, von der Pahlen B & Marttunen M (2009). Nuorten ahdistuneisuus ja päihteiden käyttö. [Anxiety and intoxicant abuse among young people.] Tietoa vanhemmille ja nuorten kanssa työskenteleville. Helsinki: Terveyden ja hyvinvoinnin laitos.
- Hakkarainen P, Kainulainen H & Perälä J (2009). Measuring the Cannabis Market in Finland – A Consumption-Based Estimate. Contemporary Drug Problems. 35 (2-3).
- Hakkarainen P & Metso L (2009). Joint Use of Drugs and Alcohol. European Addiction Research 15 (2009), 113-120.
- Hakkarainen P & Metso L (2007). Huumeekysymyksen muuttunut ongelmakuva. Vuoden 2006 huumeekyselyn tulokset. [The changing scene of the drug issue. Results of the drug survey for 2006.] Yhteiskuntapolitiikka 72 (5), 541–552.
- Hakkarainen P, Kainulainen H & Perälä J (2006). Suomen kannabismarkkinat - paljonko pilveä palaa? [Finland's cannabis market – How much pot is being smoked?] Yhteiskuntapolitiikka 71 (6), 583–595.
- Harrikari T (2010). Ehdollisesti rangaistujen nuorten valvonta - Toimijat, prosessit ja sisällöt. [Monitoring of young people on suspended sentences – Actors, processes and content.] Rikosseuraamuslaitoksen julkaisuja 2/2010. Rikosseuraamuslaitos.
- Hein R & Salomaa J (1998). Päihteiden käytön haittakustannukset Suomessa vuosina 1994–1995. Alkoholi ja huumeet. [Costs of harm caused by intoxicant abuse in Finland 1994–1995. Alcohol and drugs.] Tilastoraportti 4/1998. Helsinki: Stakes.
- Heiskanen M & Korke L (2008). Ympäri vuorokautisen katkaisu- ja vieroitus- hoidon sekä korvaushoidon saatavuus heinäkuussa 2008. [Availability of round-the-clock detoxification and withdrawal treatment and of substitution treatment in July 2008.] Sosiaali- ja terveysministeriön raportti 21.7.2008 (unpublished).
- Helakorpi S, Paavola M, Prättälä R & Uutela A (2009). Suomalaisen aikuisväestön terveyskäyttäytyminen ja terveys, kevät 2008. [Health behaviour and health of the Finnish adult population.] Raportti 2/2009. Helsinki: Terveyden ja hyvinvoinnin laitos. <http://www.thl.fi/thl-client/pdfs/dcb684e6-d94f-4724-96d1-9f382492ac54> [8.7.2009]
- Hellman M (2010). From myth to marginality to portrayals of an addictive society: Reporting on addictions in the Finnish press (1968-2006). Addiction Research and Theory 18 (2) 2010, 224-242.
- Hellman M (2009). Designation practices and perceptions of addiction – a diachronic analysis of Finnish press material from 1968-2006. Nordic Studies on Alcohol and Drugs 26 (24) 2009, 355-372.
- Helsingin sosiaalivirasto [City of Helsinki Social Services Department] (2009 a) Työllistä ja työhön kuntoutta Helsingissä –käsikirja. [Employment and employment rehabilitation in Helsinki, manual.]

- http://www.hel.fi/wps/wcm/connect/c3d10a004a176e2c9554fd-3d8d1d4668/tyollistamiskasikirja_sosta_111209.pdf?MOD=AJPERES
[25.8.2010]
- Helsingin sosiaalivirasto [City of Helsinki Social Services Department] (2009 b) Kuntouttava vankityö vuonna 2008. [Rehabilitative prison services in 2008.] Toimintakertomuksia. Helsinki. http://www.hel.fi/wps/portal/Sosiaalivirasto/Artikkeli?WCM_GLOBAL_CONTEXT=/Sosv/fi/Julkaisut/Toimintakertomuksia [25.8.2010]
- Hiitola J & Heinonen H (2009). Huostaanotto ja oikeudellinen päätöksenteko. Hallinto-oikeuksien ratkaisut huostaanottoasioissa 2008. [Taking into care and legal decision-making. Decisions by Administrative Courts in cases of taking into care in 2008.] Terveyden ja hyvinvoinnin laitos, Raportti 46/2009. Helsinki. <http://www.thl.fi/thl-client/pdfs/f84ee235-d74a-4898-af24-deb260f3a806> [14.7.2010]
- Hjelt Institute Department of Forensic Medicine (2010). Julkaisematon tiedonanto 12.10.2010 ja 15.11.2010. [Unpublished communication, 12.10.2010 and 15.11.2010.]
- Huhtanen P, Hokka P & Mäkelä P (2009). Juomatapatutkimus 2008: Aineistokuvaus. [Drinking habits study 2008: Description of materials.] Avauksia 16/2009. Helsinki: Terveyden ja hyvinvoinnin laitos. <http://www.thl.fi/thl-client/pdfs/a8b2883f-5a53-471d-97a1-0d7e6b3b8aeb> [8.7.2009]
- Joukamaa M and working group (2010). Rikosseuraamusasiakkaiden terveys, työkyky ja hoidontarve. [Health, working capacity and need for treatment of criminal sanctions clients.] Rikosseuraamuslaitoksen julkaisuja 1/2010. Vammala. Rikosseuraamuslaitos. <http://www.rikosseuraamus.fi/uploads/qclqnxmn.pdf> [20.7.2010]
- Kahila H, Gissler M, Sarkola T, Autti-Rämö I & Halmesmäki E (2010). Maternal welfare, morbidity and mortality and substance abuse: A register-based case-control follow-up study of 524 women. *Drugs and Alcohol Dependence* 111 (2010), 215-221.
- Kainulainen H (2006). Seuraamuskäytäntö huumausaineen käyttörikoksessa. [Sanctions practices in drug use offences.] Oikeuspoliittisen tutkimuslaitoksen julkaisuja 219. Helsinki. Oikeuspoliittinen tutkimuslaitos.
- Kainulainen H (2009a): Huumeiden käyttäjien rikosoikeudellinen kontrolli. [Criminal justice control of drug users.] Oikeuspoliittisen tutkimuslaitoksen julkaisuja 245. Helsinki: Oikeuspoliittinen tutkimuslaitos.
- Kainulainen H (2009b): Päihde- ja dopingrikokset. [Intoxicant and doping crimes.] Rikollisuustilanne 2008. Oikeuspoliittisen tutkimuslaitoksen tutkimuksia 247. Helsinki.
- Kainulainen H (2010): Seuraamuskäytäntö huumausainerikoksissa. [Sanctions practices for drug-related crimes.] Rikollisuustilanne 2009. pp. 403-416. Oikeuspoliittisen tutkimuslaitoksen tutkimuksia 250. Helsinki.
- Kaivola T, Kylmä J, Kivelä P & Ristola M (2007). Pistoshuumeita käyttänei-

