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for Drugs and Drug Addiction



Swedish National Institute
of **Public Health**

**2010 NATIONAL REPORT (2009 data) TO THE
EMCDDA
by the Reitox National Focal Point**

**“Sweden”
New Development, Trends and in-depth information on
selected issues**

REITOX

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Foreword

The 2010 National Report on the Drug Situation in Sweden has been produced for the European Monitoring Centre for Drugs and Drug Addiction. With the exception of part B the report is mainly an update of previously delivered data in areas where new information has developed or where the guidelines has been changed. The report has been prepared in cooperation with national agencies, institutions and experts.

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Summary

Chapter 1: Drug policy: legislation, strategies and economic analysis

An evaluation of the last five-year action plan (2006-2010) indicates that the national efforts to reach the goals of the action plan have stagnated in the area of narcotics. Thus, a negative development is foreseen in this area, with increased ill-health, mortality and crime. A new national strategy for the period 2011-2015 has been proposed and includes the visionary goal of a society free from narcotics. In addition, a government bill was proposed in 2010 that includes powerful measures to deal with the increased use of so-called "legal highs".

Chapter 2: Drug use in the general population.

Between 2008 and 2009 an increase in cannabis use has been reported. The lifetime prevalence, last year prevalence and last month prevalence has increased among men (age 16-64). In addition, the lifetime prevalence of any drug for 15-16 year old boys and girls has increased compared to previous years. The reason for this trend is unclear.

Chapter 3: Prevention

A majority of the municipalities in Sweden work actively with methods to prevent use of illicit substances, although only a few report using evidence based methods. Yet, the use of evaluated programmes increase as does the efforts of the municipalities to prevent drug use and to spread acknowledged methods.

Chapter 4: Problem Drug Use

Problem drug use seems to be unchanged for 2009 as compared to previous reports, and the estimated problem drug use population amounts to almost 30,000 in Sweden. National efforts are made to establish suitable methods for regular estimations of this population.

Chapter 5: Drug-related treatment

In 2009, there was an increase in the number of treatment centres reporting to the system. One third of the total clients who were reported came into treatment for the first time and the main drugs of choice by new clients are cannabis and amphetamine. In January 2010, a preliminary commission report was published that revealed a number of strengths and problems with the present Swedish system (a shared responsibility by two administrative bodies, i.e. municipalities/social services and counties/health care) that needs to be discussed.

Chapter 6: Health correlates and consequences

In 2009, there has been a 37 percent decrease in acute Hepatitis B cases as compared to 2008. A decrease in the number of cases has also been noted for Hepatitis C, although no decrease is seen in younger intravenous drug users, indicating an ongoing transmission of this pathogen in this population.

The trend for the late 2000s prevails and shows an increase of the total number of drug related deaths in Sweden. A similar trend is seen for the number of deaths with

presence of methadone in the blood, which has tripled during the period 2006-2008. This trend corresponds with a simultaneous expansion of methadone treatment and leakage from methadone treatment is a possible source for the methadone.

Chapter 7: Responses to health correlates and consequences

Today, there are three operational Needle and Syringe Exchange Programmes in Sweden, all which are located in the same county council (Skåne). A fourth programme will be set up in Stockholm and is likely to be operational from 2011.

Chapter 8: Social correlates and social reintegration

No decrease in number of homeless persons is seen in the three larger cities (Stockholm, Gothenburg and Malmö) despite the funding of 23 projects aimed at lowering the number of homeless persons in Sweden through local development.

Chapter 9: Drug-related crime, prevention of drug related crime and, prison

According to the National Council for Crime Prevention, persons with long prison sentences are at considerable risk for reoffending and use drugs the period immediately after release.

Between 2008 and 2009, offences against the drug punishment act increased with 3 percent and the number of persons convicted with drug offence as the main crime increased with 10 percent. However, the average number of drug addicts in prison is fairly stable over a longer period of time and comprise generally about half of the total prison population. Near half of the total prison population started at least one treatment programme during 2009.

Chapter 10: Drug Markets

During 2008 and 2009 no serious illegal transactions involving precursors have been revealed and the number of seizures of precursor chemicals has been almost zero since 2005.

The number seizures of medicines classified as narcotics (mainly benzodiazepines), cocaine, cannabis and methamphetamine shows an increase.

Professional full-scale illegal indoor cultivation of marijuana, with initial concentration to the southern parts of Sweden, is now observed in other parts of the country as well.

Amphetamine seizures have shown a slight decrease since 2006. A possible explanation for this might be the simultaneous increase in availability of other and similar drugs, such as methamphetamine.

Price levels of the most prevalent drugs have been rather stable over the last years. However, an increase in marijuana prices has been noted for the past two years. The reason for this is likely that demand is relatively high at the same time as the drug has spread to smaller cities/and to the countryside, regions where drugs normally are more expensive.

Chapter 11: History, methods and implementation of national treatment guidelines

The National Board of Health and Welfare's national guidelines for addiction treatment were issued in 2007 with the objective to make addiction treatment more uniform.

The National Board of Health and Welfare's regulations and general guidelines regarding treatment with methadone or buprenorphine in opiate dependence stipulates for example that treatment may only be given at a medical facility that professionally provides healthcare and that a detailed treatment plan must be established for each patient.

In contrary to the World Health Organization's guidelines, in Sweden it is possible to begin treatment with naltrexon or buprenorphine after an assessment of the patient's social situation and/or degree of dependence problems. At present (autumn 2010), there are 64 units that provide pharmaceutically assisted maintenance treatment in Sweden.

Efforts are made to establish a more research-based focus in the care and treatment of individuals with abuse and dependence problems. This includes funding with about 85 million SEK (9.2 million Euro) for implementation of national guidelines in the area between 2008 and 2010. A preliminary evaluation of the results indicates that the major problem of addiction care is not primarily a lack of knowledge of effective treatment methods. Rather, it is a matter of the financial and organisational conditions being such that many patients are not offered the help they desire and need.

Chapter 12: Mortality related to drug use: a comprehensive approach

Sweden has good infrastructure for studying drug related mortality and performing cohort studies. There are comprehensive and reliable databases such as the total population register, the cause-of-death register and the hospital discharge register. In addition, everyone registered in Sweden has a unique personal identification number allowing follow-ups in different registers. However, traditional and organisational issues make it difficult to satisfy the European Monitoring Centre for Drugs and Drug Addiction's recommendation of a cohort, i.e. problem drug users in treatment settings. Consequently, the majority of the cohorts are not follow-up studies of treatment populations. In most cases, they have their origin in the health services or other sources.

The results from the cohort studies indicate that infection by Human Immunodeficiency Virus and alcohol use are risk factors for mortality and methadone treatment is a protective factor. Risk factors related to heroin injection include concurrent intake of alcohol and interruptions in drug use with possible sensitization as a consequence.

Mortality depends on the cohort selection and it is hard to see any major changes in the mortality rates over time even when comparing cohorts selected in the same way. With the exception of studies based on cohorts recruited in 1967-1970, there is a higher mortality rate among opiate users than among amphetamine users. The crude

mortality rates among opiate users vary between 21-33 per 1,000 person-years and the rates among amphetamine users are 13-14 per 1,000.

Part A – New developments and Trends

1: Drug Policy: Legislation, strategies and economic analysis

Introduction

Laws on illicit drugs

In Sweden, narcotic drugs are defined as "drugs or goods dangerous to health, with addictive properties or that create a state of euphoria, or substances that can easily be converted to products with such properties or effects, and that, on such basis, are objects for control according to international agreement that Sweden has supported, or, declared by the Government to be considered narcotics according to the law" (SFS 1968:64).

The aim of this legislation is to legally regulate "illicit drugs and other products, that due to their intrinsic properties entail harm to people's lives or health and that are, or can be assumed to be, used for the purpose of inducing intoxication or other effects". Illicit drugs/narcotics may be used only for medical, scientific or other purposes useful to society that are particularly important (SFS 1968:64). All other possession or use is punishable.

If the offence concerning handling or use of narcotics, with regard to the nature and quantity of narcotics and other circumstances, is considered to be:

- minor, the penalty is a fine or imprisonment for a maximum of six months
- serious, the penalty for a serious narcotics offence shall be imprisonment for a minimum of two and a maximum of ten years.

In judging whether an offence is serious, particular consideration shall be given to whether or not it has been part of large-scale or professional activities, has involved especially large quantities of narcotics or has in any other way been of a particularly dangerous or unscrupulous nature. The judgment shall be based on a joint consideration of the circumstances in the particular case.

Section 3 b in the Swedish Narcotics Punishment Act (SFS 1968:64) states: "Any person who intentionally:

- transfers, manufactures, acquires, procures, processes, packages, transports or in some other similar way handles narcotic drugs which are intended for illegal manufacture of narcotic drugs, or
- keeps, possesses or otherwise handles such narcotic precursors

shall be sentenced for an illegal handling with narcotic precursors to imprisonment for not more than two years.

If, having regard to the nature and the quantity of narcotic precursors involved and other circumstances, an offence is judged to be:

- petty, a fine or imprisonment for most six months shall be imposed.

- grave, the sentence shall be imprisonment for at least six months and at most six years.

In judging whether an offence is grave, particular consideration shall be given to whether it has been part of large-scale or professional activities, has involved especially large quantities of narcotic precursors or has in any other way been of a particularly dangerous or unscrupulous nature.”

All illicit drugs/narcotics is included in the Medical Products Agency's (MPA) register of Illicit Drugs (LVFS 1997:12) only the substances that are on this list are considered to be narcotics in the eyes of the law. In total, the list of illicit drugs contains about 300 substances and, indirectly, a number of mushrooms that contain psilocybin or psilocin. In practice, however, only around 30 illicit drugs are abused to any great extent in Sweden.

The complementary Act on the Prohibition of Certain Goods Dangerous to Health (SFS 1999:42) do not concern narcotic drugs on strict sense. This law does not apply to goods defined as narcotic drugs according to the Narcotic Drugs Punishment Act (SFS 1968:64) or the substances that are the subject of the Act on the Prohibition of Certain Doping Substances (SFS 1991:1969) or medical products approved within the European Union (EU). It applies to goods that, due to their inherent characteristics, entail a danger to human life or health and are used or can be assumed to be used with the aim of inducing intoxication or other effects.

According to section 3 of the Act on the Prohibition of Certain Goods Dangerous to Health, goods that are the subject of the Act may not be imported, transferred, produced, acquired with a view to transfer, offered for sale, or possessed.

Section 4 a states that a person who wilfully breaches the provisions of Section 3 shall be sentenced to a fine or imprisonment for a maximum of one year. However, unlawful importation shall be punished in accordance with the provisions of the Smuggling of Goods (Punishment) Act (SFS 2000:1225).

The Government stipulates the goods to which the law shall apply in the Ordinance regarding the Prohibition of Certain Goods Dangerous to Health (SFS 1999:58). These goods are listed in the appendix to this ordinance.

The so-called precursor chemicals are listed in a special registry. A precursor chemical is, according to the Law on Control of Illicit Drugs, a substance that can be used for illegal production of illicit drugs (SFS 1992:860).

Laws concerning harm reduction

In 2006 the new Act on Exchange of Syringes and Needles came into force (SFS 2006:323). The purpose of the act is to prevent the spread of HIV and other blood-carried infections through the exchange of syringes and needles, and this is to be carried out in connection to interventions aimed at motivating the individual to accept care and treatment. The activity must not be performed without the permission of the National Board of Health and Welfare (NBHW).

Other laws

In Sweden there are also a number of other relevant laws: the Social Service Act (SFS 2001:453) which covers the possible forms of care for drug users; the Act on the Treatment of Drug Misusers (SFS 1988:870) covering compulsory institutional care; and the Care of Young Persons Special Provisions Act (SFS 1990:52) which makes it possible to arrange compulsory care of juveniles on the ground of drug use.

National Action Plans and public health objectives

The first Swedish National Action Plan on narcotic drugs covered the years from 2002 to 2005. According to the government bill, the aim was to give the drug issue clearer priority on all levels in the Swedish policy. In the plan, the Government also announced its intention to appoint a National Drug Coordinator to implement and coordinate initiatives in this area (Regeringen, 2001).

When the plan was evaluated a number of positive outcomes were noted, some examples being that:

- The drug issue has been given higher priority and the coordination of initiatives has been improved on the national, regional and local level
- Most municipalities have expanded their initiatives against illicit drugs
- The treatment of drug users has been improved
- The control of drug-related crimes has been made more stringent.

In November 2005 the government presented a new 5-year National Action Plan against narcotic drugs, which was adopted by the Swedish Parliament and runs from 2006 until 2010 (Regeringen, 2005, Government offices of Sweden, 2008).

The plan establishes that the overall objective of the drug policy in Sweden, i.e. a society free from illicit drugs, will remain unchanged and that political initiatives will be aimed towards the access and demand on drugs in order to:

- reduce the number of people who will start using drugs
- make it easier for more people with addiction problems to receive treatment
- reduce access to illicit drugs.

In the 2006 to 2010 action plan, certain measures are stressed as particularly important in order to:

- improve cooperation between authorities and between authorities and non-governmental organisations
- improve the preventive work, for example by developing methods and skills
- develop treatment and care
- make the control system more effective
- improve the methods of monitoring drug use development and society's initiatives
- develop the treatment perspective within the correctional system.

The work on the local level is considered crucial for successful results and the municipalities' work is emphasized. At the same time, more cooperation is needed within the EU and internationally. Children, young adults and parents are particularly prioritised target groups. The Government has allocated almost SEK 260 million

(28.2 million Euro) a year for 2008, 2009 and 2010 for work against alcohol and other drugs (Regeringen, 2005).

The policy governing the work in the areas of alcohol, narcotics, tobacco and doping includes a part on treatment. In the treatment of dependence and abuse, three overarching goals are set for the Government's work; i) higher quality, ii) greater equality and iii) increased access to support for groups that have difficulties in getting their interests considered (for example minority groups). Also in the sectors of correctional care, police, customs and coastguard the Government points to the need for improved contributions and cooperation between many sectors of society.

Public opinion

In two consecutive public surveys (2004 and 2005) the aim and strategies of the Swedish drug policy was investigated and received massive support.

In 2007 the United Nations Office of Drug and Crime (UNODC) presented an evaluation of the Swedish drug policy stating "...in the case of Sweden, the clear association between a restrictive drug policy and low levels of drug use is striking..." (UNODC, 2007).

National coordination

In 2007/2008 the Government established a function to coordinate issues regarding alcohol, narcotic drugs, doping and tobacco (ANDT). The function has three main components:

- the SAMANT working group
- the ANDT Council
- the ANDT Secretariat

The aim of the SAMANT working group is to coordinate policy and work in various ministerial subdivisions and ministries on issues regarding ANDT. SAMANT is similar to its predecessor SAMNARK that principally dealt with narcotic drugs. Cooperation is important for ensuring that the direction exercised over the various government agencies will be effective and explicit to ensure the attainment of the overall objectives, such as a society free from illicit drugs. Regarding narcotics, narcotics policy is included in the remit of four ministries: The Ministry of Health and Social Affairs, the Ministry of Justice, the Ministry of Finance and the Ministry for Foreign Affairs. The Ministries have different assignments:

Ministry of Health and Social Affairs

- Coordination in the Government Offices
- Health issues
- Preventive work
- Care and treatment
- Legislation on drugs control

Ministry of Justice

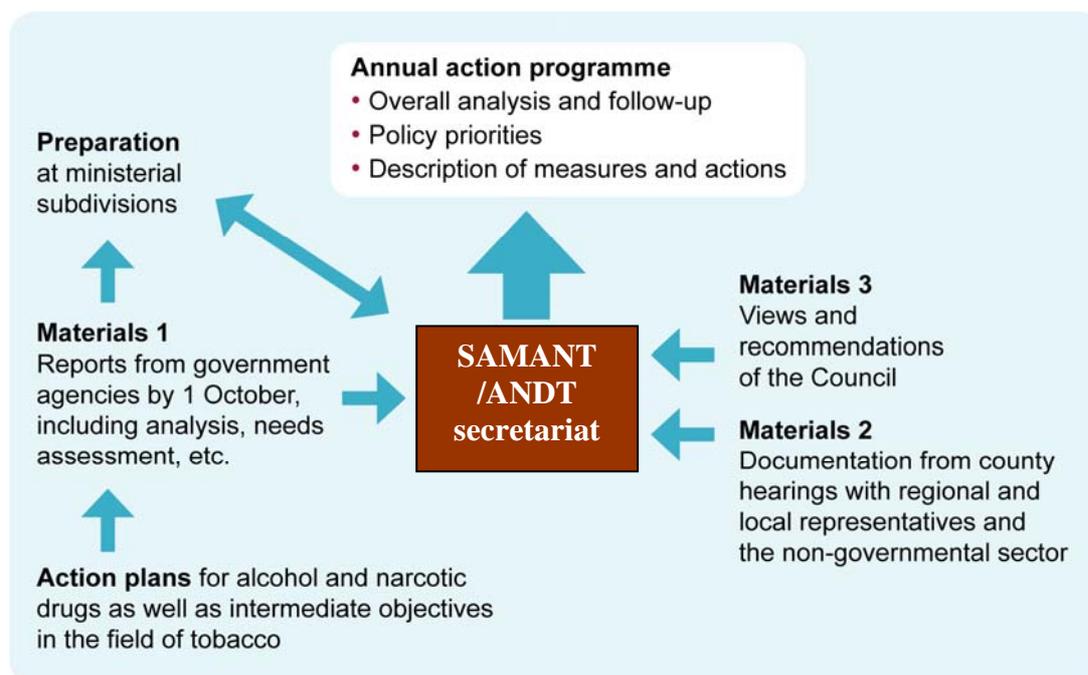
- Correctional treatment
- Penal law

- Police work
 - Ministry of Finance
- Customs issues
- Legislation on smuggling
 - Ministry for Foreign Affairs
- Foreign affairs and drugs-related development assistance

The duties of the Council on alcohol, narcotic drugs, doping and tobacco (the ANDT Council) include advising the Government on issues regarding alcohol, narcotic drugs, doping and tobacco as well as providing the Government with information about research and investigation findings of relevance to the design of policy in those fields. In addition to its chair, the Council has 20 members, all of whom represent central government agencies or civil society. Some of its members are researchers. The Council is chaired by Ms Ragnwi Marcelind, State Secretary at the Ministry of Health and Social Affairs.

The Secretariat on Alcohol, Narcotic drugs, Doping and Tobacco (the ANDT Secretariat) is part of the Public Health Division and placed under the Ministry of Health and Social Affairs. It carries out secretariat duties for both the ANDT Council and SAMANT. One of its duties is to draw up the annual action programme in its area and compile a follow-up and evaluation of the work done to attain the objectives set. It has also been given the tasks of assisting the Government and facilitating and inspiring the efforts of local and regional actors to implement the national action plans concerning alcohol and drug policy, and help fulfil society's objectives in the area of tobacco.

Figure 1.1. An illustration of the national co-ordination, analysis and governing structure in the areas of alcohol, narcotic drugs, tobacco and doping.



Drawing up the annual action programme is the main task of the ANDT Secretariat. This programme summarises Government policy in the areas of alcohol, narcotic drugs, doping and tobacco. It will contain an overall analysis and follow-up of developments in these fields. It will also indicate the orientation of policy and describe on-going measures and actions. The development of the action programme is illustrated in the figure above. The materials on which the programme is based derive from several sources: the ministries concerned, the Council established by the Government, various government agencies and documentation of outreach activities at the regional and local levels.

The Swedish National Institute of Public Health (SNIPH) has a central role in implementing the Swedish national action plans on alcohol and narcotic drugs covering the period from 2005 to 2010; SNIPH's tasks include supporting the county-level coordination functions of the county administrative boards in the areas of alcohol and narcotic drugs, and suggesting ways to ensure that the work carried out will also encompass doping and tobacco use. The SNIPH has also been given the task of supporting the health-promoting and preventive work carried out at institutions of higher education in the areas of alcohol, narcotic drugs, doping and tobacco. The SNIPH also has a duty to implement information campaigns to ensure that the objectives for the lifestyle issues of alcohol, narcotic drugs, doping and tobacco are met.

NBHW has been tasked by the Government with further developing, within its remit, efforts to attain the objectives laid down in the national action plans on alcohol and narcotic drugs. The NBHW will make use of the knowledge and experience gained through the work of the Alcohol Committee and the Office of the Swedish National Drug Policy Coordinator. This concerns skills, methodology development and cooperation mechanisms capable of promoting development towards knowledge-based substance abuse and addiction services where coordinated interventions are made based on the needs of each individual.

All government agencies monitor their work on a regular basis and report to the Government on developments.

Cooperation with the non-governmental sector

Non-governmental organisations (NGOs) give people a voice and help develop the services offered in society, among other things by detecting unmet needs – sometimes before others do. Their overall objectives are often the same as those of the government sector, for example in popular education or as regards social responsibility and public health. Members of NGOs may have direct experience of substance abuse – their own or that of close relatives – or of being vulnerable and living on the margins of society. NGOs also help increase diversity and expand the range of choices available to people by running important operations in various sectors of society.

The services offered in society will be enhanced by the development of an even wider diversity of service providers as well as by the encouragement of innovation and alternative methods in various fields. The Government intends to review the conditions under which certain organisations in the social field may receive government grants as well as the feasibility of offering such grants. At the same time,

the Government is striving to offer the non-governmental sector more opportunities to exercise influence over important processes, one example being so called “Drug User Councils”.

Legal Framework

Laws, regulations, directives or guidelines in the field of drug issues (demand & supply)

In 2006, the government appointed a special investigator (Regeringen, 2006) to review the laws concerning illicit drugs in Sweden. One reason for this was the increase of new (legal) substances entering the market, substances with similar effects as narcotic drugs or as precursors, but not yet regulated.

The review was completed in late 2008 (SOU 2008:120) and includes proposals on statute changes or other improvements of current system. The review constitutes the basis for the government bill that was presented during the autumn of 2010 (Regeringen, 2010). Among other things, the bill contains the following proposals:

- a new law on the destruction of certain dangerous substances. A police officer or customs officer finding a suspicious substance shall be able to confiscate the substance pending a decision by a prosecutor concerning its destruction. The purpose is to prevent the spread of dangerous substances that are to be classified as narcotics or products dangerous to health.
- the Swedish National Institute of Public Health shall have the right to purchase products that are sold on the Internet and have them analysed to investigate their content and active substance. This will improve monitoring, investigation and regulation of new substances of abuse. Where substances fall within the Medical Products Agency’s area of responsibility, the same regulatory framework shall apply.
- an increased maximum penalty for serious doping offences from four years’ imprisonment to six years’ imprisonment. Thus, maximum penalty for serious doping offence is approaching the maximum penalty for serious narcotics offence.
- a regulation in the Law on Control of Illicit Drugs (1992:860) enabling narcotics to be handled for industrial purposes. The purpose of this is enable regulation of GBL and 1,4-BD as narcotics.

The bill proposes that the legislative changes come into force on 1 April 2011.

Laws implementation

Classification of new substances

During 2009 ten substances were controlled as narcotic drugs according to the Law on Control of Illicit Drugs (SFS 1992:860) and the Narcotic Punishment Drugs Act (SFS 1968:64) and with that listed in the amendment to the Ordinance on Control of Narcotic Substances, (SFS 1992:1554): mephedrone, 4-fluoramphetamine, bk-PMMA and the seven synthetic cannabinoids: CP47,497-C6; CP47,497-C7; CP47,497-C8; CP47,497-C9; JWH-018; JWH-073; HU-210.

No substance were added to the list relating to the Act on the Prohibition of certain Goods Dangerous to Health (SFS 1999:42) during 2009.

Up to the present (November) eleven synthetic cannabinoids WIN55,212-2; CP55,940; JWH-007; JWH-015; JWH-019; JWH-073(metyl); JWH-098; JWH-122; JWH-147; JWH-210 and (4-metoxifenyl)(1-pentyl-1H-indol-3-yl)metanon have been classified as Goods Dangerous to Health (SFS 1999:42) and listed in the Ordinance regarding the Prohibition of Certain Goods Dangerous to Health (SFS 1999:58) during 2010. 1-bzp and methylone were earlier listed as Goods Dangerous to Health and have been reclassified as narcotic drugs in 2010.

MDPV, butylone and the synthetic cannabinoids JWH-081; JWH-200; JWH-250; JWH-398 have been classified as narcotic drugs in 2010.

National action plan, strategy, evaluation and coordination

National plan and/or strategies

At the time of writing, the final documents are being prepared concerning a subsequent five-year strategy covering the years from 2011 until 2015. Since the strategy has not yet been adopted, only little information is available.

The strategy is similar to previous years as the main objectives includes a society free from narcotics and doping and decreased medical and social harm from alcohol and a decrease in use of tobacco. It also states that the overarching goals from previous national action plans remain.

The strategy has seven long-term political objectives:

- a decrease in the supply of narcotics, doping, alcohol and tobacco
- protection of children from the harmful effects caused by alcohol, narcotics, doping and tobacco
- no new users of tobacco, narcotics, doping and no one shall start using alcohol at an early age
- no one shall develop harmful use, abuse or dependence of alcohol narcotics, doping and tobacco
- increased access to health care and support of good quality for individuals with abuse or dependence
- a decrease in the number of dead or hurt due to own or others use of alcohol, narcotics, doping and tobacco
- the ANDT politics in the EU and internationally shall be public health based and restrictive

In politics, Ms Maria Larsson has national responsibility for alcohol, narcotics, doping and tobacco issues. She was given responsibility for these issues in 2006 as Minister for Elderly Care and Public Health. In the general election of 2010, the incumbent Government's mandate was renewed and Ms Larsson continued in her post. Her present title is Minister for Children and the Elderly, still under the Ministry of Health and Social Affairs

Implementation and evaluation of national action plan and/or strategy

For 2009 and 2010 the Government presented annual action programmes based on the 5-year action plan on drugs. The one-year action programme covers alcohol,

narcotic drugs, doping agents and tobacco and describes the priorities for the coming year and is more detailed and more specific than the full action plan.

In the action plan for 2009, certain measures were stressed as particularly important in order to:

- improve cooperation between authorities and between authorities and non-governmental organisations
- improve preventive work, for example by developing methods and skills
- develop treatment and care
- make the control system more effective
- improve the methods of monitoring drug use development and society's initiatives
- develop the treatment perspective within the correctional system.

The action plan for 2010 emphasizes the need for a long-term approach and continuity in the work. It is proposed that work then continue concerning indicated prioritised measures for 2009. The need is stressed to strengthen and develop collaboration and/or coordination within a number of additional areas:

- collaboration on action for children and young people at risk
- common starting points for collaboration in school
- collaboration to prevent and combat serious organised crime
- increased knowledge of doping and GHB
- alcohol and drugs on the roads
- marketing and selling on the Internet
- a dialogue for greater collaboration and coordination.

SNIPH was given the task of evaluating the action plan for the period 2006-2010 and presented its findings in January 2010. A final report was published in autumn 2010 (Statens folkhälsoinstitut, 2010b) In summary, a more negative development is foreseen for narcotics than for alcohol with increasing harm in the form of ill-health, mortality, and crime. While efforts to attain the goals in the area of alcohol have intensified, efforts in the area of narcotics have stagnated.

As stated in the evaluation report, the organisation of preventive work at the national, regional and local level is crucial to the development of national objectives in the action plans. The transfer of the operative tasks from the Alcohol Committee and Mobilisation against Narcotics to the regular authorities has created a clearer structure. At the regional level, impressions of the county drug coordinators' activities are all consistently positive. National support for coordination, as well as the support from the county drug coordinators at the local level, has had a positive impact. The number of coordinators funded by the municipalities has increased during the action plan period, but many municipalities cannot or will not prioritise this function.

The ultimate objective of the narcotics policy is a drug-free society. This objective is more of a visionary nature and has not been achieved. It should be emphasised that the restrictive narcotics policy long pursued in Sweden has radically reduced the use of narcotics and its harmful effects. Nevertheless, the overall assessment is that the trend during the period up until 2009 went in the wrong direction, with an increase in harmful effects in the form of morbidity, mortality and crime. The evaluation report

further states that the narcotics trend is difficult to interpret due to lack of reliable data.

Support in public opinion for all handling of narcotics to be criminalised remains very strong. However, opinion-forming work against narcotics was perceived as more active and visible when Mobilisation against Narcotics worked with the issues.

The spread of effective prevention methods to regional and local levels was stated by the evaluator to have worked well, although it was more effective in the area of alcohol than narcotics.