- den hiv-positiivisten naisten suhde seksiin, huumeisiin ja hiv-infektioon - Laadullinen haastattelututkimus. [Attitudes to sex, drugs and HIV infection among HIV-positive women who use intravenous drugs.] Diakoniammattikorkeakoulun julkaisuja D työpapereita 43. Helsinki: Diakoniammattikorkeakoulu.
- Karjalainen K, Lintonen T, Impinen A, Lillsunde P, Ostamo A (2010a): Poly-drug findings in drugged driving cases during 1977–2007. Journal of Substance Use 15(2): 143-156.
- Karjalainen K, Lintonen T, Impinen A, Mäkelä P, Rahkonen O, Lillsunde P, Ostamo A (2010b): Mortality and Causes of Death among Drugged Drivers. Journal of Epidemiology and Community Health 64:506-512. <http://jech.bmj.com/content/early/2009/11/05/jech.2009.096990.abstract> [29.10.2010]
- Kekki T (2009). Huumeet ja rikostorjunta. Poliisien käsitykset huumerikollisuuden ja poliisitoiminnan muutoksista. [Drugs and crime prevention. Views of the police regarding changes in drug-related crime and police actions.] Poliisiammattikorkeakoulun raportteja 76/2009. Tampere: Poliisiammattikorkeakoulu.
- Kekki T & Kajander P (2008). Päihdestrategia työnohjaajana. Toimijoiden kokemuksia kirjoitusprosessista ja strategian toimeenpanosta. [Intoxicant abuse service strategy as a guide to work. Experiences of actors in the writing process and the implementation of the strategy.] Työpapereita 20/2008. Helsinki: Stakes. <http://www.stakes.fi/verkkojulkaisut/tyopaperit/T20-2008-VERKKO.pdf> [18.8.2008]
- Kekki T & Noponen T (2008). Huumeet ja rikollisuuden kasaantuminen taparikollisuudessa. [Drugs and the accumulation of crimes in habitual crime.] Nuorisotutkimus 26 (1), 3–17.
- Kekki T & Partanen A (2008). Päihdepalvelujen seudullinen kehitys 2008. [Regional development of substance abuse services 2008.] Stakesin työpapereita 38/2008. Helsinki; Stakes. [Http://www.stakes.fi/FI/Julkaisut/verkkojulkaisut/tyopapereita08/VT38-2008.htm](http://www.stakes.fi/FI/Julkaisut/verkkojulkaisut/tyopapereita08/VT38-2008.htm)
- Kinnunen A (2008). Kriminaalipolitiikan paradoksi. Tutkimuksia huumausainrikollisuudesta ja sen kontrollista Suomessa. [The paradox of criminal policy. Studies on drug-related crime and how it is controlled in Finland.] Oikeuspoliittisen tutkimuslaitoksen julkaisuja 233. Helsinki: Oikeuspoliittinen tutkimuslaitos. <http://www.optula.om.fi/uploads/5x9a33ss.pdf> [1.10.2009]
- Kivelä P, Krol A, Partanen A & Ristola M (2009). High prevalence of unprotected sex among Finnish HIV-positive and HIV-negative injecting drug users. Scandinavian Journal of Public Health 37 (4), 381-386.
- Kivelä P, Krol A, Simola S, Vaattovaara M, Tuomola P, Brummer-Korvenkontio H & Ristola M (2007a). Pääkaupunkiseudun huumeidenkäyttäjien HIV-epidemia. Sosiaalisesti ja alueellisesti syrjäytyneiden ongelma. [HIV outbreak among injecting drug users in the Helsinki region: social and geographical pockets.] Suomen Lääkärilehti 62 (17), 1723–1726.

- Kivelä P, Krol A, Simola S, Vaattovaara M, Tuomola P, Brummer-Korvenkontio H & Ristola M (2007b). HIV outbreak among injecting drug users in the Helsinki region: social and geographical pockets. European Journal of Public Health 17 (4), 381-286.
- Kivivuori J. et al. (2009): Nuorten syrjäytyminen ja rikollisuus. Suomessa tehdyn tutkimuksen ja sen katvealueiden kartoitusta. [Social exclusion and crime among young people. Charting a study made in Finland and its blind spots.] Oikeuspoliittisen tutkimuslaitoksen tutkimustiedonantoja 94. Helsinki.
- Kivivuori J & Linderborg H (2009) Lyhytaikaisvanki. [Short-term prisoner.] Oikeuspoliittisen tutkimuslaitoksen tutkimuksia 248. Helsinki.
- Kokko S, Heinämäki L, Tynkkynen L-K, Haverinen R, Kaskisaari M, Muuri A, Pekurinen M & Tammelin M (2009). Kunta- ja palvelurakennemuutosten toteutuminen. Kuntakysely sosiaali- ja terveystalouden järjestämisestä ja tuottamisesta. [Implementation of the municipal and service structure reform. Local authority survey on the organising and producing of social welfare and health care services.] Terveystalouden ja hyvinvoinnin laitos. Raportteja 36/2009.
<http://www.thl.fi/thl-client/pdfs/eaf43d23-6dd0-4e42-b4f6-5b8243c3386e> [1.10.2010]
- Korhonen T, Kujala U, Rose R & Kaprio J (2009). Physical Activity in Adolescence as a Predictor of Alcohol and Illicit Drug use in Early Adulthood: A Longitudinal Population Based Twin Study. Twin Research and Human Genetics 12 (3) 2009, 261-268.
- Korhonen T, Huizink A, Dick D, Pulkkinen L, Rose R, & Kaprio J (2008). Role of individual, peer and family factors in the use of cannabis and other illicit drugs: A longitudinal analysis among Finnish adolescent twins. Drug and Alcohol Dependence 97 (1-2), 33–43.
- Kotovirta E (2009). Huumeriippuvuudesta toipuminen nimettömien narkomaanien toveriseurassa. [Recovering from drug addiction in the Narcotics Anonymous fellowship.] Tutkimuksia 10. Helsinki, Terveystalouden ja hyvinvoinnin laitos. Jyväskylä 2009. <http://www.thl.fi/thl-client/pdfs/1b2e240e-e5d2-4c58-b879-9889407028f8> [1.10.2009]
- Kouvonen P (2009). Vulnerable, guilty or on their own? Institutional identities of substance abusing children and families within Finnish child welfare. Nordic Studies on Alcohol and Drugs 26 (6) 2009, 483-502.
- KRITS (Kriminaalihuollon tukisäätiö) [Probation Foundation] (2009b). Siististi siviiliin - Matalan kynnyksen terveysneuvonnan käynnistyminen vankiloissa. [Clean civilian life – Introducing low-threshold health counselling in prisons.] TERVE-projektin loppuraportti. http://www.krits.fi/HANKKEET/TERVE/Terve_LOPPURARORTTI_040609.pdf [9.7.2009]
- KRITS (Kriminaalihuollon tukisäätiö) [Probation Foundation] (2009a). Sijoitus ohjattuun asumiseen -hanke (2007–2010). [Project for placement in guided housing (2007–2010.)] Website <http://www.krits.fi/HANKESIVUT/sijoitussivu.shtml> [31.8.2009]

- KRP (Keskusrikospoliisi) [National Bureau of Investigation] (2007). Rahanpesurikokset oikeuskäytännössä IV. [Money laundering crimes in jurisprudence.] Rahanpesun selvittelykeskus. [http://www.poliisi.fi/poliisi/krp/home.nsf/files/Rahanpesurikokset%20oikeuskäytännössä%20IV/\\$file/Rahanpesurikokset%20oikeuskäytännössä%20IV.pdf](http://www.poliisi.fi/poliisi/krp/home.nsf/files/Rahanpesurikokset%20oikeuskäytännössä%20IV/$file/Rahanpesurikokset%20oikeuskäytännössä%20IV.pdf) [18.8.2009].
- KRP (Keskusrikospoliisi) [National Bureau of Investigation] (2010). Keskusrikospoliisin huumausainerikollisuutta koskevat julkaisemattomat tilannekatsaukset 2009 sekä keskusrikospoliisin antamat lisätiedot [Unpublished situational reviews of the National Bureau of Investigation on drug-related crime 2009 and further information supplied]
- Kunttu K & Huttunen T (2009). Korkeakouluopiskelijoiden terveystutkimus 2009. [Survey of the health of university students.] Ylioppilaiden terveydenhoitosäätiön tutkimuksia 45/2009.
- Kuula T, Marttunen M (2009). *Laitoksissa rikosten vuoksi. Selvitys alaikäisenä vastentahtoisesti huostaanotetuista*. [Institutionalised for crimes. Report on underaged persons taken into involuntary care.] Humanistisen ammattikorkeakoulun julkaisusarja B 12. Helsinki. http://www.optula.om.fi/uploads/fmxd_t_1.pdf [14.7.2010]
- Lahti R.A, Korpi H, Vuori E (2009). Blood-positive illicit-drug findings: Implications for cause-of-death certification, classification and coding. *Forensic Science International* 187 (2009) 14–18
- Laine T, Hyväri S & Vuokila-Oikonen P (eds.) (2010). *Syrjäytymistä vastaan sosiaali- ja terveysalalla*. [Against social exclusion in the social welfare and health care services.] Kustannusosakeyhtiö Tammi, 2010.
- Laitila M & Järvinen T (eds.) (2009). *Mielenterveys- ja päihdetyön strateginen suunnittelu kunnissa*. [Strategic planning of mental health and substance abuse services in municipalities.] Terveiden ja hyvinvoinnin laitos. Oppaita 6/2009. Helsingin yliopistopaino, Helsinki,
- Leppo A & Perälä R (2009). User involvement in Finland: the hybrid of control and emancipation. *Journal of Health Organization and Management* 23 (3), 359-371.
- Liukkonen M.; Feirikki E (2009). Arjen palapeli. Palveluohjaus korvaushoidon tukena. [Everyday jigsaw puzzle. Service guidance supporting substitution treatment.] *Oppaita ja työkirjoja 2009:1*. Etelä-Suomen lääninhallitus ja Helsingin kaupungin sosiaalivirasto. Helsinki.
- Luopa P, Lommi A, Kinnunen T & Jokela J (2010). Nuorten hyvinvointi Suomessa 2000-luvulla. Kouluterveyskysely 2000–2009. [Wellbeing of adolescents in Finland in the 2000s. School health survey 2000–2009.] Terveiden ja hyvinvoinnin laitos. Raportteja 20/2010.
- Malin-Kaartinen K, Marttinen K, Puro P & Viljanen M (2008). Linkki-projekti - Huumehaittojen vähentäminen vertaisryhmätoimintana Helsingin terveysneuvontapiste Vinkissä vuosina 2004–2008. [Linkki project: Reduction of harm from substance abuse through peer group action at the Vinkki health counselling centre in Helsinki, 2004–2008.] A-klinikkasäätiön raporttisarja nro 54. Helsinki: A-klinikkasäätiö.

- Mattila-Aalto M (2009). Kuntoutussosiaalisuuden diagnoosi. Tutkimus entisten rappiokäyttäjien kuntoutumisen muodoista, mekanismeista ja mahdollisuuksista. [Diagnosis of the social nature of rehabilitation. Study of the forms, mechanisms and opportunities for rehabilitation among former problem substance abusers.] Kuntoutussäätiön tutkimuksia 81/2009, Helsinki. http://kuntoutussaatio.fi/files/159/Kuntoutusosallisuuden_diagnoosi.pdf
- Mellin N, Vihmo J, Österberg E (2006). Alkoholihaittojen yhteiskunnalliset kustannukset Suomessa vuonna 2003. [Social costs of alcohol-related harm in Finland in 2003.] Stakes, raportteja 10/2006.
- Meriläinen A-S, Heinälä P & Seppä K (2010). Lääkäriopiskelijoiden päihteiden käyttö. [Substance abuse among medical students.] Suomen Lääkärilehti 65 (7) 2010, 587–591.
- Metso L (2009). Erillisajo juomatapatutkimuksen aineistosta [1.7.2009] [Separate batch run on the material of the drinking habits study, 1 July 2009.]
- Metso L, Ahlström S, Huhtanen P, Leppänen M & Pietilä E (2009). Nuorten päihteiden käyttö Suomessa 1995–2007. ESPAD-tutkimuksen tulokset. [Intoxicant abuse among young people in Finland 1995–2007. Findings of the ESPAD study.] Raportteja 6. Helsinki: Terveystieteiden tutkimuskeskus. <http://www.thl.fi/thl-client/pdfs/1bdd2d77-b36d-499c-b8de-dd714abf80d8>
- Mikkonen A, Niemelä S, Koivumäki V, Heinisuo A-M & Salokangas R (2008). Joustava opioidikorvaushoito vastaa lisääntyvään hoidontarpeeseen. [Flexible opioid substitution treatment responds to increasing need for treatment.] Suomen Lääkärilehti 63 (23), 2161–2165.
- Mikkonen M (2008). Helsinkiläistä lasten perhehoitoa kolmelta vuosikymmeneltä. [Family foster care for children in Helsinki over three decades.] Helsingin kaupungin sosiaalivirasto. Tutkimuksia 2008:1.
- Mohell Ulla (2009). Valvottu koevapaus. [Supervised trial freedom.] Article in the online portal Portti vapauteen. http://www.porttivapauteen.fi/yhteiset/tietopankki/tietoa_rikollisuudesta_ja_seuraamuksista/valvottu_koevapaus/?id=396 [31.8.2009]
- MSD (2010). Epävirallinen tiedonanto korvaushoidon potilasmäärästä 2008–2009. [Informal notification on number of patients in substitution treatment 2008–2009.] Hakatie M, Merck & Co. tiedonanto 28.5.2010.
- Mäkitalo O (2008). Huumevalistus ja sen muunnelmat. Opettajien käsityksiä ehkäisevään huumevalistukseen suuntautuneesta koulukasvatuksesta ja opetuksesta. [Drug education and variations. Teachers' conceptions about school teaching regarding drug education.] E Scientiae Rerum Socialium 101. Acta Universitatis Ouluensis. Oulu: Oulun yliopisto.
- Niemelä P (2008). Kaksoisdiagnoosiprojektien arviointi. [Evaluation of dual-diagnosis projects.] Avustustoiminnan raportteja 18. Helsinki: Raha-automaattiyhdistys. http://www.ray.fi/avustustoiminta/aineistopankki/pdf_doc_arviointi/pdf/RAY_raportti_18.pdf [11.9.2009]