Statistics and follow-ups developed in both the alcohol and narcotics areas in 2006-2009. However, statistics are kept by multiple authorities, are divided and lack overall coordination. No national guidelines have yet been worked out for the follow-up and evaluation of local and regional efforts concerning implementation of the action plans. In accordance with the intentions of the action plans, knowledge of effective prevention methods has been distributed to the regional and local levels, and this support from the national level to the regional level is generally perceived as functional. However, the development of knowledge and method support was stronger in the alcohol area than narcotics area. Developing municipality-based, structured, long-term and coordinated prevention work has the highest priority in the action plan, but narcotics appear to be a neglected area in the municipalities where there is a need for greater support.

Funding for prevention

SNIPH has been commissioned by the government to allocate funding within alcohol, drugs, tobacco and drug prevention. The aim is that these funds will contribute to the implementation of national action plans on alcohol and drugs, including doping, and efforts to attain society's goals as regards tobacco.

Efforts to support local activities and projects carried out in cooperation with NGOs are prioritised. Basic research, data collection, aimed at mapping and monitoring developments in this area can also be granted funds.

An equal distribution of funds to the four activities is the aim but this must be weighed against the number and quality of the applications received.

In 2009, the SNIPH allocated a total of SEK 33 million (3.6 million Euro) to a total of 52 projects, distributed as follows:

Table 1.1. Distribution of funds to the ANDT-area allocated by the SNIPH in 2009.

Main Area	Amount (SEK)
Alcohol	21.2 million
Illicit Drugs	1.3 million
Tobacco	0.9 million
Doping	0.6 million
Alcohol/Tobacco	0.06 million
Alcohol/illicit drugs	3.3 million
Alcohol/illicit drugs/tobacco	2.2 million
Alcohol/illicit drugs/Tobacco/Doping	3.3 million
Total	32.86 million

The National Board of Health and Welfare also allocated, via the county administrative boards 6.7 million Euro (including administrative costs) to support projects aimed at preventing alcohol and drug problems in 2009. Some of the county administrative boards had money left from the previous year and a total of 6.9 million Euro was therefore allocated. In total 6.6 million Euro (excluding administrative costs) was allocated.

The supported projects were divided as follows:

- Approx. 2.7 million Euro for preventive projects
- Approx. 3.5 million Euro to early interventions directed towards children in families where substance abuse, psychiatric illness or violence are prevalent
- Approx. 0.4 million Euro to projects directed towards abused women with addiction problems.

In all, 314 projects have been given monetary support to work with alcohol and drug preventive measures.

- 137 projects have been supported to work preventively. The money has mainly been used for coordination, intervention in school and parental support. Municipalities, non-profit organisations, police and correctional treatment and public health, crime and drug preventive councils are the main cooperating partners here.
- 158 projects have been supported to work with early intervention for children, 64 of them aimed at children with parents with addiction problems. 36 are aimed at children in violent families and 50 at children in families with psychiatric illness. Cooperating partners in this group are mainly school, pre-school, after-school centres, health care and medical services, and non-profit organisations.
- 19 projects have been supported to work with abused women with addiction problems. Among other things, prevention and intervention methods have been developed. The main cooperating partners here are health care and medical services and women's support centres¹.

¹ Statens folkhälsoinstitut. (2009b). *Fördelning av medel till alkohol- & narkotikaförebyggande åtgärder 2009* (Registered document. Statens folkhälsoinstitut nr. HFÅ 2009/20). Östersund: Statens folkhälsoinstitut.

Other drug policy developments

A special investigator was appointed in August 2010 to map Sweden's international involvement in the area of narcotics. The investigator will submit proposals for how Sweden can promote the preservation of respect for the UN narcotics conventions and describe possibilities for better coordination and use of resources.

The narcotics problems belong to the challenges that require action at all levels: locally, nationally, regionally and globally. The global narcotics situation and the political and organisational prerequisites for the work are changing. New patterns of abuse are emerging. Narcotics are finding their way to Europe and Sweden along partly new routes. Young people of today are influenced not only by their local environment and the conditions under which they grow up but also by a wider surrounding world and the greater accessibility provided by the Internet. The narcotics situation in Sweden is to a great extent dependent on attitudes to and work against narcotics in other countries. It is therefore important, also from a national perspective, that we know about international prerequisites and conditions.

The investigator will for instance:

- map existing bodies and contexts for international collaboration in the area of narcotics and describe Swedish contacts and collaborative efforts
- identify how Swedish drugs policy can be conveyed within the EU and to other countries in a more coordinated way
- present proposals for how Sweden can promote the preservation of respect for the UN narcotics conventions.

Assistant undersecretary Ms Christina Gynnå Oguz has undertaken the assignment and will present her final report on 31 August 2011 at the latest.

Economic analysis

Public expenditures

Over the years, a number of different projects have tried to estimate the cost of the drug problem in Sweden. The results are shown in Table 1.2. As shown, the estimates have varied between 330 million Euro in 1991 up to a highest level of 1,474 million Euro in 2007.

Table 1.2. Previous estimations of drug-related public expenditure in Sweden.

Previous estimations: <i>Year of the estimate:</i>	<i>Sectors included:</i>	<i>Estimate:</i>	<i>Reference</i>
1991	health care, treatment, probation care, social service, the correctional system, the judiciary system, the social welfare system	330 million Euro	The Swedish National Audit Office 1993
1996	treatment, probation care, social service, the correctional system, the judiciary system, the social welfare system, police, customs	660 million Euro	Fölster and Säfsbeck 1999
1999	not clear	847 million Euro	The Swedish Commission on Narcotic Drugs 2000
2002	"All institutions dealing with drug users"	495-1,385 million Euro	Ramstedt 2006
2007	"All institutions dealing with drug users"	528-1,474 million Euro.	<i>Update of the 2002 estimate using the consumer price index</i>

Public expenditure in 2009

One of the problematic things about making these kinds of estimate is that the budget for many of the areas is a concern of the municipalities and not the state. The estimate of public expenditure for the drug policy consists of not one but several approximations. This year (2009) data has been collected through experts² in the field.

- According to the Swedish Association of Local Authorities and Regions, expenditure for hospitalisation of patients with drug related problems in 2009 amounted to 35.5 million Euro.
- According to the Swedish National Board of Health and Welfare, expenditure for research projects in the drug area amounted to 1.9 million Euro in 2009 and social care and support of drug users in the municipalities was calculated using the costs for 2008 updated against the consumer price index and

² Through personal communication with Mr Åke Zetereus, Ulf Malmström and Carl Orestedt at Swedish National Board of Health and Welfare. The data concerning costs for hospitalization were collected from Mr. Leif Lundstedt at the Swedish Association of Local Authorities and Regions. Expenditure concerning the drug use of individuals in the Swedish prison and probation service was collected from Geir Varlid. Expenditures for the Ministry of Health and Social Affairs was collected through Karin Sundström.

totalled 733.9 million Euro. Support to organizations and county councils for drug related projects was the same as 2007 i.e. 41.0 million Euro.

- According to the Ministry of Health and Social Affairs, the budgetary expenditure for the drug area totalled 28.9 million Euro in 2009.
- According to the Swedish Prison and Probation Service, the cost of alcohol and drug care was 34.6 million Euro.
- The costs for primary health care for drug users cannot be estimated or even approximated and there is unfortunately no information on costs for the legal system. This means that this year's approximation of the expenditures is a clear underestimation.

This under-approximation of public expenditure amounted to 873.9 million Euro in 2009. This is clearly within the confidence bands for the last years' updates of the figures from Ramstedt's 2002 estimate and also leaves room for this last figure to also be an under-approximation.

2: Drug use in the general population and specific target groups

Introduction

Concerning the general population, cannabis has been the only illicit drug studied regularly over the last years (2004-2009). The question on the use of cannabis is included in the annual public health survey conducted by the SNIPH. Before year 2004, data of the drug use in Sweden was mainly collected in the form of drug use assessments performed by the Swedish Council for Information on Alcohol and Other Drugs (CAN, Centralförbundet för alkohol- och narkotikaupplysning) in cooperation with SNIPH. However, the wording of the questions is not exactly the same and, consequently, the comparability can be questioned. What can be said is that Sweden, from an international perspective, is a low-prevalence country when it comes to both the experimental and regular use of illicit drugs.

The SNIPH has, however, recently (2008-2009) been conducting a very large-scale prevalence study both in the general population and among specific groups thought to be of higher risk. The methodology and results of this multi-faceted study are presented under each heading below.

A number of other regularly conducted surveys are also helpful in estimating the prevalence of narcotics use in various populations. Most of these surveys however, are directed to youths, with questions concerning use over the past 30 days, the past 12 months, and over their lifetime. The latter category is interpreted as temporary or experimental use, and use during last 30 days is interpreted as a more regular pattern of drug use.

Annual surveys are also conducted in class 9 (middle secondary school) and since 2004 in the second year of upper secondary school as well. Annual surveys among military conscripts ceased in 2007 due to changes in national recruitment methods.

In addition to these more regular surveys, several other local or temporally irregular surveys are conducted.

Drug Use in the general population (based on probabilistic sample)

Cannabis

Since 2004 data about cannabis use is collected by the SNIPH as part of the annual public health survey as reported above (Statens folkhälsoinstitut, 2010a, Swedish National Institute of Public Health, 2010) The cross-sectional method used in data collection implies that general trends should be considered as more important than differences between two following years. The total number of individuals selected is yearly around 20,000.

Table 2.1. Lifetime, last year and last month prevalence (%) of cannabis use in age groups year 2004 - 2009 for men and women (Statens folkhälsoinstitut, 2010a)

Age		Lifetime					
		2004	2005	2006	2007	2008	2009
16-64	men	17.6	15.5	15.6	16.4	14.6	18.5
	women	10.0	9.7	8.9	9.0	8.4	9.2
16-34	men	25.5	22.1	23.7	22.3	19.7	26.8
	women	16.3	16.0	15.3	13.8	13.5	14.9
16-24	men	23.4	18.7	16.2	15.5	11.8	20.6
	women	14.7	13.3	15.4	13.3	12.3	11.4
		Last year					
		2004	2005	2006	2007	2008	2009
16-64	men	3.0	2.8	2.6	2.8	2.6	4.3
	women	1.5	1.0	1.4	1.3	1.4	1.5
16-34	men	6.6	6.6	6.7	6.3	5.8	9.8
	women	3.8	2.5	2.6	3.3	3.6	3.8
16-24	men	9.6	10.2	6.2	5.9	4.8	11.1
	women	4.8	3.8	6.2	4.7	5.0	5.5
		Last month					
		2004	2005	2006	2007	2008	2009
16-64	men	1.2	1.2	0.9	0.8	0.7	1.5
	women	0.3	0.4	0.3	0.3	0.3	0.3
16-34	men	2.5	2.7	2.3	1.8	1.5	3.1
	women	0.7	1.8	0.9	0.7	0.7	0.8
16-24	men	4.0	4.7	1.8	2.3	1.5	3.8
	women	1.0	1.4	1.8	0.7	1.0	1.2

The table shows that the lifetime prevalence of cannabis use in the ages 16-64 decreased somewhat during the first part of the period among both women and men but did increase significantly between the years 2008 and 2009. In the ages 16-34 the prevalence was higher and both sexes showed first a downward trend in lifetime use but an increase between 2008 and 2009 as well.

For ages 16-24 a similar tendency was shown for men but women showed a less prevalent cannabis use 2009 compared to 2008. The difference between men and women was large and unstable between those years.

The prevalence of cannabis use last year showed a downward trend between 2004 and 2008 for men and a stable development for women in all ages. However, men did show a significantly higher prevalence 2009 compared to other years. Higher prevalence was shown for men than for women all years. The largest proportion of cannabis users (lifetime or last year), are in the ages 16-34 but last month prevalence was largest for the young aged 16-24.

A downward trend for men in the age 16-64 was reported in last month prevalence during the period but increased 2009. Women in those ages reported a more stable development. The difference between men and women in cannabis use last month was reported to be smaller 2008 than 2009. This divergence in the prevalence was due to an increase among men but not for women.

The overall trend of the male prevalence of reported recent cannabis use last month was decreasing from 2004 to 2008 but women showed a more stable development. The prevalence was largest among young men and women aged 16-24. Men showed a significantly higher proportion 2009 than 2008 but women did not. Alcohol use in the population has been stable from 2004 to 2009. Since it has been shown earlier that there is a co-variation between use of alcohol and cannabis the observed change in cannabis use between 2008 and 2009 was unexpected (table 2.1).

In summary, although there were small differences over time in cannabis consumption, some of the differences were statistically significant mainly due to the large sample.

Other drugs

The large-scale postal survey of the use of illicit drugs that was conducted in 2008 among 58,000 individuals between the ages of 15-64 in the Swedish population was presented in the NR and ST of last year. The results was published late 2010 in the report *Narkotikabruket i Sverige* [eng. The Use of Narcotic Drugs in Sweden]. An English version will be available in 2011 (Statens folkhälsoinstitut, 2010c).

Drug Use in the school and youth population (based on probabilistic samples)

School population

Also in 2009, national school surveys regarding substance use were carried out among students turning 16 and 18, which means that a majority were 15 and 17 years respectively since data were collected in March. The methods and results are presented in ST2.

The lifetime prevalence of any drug for 15-16 year old boys and girls were 9 and 7 percent respectively, which were 2 percentage points higher than in previous years. The last 30 days prevalence was 3 percent for boys and 1 percent for girls. Cannabis was by far the most common drug in the surveys among 15-16 years old, irrespective of sex.

Lifetime prevalence (2009) of ever having used an illicit drug among the 17-18 year old students was 18 percent for boys and 15 percent for girls and the last 30 days prevalence 5 percent and 2 percent respectively. All these figures were about the same as in the previous year. Among those who had used an illicit drug, the most common choice of drug was cannabis, but amphetamine and benzodiazepine were also reported. (Hvitfeldt and Gripe, 2009).

3: Prevention

Introduction

Organisational framework of prevention

Besides the governmental efforts (see Chapter 1), there was a so called “county coordinator” in each of the 21 counties in Sweden in 2009, with the role of supporting the preventive work with alcohol, narcotics, doping and tobacco (ANDT) in the region. Since 2008, the national responsibility for the county coordination is placed at the Swedish National Institute of Public Health.

In Sweden, the implementation of prevention is generally the responsibility of the municipality where the preventive efforts are often coordinated through by “drug coordinators”. According to *Länsrapport 2009* [eng. the County Report 2009] (Statens folkhälsoinstitut, unpubl.), about 75 percent of the 290 municipalities have been able to appoint local drug coordinators for the work on narcotics prevention (and about 80 percent for alcohol prevention) with governmental support. The same person often coordinates prevention efforts against different addictive substances.

On a local level, prevention efforts are normally summarised in a municipal policy for alcohol and drugs. In 2009, about 80-90 percent of the municipalities had such a political programme for alcohol and drugs.

In 98 percent of the cases, these programmes contained preventive measures, 60 percent contained access restriction, and care and treatment initiatives were included in 55 percent of the cases. In a survey, the municipalities were also asked about the extent they use evaluated evidence-based methods in their work against drugs. Of them, 38 percent stated that they often use methods that are evaluated and just over 15 percent said that they always use evaluated methods. A relatively large proportion (37 percent) stated that they do not know whether the methods that they used have been evaluated or not (Fender, 2006).

Monitoring tools

SNIPH annually distributes questionnaires to the local and regional drug coordinators to mirror the supervision of the alcohol and tobacco legislation, but they simultaneously give some information on illicit drugs and the preventive work at the local level. The support of municipal management is a key component of the preventive work. Indicators of the priority of drug prevention include the adaptation of a drug policy, the appointment of a drug coordinator and the allocation of funds for preventive work. The information collected through the aforementioned questionnaires is reported yearly in the “County Report”.

Evaluation of the action plan 2006-2010

As mentioned in chapter 1, SNIPH has evaluated the action plan 2006 – 2010 and published the results in a report autumn 2010 (Statens folkhälsoinstitut, 2010b). According to this report prevention work in the municipalities has become more structured and long-term; collaboration has grown; and more municipalities use

evidence-based methods. Broad alcohol and narcotics prevention efforts to foster the protective factors for children and young people have continued to be developed, including parental support programmes. A growing number of schools have a drug policy. A number of efforts have been made to support children and young people that are at risk in various ways. The proportion of children at risk reached by these efforts is still very small and motivates new strategies for reaching out to the target group. Overall, activities in alcohol and drug prevention work in the country increased during the period of the action plan, at the national level as well as at regional and local levels. Compared to the initial situation at turn of the millennium, there has been long-term build-up of expertise, where many more players are working with evidence-based methodology today. Prevention work has received more attention and is now broader in both public and non-profit organisations.

Universal prevention

As reported previously, drug prevention activities have increased continuously for a number of years. An effective structure has been built for the preventive work within the national action plan on drugs (2006-2010)³. National efforts have focused on research, development and the dissemination of preventive methods, regional coordination and local activities. SNIPH is responsible for the national coordination of prevention efforts in the areas of alcohol, narcotics, doping and tobacco. Supporting and developing regional prevention efforts are included in this assignment.

Results from the SNIPH annual questionnaires to the 290 local authorities indicate that the share of local authorities that cooperate with, for instance, the healthcare system, the police, restaurant owners and NGO's has not increased between 2008 and 2009, but rather slightly decreased. The level of activity, however, was approximately the same in 2009 as in 2008, with a small increase in school based prevention. Since all narcotic products are illegal in Sweden, the police's activities to reduce the supply at the local level are crucial. During 2009, the Police continued its commitment to fight the drug-related crime, which resulted in a higher number of reported drug offences (Polisen, 2010).

School

The school has long acted as the premier arena for preventing and reducing drug use among students during the school years as well as later in life. Swedish schools have a long tradition of offering education about alcohol, drugs and tobacco. Research has shown that school-based drug education is not likely to have any lasting effects, and as a result an increasing number of schools now focus on preventive programs instead. As reported previously, the School Project was completed at the end of 2007. In mid-2009, SNIPH was instructed by the Government to provide information on how Swedish compulsory schools' efforts in alcohol and drug prevention can be reinforced.

According to the County Report, the development towards more drug-preventive school-based programmes continued during 2009. The spread of the Social and Emotional Training (SET) method continued among the Swedish municipalities and was reported by half the municipalities. This method aims to develop children's social and emotional capacity. This promotes psychological health and prevents the use of

³ The National Action plan on Drugs: <http://regeringen.se/content/1/c6/05/33/44/c3f9abcd.pdf>

alcohol and drugs. A Swedish study of the method was conducted with a control group and showed positive effects on the promotion of aspects of self-image, including well-being and the hindering of aggressiveness, bullying, attention-seeking and alcohol use. The method “Komet för lärare (Skolkomet)” [Comet for teachers (School Comet)] is another example of a method that aims to develop children’s social and emotional capacity. According to the SNIPH County Report, the method was applied in about 20 percent of the municipalities in 2009. A Swedish evaluation of the method shows that the programme reduces behavioural problems among the pupils relative to a control group.

Motivational Interviewing (MI) is one of the methods that had the largest spread during the School Project. The MI method aims to encourage individuals to independently take a position and change certain behaviour. The method was spread by SNIPH to school healthcare staff, among others. According to the SNIPH County Report, training in MI had been provided to school healthcare staff in more than half of the municipalities in 2009, which means an increase from the previous year (Statens folkhälsoinstitut, 2009b, Statens folkhälsoinstitut, unpubl.).

Family

In recent years, there has been an increase in the number of municipalities that report on activities for parents for drug prevention. As previously reported, Community Parent Education (COPE) is one of several prevention methods focused on parents, and 40 percent of the municipalities reported having worked with the method in 2009 according to the SNIPH County Report. The method has been spread nationally by the School Project. The COPE method aims at giving parents of children of ages 3-12 years tools to understand and handle their children’s behaviour, strengthen the parents in their parenthood, improve the interplay in families and create supportive networks. The programme is built on empowerment and intends to inspire parents to find their own solutions to everyday situations. A Swedish study of the method was conducted with a control group and showed significant effects on the children’s problematic behaviour as well as the parents’ ability to handle the child, their experienced level of stress and their feeling of control in parenthood (Statens folkhälsoinstitut, 2009b). Parental programmes conducted to a lesser degree, i.e. reported by less than 20 percent of the municipalities are: FöräldraStegen [ParentLadder], Aktivt föräldraskap [Active parenthood], Nya STEG [New STEPS], De otroliga åren [The incredible years], Steg-för-Steg [Step-by-Step] and Föräldrakraft [Parent Power] (Statens folkhälsoinstitut, 2009a).

Community

An important part of the work to prevent illicit drug use is to create and supply positive recreational settings. In Sweden, these activities usually take place in the non-profit sector. According to the SNIPH County Report, many municipalities cooperate with sports organisations, the temperance movement and various churches in the alcohol and drug prevention work. Sports organisations are the most common type of non-profit organisation that municipalities cooperate with. About 60 percent of the municipalities collaborated with sports organisations in alcohol prevention work in 2009 and 45 percent cooperated with them in prevention against narcotics. Many municipalities also financially support organisations with youth activities and, according to the County Report, about 45 percent of the municipalities

claimed an alcohol and drugs policy action plan from the organisations to allow the subsidy in 2009 (Statens folkhälsoinstitut, unpubl.)

Mentor Sverige [Mentor Sweden] is a method that aims at strengthening young people to resist drugs and violence. The mentor programme addresses young people between the ages 13 and 17 who want more contact with adults. The young people meet with a mentor a couple of times per month. Between 2007 and 2010, an extensive, controlled evaluation of the effects of the method was under way by Stockholm Prevents Alcohol and Drug Problems (STAD). Factors of study are youth consumption of alcohol and drugs, grades and peer relationships (Statens folkhälsoinstitut, 2009b).

As previously reported, the Swedish National Board for Youth Affairs (SNBYA) was commissioned by the Government to promote the development of preventive activities between 2006 and 2008, including drug-free meeting places, intended to prevent young people from getting involved in criminality, addiction and social exclusion. The final report of the project was presented to the Government at the end of 2008⁴. The final report shows that the commission conducted the distribution of grants of SEK 113 million (12.1 million Euro) to 229 different projects, the development of a review⁵ of public economic analysis of prevention activities for young people, national training of personnel working with young people and the arrangement of several seminars and conferences concerning the commission. The commission as a whole was externally evaluated⁶ and was judged to be a successful project that met its objectives, although more extensive activities are needed to reduce social exclusion (Ungdomsstyrelsen, 2008).

Most of the Swedish municipalities conduct activities to establish a drug free upbringing for children and adolescents and, according to the County Report, more than 80 percent reported organising drug-free activities in 2009 (Statens folkhälsoinstitut, unpubl.).

The Swedish Police Authority is also an important participant in the establishment of a drug-free environment and a common partner of municipalities together with the social services. The police work, for example, according to a method called the "Linköping Model" that focuses on controlling drug use among young people. At the slightest suspicion of a young person's drug use, the parents are contacted and the district-level narcotics police make a visit to the youth's home (usually together with a representative from the social services) (Statens folkhälsoinstitut, 2009b, Polisen, 2010). About 90 percent of the Swedish municipalities report cooperating with the police in matters of illicit drugs.

⁴ Final report:

http://www2.ungdomsstyrelsen.se/butiksadmin/showDoc/4028e5951d76f57e011d76f59b2d0002/insatser_for_un ga.pdf

⁵ The results are summed up in this report:

http://www.ungdomsstyrelsen.se/order_item/0,2568,,00.html?itemId=4028e595132a25c501132a311d7f0007

⁶ To read more about the evaluation: Kassman, Anders (2008). Mot en kunskapsbaserad ungdomspolitik? – Processutvärdering av Ungdomsstyrelsens satsning på förebyggande och främjande ungdomsverksamhet. [Towards knowledge-based youth policy? – Process evaluation by the Swedish National Board of Youth Affairs' endeavour with prevention and promotion activities for young people.]

Selective prevention in at-risk groups and settings

At-risk groups

Several projects are running in different parts of the country with the aim of early intervention when individuals are suspected of drug abuse. The previously reported Maria Ungdom Motiverande Intervention (MUMIN) [eng. Maria Youth Motivating Intervention] project is proceeding and has generated other cities to conduct similar activities. The police, as mentioned above, work with the "Linköping Model" based on the idea that they immediately contact the parents when children have had any kind of contact with illicit drugs. Another method directed at at-risk groups is the "Skellefteå Model". This method is founded on cooperation between the police, the social services and healthcare for addicts in connection with the apprehension of intoxicated drivers. The basic idea is that Drivers Under the Influence of Drugs (DUID) are most susceptible to receiving support immediately after the apprehension. Hence the DUID - directly after interrogation and the taking of samples – will be referred to an initial contact with the social services or healthcare services for addicts – preferably within 24 hours. The Swedish National Road and Transport Research Institute conducted a national evaluation of the method that was presented in 2009 (Vägverket, 2009). Approximately 85 percent of the municipalities reported using this method (Statens folkhälsoinstitut, 2009b).

At-risk families

Interventions for children living in families where one or both parents are addicted to either alcohol or narcotics have increased in recent years. In 2009, about 65 percent of the municipalities offered some group-based activity for these children according to the County Report (Statens folkhälsoinstitut, unpubl.) In a national survey carried out in 2010, local authorities in the municipalities were asked to report on various interventions at the local level to support children in vulnerable families. About 80 percent reported interventions for families with addicted parents, about 65 percent reported interventions for families where violence occurs and about 55 percent reported interventions for families with parents with mental disorders (Statens folkhälsoinstitut, 2010b). In 2009, SNIPH allocated SEK 75 million (8.14 million Euro) to children at risk.

In recent years, the numbers of Swedish municipalities that report offering programs for children at risk (preschool) have increased to approximately 30 percent. Some of the preventive methods that generally focus on all parents are also possible to implement on parents of children at risk, such as the COPE method mentioned above. Another example of a preventive method is the "Komet för föräldrar" [Comet for parents] for parents with children between the ages of 3 to 18. This method aims specifically at those who have children showing externalizing behaviour problems and who have additional difficulties establishing positive peer relations. The method has been spread nationally by the School Project and more than 30 percent of the municipalities report having offered the method to parents in 2009 previously reported, the method was evaluated in a Swedish study showing effects on reduced behavioural problems (Statens folkhälsoinstitut, unpubl.).

Recreational settings

Restaurants, bars and clubs are considered important settings for the fight against drugs. The previously reported project “Restaurants against drugs” was initiated and developed in Stockholm and a study published in the *Journal of Substance Use and Misuse* in 2007 shows that it has become more difficult for drug-impaired patrons to enter those nightclubs/restaurants that are involved in the project in Stockholm city (Gripenberg et al., 2007). In 2008 illicit drugs were less common in the restaurants in Stockholm, where the restaurants’ staff have taken a more restrictive attitude against drugs and where the staff significantly decreased their own consumption of illicit drugs (Gripenberg, 2008). The evaluation of “Restaurants against drugs” in Stockholm is on-going.

In 2007, the National Drug Policy Coordinator initiated a national venture in spreading this method and supported 11 municipalities in Sweden in efforts to prevent illicit drug use in recreational settings. The focus lay on mapping the illicit drug situation in restaurants, policy work and training of restaurant staff. The activities were expanded in 2008 to encompass additional municipalities. The national network now consists of representatives from restaurants and authorities in 21 municipalities. The network has a web page containing information about current activities and local studies and evaluations: www.krogarmotknark.se.

National and local media campaigns

”Testa dina gränser” [eng. Test your limits] is the name of a communication campaign on cannabis which was conducted during the autumn of 2010. It was aimed at 16-18 year olds with the objective to get young people to reflect upon their own attitudes toward cannabis, ultimately so that they would decide, on their own accord, to refrain from trying cannabis.

The campaign was conducted as a pilot project in ten municipalities in Skåne County in southern Sweden and was a joint effort between the Skåne County and municipalities together with SNIPH and CAN. The approximate cost for the campaign is SEK 2 million (217,000 Euro).

Medical, social, legal and ethical messages were sent out via a test on attitudes and knowledge, and on posters and banners. The increased use of cannabis in the Skåne region concerns many, thus creating much publicity for articles and press releases that were part of the operation.

Two student surveys were conducted - before the campaign start and at the end of the autumn term; the results of these will be included in the evaluation of the operation.

4: Problem Drug Use

Introduction

Individuals with a drug use that could be categorized as problematic are generally a hard-to-reach population which makes it difficult to arrive at a picture of population size and development. Sweden also lacks a well established definition of problematic or harmful drug use. In order to reach a more correct picture of the Problem Drug Use (PDU) population size, as well as their living conditions, three nationwide studies has been made; in 1979, 1992 and 1998. In these case finding studies data was collected through professionals that in their daily work met drug users, within the social services, healthcare, police, correctional system, customs and different treatment centres, including NGOs. The professionals reported, within a given time period, clients or patients that either injected drugs at some point during the last 12 months or used illicit drugs daily or at an almost daily basis during the last 4 weeks. Those meeting these criteria where classified as problematic drug users. Through capture-recapture calculations estimates were reached (Olsson et al., 2001).

In 1979 it was estimated that the population of problematic drug users in the country was approximately 15,000, in 1992 approximately 19 000 and 1998 around 26,000. This means an increase in nominal figures; a per capita figure however, would be more accurate since the general population did increase during the same time period. In 1979 there was, according to the above estimates, 1.8 PDUs per 1,000 inhabitants. In 1998 this figure did increase to 2.9 per 1000. Please note that the above figures refer to all ages.

It should be noted however, that there has been some differences with regard to data collection methods (e.g. inclusion criteria, sample size), as well as a changing attitude in society with regard to drug users on one hand, and of central gathering of data on the other. It can not be ruled out that these factors have had influence on the figures. In some respect the differences was dealt with in a re-analysis of data from the 1979 and 1992 studies (Olsson et al., 2001).

Prevalence and incidence estimates of PDU

Indirect estimates of problem drug users

As was briefly described in the 2009 national report, an indirect estimation of the number of problematic drug users in Sweden regarding the year 2007 was recently published (Svensson and Arvidsson, 2009) (for references, see Standard Table (ST) 7 and 8). We should be reminded however that the main purpose of this study was to develop effective methods which will be able to produce reliable estimates for a longer period of time. Hence it can be considered more of a methodological study than a per se estimation of problem drug use. In retrospect it can be concluded that it has shown to be rather complicated to find a stable model for this particular purpose. The main reason is that the extent of data available at a certain point in time is far from permanent.

The results presented here are based on the same source as was the latest national report. The results are discussed more in detail in this report, however.

Method

The method used in this study falls in the category of Truncated Poisson Models. As we know, basic assumptions are a) a closed population b) a homogenous population and c) the probability of being included in the sample is constant over time.

A somewhat artificial way to meet the first assumption is to study a delimited time period. The second assumption is met through a stratification of the study population into strata where individuals are thought to be more alike. The assumption hardest to meet in this particular study is the third, regarding the probability to be included in the sample. Since prison records is part of the sample⁷ the probability of being included do vary since being imprisoned during the inclusion time frame do have a profound effect on the probability of entering the record more than once.

The use of data from the correctional system was motivated by the fact that the primary aim of the study was validating data from earlier PDU-estimations based on in-patient hospital data, and some question marks remained with regard to what type of data where available from the correctional system b) the size of the overlap between the sources and c) the general validity of the hospital data.

Results

Data are stratified regionally, which is a way to meet one of the models assumptions mentioned earlier: Not only is this a mean of estimating a more homogenous population, it is also the geographic boundary for the county council administrations. The county councils are in fact responsible for the treatment system in each region⁸, and as such a seemingly obvious stratification variable. Another advantage is that a regional estimate is reached in the process, not uncommonly sought for by different actors.

⁷ Data from the correctional system also includes probation and intensive supervision.

⁸ The County Councils is governed by a political assembly, and administrates the treatment system, from primary care to emergency hospitals.

Table 4.1. Estimated PDU, per county, nationally and per capita. Year 2007.

County	Unique individuals in the in-patient registry (PAR)	Unique individuals in the correctional system	Estimated number of PDU	Estimated PDU per 1,000, <u>all ages</u>
Stockholm	2,536	417	6,408	3.3
Uppsala	299	57	797	2.5
Södermanland	230	82	1,148	4.3
Östergötland	294	113	1,107	2.6
Jönköping	360	76	849	2.5
Kronoberg	148	33	366	2.0
Kalmar	128	57	795	3.4
Gotland	68	6	212	3.7
Blekinge	95	43	511	3.4
Skåne	1,316	368	4,469	3.7
Halland	198	44	631	2.2
V:a Götaland	1,901	448	5,328	3.4
Värmland	190	109	1,099	4.0
Örebro	338	77	928	3.4
Västmanland	244	71	994	4.0
Dalarna	196	55	697	2.5
Gävleborg	238	74	1,068	3.9
Västernorrland	238	67	837	3.4
Jämtland	51	10	170	1.3
Västerbotten	238	47	596	2.3
Norrbottn	203	37	509	2.0
Sweden	9,509	2,291	29,513	3.2*

* Please note that the figure refers to all ages in the denominator, see ST7 and ST8 for further information. The estimate for the ages 15-64 is 4.9 per 1,000.

In total, the number of problematic drug users in the country were estimated at a rounded of figure of 29,500. This number is not directly comparable to the ones made previously in Sweden, this due to differences in both the data sources and the methods used. The national estimate relating to population was 3.2 with the “all ages” denominator and 4.9 with the 15-64 years of age denominator (see ST7 and ST8 for details).

One obvious advantage using the above method, in relation to earlier case-finding studies, is the possibility to be able to quite swiftly produce time series focusing on development, compared to sporadic studies that were undertaken in the past. The national in-patient registry dates back to the late 1980’s and is updated annually, and given it can be used for the purpose, is a valuable source in this context.

A clear disadvantage, on the other hand, is the fact that other relevant data may be non existent due to the design and content of the registry or registries. In a case finding study sought after information can be made more readily available for example; housing and occupational status, administration routes, drug markets, risk

behaviour etc. The above approach is not without interesting possibilities though. Through the personal identity numbers a lot of additional information can be made available, such as; mortality, socioeconomic data, health (in terms of registered illness). This would require a more rigorous study including a go ahead from ethical committee, among other things, and can not be done at a regular basis (Svensson and Arvidsson, 2009).

As was mentioned in the introduction, the idea of finding a fixed model that can be used on a regular basis to describe the epidemiological situation with regard to problem drug use might seem somewhat farfetched. There is a constant evolvement in society that influences what can be done in this area. The use of data from the correctional system also might infringe on the idea with one-sample methods, since it is two separate sources collapsed into one. It is also a rather complicated process acquiring data from the correctional system.

For a period of time data on drug related diagnoses has been gathered from the specialized out-patient treatment⁹, and collected in a national registry at the National Board of Health and Welfare. The data can be described as an extension of the in-patient data used in the prevalence estimations described above, in the sense that it is not uncommon that individuals moves between treatment modalities, such as in-patient and outpatient. Thus, it seems reasonable to believe that this additional data can be used to acquire a more adequate picture of the frequency distribution of treatment episodes. It is only in the most recent years this data is considered to be of reasonable quality (from the year 2008). In future studies of PDU-prevalence, this is a path that should be explored. This also shows with clarity the constant evolvement of the “audit explosion”¹⁰ and the increase of new data with potential bearing on the PDU issue.

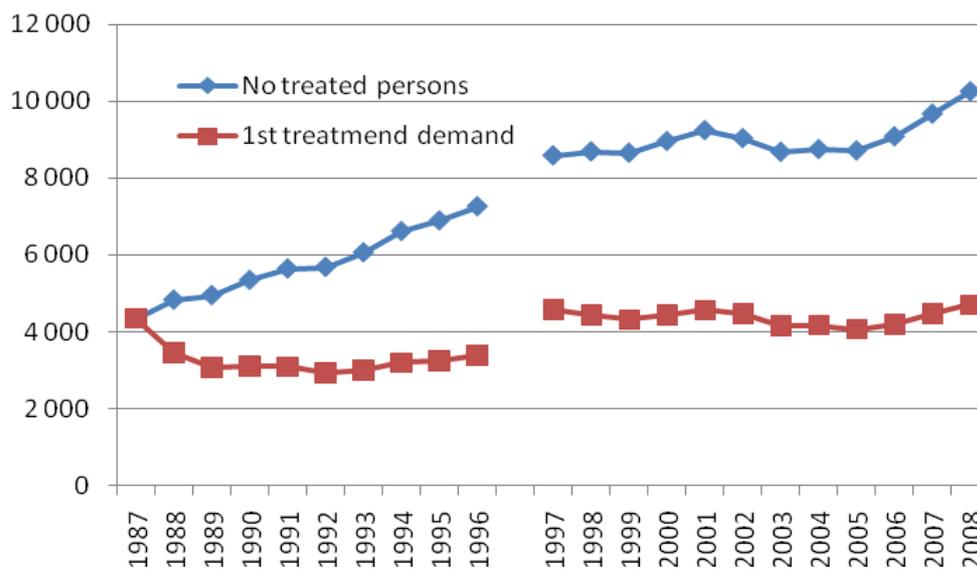
Estimates if incidence of PDU

The prevalence figure described earlier was based, to a large part, on data from the hospital in-patient registry. Since the figure can be described as a measure of point prevalence, there is no information about the incidence rate. If we refer to digitalized information, data in the registry dates back to 1987. Thus it is possible to describe the incidence rate for a relatively long period of time – sometimes also referred to as first treatment demand.

⁹ This refers to out-patient treatment given at hospital or private clinics.

¹⁰ The term audit explosion is from the book “The Audit Society” by Michael Power and refers to the constant increase of data available to us, in society in general, and the treatment sector is certainly no exception.

Figure 4.1. Number of treated in-patients, and 1st treatment demand, 1987-2008.



The figure above describes a timeline of 21 years and the leap between the time periods 1987-1996 and 1997-2008 refers to the International Classification of Diseases (ICD) 9 and 10 periods. There is a slightly higher level that can be contributed to the new coding system, and thus the separated time series.

The lower timeline (in red colour) is a description of persons that turns up for in-patient treatment for the 1st time since 1987 (defined in the same way as the cases in the PDU sample 2007, see ST7 and ST8 for details). What can be seen is that we are dealing with two periods with rather similar levels in terms of incidence rates. What should be noted however is the increasing trend that have been present since the last three years in the figure timeline and that the level of 1st treatment demand cases is at its all time high in 2008 (4,700). During the same period the population did increase in numbers, and the 1990¹¹ rate of 1st treatment demand was 0.36/1,000. In 2008 the corresponding figure did increase to 0.51/1,000.

Data on PDUs from non-treatment sources

PDUs in data sources other than TDI

CAN regularly assess the development of PDU in their drug reporting system (CRD), which involves informants from the 15 largest municipalities in terms of population size. The observation period was the second half of 2009, and the reference period the first half of 2009.

¹¹ In 1987 there is no possibility to control for previous treatment episodes, hence the sudden drop soon thereafter.

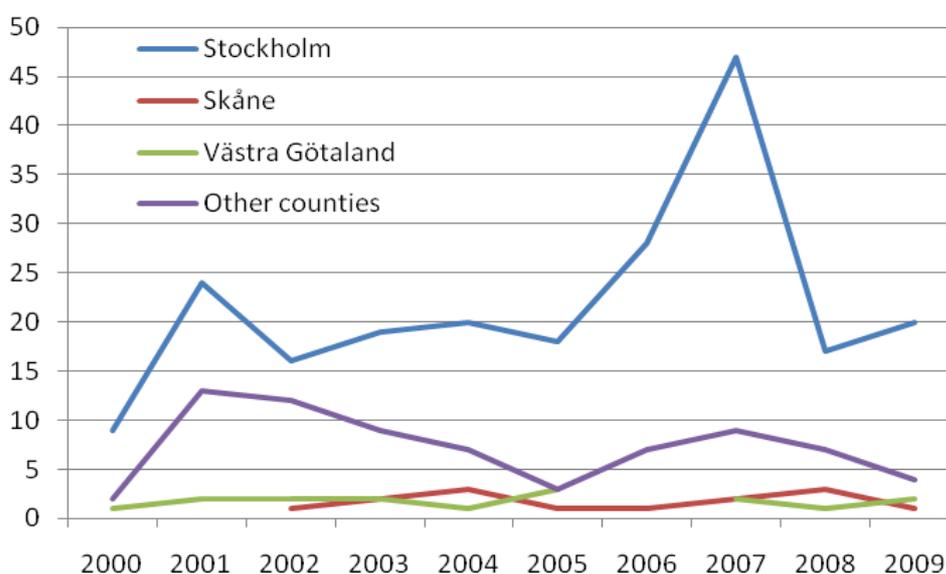
Table 4.2. Perceived changes in the number of problem drug users¹², local informants (CRD). July 2009 – December 2009

	Not occurring	Increase	No change	Decrease	Don't know
Problem Drug Use	1	14	96	2	16

Although not a randomized sample and with a limited coverage, this type of data can be a pointer of the development of problem drug use. The first thing to be noted is that PDU is prevalent at some degree in all 15 municipalities, and only one informant reported differently. With respect to the overall development, it is hard to draw any conclusions however. Even if there are a majority of the informants who report no change, the “don't know” involves quite a few informants. To sum up, the data does not contradict the development described earlier, and is more an indicator of the most recent development.

Data regarding blood borne infectious diseases can be both an indicator of PDU, and an indicator of the health situation among the users (health correlate). The development will be analysed more in detail in a different chapter, but some comments are made here as well.

Figure 4.2. Number of HIV-cases reported 2000-2009 with intravenous drug use as transmission route. Source: Swedish Institute for Infectious Disease Control



In figure 4.2 the 2006-2007 outbreak of HIV among IDUs in Stockholm is quite apparent. Even if the levels now are down to the levels that existed before the outbreak, the crude rate is higher than in other regions, with a risk for new outbreaks.

In 2007 the Human Rights Council-special rapporteur, Paul Hunt, published a report about the state in Sweden. One important concern was the low availability of clean needles and syringes. In accordance with the Swedish law, it is left to the discretion

¹² All injecting drug use, or drug use that are daily or almost daily.

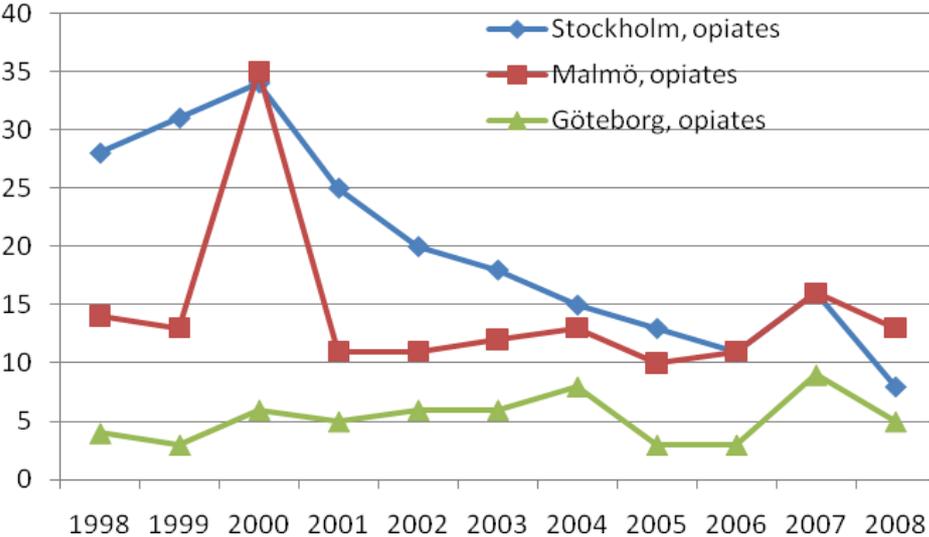
of political assemblies at local and regional level to decide about the existence of such programmes. At the time of the special rapporteur-report there were only two Needle and Syringe Exchange Programmes (NSEP) running in the country as a whole, one in Lund and the other in Malmö. At present day, a third programme has been set up and is running, in Helsingborg. These three municipalities are located within the same county council administration – Skåne. In Stockholm it has been decided that a NSEP-programme are to be set up, and could be expected to operational at some time next year. The programme is described as provisional and will be evaluated.

The law regulating the NSEPs also stipulates a minimum age of 20 years before entering the programme. Studies show that the average age of first injection may be below, or in the neighbourhood of the age limit, which leaves the younger IDUs at high risk.

Patterns of drug use in metropolitan areas

The most common drug among PDU in Sweden has always been amphetamine. This is still a fact, but recent mortality data has been used to shed some light on the situation in the three major cities, Stockholm, Gothenburg and Malmö. Questions have been raised regarding the relatively high drug related mortality in Malmö (in spite of having the only NSEP-programmes in the country) and the alleged uncommonness of heroine in the city of Gothenburg.

Figure 4.3. Numbers of drug related deaths involving opiates in the municipalities of Stockholm, Malmö and Gothenburg, 1998-2008.



Data on drug related mortality were extracted from the national Cause of Death Registry. The focus was on the three metropolitan municipalities, and not – something that is common – on the regional level. The problem with a regional analysis is that the cities are only a smaller, although densely populated part of more or less rural area.

The rate of total drug related mortality in the city of Malmö was 9.8 per 100,000 inhabitants, followed by Stockholm (6.5 per 100,000) and Gothenburg (6.2 per 100,000)¹³. There could be several explanations for this pattern, such as prevalence of drug use, prevalence of infectious diseases, access to health care etc.

Data on opiate drug related deaths¹⁴ for the three cities supports the idea that heroine is relatively uncommon in Gothenburg. It also supports the assumption that the higher levels of drug related mortality in Malmö, very well could be explained by the fact that heroine, with its higher toxicity, is more prevalent compared to the other metropolitan areas. If we are looking at the 11 year time period as a whole, the proportion of opiate deaths (as compared to the total number of drug related deaths) was 24 percent in Gothenburg, 31 percent in Stockholm and 47 percent in Malmö, thus placing the cities in a rank order where a high proportion of opiate cases coincides with a higher rate of drug related mortality.

¹³ Figures refers to the year 2008.

¹⁴ ICD-codes F11, and T40.1.

5: Drug-related treatment: treatment demand and treatment availability

Introduction

The treatment system

Drug treatment can be arranged by the social services in the local community (within ordinary service or at specialized units such as outpatient clinics), hospitals (detoxification or treatment for certain complications to drug abuse such as infectious diseases, i.e. hepatitis, HIV/aids, psychiatric symptoms, etc) or therapeutic communities. In severe cases drug users might be committed to an institution for compulsory treatment. Such treatment is arranged by the National Board of Institutional Care and it is regulated in the Care of Alcoholics, Drug Abusers and Abusers of Volatile Solvents Act, LVM. Still another treatment milieu is the prison and probation system. As roughly half of all prisoners have drug problems treatment for drug abuse is now offered during prison terms. Persons in detention often have acute abstinence symptoms, so all custodies has access to a physician to help with a detoxification procedure. After-care after a period in hospital, therapeutic community or prison is arranged by the social services.

Guidelines for treatment

The NBHW has published evidence-based national guidelines for the treatment of persons with substance abuse and dependence problems (also see Substitution treatment below) (National Board of Health and Welfare). The section on narcotic drugs deals with topics such as: abstinence treatment, specific treatments for use of cannabis, hallucinogens, stimulants, opiates, and also social support issues and ethical aspects of treatment. Other sections present evidence-based methods for

- prevention, detection and early/brief intervention,
- assessment and documentation
- pregnancy and substance misuse
- psychiatric co-morbidity.

Several regional conferences have been held to inform about the guidelines, and a special guide as a tool for the local implementation has been published. The guide stresses the need for close cooperation between health-care and social services in drug treatment.

Also for the drug users a guide to treatment has been published. It is a booklet titled "Your Rights and Options in Treatment and Care of Drug Addicts" aimed at informing substance users about how to get access to help. The booklet was produced by Riksförbundet för hjälp åt narkotika- och läkemedelberoende (RFHL) [eng. National Association for Aid to Drug Abusers], a client-oriented NGO, and the Swedish Association of Local Authorities and Regions and published in 2008. It addresses drug users directly and is published in 5 different languages, among them English (RFHL and Svenonius, 2008).

Responsibilities

From the above mentioned booklet the following information on the society's responsibilities when it comes to treatment for drug abuse can be retrieved:

“Municipalities are responsible through the social services for overall long-term rehabilitation. This is set out in the Social Services Act. The Social Services Act is an outline law. This means that it must be interpreted and it provides scope for individual judgments. Therefore it is not an absolute law governing rights – you can appeal against social services decisions in court.

Medical care is responsible for the treatment of withdrawal symptoms (detox) and psychiatry. It also provides maintenance therapy with methadone or Subutex. Medical care operates according to the Health and Medical Services Act, HSL, and the regulations of the NBHW. If you do not receive the care you want in time, for example, then you cannot appeal in court. But medical care still has far-reaching obligations to admit you. And once you are a patient, you have many rights. They must not refuse you admission in an emergency. Both laws emphasise that it is important that care is given on a voluntary basis - as far as possible.

Treatment of offenders is also responsible for the treatment and care of drug addicts, for example in drug free sections. Even if you are serving a sentence, you are covered by the principles and rights described in this booklet.” (RFHL and Svenonius, 2008)

Data collection for the Treatment Demand Indicator

Data collection for the Treatment Demand Indicator (TDI) is done by pooling data from a couple of separate information systems which all function on a voluntary basis. There is no legal obligation for treatment units to deliver TDI-data. There is an explicit goal for the National Board of Health and Welfare, which is responsible for collecting TDI-data, to make TDI the core element of all of these various systems.

One data-source is KIM (“Clients in Substance Misuse Treatment”), which is directly tailored from the TDI-guidelines, and which only collects epidemiological information from as many treatment units as possible that do not already belong to another information system. All known units have been asked to participate. Today KIM covers about 25 percent of existing units of inpatient and outpatient centre type from all regions of the country.

Another source is DOK, which is a system for quality development: assessment and follow-up of clients and the services provided. This system is integrated with KIM, and therefore contains all of the TDI-variables. About 130 units of inpatient and outpatient centre type, mostly in the southern part of the country, have joined this system, but not all of them deliver TDI-data.

A third source is a newly established “quality register”, called SBR (“Swedish Dependency Register”), specifically for substance-dependence treatment units – both inpatient and outpatient – in the health care sector. This system is also integrated with KIM/TDI. A few inpatient units have begun to register patient data in this system during 2009.

And finally, some data are obtained from units – mostly prison units – doing ASI (Addiction Severity Index)-interviews with their clients. Today ASI is not fully integrated with KIM/TDI, but work is going on to achieve this.

Strategy/policy

In the autumn of 2008, a comprehensive government investigation of substance misuse treatment was started, and is (due to a recently postponed deadline) to publish its final report by April 15th 2011 (Regeringen, 2008, SOU 2008:04). The mission is to make an overview of the whole of the Swedish treatment system – all services that are provided by the municipalities, the counties or the state, and includes both its content, availability, responsibilities, and organization – and to make suggestions for improvements (and possibly also re-organization of the treatment system). The goal is to establish a knowledge-based system for the treatment of persons with substance misuse and dependence, based on the needs of these individuals.

In January 2010 the commission issued a preliminary report titled *Bättre vård och stöd för individen: Om ansvar och tvång i den svenska missbruks- och beroendevården* [eng. Improved care and support for the individual] (Statens offentliga utredningar, 2010). On responsibility and coercion in Swedish care and treatment for substance abuse and dependence]. This report is intended to stimulate discussion on two central areas of development:

1. the respective roles and responsibilities of the municipalities and the counties in the care and treatment for substance abuse and dependence, and
2. the role and function of closed institutional care in the continued treatment for persons with substance abuse or dependence. Various conceivable alternative models are presented.

The commission's analysis of the Swedish treatment system shows several positive features, as for instance committed staff, a growing interest in knowledge-based methods, examples of successful local and regional cooperative solutions, implementation of national guidelines, plus a relatively large proportion of active private care-providers.

A number of problems have also been identified, which can be grouped into four areas: the individual's position and access to treatment, competence and quality, responsibility and ownership, coerced care and treatment. These problems call for a reconsideration of the public services, according to the commission.

After conducting a comparison with some other similar countries, the commission found that the Swedish system, with shared responsibility by two administrative bodies (municipalities/social services and counties/health care) is quite unusual. In most countries the main responsibility lies within the health care system, and only in Denmark it lies within the municipalities. The commission states that the present system needs to be changed, and presents three different models for discussion:

1. Keeping the present division of responsibility, but with a more clearly legally regulated responsibility for certain functions in the chain of treatment services.
2. Placing the responsibility for most of the services within the municipalities/social services, except for in-patient abstinence treatment.

3. Placing the responsibility for most of the services within the counties/health care, except for social services in the form of housing, employment and provision.

The commission also makes propositions in order to strengthen the individual's position in cases of coerced care, and to make this type of treatment more flexible and meaningful to the client.

Characteristics of treated clients and trends in number of clients in treatment

The overall picture

Data on treatment for problematic or heavy drug use is reported in TDI (ST 34). This year, data is available from a higher number of reporting treatment centres than in previous years. In 2009 the reporting system covered 51 percent of all inpatient and 31 percent of all outpatient treatment centres.

One third (1,694 patients) out of the total of 5,071 clients who were reported came into treatment for the first time. The main drugs of choice by new clients are cannabis and amphetamine, closely followed by the summary category "other opiates".

Most IDUs in the population of new clients use amphetamine. For all clients undergoing treatment, the use of amphetamine is most prevalent, followed by heroin. The prevalence of amphetamine IDUs are higher than the prevalence of heroin IDUs.

By substance used

The distribution of drugs has changed somewhat compared to data for the clients that were reported from treatment units in 2008: cannabis is now more frequent than heroin.

Amphetamine is still the most commonly used drug (28 percent) among the reported drug clients in treatment outside prisons, followed by cannabis (23 percent), heroin (17 percent), other opiates – analgesics and buprenorphine (12 percent) and benzodiazepines (11 percent).

Cocaine use is rare (2 percent) among treated clients, and crack cocaine is nearly non-existing in this population, as is also methadone, ecstasy and hallucinogenes.

By centre types

Inpatient treatment centres reported 2,713 cases and outpatient units reported 2,358 cases in 2009. The pattern of distribution of primary drugs differs markedly between the various treatment centre types. The most common primary drug in inpatient treatment centres is amphetamine (34 percent) and in outpatient treatment centres cannabis (34 percent).

6. Health correlates and consequences

Introduction

The surveillance of communicable diseases in Sweden is carried out by the Swedish Institute for Infectious Disease Control (SMI), in close collaboration with the County Medical Officers of Communicable Disease Control. The basis for this surveillance is the registration of approximately 60 notifiable diseases listed in Communicable Disease Prevention and Control Act (SFS 2004:168) and the Communicable Diseases and Prevention Ordinance (2004:255). Physicians are obliged to notify cases (diagnoses) of the listed pathogens and notification is done in parallel to the SMI and the County Medical Officers, both by the clinicians and the laboratories.

The surveillance data are collected and analyzed, with the help of a computerized reporting system, SMI-net. After further data processing and analysis, the surveillance information is fed back via a webpage, the Yearly Report of Department of Epidemiology, and the weekly bulletin EPI-aktuellt (in Swedish). Longer reports are published in the bimonthly periodical Smittskydd (also in Swedish) as well as in the biennial United Nations General Assembly Special Session (UN-UNGASS) report. Unfortunately, due to legal reasons, SMI-net can't collect behavioural surveillance data, which limits its capacity to monitor trends in risk behaviours over time.

In late 2009 collaboration was established with InfCare, a national quality register within the health care system for HIV care in Sweden. InfCare was launched in 2004 and since 2008 all known HIV patients in Sweden are included in the system which also incorporates all HIV clinics. A more comprehensive system is under construction and will be operating fully in early 2010. This system will, among other things, be able to systematically collect treatment data which include newly infected people coming from foreign countries. It will be possible to establish if and when they received a health check on entry into Sweden. Information extracted from the system for monitoring purposes is anonymous, according to current laws.

In 2010, the HIV/Aids and Sexually Transmitted Infections (STI) unit at the NBHW, working with the overall prevention work for HIV/Aids and STI on national level moved to the SMI. Apart from the overall preventive work, the unit also works vertically and in-depth with the most common most at risk populations (MARPs).

In relation to the most at risk group, IDU, the activities of 2010 has focused on developing a comprehensive national 2nd generation surveillance systems in order to further enhance the capacity to monitor both biological and behavioural surveillance for the IDU group. This as a compliment to the core biological surveillance carried out by the SMI (see above). This work was initiated in 2009, however, due to the move of the HIV-unit, much of the work has been postponed to late 2010, early 2011. The current sentinel system running comprises of nurses who systematically tests, vaccinates and provide in-depth counselling to IDUs taken into custody and at the same time conducts a behavioural oriented interview targeting the IDU knowledge, attitude and practise. Since needle exchange only exists in one county council in Sweden and 80percent of all IDUs are estimated to be taken into custody over a 3

year period, the custody setting has been chosen for regular data collection. Furthermore an evaluation has concluded that the IDUs themselves appreciate counselling, testing and vaccination while in custody.