- Niemelä S (2008). Predictors and Correlates of Substance Use among Young Men. The Longitudinal "From a Boy to a Man" Birth Cohort Study. Turku: Turun yliopisto. <https://oa.doria.fi/bitstream/handle/10024/37680/D803.pdf?sequence=1> [5.9.2008]
- Nuorvala Y, Huhtanen P, Ahtola R & Metso L (2008a). Päihdeasiakkaat entistä vanhempia. [Substance abuse clients are getting older.] Dialogi 3/2008, 39–40.
- Nuorvala Y, Huhtanen P, Ahtola R & Metso L (2008b). Huono-osaisuus mutkistuu – kuudes päihdetapauskanta 2007. [Marginalisation is becoming more complicated – sixth substance abuse census 2007.] Yhteiskuntapolitiikka 73 (2008):6, 659–670.
- Ojaniemi K, Lintonen T, Impinen A, Lillsunde P & Ostamo A (2009). Trends driving under the influence of drugs: A register-based study of DUID suspects during 1977-2007. Accident Analysis and Prevention 41 (1), 191-196.
- OPM (Opetusministeriö) [Ministry of Education] (2007). Lapsi- ja nuorisopoliitiikan kehittämisohjelma 2007–2011. [Child and youth policy development programme.] http://www.minedu.fi/export/sites/default/OPM/Nuoriso/nuorisopoliittika/kehittaemisohjelma/liitteet/lapsi_ja_nuorisopoliittika_kehittamisohjelma.pdf [26.8.2008]
- OPM (Opetusministeriö) [Ministry of Education] (2009). Monialaisen viranomaisyhteistyön ja etsivän nuorisotyön lakisääteistäminen. [Legislating multi-sectoral official co-operation and outreach youth work.] Opetusministeriön työryhmämuistioita ja selvityksiä 22/2009. <http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/tr22.pdf?lang=fi> [1.10.2010]
- OPM (Opetusministeriö) [Ministry of Education] (2010). Opiskeluoikeuden peruuttaminen, päihdetestaus ja kurinpito turvallisuutta edistävinä keinoina. [Revoking study rights, drug testing and discipline as safety-promoting measures.] Opetusministeriön työryhmämuistioita ja selvityksiä 7/2010. <http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2010/liitteet/tr07.pdf?lang=fi> [1.10.2010]
- Pajulo M (2010) Kannattaako päihdeongelmaisten äiti-vauvaparien hoito? [Is it worthwhile treating mothers with babies who have an intoxicant abuse problem?] Suomen Lääkärilehti 13 -14/2010 year 65, 1205–1211
- Partanen A, Moring J, Nordling E & Bergman V (2010). Kansallinen mielenterveys- ja päihdesuunnitelma 2009-2015. Suunnitelmasta toimeenpanoon vuonna 2009. [National mental health and substance abuse action plan 2009–2015. From plan to implementation in 2009.] Terveyden ja hyvinvoinnin laitos, Avauksia 16/2010. <http://www.thl.fi/thl-client/pdfs/53837d85-321b-4694-90ad-a2332abaea71>
- Partanen P, Hakkarainen P, Holmström P, Kinnunen A, Leinikki P, Partanen A, Seppälä T, Välikki J & Virtanen A (2004). Amfetamiinien ja opiaattien ongelmakäytön yleisyys Suomessa 2002. [Incidence of problem use of amphetamines and opiates in Finland in 2002.] Yhteiskuntapolitiikka 69 (3), 278–286.

- Partanen P, Hakkarainen P, Hankilanoja A, Kuussaari K, Rönkä S, Salminen M, Seppälä T & Virtanen A (2007). Amfetamiinien ja opiaattien ongelmakäytön yleisyys Suomessa 2005. [Incidence of problem use of amphetamines and opiates in Finland in 2005.] *Yhteiskuntapolitiikka* 72 (5), 553–561.
- Partanen T, Vikatmaa P, Vuola J, Lepäntalo M & Tukiainen E (2008). Laskimon sisäisinä käytetyt tabletit aiheuttavat vakavia vaurioita. [Tablets used intravenously cause serious damage.] *Suomen Lääkärilehti* 23 (63), 2131–2136.
- Perälä R (2010). Sosiaali- ja terveyspalvelujen uusi neuvoteltu järjestys. Esimerkki kuntien ja kristillisten järjestöjen välisestä yhteistyöstä suomalaisissa kunnissa. [Negotiated new order for social welfare and health care services. Case study on co-operation between local authorities and Christian NGOs in Finnish municipalities.] *Yhteiskuntapolitiikka* 75 (4) 2010, 389-399.
- Piispa Matti, Helakorpi S, Laitalainen E, Uutela A & Jallinoja P (2008). Huumekontaktit ja huumemielipiteet. Tutkimus työikäisistä suomalaisista 1996–2007. [Drug contacts and drug opinions. A study on Finns of working age, 1996–2007.] *Kansanterveyslaitoksen julkaisuja B 5/2008*. Helsinki: Kansanterveyslaitos.
http://www.ktl.fi/attachments/suomi/julkaisut/julkaisusarja_b/2008/2008b05.pdf [28.8.2008]
- Piispa Mikko (2010). Övereita, sekoilua ja moniongelmaisuuksia. Huumeisiin liittyvät kuolemat Suomessa 2007. [Going overboard, going crazy and having multiple problems. Drug-related deaths in Finland in 2007.] Pro gradu thesis in sociology. Helsingin yliopisto <https://www.doria.fi/bitstream/handle/10024/63576/overeita.pdf?sequence=1> [29.10.2010]
- Pitkänen T (2009). Hoito- ja rekisteritietojen käyttö päihdetutkimuksessa. [Use of care and register data in substance abuse research.] In Tammi et al. (eds.) 2009, 172-194.
- Posio J, Tallavaara M (2010). Ehkäisevän päihdetyön teemaviikko koulussa. Innovaatioita terveyden edistämiseen mielenterveys- ja päihdetyössä - kokemuksia Pohjanmaa-hankkeesta, Sateenvarjo-projektista ja Lapin mielenterveys- ja päihdetyön hankkeesta 2005-2009. [Substance abuse prevention week at school. Innovations for health promotion in mental health and substance abuse services, experiences of the Pohjanmaa project, the Sateenvarjo project and the Lapland mental health and substance abuse project, 2005–2009.] pp. 42-43. THL - Avauksia 5/2010. Yliopistopaino. Helsinki.
- Punainen Risti [Finnish Red Cross] (2010) Festarityö. [Services at festivals.] http://www.redcross.fi/aktiivifestarityo/fi_FI/ [29.10.2010]
- Päihdelinkki [AddictionLink] (2010). Päihdelinkin kävijäkyselyt. [AddictionLink visitor surveys.] <http://www.paihdelinkki.fi/kavijoille/paihdelinkin-kavijakyselyt> [29.10.2010]
- Päihdelinkki [AddictionLink] (2009). Sauna-keskustelualueen kävijäkysely