Drug related infectious diseases

HIV/AIDS and viral hepatitis

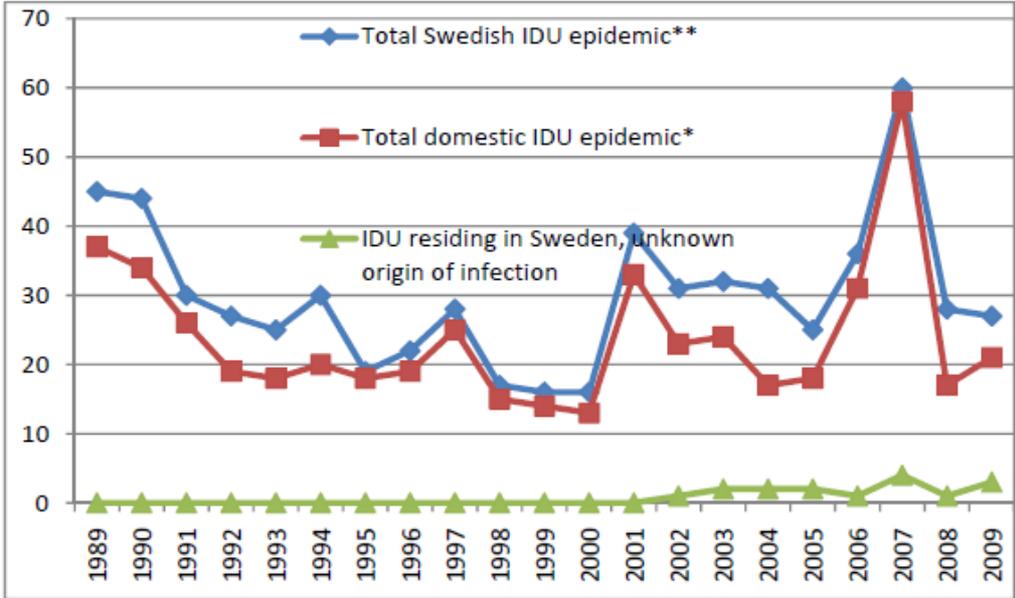
HIV

Sexually transmitted infections, such as HIV, is not reported by full identity to the authorities in Sweden. This means that Sweden has a very high level of protection for the individual identity, which also limits the possibilities to interpret the statistics and to follow individuals over time, leaving that it occasionally can be necessary to make minor adjustments to previously reported data.

Compared too many other European countries Sweden has a relatively small proportion of IDUs infected with HIV. During the last 5-10 years the proportion of IDUs among the newly infected in Sweden has been between 15 and 25 percent. Local studies have shown a prevalence of HIV among IDUs of between 0 and 8.4 percent (EMCDDA, 2009a).

By the end of 2009, a total of approximately 967 cases of HIV positive IDU had ever been detected in Sweden. Of the 27 HIV positive cases detected in 2009, six were infected prior to arrival compared to 11 cases in 2008 (of a total of 28). The 2009 figures are preliminary since the origin of infection of three cases at the time of reporting is unknown (figure 6.1).

Figure 6.1: Number of IDU testing positive per origin of transmission, 1989-2009.



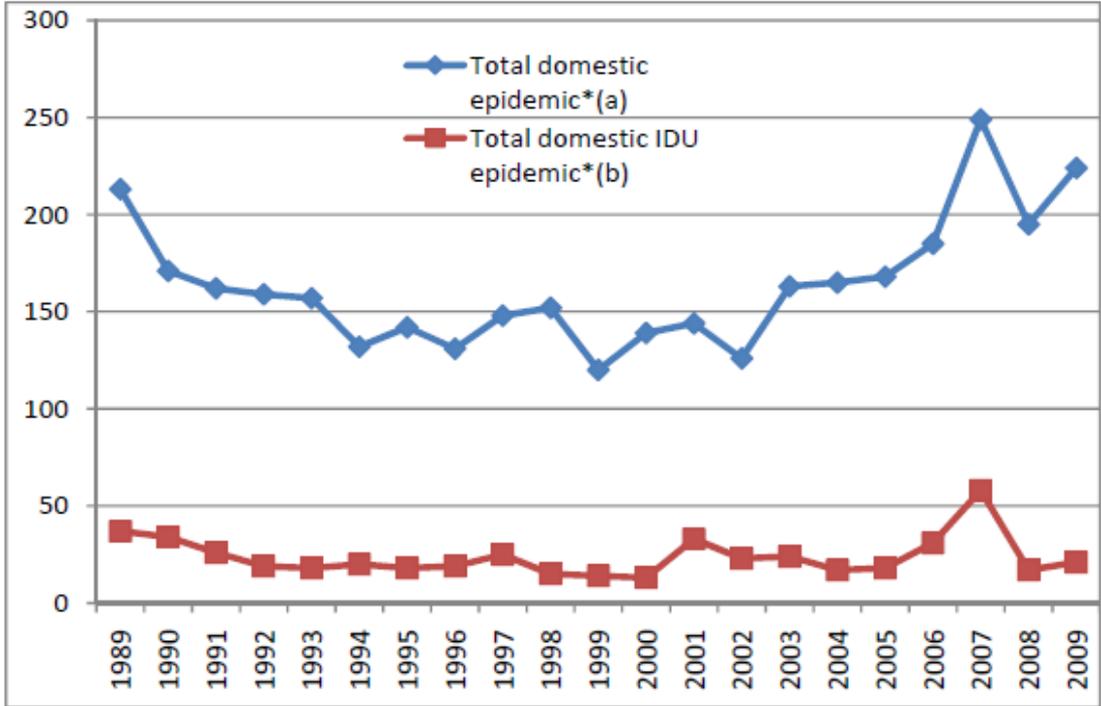
* The total domestic epidemic includes HIV positive people residing in Sweden when infected.

** Total Swedish epidemic includes all HIV positive people including people who are infected prior to arrival.

Source: SMI

In 2006 an HIV outbreak occurred in the domestic IDU population in Stockholm. As a response, intensified testing and other activities resulted in more HIV infected IDUs being detected in 2007. In 2008, the epidemic was reversed (figure 6.2).

Figure 6.2: Number of domestic IDU and General Public testing HIV positive, 1989-2009.



* (a) Total domestic epidemic includes HIV positive people residing in Sweden when infected.
 * (b) Total domestic IDU epidemic includes HIV positive people residing in Sweden when infected.

Source: SMI

Stockholm County Council

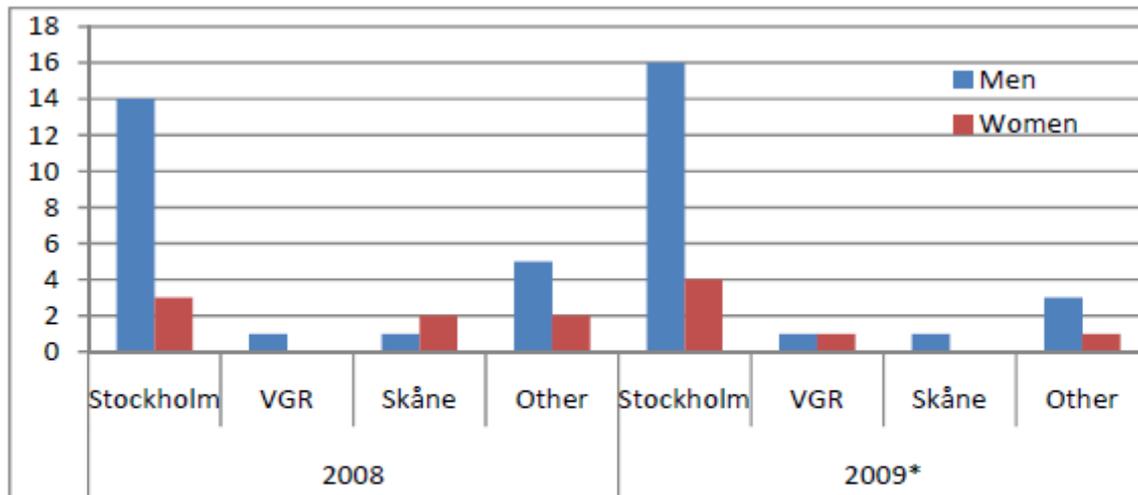
Between 2007 and 2008, a regional study was conducted in Stockholm (Hillgren and Britton, 2009). The aim was to interview, test and vaccinate IDUs and a total of 1,145 IDUs were identified. Of the 1,145 IDUs, 720 had injected sometime during the preceding 12 months. The mean age of the 720 IDUs was 40 years and 73 percent of them were men. Approximately two thirds had been to prison. The majority made their narcotics debut at 15 years of age and their intravenous debut at the age of 19. 75 percent used amphetamine as their first intravenous drug. Risk behaviour patterns were widespread within the population. 51, or 7.1 percent, of the 720 IDUs tested HIV positive of which approximately one third were new cases detected. 82 percent were HCV positive.

Skåne County Council

In 2009, the Malmö needle syringe exchange programme (NSEP) tested 749 active IDU participants (100 percent) out of which no new HIV infections were found. In 2008, the program tested 800 active IDU participants (100 percent) out of which no new infections were found. In 2009, 143 cases (114 in 2008) were registered in the program, however within the three month period before the obligatory HIV re-test was

scheduled, the participants dropped out of the program i.e. went into substitution therapy, went to jail, moved, died or quit their abuse etc. The NSEP and its preventive efforts has had a positive effect on preventing new HIV cases whereas Stockholm, without a NSEP, continues to have higher numbers of new HIV infections (figure 6.3).

Figure 6.3: Number of IDU cases testing positive per major county council, 2008-2009.



Comment: Data reported comes from the three major county councils (regions) in Sweden. 'Other' refers to the rest of the country. Cases are reported by county council of detection, which for some cases might differ from county council of infection. *Data for 2009 are preliminary.

Source: SMI

Hepatitis B and Hepatitis C

Both hepatitis B and C are classified as diseases dangerous to society and thus are obligatory to register. The "statistical" limitation with anonymous reporting as for the HIV statistics doesn't exist for hepatitis B and C.

Hepatitis B

In the beginning of the 21st century there was an outbreak of hepatitis B among intravenous drug users in Sweden. Following the outbreak vaccination activities were intensified at prisons and the 2005 vaccination recommendations for risk groups regarding hepatitis B were developed. Despite an increase in vaccination activities local outbreaks of hepatitis B among intravenous drug users are still being reported. This indicates that not all IDUs are being vaccinated and that the transmission of hepatitis B is still a problem in this group despite it being a vaccine preventable disease.

During 2009, 112 cases of acute hepatitis B were reported to the Swedish Institute for Infectious Disease Control, which represented a 37 percent decrease in cases reported compared to 2008. The decrease was seen in cases infected via intravenous drug use as well as in cases infected via sexual contacts. However, an analysis of cases reported since 1997 shows no significant decreasing trend for any of the transmission routes.

Hepatitis C

In Sweden the prevalence of hepatitis C among injecting drug users is very high. In various studies conducted during the last 15 years, the prevalence has been reported to be between 60 and 92 percent (EMCDDA, 2009b).

In 2009, a total of 2,215 cases of hepatitis C were reported to the Swedish Institute for Infectious Disease control, which represented a 12 percent decrease in cases reported compared to 2008. Intravenous drug use is the dominant transmission route and most cases are domestic. Seen in a longer perspective the total number of reported cases is decreasing. However, when looking by age group, no decreasing trend in cases infected via intravenous drug use is apparent in the younger age groups (15-19, 20-24, 25-29). This indicates that there is ongoing transmission of the disease among young intravenous drug users in Sweden. The trend analysis is aggravated by the fact that it is not possible to differentiate between acute cases and chronic cases of hepatitis C in the surveillance data.

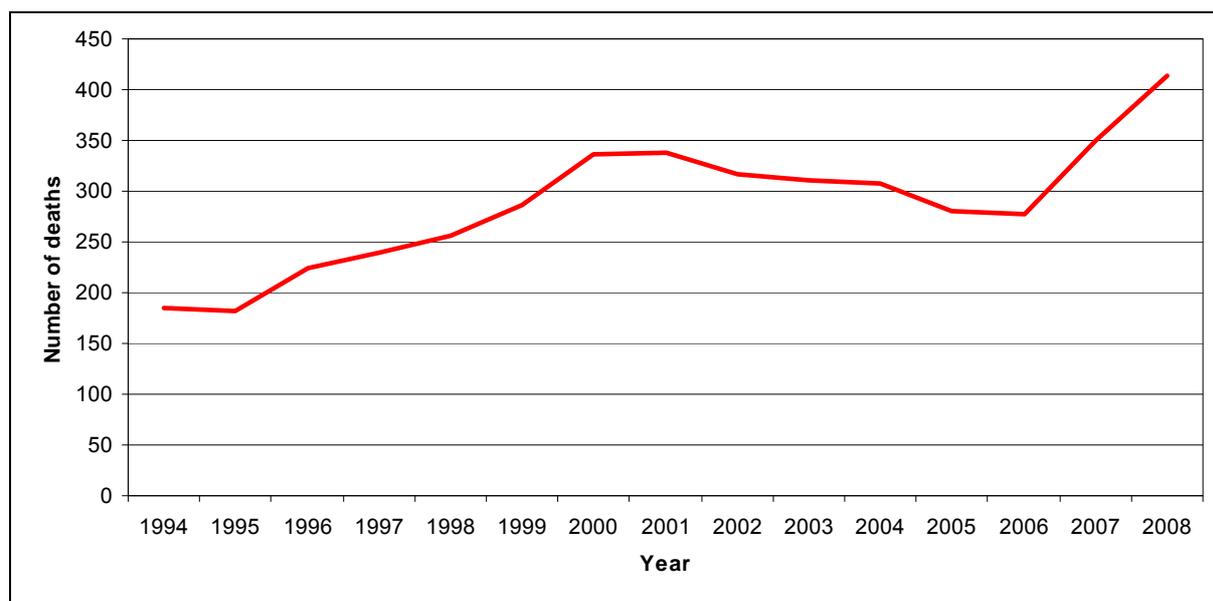
In 2009, the Malmö NSEP program tested a total of 910 out of 914 (99.6 percent) IDU participants for Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV) and in 2008, only one of all 891 participants declined an HBV/HCV test. In 2009, 84 new IDU entered the program - a few more than in 2008 when 79 new IDU entered. The mean age for the IDUs enrolled in the Malmö program varies from 38–41 years; however, in 2007 and of the 95 new IDUs who entered the program, the mean age was 26 years old, suggesting a breakthrough in reaching a younger and harder-to-reach population within the IDU community.

Drug related deaths and mortality of drug users

The mortality rate among people below the age of 50 is low in Sweden. In recent years, there have been a number of campaigns to further decrease the mortality rate from, for example, traffic accidents. There is also a “zero vision” for suicides. At the same time that other causes of death were decreasing, drug-related deaths increased substantially until 2000. After a decrease over a few years, the number of deaths is now rising again (figure 6.4)¹⁵. Today, drug-related death is the leading cause of death among young males in the large cities.

¹⁵ <http://www.fhi.se/Documents/Statistik-uppfoljning/rattsmedicin/Rattsmed-tox-reg-09.pdf>

Figure 6.4: Total number of deaths with illicit drugs present.



As described in Chapter 12, the conditions for creating a register and a system to monitor deaths related to illicit drugs are good in Sweden. As much as 93 percent of all violent deaths and intoxication fatalities among persons below the age of 65 are forensically examined and undergo toxicological screening for illicit drugs, alcohol and pharmaceuticals.

Registers based on drug-related deaths

The Swedish General Mortality Register (GMR) is of high quality, which means that it covers practically all deaths (99 percent) and there are few ill-defined causes. Two time series on drug-related deaths are based on the General Mortality Register – the national drug index (National Board of Health and Welfare) – and the index used when reporting to the EMCDDA.

Since 2004, there has been a research register based on forensically examined deaths where illicit drugs were found in the body. The register is called “Toxreg” and is a joint project between the Karolinska Institute, the Swedish National Board of Health and Welfare and the National Board of Forensic Medicine.

One aim of Toxreg is to provide rapid information regarding drug related mortality trends (not absolute numbers), as a complement to the GMR, that has a two year time lag. The information in Toxreg can be obtained as early as a few months after the death. In contrast to the illicit drug index in the GMR, there is both qualitative and quantitative information about illicit drugs, prescribed drugs and alcohol. The personal identification number makes it possible to link information from other registers, such as the Swedish Hospital Discharge Register or the Drug Prescription Register. Some months later it is possible to obtain the ICD-codes, as all forensic medical cases are given priority. This way, it is possible to get information about the prevalence of illicit drugs among different causes of death, such as traffic accidents or suicides.

In the future, information from Toxreg will be likely to supplement the illicit drug index based on the General Mortality Register.

Drug-induced deaths (overdoses/poisonings)

A comparison between different methods to account for deaths related to illicit drugs Today, there are three methods to account for drug related deaths in Sweden: the illicit drug index of the General Mortality Register, the illicit drug index reported to the EMCDDA and the Toxreg.

None of the registers covers all drug related deaths. One method to get a better estimate of the total number of drug-related deaths is to compare the registers and see how they overlap.

Both the GMR index and the EMCDDA index are based on the official cause of death register, which is based on ICD codes. The EMCDDA index uses a more narrow selection than the GMR index, as EMCDDA only uses underlying causes of death. Toxreg is based on toxicological data, which is obtained directly from the National Board of Forensic Medicine.

All three registers show a similar trend over time for drug related deaths (figure 6.5), and for the time period 1993 to 2007, there has been a study on an individual level of how the registers overlap (figure 6.6). There are a considerable number of individuals that are found either in Toxreg or in the GMR index. Practically all cases (except 4) in the EMCDDA selection are also found in the GMR index.

The EMCDDA index covers most of the opiate related deaths, 90 percent of the deaths with presence of 6-mam and more than half of the deaths with morphine only. These deaths constitute approximately 56 percent of all deaths in the EMCDDA index.

One conclusion of the comparison between the registers is that they show the same trend at somewhat different levels. The GMR index includes more elderly persons and more women than Toxreg and the EMCDDA index. Neither the GMR index nor the EMCDDA index includes all deaths with illicit drugs that are included in the Toxreg.

Figure 6.5: Drug-related deaths in Sweden according to three indices

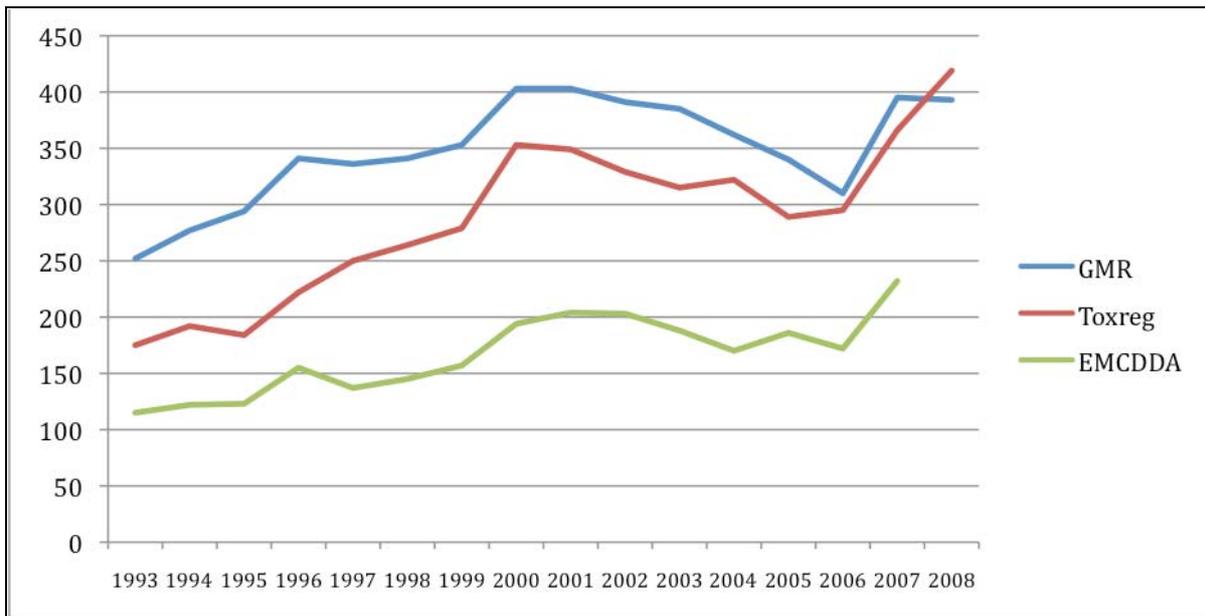
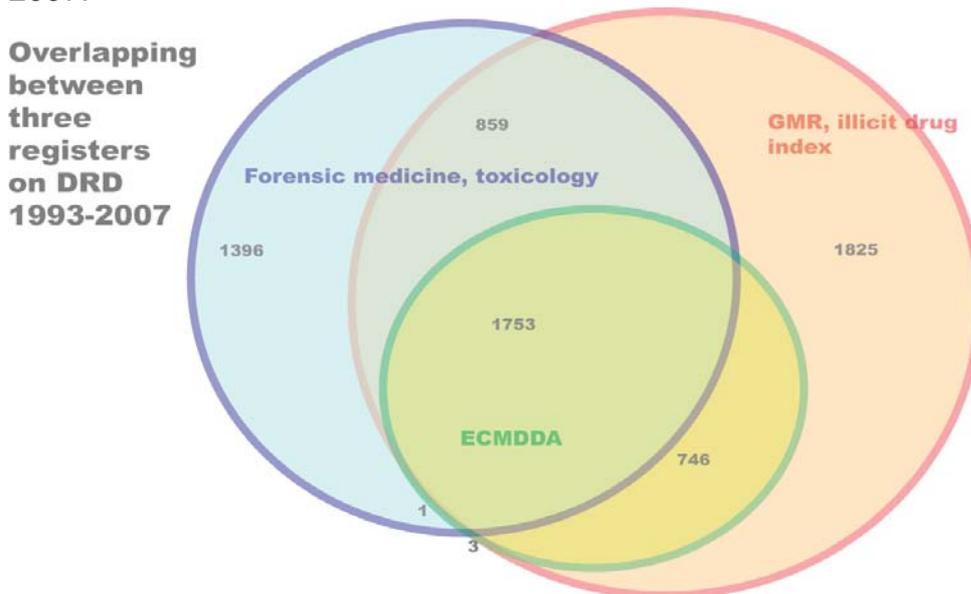


Figure 6.6: Overlapping between the three registers on drug related deaths, 1993-2007.



The number of forensically examined deaths with presence of illicit drugs and methadone and buprenorphine has increased over time (figure 6.7), and the number of males is considerably higher compared to females (figure 6.8). The annual number of forensic examinations has been at the same level during the entire time period.

Toxreg makes it possible to relate deaths to what type of drug was regarded most significant for the fatal outcome. Heroin-related deaths were most frequent in 2001, but have decreased and have been at approximately the same level in recent years. Deaths with the presence of methadone have increased in recent years (figure 6.9).

Figure 6.7: Annual number of forensically examined deaths with presence of illicit drugs and methadone or buprenorphine.

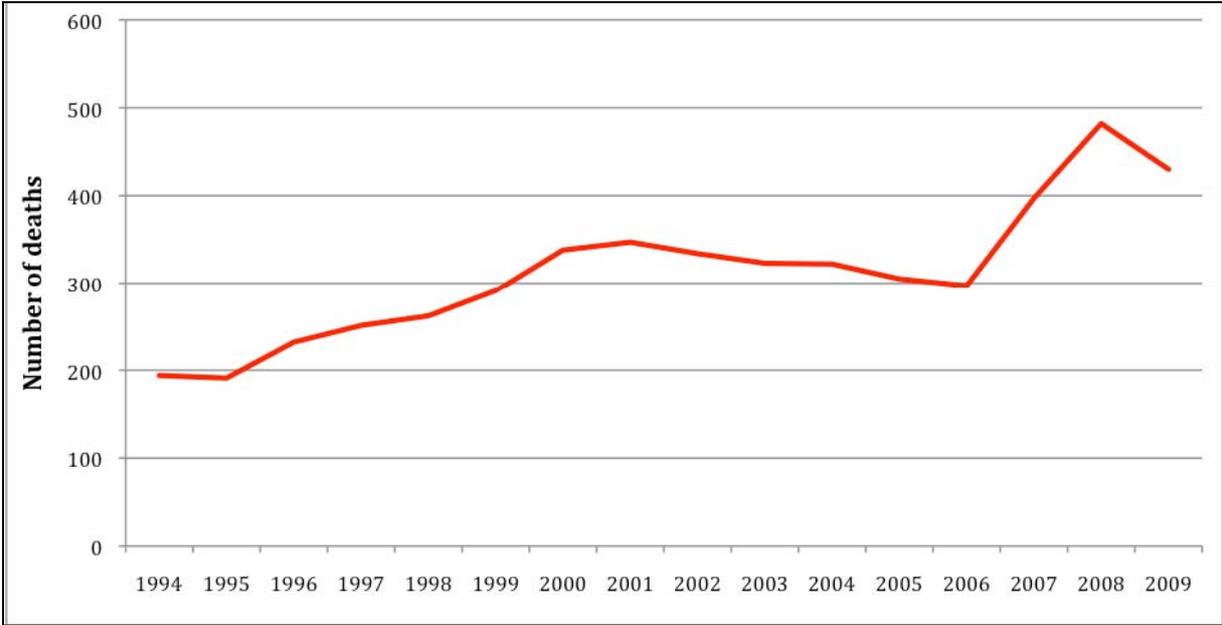


Figure 6.8: Annual number of forensically examined deaths with presence of illicit drugs and methadone or buprenorphine by gender.

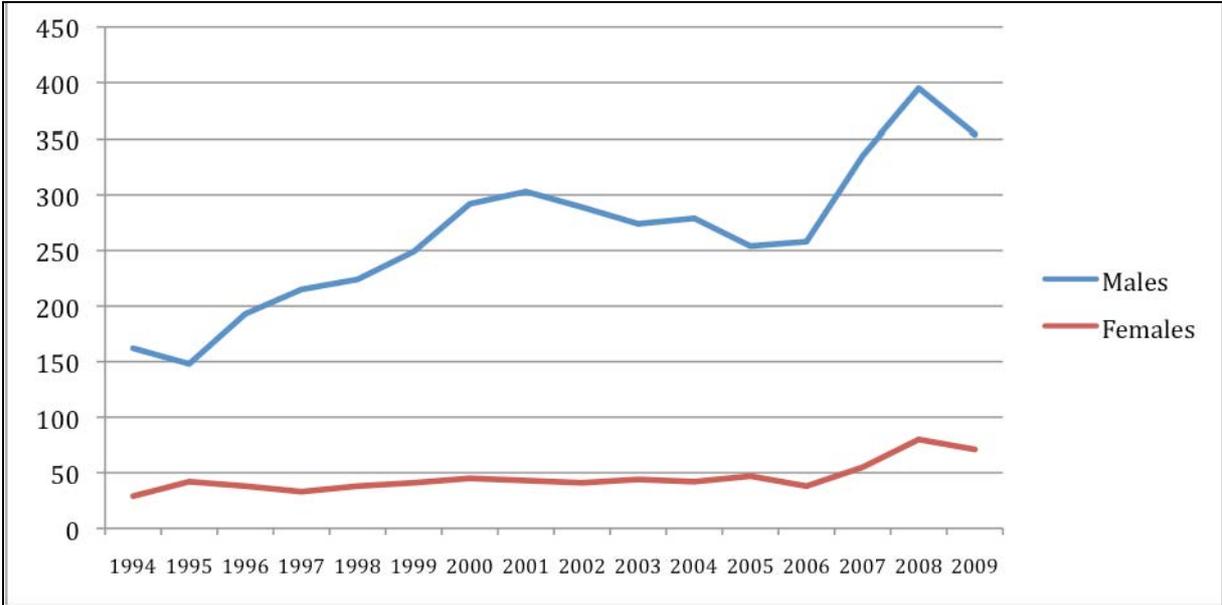
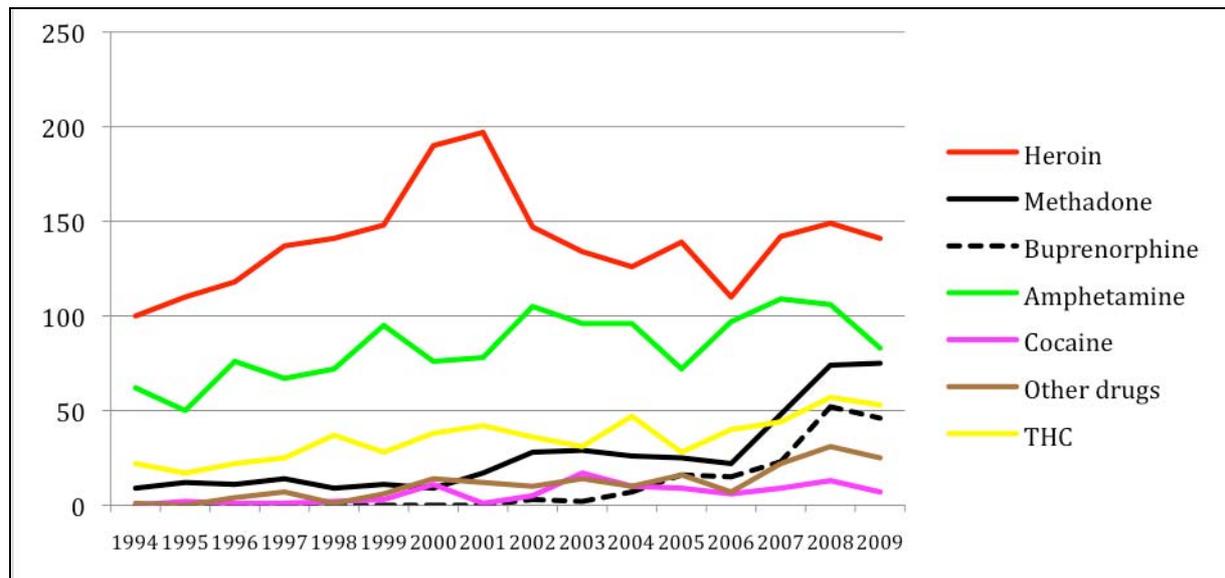


Figure 6.9: Annual number of deaths with presence of illicit drugs and methadone or buprenorphine divided in types of drugs.



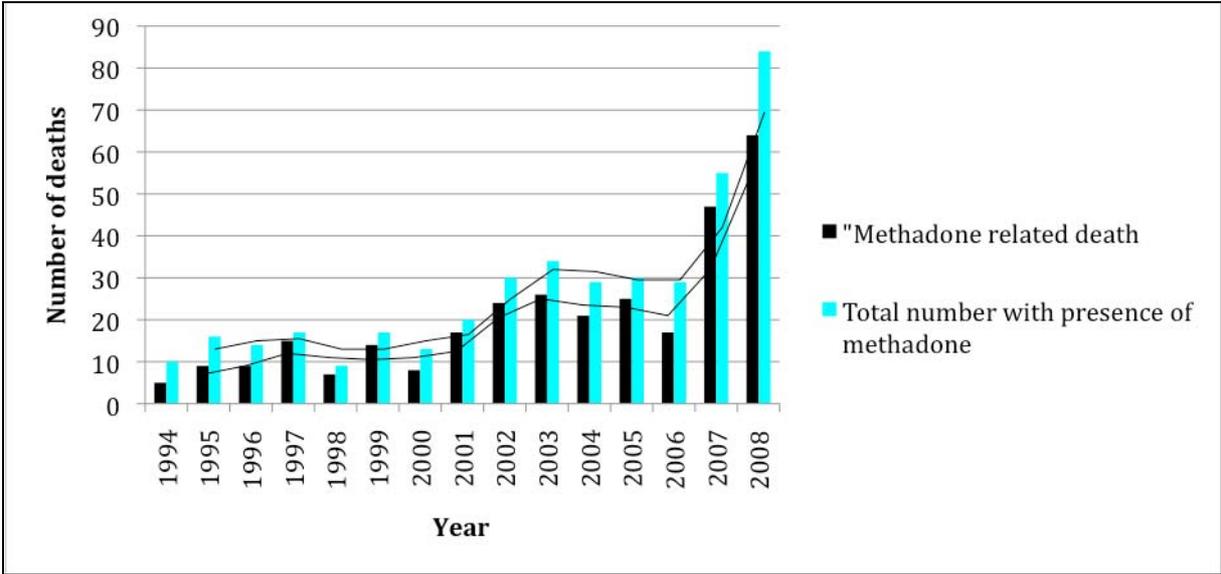
A study of deaths related to methadone

The number of deaths with presence of methadone in the blood has tripled during the period 2006-2008, and Toxreg has been used in order to study these deaths (Fugelstad et al., 2010). In the same period, there has been a rapid expansion of methadone treatment. In 2005, the regulations on substitution treatment were changed in Sweden. The previous restrictions on the number of people who were allowed to participate in treatment at the same time were removed. The number of new treatment units increased tenfold when a number of new programmes started throughout Sweden.

A forensic medical examination of the methadone related deaths shows that the majority involved mixed intoxication where the methadone played an important role. As the Swedish prescription register shows that 80 percent of the deceased persons had not obtained their methadone from any legal sources, methadone programmes or pain relief treatment, leakage from methadone treatment is a possible source.

Deaths that were assessed to be methadone related by the forensic medical examination follow the same trend as the total number of cases with the presence of methadone (figure 6.10). Thus, forensic medical analyses can provide reliable information on the development of the methadone-related deaths.

Figure 6.10: Deaths with presence of methadone and deaths where methadone is of importance for the fatal outcome.



Mortality and causes of deaths among drug users (mortality cohort studies)

A list of mortality cohort studies is detailed in the 2010 Selected Issue, Chapter 12.

Specific causes of mortality indirectly related to drug use

Available data is reported in detail in the 2010 Selected Issue, Chapter 12.

7. Responses to health correlates and consequences

Introduction

The national action plans on drugs (2002–2005, 2006–2010) have markedly vitalised the fight against drugs. The action plans have promoted tests and implementations of new methods and strategies, improved the quality, increased the resources and introduced new and specialised projects. As mentioned in chapter 1, a new national 5-year strategy dealing with alcohol, narcotics, doping and tobacco is proposed.

Prevention and treatment of drug-related infectious diseases

Needle and syringe exchange program (NSEP)

The first NSEPs were initiated in Lund and Malmö in the mid 1980s and run on a pilot basis by the Skåne County Council. NSEP was regularized in 2006, when a new Injection Needle Exchange Act (2006:323) entered into force, allowing county councils across the country to run NSEPs after authorization by the NBHW. The NSEP shall offer free HIV, Hepatitis B and C testing and be organized in such a way that the individual who takes part in the program can be motivated to addiction treatment and care. Only individuals 20 years or older can participate. Normally, clean needles and syringes can be distributed only in exchange of used ones.

As mentioned in chapter 4, it has been decided that a NSEP will be set up in Stockholm and is expected to be operational from 2011. The programme is described as provisional and is planned to run for four years. The programme will be evaluated.

Sentinel surveillance

Parallel to the NSEP efforts, the NBHW is developing a complementary SGS sentinel system for the IDU population and, indirectly, the SW MARP. An evaluation performed on the Socio-Medical Remand Project running in the remand prisons in late 2008 concluded that the project was successful in its realisation and suggested that it be integrated into regular activities. The project offers Voluntary Counselling and Testing (VCT), hepatitis B immunisation and monitors HIV prevalence, incidence and behavioural risk factors for sexual and IV transmission of HIV and hepatitis among IDUs. A very positive aspect of the project was the IDUs themselves who found the VCT sessions that were offered to be an opportunity for reflection. The project, now re-named The Swedish Prison Programme (SHP) is a joint collaboration between the county councils, the Prison and Probation Service, Karolinska Institute and NBHW. In 2009, a total of 259 IDU participated in the program.

Correctional facilities

The prison system in Sweden has no delegated obligation to provide inmates with health care. According to the Principle of Normality (1974)¹⁶ people in prison or in remand prison have the same right to health care as all the other inhabitants in Sweden and this should be provided by the county councils. However, due to security issues and for practical reasons, the Swedish Prison and Probation Service (SPPS) provides for such health care services. The health care in the prison system is, as all

¹⁶ http://www.kriminalvarden.se/upload/Informationsmaterial/The_Prison_Treatment_Act.pdf

other health care in Sweden, under the supervision of the NBHW. Most of the health care in prisons is provided by nurses specially trained in prison medicine, i.e. a specialization for nurses designed according to the special needs of the inmates. A part of this service is prevention of blood borne infections, for example HIV testing, hepatitis vaccination and special counselling. Everyone in Swedish remand prisons are offered VCT. In addition to regular VCT, the SPPS and the NBHW together with the county councils and the Karolinska Institute (KI), collaborate on the SHP program, intended as a sentinel surveillance system designed to offer VCT and vaccination to all IDU identified within the prison structure. During the period of imprisonment, additional disinfectants and condoms can be obtained from the prison health care service. However injection equipment exchange services are not available within the correctional facilities. Addiction and detoxification health services are available in the remand prisons system. Opiate maintenance or substitution therapy is available in certain prisons when the inmate has at least a 3-month sentence.

Hepatitis B

As mentioned in chapter 6, there was an outbreak of hepatitis B among intravenous drug users in Sweden with a peak in 2003. This led to intensified vaccination activities at prisons and the development of the 2005 vaccination recommendations for risk groups regarding hepatitis B. The effect of these programs and recommendations on the spread of hepatitis B among intravenous drug users is yet to be evaluated. Local outbreaks of hepatitis B among intravenous drug users are still being reported which indicate that not all IDUs are vaccinated and that the transmission of hepatitis B is still a problem in this group despite it being a vaccine preventable disease.

8: Social correlates and social reintegration

Introduction

Statistics and follow-up developed in both the alcohol and narcotics areas during the last year. However, statistics are kept by multiple authorities, are divided and lack overall coordination. No national guidelines have yet been worked out for the follow-up and evaluation of local and regional efforts in the scope of the implementation of the action plans. Nor has a coordinated national strategy for society's work with alcohol and traffic issues been developed.

Data on social exclusion is not collected and processed in a standardised way for official statistics. From research projects and special investigations information can be gathered, often for a limited cohort. Problem drug abuse and various forms of criminality, unemployment, homelessness, health problems etc. are all closely related and well known to the society. Nevertheless, data from Social Services' care for adults with substance addiction problems is collected on regular basis by the National Board of Health and Welfare but local drug services are split between many actors and the collection of statistics differ between various authorities.

During the last years the Swedish governments overarching political aim is to decrease exclusion through integration on labour market. The overarching aim of Sweden's national public health policy is to create social conditions that will ensure good health, on equal terms, for the entire population. Universal welfare policy creates the basis on which to prevent poverty and social exclusion and is therefore the foundation on which the Swedish action plan for social inclusion is built. Universal welfare contributes to reducing the gaps between different groups in society, but it must be supplemented by support targeted at the most vulnerable groups in society so that social inclusion that covers everyone is attained (Government offices of Sweden, 2008, Ministry of Health and Social Affairs, 2008).

The overall objective of the Swedish drug policy is a drug-free society (see also chapter 1). The objective of a drug-free society has not been achieved. Compared with the alcohol policy objective, this objective has more of a visionary character. It should be emphasized that the restrictive narcotics policy long pursued in Sweden has radically reduced the use of narcotics and its harmful effects. Consequently, from a public health perspective, the narcotics problem is of a completely different magnitude than the alcohol problem (number of alcohol dependent persons are estimated to be 80,000 and for narcotic dependence 29,500 (Statens offentliga utredningar, 2010). Nevertheless, the overall assessment is that the trend during the last years until 2009 went in the wrong direction, with an increase in harmful effects in the form of morbidity, mortality and crime.

The organization and responsibility of the services for drug users is provided at three levels. At the municipality level specialized services for problem drug users are provided (the social service system) based on the Social Service Act and the Care of Misusers Act (handling compulsory care). The social services law states that the municipal social services should provide users with the help and care they need to

get away from their problem substance use (Blomqvist et al., 2009). The social services have a special responsibility for people with problematic drug use including both preventive and individual interventions.

The county councils (the regional health care system) are obliged to provide services in accordance with the Health and Medical Services Act. This means for alcohol and drug users the provision of detoxification and other emergency services, medical and psychiatric care for alcohol- and drug-related disorders and pharmacological treatment as methadone and Suboxone (a.a.). In some counties the healthcare system also targeting specific subgroups as: pregnant women, drunk drivers and people dependent on prescribed drugs (a.a.). Because many drug users end up in the criminal system there are also various treatment facilities in prisons as well as within the parole system. Additionally sentenced drug users can, under certain circumstances, serve their sentences in inpatient drug use treatment.

Substance abuse and dependence care has experienced positive development during the last four years (2006-2009). The National Board of Health and Welfare's national guidelines for substance abuse care forms the basis of a more knowledge based substance abuse care and higher quality. The effort, Knowledge to Practice (Kunskap till praktik), which is based on the national guidelines, is one example of an attempt to bridge the gap between research and practice. At the same time, large amounts of resources, about 9 million €, are being dedicated to implementation aiming at creating a basic organization for the facilitation of substance abuse and dependence care (Statens folkhälsoinstitut, 2010b).

Medication-assisted treatment combined with social-psychological efforts is one evidence-based method developed for both opiate- dependent and alcohol-dependent individuals. Although available, good medicines are still under-utilised in substance abuse care, they are prescribed to a significantly higher degree today than a few years ago.

Knowledge of effective prevention methods has been distributed to the regional and local levels, and this support from the national level to the regional level is generally perceived as functional. However, the development of knowledge and method support was stronger in the alcohol area than the narcotics area. Some positive examples include the national guidelines for substance abuse and dependence care, responsible serving of alcohol in a restaurant environment, and the identification of harmful and hazardous use of alcohol and brief counselling in primary healthcare and occupational health services (The Swedish Risk Drinking Project).

During the last years, the police also increased its involvement in the implementation of the Responsible Beverage Service method. Many efforts were conducted to reduce the availability of alcohol to adolescents. Young people indeed perceived it to be just as easy to get a hold of smuggled alcohol in 2008 as in 2005, but alcohol consumption among children and young people is decreasing, and since 2007 the number of alcoholic poisonings among adolescents has also decreased. Additional incentive is required for greater cooperation between authorities and the non-profit sector in prevention work (a.a.).

Social exclusion and drug use

Research has shown that a substantial proportion of homeless people are problem drug users. Further, research has shown that drug use is a risk factor for homelessness and homelessness is a risk factor for drug use (Palepu et al., 2010).

The situation in Sweden

There is no new national mapping of homelessness in Sweden but this is planned to be conducted during 2011. In the last inventory of the homelessness situation in Sweden (2005) an estimated number of 17,800 persons were found. Based on recent local mappings, especially in the three larger cities (Stockholm, Gothenburg and Malmö), no explicit decrease in number of homeless persons is seen (Stockholm City Mission; Hans Swärd, 2010) even though the National Institute of Health and Welfare has financed 23 special projects aimed at lowering the number of homeless in Sweden through local development. Special focus is on the development of actions in order to prevent evictions and develop the outreach work among already homeless people (Socialstyrelsen, 2010a).

Homelessness in Sweden is primarily an urban problem. 42 percent of the homeless are reported to be from the three largest metropolitan areas in Sweden, but the NBHW surveys also reveal that the problem, although small in scale, is widespread, existing in a large proportion of Swedish municipalities (Olsson and Nordfeldt, 2008). A larger share of socially excluded persons use drugs in Sweden, but most drug users are not socially excluded (Statens folkhälsoinstitut, 2010c). Female regular drug users have less social support and a worse mental health compare to male regular drug users.

Preventive interventions at the national/international level

Sweden is involved in different actions at European level aiming at preventing social exclusion.

The “Active inclusion” strategy is an integrated approach designed to tackle poverty and social exclusion in five European cities whereas Stockholm is one. A special project The EUROCITIES Network of Local Authority Observatories on Active Inclusion (NLAO) observes and analyses how this strategy is implemented at local level, in particular regarding access to social services and social and supported housing for people at risk of social exclusion. The municipalities are key actors the delivery of social services such as housing or social assistance services to especially vulnerable groups. Through their responsibilities as policy-makers and service providers and their engagement in this means that they are in the best position to evaluate what works and what does not and how to prevent social exclusion as homelessness and unemployment.

Sweden also participates as a partner in the Mutual Progress on Homelessness through Advancing and Strengthening Information Systems (MPHASIS), an EU collaboration between approximately 20 countries, with the aim of finding methods to be able to monitor the development of homelessness in Europe and to compare the homelessness situations among the different countries. Further aims with the development of a monitor system is to collect the information needed to improving the provision of interventions and develop strategies for: preventing homelessness, lower the number of homeless people, take action against the causes behind

homelessness, lower the harmful effects for homeless people and their families and make sure former homeless people can maintain stable housing.

In February 2007, the government presented for the first time a national strategy for counteracting homelessness and exclusion from the housing market (*Homelessness – multiple faces, multiple responsibilities*) (Ministry of Health and Social Affairs, 2007). The strategy comprises the period 2007–2009. Four objectives have been pointed out:

1. Everyone shall be guaranteed a roof over his/her head and be offered further co-ordinated action based on the needs of the individual.
2. There shall be a reduction in the number of women and men who are in prison or at a treatment unit, or have supported accommodation and who do not have any housing before being discharged or released.
3. Entry into the ordinary housing market shall be facilitated for women and men who are in temporary and transitional, supported accommodation, provided by the social services or others.
4. The number of evictions shall decrease and no children shall be evicted.

The National Board of Health and Welfare has been commissioned by the government to work together with the National Board of Housing, Building and Planning, the Swedish Enforcement Authority and the Swedish Prison and Probation Service to co-ordinate the implementation of the strategy. In order to assess the effects of measures taken a plan for a monitoring system on a continuous basis were presented (National Board of Health and Welfare, 2009). The main activity within each objective has been to support local development in relation to work methods and organisation. SEK 46 million (5 million Euro) has been distributed to 23 different projects (Socialstyrelsen, 2010b). An evaluation of the implementation of the strategy is on-going.

Preventive interventions at the local level

There is a strong connection between eviction and homelessness and people who run a bigger risk for eviction are people with addiction problems and with psychiatric disabilities. During the last five years an estimated 3.500 tenants have been evicted each year.

Important conditions and measures in order to pursuit an eviction preventive work:

- Homelessness issues need to be focused and continuously discussed on the local, political agenda
- Co-operation between the Social Services, the local Enforcement Authority, housing companies, landlords as well as voluntary organisations is necessary.
- The Social Services as well as landlords need to act quickly when a person risks eviction.
- Relevant stakeholders need to have knowledge of the legislation associated with eviction – and of the possibility for stakeholders to act.
- The Social Services should be able to offer different kinds of support to persons threatened by eviction, such as:
 - Financial advice in different forms
 - The possibility for the Social Services to undertake the liability for the rent

- Housing support – primarily for persons with psychiatric disabilities and persons with addiction problems
- Access to a personal contact (“PO”) (Socialstyrelsen, 2008)

Drug use among socially excluded groups

During the previous years a few studies on khat use have been conducted in Sweden. One study focused on the population of Somali people in Gothenburg. The results indicated a younger debut age in chewing khat than former studies. However, due to the limited sample further generalisations can not be made (De Cal and Söderlind, 2007).

In an article from 2009 in the journal for the Swedish medical doctors, *Läkartidningen*, the problem of “migrating local risk behaviours” is discussed, with focus on the use of khat in Sweden. It is concluded that there are serious social and medical risks coming with the use of khat and its illicit syntheses, and that this problem has not been discussed in the Swedish drug context. Statistics from the customs show that the drug mainly originates from Eastern Africa. There are also easily accessible recipes of metkatinon available on the Internet, and this variant of the drug is mainly injected. The authors conclude that more information about the situation in Sweden is needed, and there is also a need to start discussing this openly (Aquilonius et al., 2009)

Social reintegration

Housing

The primary measures to reintegrated already homeless people back to a more stable and normal living situation is through the use of different types of housing interventions (Blid, 2008). A common Swedish model to solve the homelessness problem is what has been labelled the staircase model (Sahlin, 2005).

The structure of available shelter and housing for the homeless resembles a staircase and the higher an individual climbs the more “normal” the individual’s housing situation becomes. Growing evidence shows that this approach fails to reduce homelessness, rather the opposite and the flipside of this system is the negative impact of falling back down the staircase (Sahlin, 2005). This special-housing sphere (Löfstrand, 2010) keeps growing without any decrease in the number of homeless people, rather adding new groups of homeless people as immigrants families without residence permits and youths.

Recent research has assessed different special collective housing interventions for instance targeting homeless addicts (Blid and Gerdner, 2006). Findings shows that category housing has a positive direct effect on housing stability of the residents, and their feeling regarding their quality of life, but not on their substance misuse (a. a.). Further, the increased housing stability seems to be more a direct effect of their staying on the programme, rather than a long term effect.

A different theoretical model is at present widely discussed in efforts to decrease homelessness and increasing stable housing, the Housing First approach. The idée behind the model is based on every ones right to housing and is the right opposite to the staircase model in that sense that it reverses the “ladder” and starts with a normal

housing, usually in combination with some type of case management. The Housing First approach offers stable housing to chronically homeless, alcohol-dependent individuals without requirements of abstinence or treatment. It hasn't been assessed yet in Sweden but in a recent review (National Board of Health and Welfare, 2009) of international effect studies of different housing programmes for homeless persons finding showed support for the Housing First model (and the Treatment First model).

Thus, in order to handle the problem with maintaining stable housing for active drug users and with the research showing no positive effect of the Staircase-model, Sweden is now implementing the Housing First model in five municipalities.

9. Drug-related crime, prevention of drug related crime and, prison

Introduction

Since 2007 there exists a national plan to strengthen the collaboration between the police and the local municipalities. The plan includes that the police and the municipality signs a contract regulating the collaboration towards one or several target areas to promote security and to fight crime. From this contract the target area will be concretised so that measurable goals can be set up. Drug related crime is among the proposed target areas. The aim of the plan is to enhance local collaboration and communication between polis and the local government and to provide a better understanding for the different roles in crime prevention (Rikspolisstyrelsen, 2007)¹⁷.

When it comes to alternatives to prison and the prevention of reoffending after release, the Swedish law (SFS 2006:431) (2006)¹⁸ changed on the first of January 2007. The purpose of this change was to ease the transition into society and to offer a structured transition period before release for more inmates and for a longer time part of the sentence. Already existing transitional measures like family- or residential treatment and electronic surveillance were to be complemented with halfway houses.

The changes in the law are as follow:

- Intensive supervision with electronic monitoring is changed into conditional discharged with the flexibility to remove the electronic monitoring (ES) at the end of the sentence. The goal group for ES is extended to include those having 6 to 18 months of sentence. The conditional discharge can start after half of the sentence (earliest after 3 months). Long term sentences can be allowed to have conditional discharge up to 1 year.
- Transition through Halfway houses is introduced for those that have long sentences but don't have the prerequisites for conditional discharge and no need for residential treatment.
- The earlier paragraph 34-placement is replaced with "residential care" and the requirements are lowered. The decision is also transferred from the probation committee to the Swedish Prison and Probation Services (SPPS).

The purpose of the change was that more inmates should end their sentence with measures out of prison, for the drug addicts especially treatment outside prison. The number of placements for treatment initially went down instead of up. However during the year of 2009 the number of inmates that started a family- or residential treatment was almost the same as during 2006. The measures out of prison in general have strongly increased especially intensive supervision with electronic monitoring¹⁹.

¹⁷ <http://www.polisen.se/mediaarchive/4347/3474/Rapport%20Samverkan%20Polis%20och%20kommun.pdf>

¹⁸ <http://62.95.69.3/SFSDOC/06/060431.PDF>

¹⁹ SPPS: Annual report of 2009

The view from The National Council for Crime Prevention (NCCP) is that the period directly after release from prisons is a critical moment when the risk of reoffending and drug use is considerable. This fact concerns especially those who have long sentences (Ekström and Brottsförebyggande rådet [BRÅ], 2010, Sundström and Brottsförebyggande rådet [BRÅ], 2010).

NCCP gives the following suggestions to the SPPS for how to better live up to the intentions by the government:

- A less restrictive policy, inmates with a higher risk should be able to get conditional discharged.
- The time in conditional discharge for the old target group should be the same as before the change of the law.
- The target group of the halfway houses should be better defined.
- The number of inmates in family- or residential treatment should go up, not down.
- The application routines should be simplified to shorten the administrative time.
- There should be a uniform praxis in judgement and decisions (Sundström and Brottsförebyggande rådet [BRÅ], 2010).

Many drug users now have the opportunity to receive treatment in prison. The NCCP has conducted an effect study of treatment of drug users in prison that shows significant decrease in relapses in to crime between a treatment group (n=741) and a matched control group. At 12 months follow-up 58 percent in the control group had relapsed compared with 50 percent in the treatment group. The difference in relapse into crime as measured by new sentences was even larger, 11 percent less in the treatment group. For women, no significant differences between the treatment and the control group were found.

The best results were for:

- Men (9 percent) compared with women (3 percent, non significant)
- Those that completed treatment had less relapses than those that did not (10-12 percent to 3-10 percent compared with control)
- The differences were only significant for the group of inmates that were over 29 years old
- The twelve-step oriented programs had better result (11 percent) than the non-twelve-step programs (5 percent)
- Longer treatment (≥ 138 days) had better result (12 percent) than shorter ((76-137 days = 5%), (≤ 75 7%))
- Those that could end their sentence with care outside the wall seemed to have better result (12 percent) than those that did not (5 percent, non significant).

A conclusion of the study is that the Prison and Probation Services are on the right track when it comes to interventions directed towards drug use, but there are still potential to improve the treatment in prison.

Drug-related Crime

Drug law offences

According to the 2009 official criminal statistics of Sweden, about 80 300 offences against the drug punishment act were reported in 2009. An increase by 3 percent compared to 2008. The number of persons that were convicted with drug offence as the main crime increased with 10 percent (about 1,700 persons) compared with 2008. Of the 18,525 persons that had drug offence as main crime during 2009, 15 percent were women and 22 percent were adolescents between 15 and 20 years old. In 84 percent of the cases (15,474) the offence were considered minor, in 14 percent (2,672) not minor and in 2 percent as serious (378) as reported in the 2009 Swedish Official Criminal Statistics from NCCP.

Table 9.1. Number of individuals convicted with drug related offences as the main crime annually in Sweden 2000 to 2009.

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
n	8,055	8,005	8,992	10,106	10,808	11,862	13,932	15,179	16,817	18,525

For 2007 and 2008 there is no published statistics that further break down drug offences concerning convictions. And the statistics for 2009 regarding convictions will be published in the end of October 2010. NCCP, on the other hand, has published tables of reported offences on their website that breaks down reported drug offences in the sub categories peddling etc., drug possession, drug use, possession and use and production. The table below shows the trend in reported drug offences for those categories for the years 2000 to 2009.

Table 9.2. Number of drug related offences annually in Sweden 2000-2009²⁰.

<i>Reported drug offences</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Change between 2008 and 2009 %
Peddling, etc. (1-3a §)	4,012	3,719	3,781	3,766	4,031	3,915	5,539	5,645	6,390	6,440	1
Drug possession (1-3 §)	11,343	11,588	13,561	14,526	15,249	17,624	22,083	23,150	24,764	25,432	3
Drug use (1-3 §)	13,936	13,659	16,373	18,583	21,726	26,645	37,544	42,414	46,569	47,847	3
Possession and use (1-3 §)	2,984	3,305	4,155	3,766	3,876	3,418	1,421	2	-	-	-
Production (1-3 §)	148	134	135	219	211	205	270	335	465	537	15
Total	32,423	32,405	38,005	40,860	45,093	51,807	66,857	71,546	78,188	80,256	3

The table above shows that the total number of reported drug offences has gone up with 3 percent between 2008 and 2009. The highest raise is concerning drug production (15 percent). Concerning drug possession and drug use there is a

²⁰ Statistics available at http://www.bra.se/extra/pod/?action=pod_show&id=21&module_instance=11.

smaller change (3 percent). The category possession and use has been removed and that is the explanation for the sharp fall in the possession and drug use category (from 3,418 in 2005 to 1,412 in 2006 and to 2 in 2007). A change in praxis has occurred and this combined offence now is judged in a different way and thereby the cases are accounted for in each category instead. The total change between 2008 and 2009 for reported drug offences is similar to the drug offence as the main crime for conviction.

The following narcotic statistics that refers to type of offence and substance is a special narcotic statistics that from the year 2006 only will be published every third year. This means that the latest figures are from 2006 (Brottsförebyggande rådet [BRÅ], 2006) and the next figures will be published for the year 2009 late 2010. Figures from other areas such as sanctions, age distribution and gender distribution are taken from the official statistic over persons found guilty of criminal offences from the year 2009.

Table 9.3. Number of individuals found guilty of drug offences annually in Sweden 1997-2006. By type of offence.