2008. <http://www.paihdelinkki.fi/kavijoille/saunasta-saadaan-tietoa-paihteista-ja-niiden-riskeista> [21.8.2009]
- Päihdetilastollinen vuosikirja 2008 [Intoxicants statistical yearbook 2008]. Alkoholi ja huumeet. [Alcohol and drugs.] SVT/Sosiaaliturva. Helsinki: Stakes. <http://www.stakes.fi/tilastot/tilastotiedotteet/2008/paihde/Paihdetilastollinen2008.pdf> [1.10.2009]
- Päihdetilastollinen vuosikirja 2009 [Intoxicants statistical yearbook 2009]. Alkoholi ja huumeet. [Alcohol and drugs.] SVT/Sosiaaliturva. Hyvinvoinnin ja terveyden laitos. <http://www.stakes.fi/tilastot/tilastotiedotteet/2009/paihde/Paihdetilastollinen2009.pdf>
- Pylkkänen S, Viitanen R, Vuohelainen E (eds.) (2009). Mitä on nuorisolan ehkäisevä päihdetyö? Laadukkaan päihdekasvatuksen tukimateriaali. [What is preventive substance abuse work in youth services? Support material for good-quality intoxicant education.] Humanistinen ammattikorkeakoulu sarja C. Oppimateriaaleja. http://www.minedu.fi/opencms/opencms/handle/404?exporturi=/export/sites/default/OPM/Nuoriso/nuorisotyoen_kohteet_ja_rahoyt/ennaltaehkaeisevae_paihde_ja_huumetyoe/liitteet/Mitx_on_nuorisoalan_ehkxisevx_pxihdetyx.pdf [29.10.2010]
- Pärttö M, Hännikäinen-Uutela A-L & Määttä, P (2009). Huumeiden käyttäjien arki yhteisöllisen huumeekuntoutuksen jälkeen. [Everyday life of drug users after community-based rehabilitation.] *Janus* 17 (2) 2009, 121–138.
- Rainio S, Pere L, Lindfors P, Lavikainen H., Saarni L & Rimpelä A (2009). Nuorten terveystapatutkimus 2009. [Study of young people's health habits 2009.] Sosiaali- ja terveysministeriön selvityksiä 47/2009. http://www.stm.fi/c/document_library/get_file?folderId=39503&name=DLFE-10634.pdf [1.9.2010]
- Reuter, P. (2006). What drug policies cost. Estimating government drug policy expenditures. *Addiction* 101 (3), 315-322.
- Rikosseuraamusvirasto [Criminal Sanctions Agency] (2010a). Rikosseuraamusalan vuosikertomus 2010. <http://www.rikosseuraamus.fi/uploads/hdieo2.pdf> [20.7.2010]
- Rikosseuraamusvirasto [Criminal Sanctions Agency] (2010 b). Rikosseuraamusasiakkaat 1.5.2010. http://www.rikosseuraamus.fi/uploads/6n0kp53mij_2.pdf. [20.7.2010]
- Rikosseuraamusvirasto [Criminal Sanctions Agency] (2009c). Julkaisemattomat tilastot ja tiedonannot. [Unpublished statistics and communications.]
- Rimpelä M et al. (2009a). Terveyden edistäminen terveyskeskuksissa 2008. [Health promotion at health centres 2008.] *Terveyden ja hyvinvoinnin laitos. Raportti 19/2009*. Helsinki.
- Rimpelä M et al. (2009b). Hyvinvoinnin ja terveyden edistäminen lukioissa. [Promoting health and wellbeing at upper secondary schools.] *Edita Prima Oy*. Helsinki.
- Ruuth P & Väänänen T (2009). Päihdehuollon huumeasiakkaat 2008. [Drug user clients of substance abuse services 2008.] *Terveyden ja hyvinvoin-*

- nin laitos, Tilastoraportti 14/2009. [Http://www.stakes.fi/tilastot/tilastotiedotteet/2009/Tr14_09.pdf](http://www.stakes.fi/tilastot/tilastotiedotteet/2009/Tr14_09.pdf) [1.10.2009]
- Rönkä S & Virtanen A (eds.) (2008). Huumetilanne Suomessa 2008. Uusin tieto, uusimmat kehityssuunnaukset ja erityisteemat huumeista. Kansallinen huumevuosisiraportti EMCDDA:lle. [Finland – Drug situation 2008. National report to the EMCDDA.] Helsinki: Stakes.
- Rönkä S & Virtanen A (eds.) (2009). Huumetilanne Suomessa 2009. Uusin tieto, uusimmat kehityssuunnaukset ja erityisteemat huumeista. Kansallinen huumevuosisiraportti EMCDDA:lle. [Finland – Drug situation 2008. National report to the EMCDDA.] Helsinki: Terveyden ja hyvinvoinnin laitos. Raportteja 40/2009.
<http://www.thl.fi/thl-client/pdfs/47699564-6dd8-4381-973a-0d441c4fd5ba>
- Ruisniemi A (2006). Minäkuvan muutos päihderiippuvuudesta toipumisessa. Tutkimus yhteisöllisestä päihdekuntoutuksesta. [Change of self-image in recovering from intoxicant addiction. A study on community-based substance abuse rehabilitation.] Acta Universitatis Tamperensis 1150. Tampere: Tampereen yliopisto. <http://acta.uta.fi/pdf/951-44-6619-5.pdf> [4.9.2008]
- Saarnio P (2010). Big Five Personality Traits and Interpersonal Functioning in Female and Male Substance Abuse Therapists. *Substance Use & Misuse* 45, 1463-1473.
- Saarnio P (2009). Suomalaisen päihdetyöntekijän muotokuva. [Portrait of a Finnish substance abuse counsellor.] *Yhteiskuntapolitiikka* 74 (6) 2009, 632-643.
- Saarnio P & Knuutila V (2008). Readiness to Change Profiles in Two Different Groups of Alcohol/Other Drug Abusers in the United States and Finland. *Alcoholism Treatment Quarterly* 26 (3) 2008, 333-346.
- Salasuo M, Vuori E., Piispa M, Hakkarainen P.(2009) Suomalainen huume-kuolema 2007. Poikkitieteellinen tutkimus oikeuslääketieteellisistä kuolinsyyasiakirjoista. [Finnish drug-related deaths in 2007. Cross-discipline study of forensic medical cause-of-death documents.] THL. Raportti 43/2009. Yliopistopaino. Helsinki.
- Salomaa J (1996). Huumeaineiden aiheuttamat haittakustannukset Suomessa vuonna 1994. [Costs of drug-related harm in Finland in 1994.] *Aiheita* 35/1996. Helsinki: Stakes.
- Santala J (2008). Asiakaslähtöinen toimintatapa huumeiden käyttäjien yhteisöllisessä kuntoutuksessa. [Client-oriented operations in community-based rehabilitation of drug users.] *Janus* 16 (2) 2008, 146–160.
- Sarkola T, Kahila H, Gissler M & Halmesmäki E.: Risk factors for out-of-home custody child care among families with alcohol and substance abuse problems. *Acta Paediatrica* 96 (2007), 1571-1576.
- Sihvola E, Rose R, Dick D, Pulkkinen L, Marttunen M & Kaprio J (2008). Early-onset depressive disorders predict the use of addictive substances in adolescence: a prospective study of adolescent Finnish Twins. *Addiction* 103 (12), 2045-2053.