Type of offence	Year									
	1997	1998	1999	2000*	2001	2002**	2003	2004	2005	2006
Court sentence and fine issued by the prosecutor	9,448	10,144	10,771	11,326	12,320	13,891	14,491	14,774	15,877	17,619
Drug use	3,290	3,707	4,077	4,460	4,898	5,303	5,816	6,525	7,716	9,397
Drug possession	3,545	3,772	3,636	3,626	3,771	4,195	4,590	4,531	4,837	5,021
Possession, use	1,052	1,156	1,279	1,291	1,357	1,544	1,641	1,580	1,522	1,291
Peddling, peddling and possession	558	599	701	685	749	917	963	948	842	965
Possession, use and peddling	116	133	150	141	161	143	148	109	102	102
Production	20	9	29	15	10	7	6	18	25	17
Drug smuggling	590	560	639	770	968	1,495	982	657	556	509
Other offence and combinations	277	208	260	338	406	287	345	406	277	317
Waivers of prosecution	1,847	1,798	1,569	1,890	1,722	2,118	2,522	2,692	2,941	4,065
Total	11,295	11,942	12,340	13,216	14,042	16,009	17,013	17,466	18,818	21,684
minor offences	9,000	9,551	9,843	10,813	11,127	12,596	13,429	13,645	13,774	16,002
non-minor offences	2,219	2,127	2,210	2,075	2,548	2,974	3,131	3,336	4,490	5,248
serious offences	282	264	287	328	367	440	452	485	435	434
minor offences (%)	80	80	80	82	79	79	79	78	73	74

* 2000 corrected numbers

** 2002 corrected number in waivers of prosecution

The number of persons convicted of drug offences has increased every year over the past 10 years. The annual increase has varied but averages at just fewer than 7 percent. This means that drug convictions have almost doubled (increased by more than 94 percent) over the last ten years. The following four paragraphs (type of offence →sanctions) are quoted from the NCCP-report 2006 referred to above.

*Type of offence*²¹.

At 53 percent (9 397 persons) and 28 percent (5 021 persons) respectively, drug use and drug possession were the two most common offences committed by persons convicted of drug offences in 2006. Drug smuggling and distribution²² accounted for 5 percent and 3 percent of all drug convictions respectively. The proportion of convictions relating exclusively to personal use has increased with 4 percent, from 7,716 in 2005 to 9,397 in 2006. The proportion relating to possession offences has increased with 2 percent, from 4,837 persons in 2005 to 5,021 2006.

Persons convicted for crime against the Act on Prohibition of Certain Goods Dangerous to Health has increased more than six-fold between 2005 and 2006. 37 men, 3 women and 6 young persons were convicted 2006. An explanation to this marked increase is not at hand. One possibility could be that many persons were involved in the same crime.

*Offence severity*²²

In 2009, minor offences accounted for approximately 84 percent of all convictions (just fewer than 15,500 persons). Non-minor offences accounted for 14 percent (2,700 persons) and serious offences for 2 percent (380 persons). The proportion of convictions for minor drug offences has increased whereas the proportion of convictions for non-minor drug offences has decreased.

*Substances*²³.

Amphetamines and cannabis remain the two most common substances in the convictions statistics. In 2006 these accounted for 33 percent and 36 percent respectively of all substances mentioned in criminal convictions. Over the past 10 years there has been a shift in the proportions accounted for by cannabis and amphetamines respectively, with cannabis now being the most common substance in criminal convictions.

*Sanctions*²⁴.

The most common sanction awarded to persons convicted of drug offences is a fine, either in the form of a summary fine issued by the prosecutor or via a court sentence. Persons awarded fines accounted for 53 percent of all those convicted of drug offences in 2009. 30 percent of those convicted of drug offences in 2009 took the form of waivers of prosecution, whereas 9 percent involved prison sentences.

The increase in the total number of persons being convicted of drug offences is also mirrored as an increase in virtually all of the different sanctions. The number of fines has more than doubled over the period examined, from slightly less than 4,200 persons in 1999 to almost 9,850 in 2009. The number of persons sentenced to a prison term has increased from almost 1,400 in 2000 to almost 1,600 in 2009. The average length of the prison term awarded in 2009 was 18 months.

²¹ Refers to summary fines and court adjudications only, as the offence type cannot be discerned in the case of waivers of prosecution

²² Distribution and distribution in combination with possession.

²³ Refers to convictions in which the drug offence was the principal offence.

²⁴ Figures are from the Official Statistics over Persons found guilty of offences from 2009.

Regional distribution

Relative to the size of the population in the different counties of Sweden, counties in the country's metropolitan areas have a higher proportion of drug convictions than the remainder. The metropolitan counties, which are home to half of the national population, account for 59 percent of all drug convictions in Sweden in 2006. Since 1997 this proportion has remained stable at between 59 and 64 percent of all those convicted in the country as a whole.

*Age distribution*²⁵.

In 2009, young persons aged 21–24 had the highest level of drug convictions in relation to their numbers within the population at large, with 840 convictions per 100,000 of population. The groups aged 40–49 years and aged 50 years or over have the lowest number of convictions, with 196 and 100 convictions respectively per 100,000 of population. Over the period between 2000 and 2009, the largest increase in the number of drug convictions per 100,000 of population has been noted among those aged 50 years or over. Per capita convictions in this group have more than tripled over the period examined. Similarly for those aged 21–29 years, the convictions per capita have more than doubled since 2000.

*Gender distribution*²⁶.

Of the total number of persons convicted of drug offences in 2009, approximately 15 percent were women. This proportion has remained relatively stable over the past 10 years. The number of women and the number of men convicted of drug offences has more than doubled over the past ten years. Between 2008 and 2009, the numbers of men convicted increased by 13 percent and the number of women decreased by 2 percent.

Prevention of drug-related crime

In 2008 the Swedish National Council for Crime Prevention presented a systematic review, including a statistical meta-analysis, of the effects of drug treatment programs on crime (Holloway et al., 2008). The review was conducted by a number of highly qualified researchers from the United Kingdom and, as it is presented in the report. The analysis combines the results from a large number of evaluations that are considered to satisfy a list of empirical criteria for measuring effects as reliably as possible. The analysis then uses the results from these previous evaluations to calculate and produce an overview of the effects that drug treatment programmes do and do not produce. The summary from the study is presented below.

“The majority of European countries have a drug strategy that aims to reduce drug-related crime. One of the methods commonly used for achieving this is to provide treatment for drug users. In most countries, treatment for drug users is available through conventional medical referral processes. In some countries, treatment is also made available from within the criminal justice system. This can be part of a referral process whereby offenders are diverted at various stages into treatment or treatment can be provided from within the criminal justice system as part of a prison programme. In order for the strategy to be effective, it

²⁵ Calculations conducted per 100,000 of mean population is from the Official Statistics over Persons found guilty of offences from 2009.

²⁶ Figures are from the Official Statistics over Persons found guilty of offences from 2009.

needs to be demonstrated that treatment for drug misuse can lead to a reduction in crime.

This report presents the results of a systematic review of the literature on the effects of different kinds of intervention for problematic drug use on criminal behaviour. The main selection criteria were that the evaluation should be based on voluntary treatment programmes that aimed to reduce drug use (e.g. methadone maintenance, detoxification, or self-help programs) or criminal justice programmes that aimed to reduce drug use and drug-related crime (e.g. drug courts and drug testing programmes).

The main finding of the narrative review was that the majority of treatment programmes (68 percent) were associated with positive outcomes (the treatment group performed better than the comparison group in terms of subsequent criminal behaviour). In seven of the nine treatment categories investigated, the majority of evaluations produced positive findings. The most successful were psycho-social approaches and therapeutic communities. It was only in relation to other treatment programmes and other criminal justice system programmes that the percentage of positive outcomes fell below 50 percent.

The main finding of the meta-analysis was that the majority of studies investigated (25 of 37) showed a favourable effect on criminal behaviour. The mean effect size for all studies combined showed that the treatment groups were associated with a 26 percent reduction in criminal behaviour compared with the comparison groups. Five of the seven programmes investigated generated effect sizes that showed a favourable impact of the programme on crime. The two most effective programmes measured by the meta analysis were therapeutic communities and supervision.

The report concludes that drug treatment programmes (especially psycho-social programmes and therapeutic communities) are effective in reducing criminal behaviour. However, the moderator analysis showed that there were statistically significant differences among programme types. It is difficult to explain the differences in effectiveness of programmes without a better understanding of the programme content and intensity.

The main research implications of the report are that evaluations need to be of a high quality and to present their findings in a way that can be used in future meta-analyses.

The main implication for policy is that drug treatment can be effective in reducing criminal behaviour and is a useful means of reducing crime.

However, more needs to be known about variations in effectiveness and the influence of programme type, intensity, and context on crime outcomes.” (Holloway et al., 2008)²⁷.

Interventions in the criminal justice system

In 2002 the government instructed the Swedish Prison and Probation Service (SPPS) to further develop and improve the treatment of inmates with drug problems as part of a major effort in all of the society to improve the treatment and rehabilitation of drug addicts. A report on the SPPS experience of carrying through this particular effort for the period 2002-2007 was published in 2008 (Göransson, 2008). The report is summarised below.

Finding the addicts

The SPPS objective that all drug addicts in correctional treatment should be identified, “mapped” and motivated to treatment was in general fulfilled. It was guaranteed that all prisoners wanting help also were offered help. However, in some custody with high turn over the outreach activity might miss some detained persons that not voluntarily came forward since the outreach function is not manned 24 hours a day. In the period 02-07 more than 17,000 persons in custody have had in average three personal motivational interviews with the purpose to convince the detainee to participate in treatment (Göransson, 2008).

Drug users in treatment

A general demand was that the number of inmates participating in treatment should increase and that the treatment and rehabilitation efforts were adapted to the needs. To that end the SPPS identified and developed several strategic areas where improvements or implementations were needed. Among those were the identification and mapping of the inmates drug problems and treatment need, the introduction of the Addiction Severity Index (ASI) as mapping method, increased number of prison units/departments earmarked for drug addicts, implementation of Motivational interviews (MI) and introduction of evidence based programmes, the testing of medically assisted treatment, improved methods to prevent smuggling of illicit drugs, developed cooperation between the social services and the correctional treatment and between custody, prison and probation, a major investment in training and competence development of the staff. Custody and prisons were given priority at the start and from 2004 also the non-custodial treatment was included.

A large number of drug abusers are mapped according to the ASI-method as recommended in the guidelines from the Swedish National Board of Health and Welfare. The SPPS has the single largest ASI-databank comprising 11,500 cases at the turn of the year 07/08 (Göransson, 2008).

Treatment programmes

Implementation and evaluation of the treatment programmes was part of the project. This task is ongoing and take years since the conditions for the implementation of a programme has to be quality secured before conclusions of the outcome could be

²⁷

http://www.kriminalvarden.se/upload/Informationsmaterial/Kriminalvardens_sarskilda_narkotikasatsning_2002-2007.pdf

drawn. Fifteen programmes at different stages of implementation and evaluation are listed in the report. The programme “Våga välja” (dare to choose) was recently evaluated and found to reduce the relapse into drug abuse with 13 percent. According to the evaluators no other factors could explain the outcome. An investment in MI was judged very important for the creation of a base and platform to build the particular effort on drug treatment on (Göransson, 2008).

Supportive factors for the implementation

According to the report the strong political pressure, interest and demand was promoting for carrying thru the project. In times of cut backs and/or organisational problems the project was still given priority and carried out according to plan and the governmental financial support helped in putting the project into practice. Also the evident standpoint of management at all levels in the SPPS was of importance since it made the task visible for each and every one in the organisation.

As the project concerned the largest target group in correctional treatment the SPPS decided to include the whole organisation in the project instead of selecting special units for pilot projects. Even though the process was slower it was the right choice according to the report. Factors such as the inmate's possibility to be in contact with family, social services, employment offices etc in the home municipality were easier to cope with when all of the correctional treatment units were participating in the project. It was also judged better to create an engagement for the project among all staff and management instead of making elite units. In that way conflicts experienced to occur between regular operations and special units are avoided and the whole organisation becomes more willing to learn and change (Göransson, 2008).

Limiting factors

The overriding problem in implementing the particular effort on drug treatment was the lack of space in the correctional treatment institutions since the SPPS has the task and duty to provide space for all detained serving their sentence in prison. As a consequence it was not always possible to differentiate the abusers. In the overcrowded departments it was also lack of occupation and work shops which further impaired the motivational climate for the inmates.

Difficulties in getting the municipalities to take financial responsibility for probation treatment or continued treatment after release were further obstacles in carrying thru the project. The work laid down by staff and inmates during the prison period was jeopardised and in some cases municipalities said categorical no to all forms of treatment in spite of the fact that the SPPS financed the major part. Clinics offering medically assisted treatment also commonly refused to take on patients from the SPPS referring to the fact that they all ready had long lines of addicts outside the correctional treatment in acute need of treatment.

The SPPS's choice to include all correctional treatment in the project caused organisational problems. The need to find space and suitable care for an increasing number of convicts simultaneously as the project was running implied that trained staff sometimes found it difficult to work with the drug prevention programmes and that staff not yet educated in the new programmes could not be free for training and education. The implementation of new programmes was some times also hampered by the lack of experienced trainers and teachers.

A huge reorganisation of the SPPS also took part during the project period. From 36 autonomous agencies and one prison and probation board the organisation became one agency with a head office, several regions, institutions with different and differentiated levels of security etc. The implementation of an improved and extended treatment system for drug addicts simultaneously as a reorganisation of the prison and probation services often had the consequence that the treatment drive was impaired (Göransson, 2008).

External evaluators

Parts of the treatment project have been followed and evaluated by the National Council for Crime Prevention (NCCP). In the 2008 NR it was reported how the staff perceived that the inmates had benefited from the strategy (Brottsförebyggande rådet [BRÅ], 2006) and how the inmates themselves judged the strategy (Sundström and Brottsförebyggande rådet [BRÅ], 2010). The 2008 NR also had a section on the NCCP studies on the efficacy of treatment in prisons regarding drug use and relapse into crime (Brottsförebyggande rådet [BRÅ], 2008). In some instances the treatment was found to significantly decrease the relapse into drug use and crime in the treatment group compared to the control.

Summarized conclusions

According to the report it has not been possible to reach desirable results regarding reduced relapse into drug use and crime. To stop drug use, to give up a criminal life style and to form a life without drugs and crime is difficult and needs time. The SPPS handles very problematic drug users. To expect results in terms of directly measurable levels of relapse at the immediate start of the project is not realistic. It could however be expected that the SPPS initiates rehabilitation and motivation for continued treatment and according to the report this is achieved. To create a good environment for change in a "punishment" system takes a long time and involves many people working for the same goal.

The prerequisite to put in large efforts against drug dependence within the correctional treatment is that the drug treatment is voluntary and that it simultaneously is clear that the efforts take place within the frames of the punishment. The desire for a change exists among most inmates but there is also ambivalence. They don't believe that they manage to change and they see no alternatives to drugs. The special investment in motivational interviews (MI) has thus been invaluable as a base and platform to build the particular effort on drug treatment on.

Drug treatment started within the frames of correctional treatment must not differ from drug treatment given at other treatment institutions in society since the drug treatment commonly is continued and finalized outside the correctional treatment system. Also, with drug treatment within the correctional treatment individuals could be reached that never or rarely asks for treatment. The detainee is as a consequence of the time in custody detoxified, perhaps for the first time in many years, and has the opportunity to consider and think thru the present life situation. If such a person is given the opportunity to meet with an engaged and experienced expert in drug treatment analysing the drug abusers needs and presenting possible ways for treatment and rehabilitation it could be an important first step in a process

Drug use and problem drug use in prisons

The average number of drug addicts in prison is fairly stable over a longer period. The 1st April 2009 there were about 4,700 drug addicts, which is about 49 percent of the prison population. There are about 984 places in treatment units for drug addicts in Swedish prisons. Those include places for motivation of alcohol addicts. The programmes used for reducing relapse into substance abuse and criminality are Våga Välja [Dare to choose], PRISM (Programme for Reducing Individual Substance Misuse), 12-steg [12-step-programme], Prime for Life (PFL) and Återfallspreventionsprogrammet [Relapse prevention programme].

The work on varying treatment programmes has moved rapidly the last ten years. In order to secure effectiveness the programmes shall be reviewed by a scientific panel and only programmes fulfilling the requirements will be granted accreditation. To be approved, a programme must among other things include:

- A clear model of change, based on scientific evidence
- Use of effective methods
- Site accreditation, including monitoring of implementation and staff competence

Before applying for accreditation the program is usually tried out in a limited extent during development. After accreditation the aim is to offer the program to all offenders, according to assessed risk and needs.

An important part of the development is to analyse the efficacy of the programmes considering reoffending. The programmes 12-step and Dare to choose are evaluated. Participation in 12-step programs was associated with a modest but significant (16-17 percent) reduction in post-treatment re-offending after controlling for confounding. This held for the full treatment group as well as for completers only compared to non-treated contemporary controls. Concerning Dare to choose was found a 14 percent statistically significant reduction in post-treatment re-offending in the treatment group compared to contemporary controls after controlling for confounding. The return on invested capital was calculated to be 312 percent over two years.

PRISM and PFL will be evaluated within the year of 2010.

Important to the implementation of the programmes is the integration with the other activities in prison. Education and supporting work are arranged so that an increased part of the staff can motivate the inmates. The motivational dialogue shall emanate from the principles of Motivational Interviewing. The need of programmes shall always be surveyed in relation to the sentence planning.

6,076 inmates in prison (of whom 390 are women) have started at least one treatment programme during 2009. That is 44 percent of the inmates during the year of 2009.

As a part of the prevention activities the SPPS has invested in work with children to inmates. The basis is that a venture on children and parenthood has a twofold crime prevention advantage. Research has shown that children to drug addicts and criminals tend to follow the parent's footsteps and becoming drug addicts and

criminals themselves. By getting the parents to insight of the importance of being a model there is an expectation of getting them to give up the drug use and criminality.

Responses to drug-related health issues in prisons (and other custodial settings)

Drug treatment (incl. number of prisoners receiving opioid substitution treatment)

Treatment of opiate dependence

In 2007, the Stockholm Addiction Centre and the Swedish Prison and Probation Service started a project called an Integrated Team for Opiate-dependent Clients (ITOK). Clients with opiate dependence were identified at the remand prisons in Stockholm and after an investigation offered to participate in a maintenance program. As an evaluation of the project demonstrated success both from a socio-economical and a co-operational perspective the project is now permanent. The model of cooperation is used in a similar project in southern Sweden (where the project is named SITOK witch means South ITOK). A problem there is that the waiting list for maintenance treatment is very huge.

The integrated teams contain staff from both the probation service (probation inspector and coordinator) and from the Addiction centre (medical staff). The Addiction centres are responsible for medically treatment and the Prison and probation service contributes with cognitive programmes that focus on both criminal behaviour and substance abuse. The social services agencies are involved in each single case for social support.

In a gender perspective this kind of programs seems attractive to female clients. Among Swedish inmates only 5 percent are women, but in ITOK 12 percent are women.

Maintenance treatment with methadone and buprenorfine has only been available at the prison in Fosie (Malmö), but other prisons in Region Stockholm now open up for such treatment. Even in Region West (Gothenburg) there are plans for maintenance treatment of inmates.

ADHD among prisoners – occurrence/diagnosis/treatment/follow-up

The Swedish prison and probation service collaborate with the Karolinska Institute on two projects for treatment of inmates with ADHD.

One of the projects is conducted by Ylva Ginsberg, MD, Department of Clinical Neuroscience, Division of Psychiatry, Karolinska Institute. This project consider inmates with at least 14 months of remaining penalty who screened positive using the self-reported questionnaires, Wender Utah Rating Scale (WURS) for retrospective symptoms in childhood and the Adult ADHD Self-report Scale (ASRS Screener) for symptoms in adulthood. After a following assessment 30 subjects with a confirmed diagnosis of ADHD were randomized to an initial 5 week double blind placebo controlled trial in prison, comparing PR OROS Methylphenidate and psychosocial interventions versus placebo. After the five weeks all participants were treated with methylphenidate

The scientific evaluation is to be published, but a socio-economical evaluation has been performed. This showed higher participation in studies, programs and apprenticeship. There were significant fewer incidents and no refusal of leaving urine samples. The staff concluded the atmosphere in the ward as “calm” and the sick-leave among staff decreased.

The second project is conducted by licensed psychologist Maija Kostenius and takes part at the prison Storeboda outside Stockholm. The study addresses to inmates that abuse stimulants and after assessment are diagnosed with ADHD. Just before parole half of the population start treatment with PR OROS Methylphenidate and half is given placebo. The treatment continues at Stockholm Addiction centre, where the medication is given together with individual supportive therapy and medical check-ups. This study isn't closed yet, but about 30 percent continues the treatment which can indicate that almost 60 percent retention (if all continuing are from the methylphenidate group).

Based on these previous positive results a new collaboration between Stockholm Addiction centre and Swedish Prison and probation service has started in treatment of ADHD. Twenty female and 20 male inmates at the prisons in Färingsö and Storeboda are to be included in a treatment program with psychosocial support and medication with methylphenidate that continues during parole at a probation office in Stockholm. The setting is the same as for those with opiate dependence at the ITOK-project.

Prevention, treatment and care of infectious diseases

Infectious Diseases related to drug use

As was mentioned in Chapter 7 the National Board of Health and Welfare is setting up a sentinel surveillance system. In August 2009, the system covered 2 out of 6 potential regions in Sweden. The intention is to roll-out a 3rd region by the end of the year. The project, now re-named The Swedish Prison Programme (SHP) is a joint collaboration between the county councils, the Prison and Probation Service, Karolinska Institute and NBHW. In 2009, a total of 259 IDU participated in the program.

Reintegration of drug users after release from prison

Education and training

The Prison and Probation Services invest heavily in education and vocational training to give the inmates the opportunity to increase their skills and knowledge during the prison sentence and to enhance reintegration. Education and vocational training is an important complement to drug treatment in providing the inmates with skills that will help them to stay drug free after prison, to continue with further education and to get a job.

The education organised in prison is the equivalent of the municipal adult education. It is based on the same curriculum and syllabi from the Swedish National Agency for Education and is under supervision of the Swedish Schools Inspectorate. 29 percent (4,006 persons) of all inmates in 2009 were studying during their prison time, which is about the same as in 2008. Women are to a higher degree students than men (31 percent compared to 29 percent).

During 2009 the number of certificates for completed courses has continued to increase. A total of 1,775 certificates were received by 1,060 inmates, this compared to 1,363 certificates received by 870 inmates during 2008.

In 2009 it was possible to get vocational training in 30 prisons. In total 1,050 persons, 989 men and 61 women, participated in some kind of vocational training, a slight decrease compared to 2008 when it was 1,123 participants, 1,076 men and 47 women. A joint venture between the Swedish Public Employment Services and the Prison and Probation Services is established, ensuring an increasing quality and development of vocational training programs in prison.

10: Drug Markets

Introduction:

Organized crime

Drugs related organised crime that supply the Swedish abuser market can in general be distinguished as three types out from where they acts geographically:

- Criminals dealing with illicit substances mainly act domestically and are often related to gang's e.g. MC gangs (Hells Angles, Bandidos etc), ethnic gangs and other criminal individuals/networks. These categories of criminals are parts of, or have contacts with, networks with international connections in order to apprehend the drugs needed. Either the drugs are for personal abuse or for further distribution to customers. In order to combat domestically active criminals the Swedish National Bureau of Investigation co-operates closely with the police authorities in the different parts of the country.
- Drugs that are produced in neighbouring countries and some EU Member States such as the Netherlands are smuggled into Sweden by regionally active criminal organisations or networks. These criminals mainly act from their home countries but often use criminals settled in Sweden for distribution of the drugs to Swedish users. In the case of countries in the Baltic Sea Region such contacts often are to criminals settled in Sweden with ethnic belonging to the source country of the drug. Within EU a big share of the law enforcement co-operation takes place via Europol and regionally through the Task Force in the Baltic Sea Region and the Nordic Police and Customs Co-operation (PTN).
- Drugs with origin in countries/regions outside the EU are produced and smuggled by globally acting criminal organisations or networks. In this scenarios Sweden is of less importance for the over-all criminal activity and economy. However, domestically acting criminals are depending of the supply of such drugs for their economy and criminal activities within Sweden. Since Sweden just is of marginal importance for the globally active criminal organisations the combat both takes place via international organisations e.g. Europol and Interpol and domestically with the aim to expose criminals that distribute such drugs within Sweden. In some occasions Sweden also co-operates bilaterally with important transit or producing countries when feasible and needed.

Sweden has a well developed mechanism for early discovery of new drugs of abuse thanks to an intense interagency co-operation. Thanks to this co-operation new drugs of abuse can be listed for control within a relative short time-span.

Precursor chemicals used in the manufacture of illicit drugs

The manufacturing of illicit drugs (except the ones that are used in its natural form, such as khat or cannabis) requires so called precursor chemicals. Precursor chemicals are chemicals used both legally and illegally and are usually manufactured under rigorous security measures. The most important chemicals for producing illicit

drugs, mainly PMK, BMK (the most important chemical in the production of amphetamine) and ephedra (ephedrine in its natural form), are actually manufactured in just a few places in the world. Because of this, there is a possibility to stop smuggling by focusing on specific routes.

The possibilities for diversion of essential precursor chemicals scheduled in categories I and II from Sweden is limited to the trade. Only chemicals scheduled in category III is manufactured in the country. No serious diversion attempts have been exposed in Sweden since 2005. However, the threat for the abuse of Sweden and Swedish companies for diversion to illicit synthetic drugs production in some of the neighbouring countries exist and ought to be considered. Therefore Sweden has established a national interagency Chemical Control Working Group in which the National Bureau of Investigation and the Swedish Customs co-operate with representatives from the two main branch organisations for the national chemical industry. Thanks to this co-operation most Swedish companies are aware and have taken proper measures to ensure a safe handling of such chemicals.

An efficient control of precursor chemicals requires a combination of administrative control by regulatory agencies and repressive measures by law enforcement. Most exposed diversion attempts have been closely linked to organised crime activities. In some cases the commercial operator was not aware but some diversions were made possible through bribes or corruption.

Despite of the above, the number of seizures of precursor chemicals has been almost zero since 2005. Before 2005, large seizures were made in the big harbours on the continental Europe mainly in the traffic coming from China. The seizures made today are mainly shipping's meant for the Latin American market, originating from China or India and only using Europe as transit region.

The question that arises in the light of the above is then of course: where do all the precursor chemicals used in the manufacturing of amphetamine and ecstasy in Europe come from?

In 2009, the European Commission offered a course for all who works at the borders in Europe. This education will, hopefully, increase the possibilities of identifying and stopping the smuggling of precursor chemicals. To achieve this, it is expected that those guarding the borders provide the tools necessary, such as protective clothing, possibility to analyse substances etc.

CAN's reporting system on drugs (CRD)

CAN's reporting system on drugs is designed for early detection of new drugs and new ways of using existing drugs as well as to indicate where in the country changes is taking place in relation to drug use and drug markets (Mietala and Nyström, 2010).

The system is based on roughly 150 informants from the 15 most populated municipalities (covering almost 30 percent of the population). Those are mainly to be found in the social services, health services, police, open care/correctional systems and volunteer organizations. Standardised questionnaires are distributed twice a year, covering changes in the first and second half of the year respectively. The

respondents are requested only to submit information based on knowledge obtained from their work place or their region.

Since the municipalities are strategically and not randomly selected the survey is not representative for the entire country but brings good possibilities to get information on new drugs and trends relatively quickly, since illicit drug use is more common in areas with a higher population density.

In addition, another questionnaire is distributed at the same occasion to all twenty-one county police departments of Sweden. These are only asked to report new drugs in the county, retail drug prices, and from 2010 onwards, wholesale drug prices (Guttormsson, 2010).

Availability and supply

Perceived availability of drugs, exposure, access to drugs

According to the CRD informants, no major changes in availability took place during 2009. Most notable are some increases reported in availability of cannabis products, (street) benzodiazepines and cocaine. These changes pretty well mirror how the informants perceive changes of the actual use.

CAN has since the late 1980s collected information on street level prices for a number of drugs (cannabis resin, marijuana, amphetamines, cocaine and heroin). According to this information drug prices have dropped substantially throughout the period. If one considers inflation, real prices have dropped with around 50 percent during the past 20 years. Most of the price drop took place during the 1990s while the situation has been more stable since the turn of the millennium.

In parallel to the above development, seizures of the very same substances have roughly three folded (both in numbers and quantities). Even though more resources have been allocated to drug enforcement, this increase also ought to reflect that larger drug quantities are imported to Sweden nowadays.

An interpretation of the above information is that the availability of illicit drugs has increased during the period and is higher today than compared to the early 1990s. This is of course true if one only considers availability in economical terms since drugs are more affordable. The increasing amount of drugs imported indicates also an increased availability in physical terms; an increase in competitors on the market has made illicit drugs more readily available. The above described development is schematically illustrated in table 10.1.

Table 10.1. Assessment of drugs availability changes in three time periods based on information on street prices and seizures by customs and police.

	1988–1999	2000-2004	2005-2009
Cannabis resin	+	+	+
Marijuana	+	+	+
Amphetamines	+	+	+
Cocaine	+	+	+
Brown heroin	+	0	0
White heroin	+	0	-
Ecstasy	x	0	-
LSD	x	-	0
Kat	x	+	0
GHB	x	-	0

+ = increase, - = decrease, 0 = stable, x = no data available.