- Sinko P & Vironkannas E (2009). Rajallisia äitiysidentiteettejä – Huumeita käyttäneiden naisten kertomuksia lastensa huostaanotoista. [Limited motherhood identities – Stories by drug user women about their children being taken into care.] *Janus* 17 (2), 104–120.
- SM (Sisäasiainministeriö) [Ministry of the Interior] (2007). Huumausaine- ja järjestäytyneen rikollisuuden torjunnan tehostamista käsitelleen asiantuntijatyöryhmän loppuraportti. [Final report of the expert working group on combating drug crime and organised crime more effectively.] Poliisin ylijohdon julkaisusarja 6/2007. Helsinki: SM. [http://www.intermin.fi/intermin/biblio.nsf/7508EC0C996CF4E2C225729C0034AB62/\\$file/6-2007.pdf](http://www.intermin.fi/intermin/biblio.nsf/7508EC0C996CF4E2C225729C0034AB62/$file/6-2007.pdf) [7.9.2008]
- SM (Sisäasiainministeriö) [Ministry of the Interior] (2009). Sisäisen turvallisuuden ohjelman toimeenpano. Väliraportti 1/2009. [Implementation of the internal security programme. Interim report 1/2009.] Sisäasiainministeriön julkaisuja 15/2009. [http://www.intermin.fi/intermin/hankkeet/turva/home.nsf/files/152009/\\$file/152009.pdf](http://www.intermin.fi/intermin/hankkeet/turva/home.nsf/files/152009/$file/152009.pdf) [3.7.2009]
- SM (Sisäasiainministeriö) [Ministry of the Interior] (2010). Sisäisen turvallisuuden toimeenpano. Väliraportti 1/2010. [Implementation of internal security. Interim report 1/2010.] Sisäasiainministeriön julkaisuja 5/2010. [http://www.intermin.fi/intermin/hankkeet/turva/home.nsf/files/12010%20väliraportti%20final/\\$file/12010%20väliraportti%20final.pdf](http://www.intermin.fi/intermin/hankkeet/turva/home.nsf/files/12010%20väliraportti%20final/$file/12010%20väliraportti%20final.pdf) [1.10.2010]
- Sosiaali- ja terveydenhuollon tilastollinen vuosikirja 2009. [Statistical Yearbook on Social Welfare and Health Care 2009.] SVT/Sosiaaliturva. Helsinki. Terveyden ja hyvinvoinnin laitos. <http://www.stakes.fi/tilastot/tilastotiedotteet/2009/julkaisut/sosteri2009.pdf> [1.10.2010]
- Stakes (Sosiaali- ja terveysalan tutkimus- ja kehittämiskeskus) [National Research and Development Centre for Welfare and Health] (2006). Ehkäisevän päihdetyön laatuksiterit. [Quality criteria for preventive substance abuse work.] Työryhmämuistio 25.1.2006. Työpapereita 3/2006. Helsinki: Stakes. <http://www.stakes.fi/verkkojulkaisut/tyopaperit/Tp3-2006-verkko.pdf> [4.9.2006]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2002). Päihdepalvelujen laatusuosituksen. [Quality recommendations for substance abuse services.] Sosiaali- ja terveysministeriön oppaita 2002:3. Helsinki: STM. <http://www.stm.fi/suomi/julkaisu/julk01fr.htm>. [2.9.2008]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2008a). Sosiaali- ja terveydenhuollon kansallinen kehittämisohjelma. [National Development Programme for Social Welfare and Health Care.] STM:n julkaisuja 2008:6. <http://www.stm.fi/Resource.phx/hankk/hankk/sote/index.htx> [2.9.2008]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2008b). Sosiaali- ja terveysministeriön asetus opoidiriippuvaisten vieroitus-, korvaushoidosta eräillä lääkkeillä. [Decree of the Ministry of Social Affairs and Health on the withdrawal treatment and substitution treatment of opioid addicts using certain pharmaceuticals.] Muistio 11.1.2008 (julkaisematon). [Unpublished memo, 11 January 2008.]

- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2009a). Mielenterveys- ja päihdesuunnitelma. Mieli 2009 – työryhmän ehdotukset mielenterveys- ja päihdetyön kehittämiseksi vuoteen 2015. [Mental health and substance abuse plan. Proposals of the Mieli 2009 working group for developing mental health and substance abuse services up to 2015.] Sosiaali- ja terveysministeriön selvityksiä 2009:3. http://www.stm.fi/c/document_library/get_file?folderId=39503&name=DLFE-7175.pdf [3.7.2009]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2009b). Raskaana olevien päihdeongelmaisten naisten hoidon varmistaminen –työryhmän raportti. [Report of the working group on ensuring treatment for pregnant women with intoxicant abuse problems.] Sosiaali- ja terveysministeriön selvityksiä 2009:4. http://www.stm.fi/c/document_library/get_file?folderId=39503&name=DLFE-7006.pdf [3.7.2009]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2009c): Kaste-ohjelman valtakunnallinen toimeenpanosuunnitelma vuosille 2008–2011. [National implementation for the Kaste programme, 2008–2011.] Sosiaali- ja terveysministeriön selvityksiä 2009:9. http://www.stm.fi/julkaisut/nayta/_julkaisu/1389884#fi [6.7.2009]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2009d). Huumausainepolitiikan kertomus vuodelta 2008. [Drug policy report, 2008.] Sosiaali- ja terveysministeriön selvityksiä 2009:21. http://www.stm.fi/c/document_library/get_file?folderId=39503&name=DLFE-10083.pdf [1.10.2009]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2009e). Opioidiriippuvaisten korvaushoitotilanne Suomessa. [Substitution treatment for opioid addicts in Finland.] Lääninhallitusten selvitysten yhteenveto, 20.2.2009.
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2010a). Sosiaali- ja terveydenhuollon kansallisen kehittämissuunnitelman (Kaste) arviointi. Ensimmäinen väliraportti. [Evaluation of the National Development Programme for Social Welfare and Health (Kaste). First interim report.] Sosiaali- ja terveysministeriön selvityksiä 8/2010. http://www.stm.fi/c/document_library/get_file?folderId=1082856&name=DLFE-11488.pdf [1.10.2010]
- STM (Sosiaali- ja terveysministeriö) [Ministry of Social Affairs and Health] (2010b). Lastensuojelu. [Child welfare.] http://www.stm.fi/lapset/palvelut_perheille/lastensuojelu [23.8.2010]
- Sulander J, Korteniemi P & Heinonen J (2010). Kuuden suurimman kaupungin päihdepalvelut 2008. [Substance abuse services in the six largest cities.] Kuusikko-työryhmän julkaisusarja 8/2009 (2010). http://www.kuusikkokunnat.fi/SIRA_Files/downloads/Paihdehuolto/Kuusikon_paihdehuollon_palvelut_2005-2008_5_3_2010.pdf [1.10.2010]
- Suoninen E & Virokannas E (2008). Juvenile and Drugs. Fascination of contesting identities. *Young* 16 (1), 47-65.

- Tammi T (2007). Medicalising Prohibition, Haittojen vähentäminen in Finnish and International Drug Policy. Research Report 161. Helsinki: Stakes.
- Tammi T, Aalto M & Koski-Jännes A (eds.) (2009). Irti päihdeongelmista. [Breaking free of substance abuse problems.] Alkoholi- ja huumetutkijain seura ry. & Edita Publishing. WS Bookwell Oy, Prvoo, 2009.
- Tekry (Terveyden edistämisen keskus) [Finnish Centre for Health Promotion] (2006). Järjestöjen huumausainehjelma 2006–2008. [NGO drug programme 2006–2008.] <http://www.tekry.fi/timage.php?i=60&f=3&name=huumeohjelma.pdf> [7.7.2009]
- Tekry (Terveyden edistämisen keskus [Finnish Centre for Health Promotion] (2009): Päihdebarometri 2009. Kuntien ja järjestöjen näkemyksiä päihde-tilanteesta. [Substance Barometer 2009. Views on the substance abuse situation by local authorities and NGOs.] Terveyden edistämisen keskus. Julkaisuja 6/2009.
- Tekry (Terveyden edistämisen keskus) [Finnish Centre for Health Promotion] (2010). Terveyden edistämisen keskuksen Ehkäisevän päihdetyön materiaalit -portaali. [Materials for preventive substance abuse work, a portal maintained by the Finnish Centre for Health Promotion.] <http://ep-materiaalit.dav.fi/?i=400&p=1&l=35&s=1&v=400> [21.8.2009]
- Tella S & Opari P (eds.) (2009). Järjestöt huumetyötä kehittämässä. Järjestöjen huumausainehjelma 2006–2008. [NGOs developing drug abuse services. NGO drug programme 2006–2008.] Terveyden edistämisen keskuksen julkaisuja 2/2009. http://www.tekry.fi/timage.php?i=100865&f=1&name=jarjestot_huumetyota_kehittamassa.pdf [7.7.2008]
- THL (Terveyden ja hyvinvoinnin laitos) [National Institute for Health and Welfare] (2009b). Tartuntataudit Suomessa 2008. [Infectious diseases 2008.] Raportti 10. Helsinki: Terveyden ja hyvinvoinnin laitos. <http://www.thl.fi/thl-client/pdfs/6223766d-ea1a-4a85-af48-339920ea9bb6> [22.9.2009]
- THL (Terveyden ja hyvinvoinnin laitos) [National Institute for Health and Welfare] (2009c). Huumelaboration julkaisemattomat tilastot. [Unpublished statistics of the drug laboratory.]
- THL (Terveyden ja hyvinvoinnin laitos) [National Institute for Health and Welfare] (2009d). Mielenterveys- ja päihdeongelmien varhainen tunnistaminen. [Early identification of mental health and substance abuse problems.] Opas 5/ THL 2009. Yliopistopaino. Helsinki.
- THL (Terveyden ja hyvinvoinnin laitos) [National Institute for Health and Welfare] (2010a). Suomalaisen aikuisväestön terveyskäyttäytyminen ja terveys, kevät 2009. [Health behaviour and health of the Finnish adult population, spring 2009.] Raport 7/2010. <http://www.thl.fi/thl-client/pdfs/ce5ee5c1-6df4-44c2-bcd7-c3b735019570> [6.7.2010]
- THL (Terveyden ja hyvinvoinnin laitos) [National Institute for Health and Welfare] (2010b). Tartuntataudit Suomessa 1995–2009. [Infectious diseases in Finland 1995–2009.] Raportti 17/2010. Yliopistopaino. Helsinki.

- Tilastokeskus [Statistics Finland] (2010). Calculated on the basis of data from the StatFin and ALTIKA databases.
- Tilastokeskus [Statistics Finland] (2009). Eräiden rikosten vankilarangais-
tukset käräjäoikeuksissa 2006-2008. [Sanctions for certain crimes im-
posed by district courts 2006–2008.] [http://www.stat.fi/til/syyttr/2008/syyt-
tr_2008_2009-12-09_tau_001_fi.html](http://www.stat.fi/til/syyttr/2008/syyt-
tr_2008_2009-12-09_tau_001_fi.html) [24.6.2010]
- Tilastokeskus [Statistics Finland] (2008) EMCDDA Standard table 6 (2008).
- Tourunen J & Pitkänen T (2010). Opioidiriippuvaisten korvaushoito ja syrjäy-
tymisen ehkäisy. [Substitution treatment for opioid addicts and prevention
of social exclusion.] In Laine et al. 2010, 148-168.
- Tourunen J, Pitkänen T, Harju-Koskelin O, Häkkinen A, Holopainen A (2009)
Korvaushoitopotilaiden kuntoutuminen on pitkä ja haasteellinen prosessi.
[The rehabilitation of substitution treatment patients is a long and challeng-
ing process.] *Yhteiskuntapolitiikka* 74 (4), 421–428.
- Tulli [Finnish Customs] (2010a). Tullirikostorjunnan vuosikirja 2009. [Yearbook
of customs crime prevention 2009.] [http://www.tulli.fi/fi/suomen_tulli/julkai-
sut_ja_esitteet/vuosikertomukset/rikostorjunta_09_internet.pdf](http://www.tulli.fi/fi/suomen_tulli/julkai-
sut_ja_esitteet/vuosikertomukset/rikostorjunta_09_internet.pdf) [8.7.2010]
- Tulli [Finnish Customs] (2010b). Julkaisemattomat tilannekatsaukset.
[Unpublished situation reviews.]
- Törmä S (2009). Matala kynnyks – pelkkä retorinen lupaus. [Low threshold – just
rhetoric.] *Janus* 17 (2) 2009, 164-169.
- Törmä S (2009). Kynnykskysymyksiä. Huono-osaisimmat huumeiden käyttäjät
ja matala kynnyks. [Threshold issues. The most marginalised drug users
and the low threshold.] Akateeminen väitöskirja, Helsingin yliopiston val-
tietieteellinen tiedekunta, yhteiskuntapolitiikan laitos. Sosiaalikehitys Oy,
Julkaisuja 1/2009. Offset Kolmio, Hämeenlinna.
- Valtioneuvosto [Finnish Government] (2007a). Valtioneuvoston periaatepäätös
huumausainepoliittisesta yhteistyöstä vuosille 2008–2011. 8.11.2007
[Government Resolution on drug policy co-operation in 2008–2011. 8
November 2007]
[http://www.vn.fi/toiminta/periaatepaatokset/periaatepaatos/fi.jsp?oid=
210089](http://www.vn.fi/toiminta/periaatepaatokset/periaatepaatos/fi.jsp?oid=
210089) [15.11.2007]
- Valtioneuvosto [Finnish Government] (2007b). Terveysten edistämisen politiik-
kaohjelma. Valtioneuvoston periaatepäätös 5.12.2007. [Health Promotion
Policy Programme. Government Resolution 5 December 2007.] [http://
www.vn.fi/toiminta/politiikkaohjelmat/terveys/ohjelman-sisaeltoe/fi.pdf](http://
www.vn.fi/toiminta/politiikkaohjelmat/terveys/ohjelman-sisaeltoe/fi.pdf)
[10.9.2008]
- Valtioneuvosto [Finnish Government] (2007c). Lasten, nuorten ja perheiden
hyvinvoinnin politiikkaohjelma. Valtioneuvoston periaatepäätös 5.12.2007.
[Policy Programme for the Well-being of Children, Youth and Families.
Government Resolution 5 December 2007.] [http://www.vn.fi/toiminta/
politiikkaohjelmat/lapset/ohjelman-sisaeltoe/HPO_Lapset_HSA2007.pdf](http://www.vn.fi/toiminta/
politiikkaohjelmat/lapset/ohjelman-sisaeltoe/HPO_Lapset_HSA2007.pdf)
[10.9.2008]
- Valtioneuvosto [Finnish Government] (2008). Sisäisen turvallisuuden ohjelma.

- Valtioneuvoston periaatepäätös 8.5.2007. [Internal Security Programme. Government Resolution 8 May 2007.] [http://www.intermin.fi/intermin/hankeet/turva/home.nsf/files/STO%20080508/\\$file/STO%20080508.pdf](http://www.intermin.fi/intermin/hankeet/turva/home.nsf/files/STO%20080508/$file/STO%20080508.pdf) [10.9.2008]
- Virtanen. A (ed.) (2004). Huumausainetilanne Suomessa 2003. EMCDDA-seurantaraportti. [Finland – Drug situation 2003. EMCDDA monitoring report.] Suomen huumausaineiden seurantakeskus. Tilastoraportti 1/2004. Helsinki: Stakes. <http://www.stakes.fi/tilastot/tilastotiedotteet/reitox/Huumausainetilanne2003.pdf> [12.15.2008]
- VKS (Valtakunnansyyttäjä) [Prosecutor General] (2002). Seuraamuksen määrääminen huumausaineen käyttörikoksesta. [Imposing a sanction for a drug use offence.] Ohje 2002:3. <http://www.vksv.oikeus.fi/15368.htm> [3.8.2006]
- VKS (Valtakunnansyyttäjä) [Prosecutor General] (2006). Seuraamuksen määrääminen huumausaineen käyttörikoksesta. [Imposing a sanction for a drug use offence.] Ohje 2006:1. <http://www.vksv.oikeus.fi/Etusivu/VKSnmaarayksetjaohjeet/Huumausainerikokset/VKS20061Seuraamuksenmaaraaminenhuumausaineenkayttorikoksesta> [15.4.2007]
- VKSV (Valtakunnansyyttäjänvirasto) [Prosecutor General's Office] (2010). Julkaisematon tiedonanto 29.6.2010. [Unpublished communication 29 June 2010.]
- Vorma H, Sokero P, Turtiainen S, Katila H (2009). Opioidiriippuvuuden korvaushoito HYKS:n päihdepsykiatrian yksikössä 2003–2005. [Substitution treatment for opioid addicts at the HUS addiction psychiatry unit 2003–2005.] Suomen Lääkärilehti 20/2009, pp. 1853–1857.
- Vuori E, Ojanperä I, Nokua J & Ojansivu R-L (2009). Oikeuskemiallisesti todetut myrkytyskuolemat Suomessa vuosina 2005–2007. [Deaths by poisoning in Finland 2005–2007 verified by forensic chemistry.] Suomen Lääkärilehti 64 (39), 3187–3195.
- Wilskman K, Ståhl T, Muuranen, S & Perttilä K (2008). Väestön hyvinvoinnin ja terveyden edistäminen kunnissa. Raportti kunnanjohtajien kyselyistä 2007. [Promoting the wellbeing and health of the population in municipalities. Report on surveys of municipal managers 2007.] Stakesin työpapereita 16/2008. Helsinki: Stakes <http://www.stakes.fi/verkkojulkaisut/tyopaperit/T16-2008-VERKKO.pdf> [10.9.2008]
- Väyrynen P et al. (2009). Hyvinvoinnin ja terveyden edistäminen ammatillisissa oppilaitoksissa. [Promoting wellbeing and health at vocational education institutions.] Edita Prima Oy. Helsinki.
- Väänänen T & Ruuth P (2010). Päihdehuollon huumeasiakkaat 2009. [Drug user clients of substance abuse services.] Terveyden- ja hyvinvoinnin laitos. Tilastoraportti 21/2010.
- Väänänen T (2010). Huumehoidon tietojärjestelmä arviointi vuonna 2009. [Evaluation of the Drug Treatment Information System 2009.] Terveyden- ja hyvinvoinnin laitos (julkaisematon käsikirjoitus), 2010.

- YAD (Youth Against Drugs) (2008). Rave Against Drugs-hankkeen loppuraportti 2008. [Final report of the Rave Against Drugs project.] <http://www.yad.fi/hallinta/dataFiles/yleiset/RAD.pdf> .
- Ylikangas M (2009). Unileipää, kulonvettä ja spiidiä. Huumeet Suomessa 1800–1950. [Dream bread, firewater and speed. Drugs in Finland 1800–1950.] Atena-kustannus Oy.

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