Even though drug prices remained fairly stable during the 2000s for the six first drugs in the table, the availability is yet deemed to have increased 2000-2004 and 2005-2009 for cannabis, amphetamines and cocaine. This is due to the large increase in the seizures of these drugs that took place during the period, an increase that did not have any effect on the price level. Another source supporting this scenario is that according to the CRD-informants, especially the county policemen, all these drugs are nowadays available in most parts of Sweden, which wasn't the case earlier. Furthermore, there are no indications of less consumption which would lead to any market surplus.

Since the year of 2000, street price information is available also for ecstasy, LSD, khat, GHB. These drugs are less common in Sweden compared to ones mentioned above, according to recorded seizures as well as assessments from the informants in the CRD-system and other information sources. In summary, the availability situation for these drugs, together with heroin, is deemed to have been relatively stable or a decreasing one.

One weakness with the above analysis is that there is no information on quality/purity of illicit drugs in Sweden, which could be an important factor in relation to street prices. An exception to this is however cannabis resin, which in the Swedish case to 80-90 percent originates from Morocco and for which no significant changes in THC content has occurred over time (EMCDDA 2005). Another weakness could be that Sweden might have become a transit country in a higher degree than before, which could affect seizures. No evidence however supports that such a development has taken place.

One has to remember that the exercise presented above has several uncertainties built into it, and it only gives a rough picture of the long-term developments. Better and more detailed information is needed to make more thorough analyses.

Drugs origin: national production versus imported

Professional full scale illegal indoor cultivation of marijuana, with initial concentration to the southern parts of Sweden, is now observed in other parts of the country as

well. These cultivations are part of the transnational organised crime activities. In addition, the number of cultivations organised by local criminals has increased.

Furthermore, small “kitchen labs” for production of synthetic drugs are found on less than one occasion per year in Sweden. Most of the domestically abused illicit drugs are smuggled over the bridge connecting Sweden and Denmark, via harbours and international airports by air freight or carried in luggage. Further distribution mainly takes place from the three biggest cities, Stockholm, Gothenburg and Malmö. Besides the traditional distribution channels an increasing part of all kinds of drugs, including legal substances, are distributed by letters or parcels after being purchased over the internet.

Seizures

Quantities and numbers of seizures of all illicit drugs

Table 10.2. Number of seizures analyzed according to Police and Custom forensic laboratories 2001-2008, as reported in ST 13.

Year	Medicine	<u>Cannabis</u> [1]	<u>Heroin</u> [2]	Ampheta- mine	Metham- phetamine	Ecstasy	Cocaine
2001	3,223	<u>7,156</u>	<u>1,271</u>	5,713	275	621	328
2002	4,476	<u>8,184</u>	<u>1,052</u>	6,660	250	631	440
2003	4,347	<u>8,243</u>	<u>1,057</u>	6,657	301	489	545
2004	4,715	<u>8,102</u>	<u>900</u>	6,773	244	411	524
2005	5247	<u>8,345</u>	<u>804</u>	6,499	386	381	546
2006	6,032	<u>9,365</u>	<u>800</u>	6,842	359	309	772
2007	7,443	<u>10,052</u>	<u>871</u>	6,477	485	268	725
2008	7,375	<u>10,996</u>	<u>688</u>	5,304	846	231	815
2009	7,917	<u>12,188</u>	<u>671</u>	4,986	1,086	42	792

1 Marijuana and hashish

1] White and brown heroin

Seizures of medicines classified as narcotics (mainly benzodiazepines) are increasing. A growing amount of medicine classified as narcotics are available through the internet, where drugs are sold without control of quality or prescription. The large number of seizures is in part explained by the fact that these drugs are often used in combination with other drugs.

The majority of cannabis (hashish) seized in Sweden originates from Morocco. The number of seizures shows an increase, which together with other observations indicates substantial supply of cannabis on the drug market. By contrast to the cannabis, the geographic spread and the large part of seizures of marijuana made by the police (78 percent in 2008) indicate that most marijuana originates from within Sweden.

Amphetamine seizures have shown a slight decrease since 2006. A possible explanation for this might be the simultaneous increase in availability of other and similar drugs, such as methamphetamine and fluoroamphetamine.

A continuous increase in the number of seizures of cocaine together with other reports of increased use of cocaine indicates that cocaine has become more of a general party drug, in contrast to previously when cocaine was considered as a more exclusive drug.

Regarding ecstasy, the number of seizures has decreased dramatically since the beginning of the 2000s. This increase might be due to a decrease in production, mainly in the Netherlands, together with an increased competition of other party related drugs sold over the internet. Another issue to consider is the decrease of MDMA, used in the ecstasy preparations, in favour of other substances e.g. mCPP.

Quantities and numbers of seizures of precursor chemicals used in the manufacture of illicit drugs

In Sweden, the cross border smuggling of precursor chemicals is limited as Sweden is mainly a recipient country for drugs, and where only a small amount of drugs that require chemicals are produced. A risk is that Sweden is being used as a transit country for shipping precursor chemicals to countries where production of narcotic drugs do take place. However, during 2008 and 2009 no serious illegal transactions involving precursors have been revealed.

Price/purity

Price of illicit drugs at retail level

The retail prices of heroin have decreased, probably due to the extraordinary large harvests of opium in Afghanistan in 2008. This circumstance could result in an increase in heroin use although that seems not to be the case.

Price of drugs at street level

Street level prices are collected twice a year within the CRD reporting system (see the Introduction above). From the 2009 report, and ST16, it is evident that the price levels have been rather stable over the last years (Guttormsson, 2010).

In table 10.3 the price-trends for 1988-2009 are presented. The trends are indexed with 1988 and 2000 as respective starting points and the underlying prices have first been inflation adjusted according to the 2009 price level (using Statistics Sweden's consumer price index).

Table 10.3. Inflation adjusted and indexed data on Swedish street level drug prices 1988-2009.

	Can res	Marij	Amph	Cocaine	Br her	Ecstasy	LSD	GHB	Khat
1988	100	100	100	100	100				
1989	80	49	94	106	111				
1990	75	76	85	128	100				
1991	66	53	78	97	91				
1992	65	36	67	95	84				
1993	65	54	66	91	64				
1994	57	36	53	89	73				
1995	62	62	52	87	82				
1996	59	58	47	86	55				
1997	55	67	52	94	50				
1998	62	72	52	82	56				
1999	62	61	45	94	73				
2000	54	49	42	76	40	100	100	100	100
2001	53	49	41	83	39	98	122	84	89
2002	52	48	40	65	38	96	119	76	104
2003	51	47	40	64	41	78	105	80	102
2004	51	47	40	63	37	76	105	80	85
2005	51	53	39	63	44	62	70	80	85
2006	50	52	39	62	37	61	98	79	33
2007	48	51	34	61	36	60	112	77	33
2008	47	56	37	62	35	61	121	79	63
2009	48	62	37	59	38	68	122	99	63

As mentioned before, prices of all drugs measured since 1988 have roughly been reduced by 50 percent, but since 2000 the prices have been relatively stable. An increase in marijuana prices may be noted for the past two years. The reason for this is likely that demand is relatively high at the same time as the drug has spread to smaller cities/and to the countryside, regions where drugs normally are more expensive. At the beginning of the period few policemen could assess the local marijuana price and seizures were rare while the situation is different today.

Those drugs measured from 2000 onwards are all less frequently occurring; lesser price information is therefore received, which in turn makes the figures more uncertain. This could also reflect a more unstable market for the rarer drugs. The price drop for ecstasy is paralleled with reports of less use and diminishing seizures, maybe this reflects a “sale”, in order to keep up some of the interest for the substance. It is believed that legal drugs marketed on the internet have diverted some of the interest for ecstasy.

Part B – Selected Issues

11. History, methods and implementation of national treatment guidelines

History and overall frameworks

Description of the national situation

National guidelines are drafted by the Swedish National Board of Health and Welfare (NBHW), which is an independent authority. Guidelines are prepared in areas of healthcare that concern many people and cost society a great deal of money. There should also be a need for guidance. Publications include both a *support for management and governance*, which is probably of more interest to decision makers, and the *scientific documentation* on the internet, which is more for those who work in healthcare. Today, work is mainly conducted in a special unit at this authority, which describes the objective of the work on guidelines as follows: “We want to contribute to patients and users receiving equal healthcare throughout the country. We do so by recommending the most effective treatments and methods. However, we also do so by pointing out which treatments and methods should not be included in healthcare because they are ineffective and perhaps even harmful.”

Internationally, the NBHW’s national guidelines are unique in many ways. However, the most prominent characteristic is the work on systematic and open priorities.

Most European guidelines are just like the Swedish, evidence-based and strive to remove measures with insufficient effects or applicability. However, the work on systematic and open prioritisations is unique to the Swedish guidelines.

Method for systematic and open prioritisations

Based on a common platform and established model, NBHW obtain help from independent experts that systematically seek, review, evaluate and rank methods based on fundamental ethics and the best available science and tried experience.

The prioritisation group consists of people with a base in healthcare or the social services. The group ranks condition-treatment pairs based on a collective evaluation of how serious the condition is, what effect the treatment has and the treatment’s cost-effectiveness. The strength of the existing scientific evidence for the treatment’s effect and cost-effectiveness is also significant to the ranking. Ethical considerations also influence the prioritisation group’s ranking.

What is also unique is that the documentation on the prioritisation decisions, the grounds and the reasoning are openly presented for all who want to study them.

Most like British NICE

The guidelines that are otherwise most similar to the Swedish guidelines are those prepared by the National Institute for Clinical Excellence (NICE) for healthcare in the United Kingdom. Like the NBHW's national guidelines, the British guidelines are drafted by independent authorities with help from experts. One difference is that NICE does not rank its recommendations.

Not tied to commercial interests

Compared with various European guidelines that are prepared in cooperation between the specialist associations of many different countries, the Swedish guideline work is financed by the state and is thereby not tied to commercial interests.

In addition, the guidelines address the entire healthcare chain and have multi-professional participation. Health economy assessments are another important part of the National Board of Health and Welfare's National Guidelines. The open process and broad basis among decision-makers in the healthcare system are also strengths.

Published guidelines

- Depression and anxiety
- Diabetes
- Stroke
- Cardiology
- Addiction
- Breast, colorectal and prostate cancer
- Blood clots/VTE
- Asthma and COPD
- Hip fractures

Guidelines under production

- Lung cancer
- Motor organ diseases
- Disease prevention methods
- Dental care

Preliminary guidelines

- Schizophrenia
- Dementia

Towards "evidence-based" addiction treatment

The strive for a more research-based focus in the care and treatment of individuals with abuse and dependence problems concerning alcohol and other drugs first became noticeable at the end of the 1980s. As Blomqvist (Abrahamson et al., 2009) writes: "The development of Swedish addiction treatment has, in the opinion of many people, been controlled more by healthcare-ideology convictions, shifting therapeutic fashions and political and economic fluctuations than by research-based knowledge regarding the scope and nature of addiction problems, the patient's needs and the consequences of various interventions (...). Another way of describing the development is to say that addiction treatment time and again instilled hopes for future success in the form of new and promising ideas or models, which it later had

difficulty in fulfilling (Lindström, 1986, Lindström, 1992). Major expectations have been tied to new pharmacological preparations, new psychosocial treatment methods and new coordinating strategies, such as “matching”, which was the (now deceased) mantra of the 1990s.”

Research surveys

A dissertation by Lindström (Lindström, 1986, Lindström, 1992): ”Val av behandling för alkoholism - en studie av missbrukarvårdens förutsättningar, organisation och resultat” [Choice of treatment for alcoholism – a study of the conditions, organisation and results of addiction care] from 1986 (also published in English in 1992 as a revised version entitled: “Managing alcoholism – matching clients to treatment”) can be said to constitute a pioneering work in Sweden with regard to systematic reviews of international research in the area of addiction treatment. It received considerable attention in the profession, in part because it showed that the improvements that could be observed directly after completed treatment subsided relatively quickly. A more consistent matching – “right patient to right treatment” – was seen as the most important change in order to achieve more long-term stable treatment results.

The “evidence based” concept began to be used more frequently at the end of the 1990s, also with regard to the social services. Within the framework of the NBHW, a special centre was established (later reorganised into the “Institute for the development of methods in social work – IMS”), which had the task of promoting a more research-based approach in various ways, including in the addiction treatment provided by the social services. An anthology entitled “Treatment of alcohol problems” was published by the centre in 2000 and included contributions from some of the most prominent Swedish researchers in the field.

In 1996, a researcher at Lund University (Fridell, 1996) published a research survey on “Institutional forms of treatment of addiction – organisation, ideology and results”, which was particularly focused on the treatment of drug abusers. This is the first time that the treatment of drug abuse was the subject of a Swedish knowledge compilation.

In 2001, the Swedish Council on Technology Assessment in Health Care (SBU) published an “evidence-based knowledge compilation” on the “Treatment of alcohol and drug problems” (Statens beredning för medicinsk utvärdering [SBU], 2001a, Statens beredning för medicinsk utvärdering [SBU], 2001b), comprising two volumes, of which the second specifically discusses “psychosocial treatment of drug dependence” and “pharmacological treatment of opioid and cocaine dependence”. SBU’s compilation is based solely on randomised controlled trial (RCT) studies, where a randomly selected group received a certain “specific” treatment and another, likewise randomly selected group, received a “standard treatment”. Meta analyses of the values for outcomes were conducted on studies where possible.

Substitution treatment

A national programme for maintenance treatment with methadone was introduced in Sweden in 1966 on a trial basis at Ulleråker Hospital in Uppsala. This type of treatment was long controversial, however, both from drug-policy and healthcare-ideology perspectives. It was first approved in 1983 as a treatment in agreement with “science and tried experience”, but was surrounded by multiple restrictions and

special regulations. The number of patients that could be undergoing methadone treatment was limited – from 150 at the beginning and gradually increased to 800 in 1999.

Various evaluations, both of the Swedish programme and internationally (presented in SBU's report, among others), have indicated the effectiveness of well-managed methadone treatment. This, together with the introduction of buprenorphine in 1999, which was more freely prescribed and where a major leakage to the illegal market occurred, led to the NBHW approving changed regulations for substitute treatment in 2004. This change meant that the ceiling for the maximum number of treated clients was removed. The objective was to strengthen the patient's position, to make the treatment available to all who needed it, to apply more stringent requirements on close cooperation between healthcare and the social services, and to reduce the leakage.

A knowledge survey prepared by an expert group ("Pharmaceutically assisted treatment of heroin abusers") and a handbook that developed the provisions of the regulations were published in 2004 (Socialstyrelsen, 2004) and supplemented the authoritative regulation. Somewhat revised regulations entered into effect as of 1 March 2010.

National guidelines

The NBHW's national guidelines for addiction treatment were issued in 2007 (Socialstyrelsen, 2007c, Socialstyrelsen, 2007d). This is the first time that the NBHW prepared guidelines addressed to both the social services and healthcare.

The objective of the guidelines is to make addiction treatment more uniform. The guidelines are based on underlying evidence prepared by a large number of experts which was refined and ultimately formulated by a workgroup within the NBHW. A reference group contributed opinions on both the work process and the texts included in the guideline document.

The document includes some 50 recommendations and concerns prevention and early discovery, treatment methods and follow-up.²⁸ The guidelines present what methods are the most effective and have scientific support. There is also a list of what measures and efforts have weak or non-existent support.

The guideline document also contains a special section on implementation that primarily concerns the organisation and skills development in addiction treatment.

Existing guidelines: narrative description of existing guidelines

Description of existing guidelines

Guidelines for pharmaceutically assisted treatment of opiate dependence

Authoritative regulation

The NBHW's regulations and general guidelines regarding treatment with methadone or buprenorphine in opiate dependence (SOSFS 2009:27) stipulates that substitution

²⁸ Treatment of opiate abuse is not discussed in the guideline document, since a regulation and knowledge compilation for this area was published previously.

treatment may only be given at a medical facility that professionally provides healthcare in accordance with the Health and Medical Services Act (SFS 1982:763). The operations must be reported to the NBHW directly after they commence, as well as if they are discontinued. In addition, it is also stipulated that only a physician with specialist expertise in psychiatry who is active at such a medical facility may prescribe substitution treatment – to a patient who must be a minimum of 20 years of age and has had documented opiate dependence for at least one year (if “exceptional grounds” exist, individuals under the age of 20 may be treated, however).

Substitution treatment may not be administered if the patient is dependent on alcohol or other drugs, has been excluded from addiction treatment in the past three months, or is subject to compulsory institutional care. Exceptions from these provisions may, however, be made if a person has HIV or some other serious infection or disease.

A detailed treatment plan must be established for each patient – in consultation with the social services if necessary – and the responsible physician is charged with an obligation to continuously monitor the treatment plan, and review the plan at least once a year. The regulation also contains rules on the circumstances under which treatment should be discontinued: insufficient participation, repeated relapses into drug abuse, extensive alcohol abuse, manipulation of urine samples, or narcotics crimes.

When treatment begins, the pharmaceuticals should be administered under the supervision of healthcare personnel at regular return visits to the medical facility, but may also be administered at another medical facility if special grounds exist. However, if specific requirements are met, the physician may let the patient handle his or her medication on his or her own.

Knowledge survey

In the summary section of the document, it is noted that “several psychosocial treatment methods are documented to be effective in heroine dependence. All are characterised by a high degree of structure, and focus on the actual abuse behaviour. In scientific studies, positive effects of such treatment have only been able to be shown if the patient received active pharmaceutical treatment at the same time.” It is also confirmed that the best results are achieved when psychosocial methods and pharmaceutical treatment are combined in what is called “pharmaceutically assisted treatment” (SOSFS 2009:27).

With regard to the medications on hand, it is said that “the documentation is most extensive for methadone. Good effects are achieved with this substance in terms of retention in treatment, decreased abuse and improved social function. The substance also has a documented effect in terms of reducing mortality. For buprenorphine, there is documentation that is more limited in scope, but agrees with the same measurements of effect. The substance offers an attractive pharmacological profile, since its partial agonist characteristics limit the risk of overdose and the risk of developing dependence. The documentation for naltrexon is divided, and although positive effects have been described on the short term, few appear to complete the treatment. The substance can probably be of significance to patients in an early

phase of dependence, or for socially stable patients where there is considerable social pressure to remain in treatment” (SOSFS 2009:27).

Attention is paid to the risk of leakage to other substance abusers in treatment with agonists, but it is emphasized that “with well-prepared use in high-quality operations, these risks can be minimised at the same time that the positive treatment effects can benefit the patients” (SOSFS 2009:27).

The document recommends “a graduated treatment strategy that seeks to achieve the best possible effect at the lowest possible level of risk in each individual case”. In concrete terms, this strategy means that “patients that are in the early stages of dependence development and/or have a high degree of social stability can (...) be experimentally treated on the lowest level, which entails a focus on psychosocial methodology, with a possible addition of naltrexon. In structured, regular follow-up of the kind recommended here, it quickly becomes clear if this treatment is sufficient for the patient, as well as which patients should continue to the next level. This level includes psychosocial treatment supported by medication with buprenorphine. Sufficiently long, consistently implemented treatment, followed by structured evaluation at this level will also indicate if the strategy is appropriate. If this is not the case, methadone-maintenance treatment currently represents the best documented and probably most effective treatment for reducing the risks of morbidity and mortality” (SOSFS 2009:27).

By way of conclusion, it is emphasized that “the treatment process should be characterised by flexible adjustment over time. The supporting and supervisory structure should, for most patients, be pronounced in the initial phases of the treatment. As the patient gradually stabilised in terms of social function and being free from drugs and his or her ability to take personal responsibility for the treatment increases, focus should shift to promoting his or her acceptance of personal responsibility” (SOSFS 2009:27).

Comparison with WHO’s guidelines²⁹

The Swedish guidelines differ on a few points from the WHO recommendations. WHO recommends methadone as the primary choice for “most patients”, while the Swedish guidelines’ “graduated treatment strategy” described above recommends that treatment can begin with naltrexon or buprenorphine after an assessment of the patient’s social situation and/or degree of dependence problems. The Swedish guidelines also differ somewhat from the WHO guidelines with regard to the recommended size of the doses (see table 11.1).

²⁹ Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence, WHO, 2009.

Table 11.1 WHO guidelines coherence

	Name of Assessor: Peter Valverius, M.D.	Yes	No
1.	Choice of treatment		
1.2	For the pharmacological treatment of opioid dependence, clinicians should offer opioid withdrawal, opioid agonist maintenance and opioid antagonist (naltrexone) treatment, but most patients should be advised to use opioid agonist maintenance treatment. Do the present guidelines include this recommendation?	<input type="checkbox"/>	
1.3	For opioid-dependent patients not commencing opioid agonist maintenance treatment, consider antagonist pharmacotherapy using naltrexone following the completion of opioid withdrawal. Do the present guidelines include this recommendation?		<input type="checkbox"/>
2	Opioid agonist maintenance treatment		
2.1	For opioid agonist maintenance treatment, most patients should be advised to use methadone in adequate doses in preference to buprenorphine. Do the present guidelines include this recommendation?		<input type="checkbox"/>
2.2	During methadone induction, the initial daily dose should depend on the level of neuroadaptation; it should generally not be more than 20 mg, and certainly not more than 30mg. Do the present guidelines include this recommendation?		<input type="checkbox"/>
2.3	On average, methadone maintenance doses should be in the range of 60–120 mg per day. Do the present guidelines include this recommendation?		<input type="checkbox"/>
2.4	Average buprenorphine maintenance doses should be at least 8 mg per day. Do the present guidelines include this recommendation?		<input type="checkbox"/>
2.5	Methadone and buprenorphine doses should be directly supervised in the early phase of treatment. Do the present guidelines include this recommendation?	<input type="checkbox"/>	
2.6	Take-away doses may be provided for patients when the benefits of reduced frequency of attendance are considered to outweigh the risk of diversion, subject to regular review. Do the present guidelines include this recommendation?	<input type="checkbox"/>	
2.7	Psychosocial support should be offered routinely in association with pharmacological treatment for opioid dependence. Do the present guidelines include this recommendation?	<input type="checkbox"/>	

3	Management of opioid withdrawal	Yes	No
3.1	For the management of opioid withdrawal, tapered doses of opioid agonists should generally be used, although alpha-2 adrenergic agonists may also be used. Do the present guidelines include this recommendation?	<input type="checkbox"/>	
3.2	Clinicians should not routinely use the combination of opioid antagonists and minimal sedation in the management of opioid withdrawal. Do the present guidelines include this recommendation?		<input type="checkbox"/>
3.3	Clinicians should not use the combination of opioid antagonists with heavy sedation in the management of opioid withdrawal. Do the present guidelines include this recommendation?		<input type="checkbox"/>
3.4	Psychosocial services should be routinely offered in combination with pharmacological treatment of opioid withdrawal. Do the present guidelines include this recommendation?	<input type="checkbox"/>	
4	Pregnancy		
4.1	Opioid agonist maintenance treatment should be used for the treatment of opioid dependence in pregnancy. Do the present guidelines include this recommendation?		<input type="checkbox"/>
4.2	Methadone maintenance should be used in pregnancy in preference to buprenorphine maintenance for the treatment of opioid dependence; although there is less evidence about the safety of buprenorphine, it might also be offered. Do the present guidelines include this recommendation?		<input type="checkbox"/>

National guidelines for addiction treatment

The document “National guidelines for addiction treatment” was published by the NBHW in 2007 (Socialstyrelsen, 2007c, Socialstyrelsen, 2007d), and is based on the work in five expert groups that resulted in “underlying evidence” comprising 500 pages. The aforementioned knowledge surveys from SBU and CUS constituted the basis for this work, and were supplemented by reviews of treatment studies up to and including mid-year 2004.

The work of the expert group is summarised in five chapters:

- Discovery and prevention work
- Assessment instruments and documentation
- Narcotics – psychosocial treatment and pharmaceutical treatment
- Alcohol – psychosocial treatment and pharmaceutical treatment
- Pregnant women

One more chapter discusses the subject of “addiction and simultaneous psychiatric and/or somatic disorders”.

As a guide for addiction treatment in both healthcare and the social services, 53 different recommendations are presented with regard to specific interventions and measures. The recommendations, which are not ranked, are based mainly on a total appraisal of the degree of scientific evidence (graduated to four levels according to the evidentiary value and uniformity of the results) and an economic assessment. Sometimes, organisational possibilities and obstacles have played in for which measures are recommended.

Recommendations for treatment of individuals with drug abuse or dependence

Five psychosocial treatment methods are recommended:

- Cognitive behavioural therapy with a focus on addiction
- Brief intervention/Motivational Interviewing (MI)
- Community Reinforcement Approach (CRA) treatment
- Dynamic therapy
- Family therapy with a focus on addiction.

In a comment, it is noted that “a factor common to the methods that exhibit an effect is that the treatment is characterised by a clear structure, focus on the addiction, well-defined measures and detailed guidelines (manual)”.

Furthermore, for this client/patient category, it is recommended to:

- Identify and provide support to the individuals in their networks that can support treatment and rehabilitation.

Specifically for individuals with cannabis abuse or dependence, it is recommended that:

- Treatment should be focused in part on immediate abstinence with supervised urine testing and in part on disruptions in cognitive functions.

Specifically for individuals with opiate abuse or dependence, it is recommended that:

- The medications Methadon or Subutex be administered in combination with psychosocial treatment in accordance with the National Board of Health and Welfare’s regulations.

Specifically for individuals with cocaine abuse or dependence, the following are recommended:

- The medication disulfiram (Antabus)
- Cognitive behavioural therapy.

The chapter “Narcotics – psychosocial treatment and pharmaceutical treatment” in the guideline document describes the scientific, organisational and economic grounds and motivations for these recommendations in more detail.

Expert group’s factual documentation

For in-depth studies of that presented in the guidelines and a more in-depth description of the background of the recommendations, the expert groups’ “underlying evidence” – a document of slightly more than 500 pages – is available on the website of the NBHW.

Implementation process

Guideline implementation process

Guidelines for maintenance treatment of opiate dependence

County councils and municipalities were informed of the regulations and recommendations for pharmaceutically assisted treatment of opiate abusers through a newsletter from the NBHW. A nationally coordinated operations audit of

maintenance treatment was conducted by the NBHW in spring 2007. The results are summarised in the report (Socialstyrelsen, 2007b) as follows:

“According to estimates, there are approximately 28,000 people in Sweden today with serious drug abuse. One of the sub-objectives of the Swedish narcotics policy is to get people with addiction problems to end their abuse. One way of achieving the sub-objective is to offer opiate abusers pharmaceutical treatment in the healthcare system under controlled conditions.

On 1 January 2005, the National Board of Health and Welfare’s regulations and general guidelines regarding pharmaceutically assisted maintenance treatment of opiate dependence (SOSFS 2004:8) entered into effect. Under these regulations, all medical facilities that are specially established for dependence care and have registered with the National Board of Health and Welfare have the opportunity of offering such treatment. The provisions include strict and formal requirements on caregivers, clinic managers and treating physicians.

With the aim of mapping what places in Sweden and the extent to which pharmaceutically assisted maintenance treatment of opiate dependence is conducted and then follow up and examine the application of the new regulations, the National Board of Health and Welfare’s regional supervisory units conducted a nationally coordinated operations audit in spring 2007. The audit comprised all county councils and regions and all 53 medical facilities where these activities are conducted. In connection with the audit, the National Board of Health and Welfare also gathered opinions from a number of social service administrations, patients concerned and the Swedish Prison and Probation Service.

This survey indicated that 2,440 patients were under treatment on 31 December 2006. Of these patients, 1,894 were treated in public healthcare (39 institutions) and 546 in private healthcare (14 institutions). Operations were conducted in all county councils and regions except two (Blekinge and Jämtland).

After the audit, the National Board of Health and Welfare drew the following conclusions:

- There are unacceptable deficiencies in terms of the county councils’ statutory obligations to plan their healthcare based on prevailing needs. Only eight of the surveyed county councils and regions provided information on the estimated need for pharmaceutically assisted maintenance treatment of opiate dependence. In addition, planning activities take place with private caregivers in only three county councils.
- In the majority of county councils, there are no such guidelines for the operations that the caregivers, under the regulations, are obliged to establish. In addition, there are no written directives and procedures for maintenance treatment in around half of the county councils.

- Half of the county councils are unable to meet the demands of the care guarantee for the patient group concerned. This conclusion is based on the study commissioned by Mobilisation against Narcotics (MOB).
- In the operations (the clinics), there were more deficiencies in formal respects. There were varying degrees of a lack of established, documented targets and procedures pursuant to the provisions of the regulations. In some operations, there was a lack of treatment plans as well as procedures for cooperation with the social services in the medical assessment of whether to provide maintenance treatment. Furthermore, in approximately one fourth of the clinics, there were no local instructions for the handling of pharmaceuticals and procedures for the physician disclosure obligation under the Firearms Act.

The audit did not encompass purely medical and psychosocial patient treatment. However, from the roughly 400 questionnaire responses received from patients under treatment, it is unambiguously clear that they are very satisfied with the treatment and that they have been accepted for treatment.

In the opinion of the National Board of Health and Welfare, it appears as if some county councils – for various reasons – do not prioritise the care of this patient group, although this type of care meets the requirements of science and well-trying experience. The questionnaire responses from county councils indicate a lack of commitment in the issues in several cases. The audit also noted that there is a clear risk that patients, depending on where in the country they reside, have differing chances of receiving adequate care and treatment. However, like all other patients, these patients are also covered by the caregivers' responsibilities under the Health and Medical Care Act.

The audit shows that significant improvements are required in terms of supply and availability to pharmaceutically assisted maintenance treatment of opiate dependence. Formal guidelines, directives and procedures are also required. The National Board of Health and Welfare will follow up on the measures on the part of the caregivers and the clinical managers within the scope of its on-going supervisory activities.”

At present (autumn 2010), there are a total of 64 units that provide pharmaceutically assisted maintenance treatment in Sweden.

Implementation and educational support for national guidelines

In 2007, the NBHW published a text that aimed to constitute an “implementation and educational support” for the national guidelines published in the same year (Socialstyrelsen, 2007a). It emphasizes the significance of achieving cooperation and collaboration between the activities of healthcare and the social services for the care and treatment of individuals with addiction problems. The text also discusses the importance of specialisation within the primary municipal social services, which for small municipalities may presuppose that multiple municipalities jointly build up

specialised units. In addition, the contact between addiction care and self-help organisations and other supportive networks is emphasized as an important complement.

“Knowledge for practice”

In April 2008, the Government adopted a strategy for the development addiction care up to and including 2010. Within the scope of this strategy, the state and the Swedish Association of Local Authorities and Regions (SKL) signed annual agreements regarding the implementation of national guidelines in the area under the name “Knowledge for practice”. In the initial agreement, it was established that the work should be long term.

A fundamental premise is that municipalities (social services) and county councils/regions (healthcare) must take joint responsibility for development. In September 2009, all county councils/regions and 150 (of 290) municipalities were involved in the development work.

The development work will continue during 2010 on the sub-objectives that the parties:

- have developed the healthcare chain so that necessary efforts are available and can be offered at a local level
- have clarified the division of responsibility between the social services and healthcare, and developed the structures for collaboration
- have personnel with adequate and up-to-date expertise to perform their duties in accordance with the national guidelines, which are based on current research, experiences of practitioners and choices of the patients.

For the work in 2010, the Government allocates SEK 29,550,000 (3.2 million Euro) in the scope of the agreement. For the three-year period, the Government has allocated approximately SEK 85 million (9.2 million Euro) in total to the implementation work.

SKL offers those who work with addiction treatment in the participating counties and municipalities training in a number of areas, e.g.

- implementation methods
- process management
- management training for sustainable development
- training of instructors in assessment instruments such as AUDIT, DUDIT and ASI
- training of instructors in Motivational Interviewing (MI).

Evaluation and research concerning the introduction of the guidelines

The implementation of “Knowledge for practice” shall be evaluated by researchers at Lund University on behalf of the NBHW and reported to the Government no later than 31 December 2011. However, in some parts of the country, evaluation projects of various types have already been conducted.

In 2009, the Jönköping County Administrative Board conducted a questionnaire study of the county’s 13 municipalities, which is presented in the report “How are the National Board of Health and Welfare’s national guidelines for addiction treatment used?” One municipality did not respond to the survey, but the other 12 said that they

were aware of the guidelines. Five municipalities had reached formal agreements regarding implementation, but the others had begun to introduce them “in some manner”. However, seven municipalities said that they had not been allocated resources for the implementation.

In connection with the publication of the NBHW national guidelines for addiction treatment, development funding was granted for Göteborgs Implementering av Riktlinjer [Gothenburg’s Implementation of Guidelines – GIR] and Riktlinjer i Samverkan [Guidelines In Collaboration – RIS] in Region Västra Götaland. The objective of RIS and GIR is for the collaboration between the three principals – municipality, region and correctional care – to achieve a level of quality at the local level that benefits the individual. RIS is county-wide while GIR is limited to Gothenburg.

The objective of the projects has been for personnel in correctional care (non-institutional), healthcare (psychiatry, dependence care and primary care) and social services who meet and care for people at risk of or with established addiction to obtain greater understanding of the guidelines, better opportunities to implement the guidelines and a stronger desire to use the guidelines.

RIS’ assignment primarily comprised four different parts: arranging knowledge conferences, establishing and supporting five sub-regional workgroups, recruiting and training competence supporters and constructing a website for knowledge distribution. The work within GIR has largely been coordinated with RIS.

The consulting firm engaged to evaluate both of the connected projects confirms in its report (Ramböll Management Consulting, 2010) that “... the knowledge conferences were the most important contribution to increasing the personnel’s understanding of the guidelines. The municipality’s personnel, who appeared to have been well represented at the conferences, are assessed to have good knowledge of the guidelines and the conferences are judged to be important to distributing information about the guidelines and their implementation. Material from the conferences was found to be available on the projects’ website, but the website’s inherent value for increasing understanding of the guidelines is judged to be limited. The competence supporters are judged to only have contributed to an increased understanding of the guidelines to some extent. However, a small proportion of the competence supporters said that they contributed to the distribution of knowledge of the guidelines to a large extent.”

In Stockholm County’s north-western region, some 100 addiction treatment workers from the county council’s dependence care and the social services worked together on the national guidelines for addiction treatment (Socialstyrelsen, 2007d) in a study circle format. This work is part of a longer development endeavour with the objective of care and treatment offered to people with addiction problems in north-western Stockholm being based on well-tried experience, the best possible knowledge and the individual user’s/client’s/patient’s experiences and wishes – in other words an

evidence-based practice. The Research and Development (R&D) unit in the region studied the process and summarises the conclusions as follows³⁰:

- “In the north-western municipalities, there is collaboration between primary municipal addiction care and county council municipal dependence care that functions well more or less.
- The principals’ differing requirements and regulations have some impact on the collaboration.
- The participants report that discussing the work and its problems in a study circle format has been meaningful. There is a continued need to develop local and regional forums to discuss the work.
- The most common source of knowledge is clinical experience, so-called “everyday knowledge”.
- By discussing and analysing problems with seemingly everyday methods and approaches, conditions are created for formulating and documenting the practical work, which is an important part of evidence-based practice. The fact that this is missing is a dilemma in addiction care.
- If addiction care is to develop an “Evidence-based practice – for the benefit of the patient” (SOU 2008:18), structures are needed in the organisations in order to manage and take care of knowledge and experiences that already exist and are acquired.”

In an earlier study in the region, the R&D unit found that “approximately 70 percent of the personnel in the north-western municipalities’ addiction care are trained in the evidence-based methods that are recommended in the guidelines. However, one result from observations conducted in all study circles is that the methods are not stringently applied, in accordance with manuals and training, where the importance of method compliance is emphasized. In the circles, it is clear that parts or elements of the methods are used in the daily patient work instead. The obstacles to applying the methods are said to be a lack of time, case load and organisational conditions.”

In 2010, the Centre for Social Research on Alcohol and Drugs (SoRAD) at Stockholm University published a report entitled “Towards better addiction care?” (Abrahamson et al., 2009) about the possibilities of basing the addiction treatment work in four organisations on evidence. The study is based on two questionnaire surveys of treatment personnel and one interview survey of clinic managers. The study targeted a representative selection of care and treatment units in four different organisations with the task of providing care and treatment to people with addiction problems: the municipal social services, the county council-based dependence care, the state care under the Care of Abusers (Special Provisions) Act and non-institutional correctional care also under state direction. For practical and financial reasons, the study was limited to operations in central Sweden.

The study’s results indicate that the major problem of addiction care is not primarily a lack of knowledge of effective treatment methods. Rather, it is a matter of the financial and organisational conditions being such that many patients are not offered

³⁰ ”Riktlinjeprojektet i Nordväst. Implementering av de nationella riktlinjerna för missbruks- och beroendevård genom integrerade studiecirkelar” [Guideline Project in the North West. Implementation of the national guidelines for addiction treatment integrated study circles], FoU Nordväst, 2009.

the help they desire and need. Another deficiency brought up in the report is that addiction care staff "... largely appear to lack possibilities of 'learning by experience' in any substantial sense through continuous documentation, follow-up and critical examination of ones own work," to thereby be able to build up locally rooted 'well-tried experience'. According to the researchers behind the study, addiction care needs to become a "learning organisation" to a greater extent.

In the concluding discussion and the conclusions themselves, the researchers emphasize the need to apply a broader approach to the problems rather than only focusing on greater method knowledge:

"One way of summarising what the presented results have to say about the conditions of the four organisations studied in order to develop evidence-based addiction care is to relate them to the programme for evidence-based medicine developed by Sacket et al (1997) and which is repeatedly referred to in this report. In this programme, as in many of the discussions conducted regarding evidence-based Swedish addiction care, it is established that such a practice must be based on (i) external, scientific knowledge of the effects of various treatment methods, (ii) the practitioners' well-tried clinical experience and (iii) the client's or patient's own perception of what needs to be done.

The emphasis in both the National Board of Health and Welfare's guideline document and the strategy for implementing these guidelines prepared by the Swedish Association of Local Authorities and Regions (SKL) clearly lies on the first of these points. The implicit assumption appears to be that the Swedish addiction treatment's greatest problem is the lack of knowledge of and competence to use adequate and effective specific treatment methods, and that the solution is primarily to provide training in such methods. Significantly less attention is directed at both of the other points, and the potential organisational and resource problems of addiction care and their role in a broader societal perspective are discussed to a very limited extent.

The results presented in this report can, however, be said to indicate that the responsible parties in this endeavour are at risk of missing the mark, at least if this is to develop and improve Swedish addiction treatment for the benefit of the opportunities of the patients concerned to find a sustainable solution to their problems. While many of the operations studied, particularly in the social services, accordingly appear to be somewhat well equipped with regard to expertise in and the use of several of the methods recommended by the National Board of Health and Welfare, the conditions for developing work with patients and improving the results appear less beneficial in other respects.

Looking at the possibilities of learning from personal experience according to the second point Sacket et al brings up; the practitioners indeed appear to not lack occasions to discuss their own work with their colleagues in an organised format. At the same time, the results provide a picture that these discussions are only rarely based on empirical data

on the outcomes of their own efforts, which probably means that most units have hardly established procedures to continuously build up a locally rooted, well-tried experience of a type that could constitute a correction of and supplement to the generalisation and in some sense abstract knowledge that effect research offers.

In terms of the patients' opportunities to influence the choice of measures and the course of their own treatment process in accordance with the third point proposed by Sacket et al, the results indicate that a large majority of the practitioners indeed view it as principally important to take into account the patient's own opinion, but that there in reality is a lack of established procedures to do so and that factors such as 'intuition', the opinions of colleagues and managers and – not least – financial and political realities play a significant role in the help that the individual patient is offered. In this context, the facts that there is not any particularly high degree of consensus among addiction care staff as to what type of problems substance abuse and dependence actually are and that alcohol problems and drug problems largely appear to be viewed in different ways are seen as a problem. These differences can reasonably be assumed to have some relevance to what treatment different employees concretely offer their patients and to the possibility of developing a coordinated 'evidence-based practice' at different units.

Lastly, there is reason to emphasize that practitioners in addiction treatment clearly extensively attribute the difficulties they encounter in their work to such conditions as insufficient financial resources, cooperation difficulties between the care system's various parts, a lack of interest in and of knowledge of addiction issues among both decision-makers and the public, and to a surrounding society that does not offer the patients the material and social opportunities after completed care and treatment that would be needed to earnestly improve the long-term outcome of the efforts.

Consequently, a reasonable summary conclusion – or perhaps rather a summary hypothesis based on the results presented – is that the prospect of the on-going effort to develop addiction treatment on the long term providing positive effects in the form of an offering more attractive to the patients and a better overall outcome would be significantly brighter if the responsible parties could adopt a broader and more flexible perspective of what evidence-basing means – with greater emphasis on making the care system a 'learning organisation' and on finding ways of guaranteeing the patients' own influence – than what appears to have been the case to-date" (Abrahamson et al., 2009).

12: Mortality related to drug use: a comprehensive approach and public health implications

Introduction

The mortality rate among people below the age of 50 is low in Sweden. In recent years, there have been a number of campaigns to further decrease the mortality rate from, for example, traffic accidents. There is also a “zero vision” for suicides. At the same time that other causes of death were decreasing, drug-related deaths increased substantially until 2000. After a decrease over a few years, the number of deaths is now rising again. Today, drug-related death is the leading cause of death among young males in the large cities.

There are some notable trends in the history of illicit drugs in Sweden. The most common intravenous drug is not heroin, but amphetamines. A wide-spread use of amphetamines was present as early as the 1940s (Goldberg, 1968) and, in the 1950s, they began to be used intravenously. Cannabis use became common in the 1960s, especially among young people. Compared to later decades, the 1960s was a period characterised by a permissive view of drugs and considerable experimental drug use.

In 1965, an experiment was conducted in the Stockholm region involving the legal prescription mainly of amphetamines, but also morphine. In order to study the results of the experiment, a study was done at the remand prison in Stockholm, where all inmates were screened for injection marks (Bejerot and Maurice-Bejerot, 1974). The study showed an increase in the number of new inmates with injection marks and the experiment with the legal prescription of drugs was stopped in 1967. In the 1960s, there was an increase in the number of young illicit drug users. When regular surveys on drug use were begun among school students and military conscripts, the prevalence of drug use was higher than at any later time (Centralförbundet för alkohol- och narkotikaupplysning [CAN], 2009).

In 1966, a methadone programme was started in Uppsala, a city outside Stockholm. As intravenous (IV) heroin use was introduced in Sweden nearly 10 years later, the programme mainly addressed morphine users. The physician who introduced the methadone maintenance treatment programme (MMTP) in Sweden had been in New York the previous year, studying the new method to treat heroin users with methadone. The Swedish programme applied the regulations and methods of the original U.S. programme. Consequently, it differs from many of the methadone programmes established in Europe 20-30 years later. The programme can be described as a “high threshold programme” with an upper limit applied to the number of patients allowed to participate in the programme at the same time. It was not until HIV was discovered in Sweden that the method was more widely accepted.

In the beginning of the 1970s, illicit opiates were introduced and intravenous heroin use became more common a few years later. The drug was mainly introduced in large cities such as Stockholm and Malmö. However, there were local variations so

that in the second largest Swedish city, Gothenburg, heroin was not introduced more widely until the 1990s.

In the 1980s, HIV was discovered among intravenous drug users. In 1985, HIV testing of all known intravenous drug users became possible and a high percentage of drug users were found to be infected. Frozen blood samples showed that the infection was already present in 1983. After 1985, the number of newly infected intravenous drug users decreased. The spread of HIV prompted the authorities to grant considerable funding to expand the treatment system. The upper limit on those allowed to participate in methadone treatment was also raised.

In 2005, new regulations on substitution treatment were introduced in Sweden. Methadone (and Buprenorphine) treatment became more available, restrictions were loosened and the upper limit for the number of participants in treatment at the same time was repealed. After 2005, it became easier to start new programmes. The number of people in treatment doubled and the number of deaths where methadone was present increased even more (Fugelstad, Johansson et al.).

Since 2004, there has been a register based on forensically examined deaths where illicit drugs were found in the body. The register is called “Toxreg” and is a joint project between the Karolinska Institute, the Swedish National Board of Health and Welfare and the National Board of Forensic Medicine. In the future, information from Toxreg will replace the illicit drug index based on the GMR.

The Swedish General Mortality Register is of high quality, which means that it covers practically all deaths (99 percent) and there are few ill-defined causes. Two time series on drug-related deaths are based on the General Mortality Register – the national drug index (NBHW) – and the index used when reporting to the EMCDDA.

Recent follow up mortality cohort studies among PDUs

Overall mortality among problem drug users

Difference in study design

Sweden has good infrastructure for performing cohort studies. There are comprehensive and reliable databases such as the total population register, the cause-of-death register and the hospital discharge register. Everyone registered in Sweden has a unique personal identification number, permitting follow-ups in different registers.

One problem is that there are different traditions in the health services and in the social welfare services. In medicine, there is a research tradition that facilitates follow-up studies. In the social welfare services, the research tradition is much weaker, which makes it difficult to monitor cohorts of treatment populations. There is also a resistance to using personal identification numbers, which is sometimes regarded as infringing on personal integrity. Consequently, it is difficult to satisfy the EMCDDA standard, a cohort of ‘problem drug users in treatment settings’. With regard to treatment populations, the main exception is follow-up studies of cohorts from methadone treatment, which belongs to the medical system. The problem is that

conclusions cannot be drawn from the results of follow-up studies of methadone treatment cohorts that are valid for other groups of drug users.

The selection of cohorts strongly influences the mortality rate. It is important how the cohort is obtained, what types of drug use are represented and the time period in which the cohort is selected, for example when HIV-infection gained a foothold among drug users. One important factor is where the participants are in the drug use career. Are they in a very destructive phase and are treated on that basis?

List of mortality cohort studies (see table 12.1 below for a comprehensive list of mortality cohort studies)

A number of follow-up studies of known drug users have been done in Sweden. The studies cover mortality and causes of death, often in relation to different types of drug use. It has often been difficult to follow the EMCDDA recommendation of “cohort members are PDUs in treatment settings”. Consequently, the majority of the cohorts are not follow-up studies of treatment populations. In most cases, they have their origin in the health services or other sources. The size of the cohorts and the observation time varies. However, the personal identification number makes it possible to follow up on mortality and emigration, if any.

Many studies are based on data from the hospital discharge register on persons, with drug related ICD codes. Other studies comprise drug users who had been treated at hospital wards specialized in dependence disorders or patients from psychiatric clinics with drug addiction diagnoses. One study originates from the social welfare services and includes persons with drug-related problems. Some studies comprise military service enrolees who had been interviewed about drug use. One study is based on a case-finding survey, where different authorities and medical and social services provided information about persons with drug-related problems. Two studies comprise people registered by the Swedish National Bacteriological Laboratory (NBL; now SMI) as being infected with HIV.

All studies used the personal identification number, making it possible to follow the person in the hospital discharge register, the cause-of-death register and the register of the total population.

Table 12.1: Overview of Swedish cohort studies

Author, type of cohort	Number of participants	Inclusion period	Follow up	Types of drugs	Mortality (CMR, SMR or SRR)	Notes
Stenbacka, data from case-finding survey	1,705 (1,288 males, 417 females)	1967	2003	Opiates 22%, Opiates+CS 26%, CS 45%	SRR males 3.3, Females 3.5, Opiate 3.2, Op+CS 3.6, CS 3.2	Information from various sources, social welfare, health services
Davstad et al., conscription cohort	48,024 males, 8,767 with self-reported drug use	1969-1960	2004	Opiates, CS, Cannabis	CMR CS 5.9, Opiates 3.7, Cannabis 2.4 (per 1,000 person-years)	Drug related hospital care increased hazard rate compared to no drug use HR=8.3 Self-reported vs no drug use HR, 1.43
Lindberg et al. – Hospital department for drug users	226 (196 males, 30 females)	1969-1972	1976	Opiates 55, CS 163	CMR 16/1,000 yrs	
Tunving, Hospital dep. for drug users	524 (336 males, 158 females)	1972-1978	10 years	Opiates, CS	CMR 12/1000 yrs, Opiates 21	SMR tot 5.3 (m 5.8 f 4.6), SMR opiates m 18.3 f 12.1 SMR CS m 2.5 f 2.0. 31% suicides
Engström et al. cohort from hospital discharge register, drug-related diagnosis	1,630 (1,053 males, 577 females)	1971-1972	1984	CS 40%, Opiates 11%, prescribed drugs 25%	CMR 23/1000 yrs	SMR tot 5.3 (m 5.8, f 4.6) SMR opiates 16.1 (m18.3, f 12.1) SMR CS 8.5 (m 8.3 f 10.0) SMR presc.drugs 3.9 (m 3.8 f4.0). 20% suicides
Wahren et al., two cohorts from hospital discharge register	1,226 (852 males, 374 females). 1,268 (863 m, 405 f)	1971-1972 1981-1982	10 years	CS 57%, Opiates 12% CS 30%, Opiates 39%	CMR 22/1,000 both cohorts	1) SMR 6.9, SMR opiates 14.8, SMR CS 9.6 2) SMR 12.2 SMR opiates 22.3, SMR CS 10.0
Fugelstad et al., Hospital dep. for drug users	1,640 (1,135 males, 505 females)	1981-1988	2008	CS 35%, Opiates 41%	CMR 22/1,000 CS 14, Opiates 33	SMR 16.3, 235 HIV-infected CMR 59. 6% suicides
Fridell, Hospital department for drug users	125	1988-1989	15 years		CMR 16/1,000 yrs	Higher mortality among drug users with mental illness
Fugelstad et al., Drug users in contact with social welfare	2,986 (2,229 males, 757 females)	2001-2002	2008	CS 44%, Opiates 34%, Cannabis 19%	CMR 16/1,000 (m 17, f 12) Opiates 23, CS 13, Cannabis 9 /1,000 yrs	SMR 7.9 (m 7.6, f 9.8) 9% suicides
Fugelstad et al. Drug users in involuntary treatment	151 (81 males, 70 females)	1986-1988	2008	CS 23%, Opiates 62%,	CMR 43/1,000	Mortality the first year 120/1,000

Notes: CMR Crude Mortality Rate = Number of death per 1,000 person-years. SMR standard mortality ratio, SRR standardised rate ratio. CS Central stimulants, in Swedish cohorts mostly amphetamines.

One of the first Swedish mortality studies was done by Bejerot, who followed up 625 amphetamine users in Stockholm during a two-year period, between 1965 and 1967. The annual mortality in this cohort was 10 per 1000 (Bejerot and Bejerot, 1980).

Stenbacka et al. (Stenbacka et al., 2010) followed up 1,705 drug users (1,288 males and 417 females). People with substance abuse were identified through records collected by various institutions and caregivers in Stockholm in 1967. The subjects were followed in mortality and hospital discharge registers until 2003. The standardised rate ratio (SRR) for mortality was 3.3 among males and 3.5 among females. Mortality was highest among users of both opiates and amphetamines (SRR=6.1) and users of drugs and alcohol (SRR=6.2), lower among amphetamine users (SRR=4.3) and opiate users (SRR=3.0). Accidents and suicides were the most common causes of death among the youngest subjects and cardiovascular diseases and tumours were most common among the elderly.

One strength of the study by Stenbacka et al., is the long follow-up period which makes it possible to show injuries and other causes of death that are seen after long-standing drug use. The division of the subjects into different drug groups may be misleading as heroin and IV opiate use was not introduced in Stockholm in the 1960s. It may also be noted that both alcohol and psychiatric diagnoses were quite common in the cohort. Therefore, it may be difficult to draw conclusions that are applicable to later cohorts.

Lindberg and Ramström (Lindberg and Ramström, 1977) studied 226 drug users, who received treatment at a special clinic for addictive disorders at Långbro Hospital in Stockholm between 1969 and 1972. The subjects in the cohort were mainly amphetamine users. The annual mortality rate was 16 per 1,000. A new follow up of this cohort was done in 2009 and is planned to be a part of a multi-cohort study together with other early cohorts.

In 1988, Tunving (Tunving, 1988) published a study of 524 drug users who had undergone detoxification treatment at a hospital clinic between 1972 and 1978. The cohort was monitored for 10 years. During this period, 62 persons died and the annual mortality rate was 12 per 1,000. The mortality rate was highest among opiate users, 21 per 1,000. The percentage of suicides was 31.

Engström et al. (Engstrom et al., 1991) followed up a cohort that was chosen from the hospital discharge register in the Stockholm region in 1971-1972 and had a drug-related diagnosis. Of the participants in the cohort, 40 percent were amphetamine users, 11 percent used opiates and 25 percent used prescribed drugs. The follow-up period was 12 years and the annual mortality rate in the whole population was 23 per 1000. The standardised mortality rate (SMR) for the whole population was 5.3 with the population in Stockholm as reference (SMR males 5.8, females 4.6). SMR for opiate users was 16.1, amphetamine users 8.5 and users of prescribed drugs 3.9. The percentage of suicides was 20.

Adamsson-Wahren et al. (Wahren et al., 1997) created two cohorts, using the hospital discharge register in Stockholm. One cohort was hospitalised in 1971, the other in 1981. Both cohorts were monitored for 10 years. In the first cohort, the majority was amphetamine users (57 percent) and 12 percent used opiates. In the

second cohort, 35 percent used amphetamines and 41 percent used opiates. The annual mortality rate was 22 per 1,000 and was the same during the two follow up periods. The mortality rate was higher among opiate users than among users of mixed drugs and amphetamines. The proportion of suicides decreased from 24 percent in the first cohort to 14 percent in the second one. Undetermined deaths and deaths with the diagnosis narcomania increased.

Fridell (Fridell and Hesse, 2006) followed 125 drug users, who had been treated at a psychiatric hospital ward. The cohort was observed for 15 years and the annual mortality rate was 16 per 1,000. Patients with psychiatric symptoms had a higher mortality rate than the others.

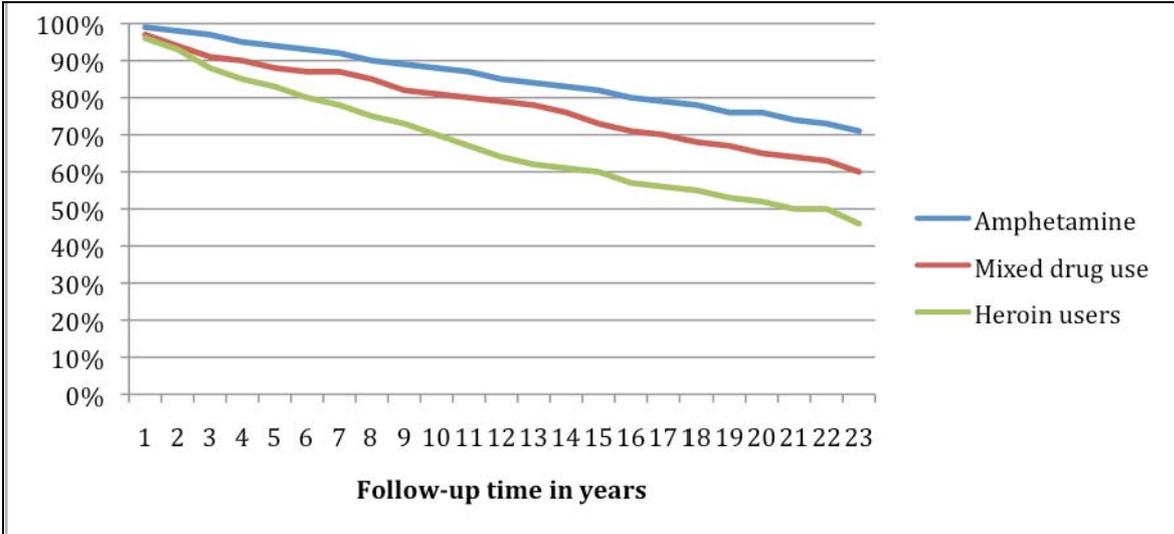
Fugelstad et al. (Fugelstad et al., 1998) studied a group of persons, who had undergone treatment according to the Swedish Care of Alcoholics, Drug Abusers and Abusers of Volatile Solvents (Special Provisions) Act. Prerequisites for compulsory treatment under the law are that the drug use is endangering the person's life and health, that the substance abuser is in immediate need of care in order to escape from the drug use and that he or she lacks motivation for voluntary treatment. The study comprises 151 persons who underwent care in 1986-1988. The majority (94 persons) were heroin users. After 20 years, 83 persons had died and the annual mortality rate was 43 per 1,000. In the first year after discharge, the mortality rate was 120 per 1,000.

Fugelstad et al. (Fugelstad, 1997) monitored a cohort comprising 1,640 individuals, who had undergone in-patient treatment at a clinic specialised in addictive disorders during the period 1981-1988. Mortality was monitored from 1985, when data on HIV status was possible to obtain (table 12.1). Information was also available on the type of drug use. Mortality was observed on two occasions, in 1992 and 2008.

The annual mortality rate at the first follow-up in 1992 was 22 per 1,000 person-years. HIV-infected individuals had a much higher mortality rate than the others (hazard ratio 2.78). There was also a high mortality rate from causes of death that were not AIDS-related. Participation in methadone treatment had a protective effect (hazard ratio for those, never in treatment 1.28 and for those discharged 2.56). No cases of death occurred among HIV-negative persons in the programme and 13 of 15 deaths among those infected had natural causes.

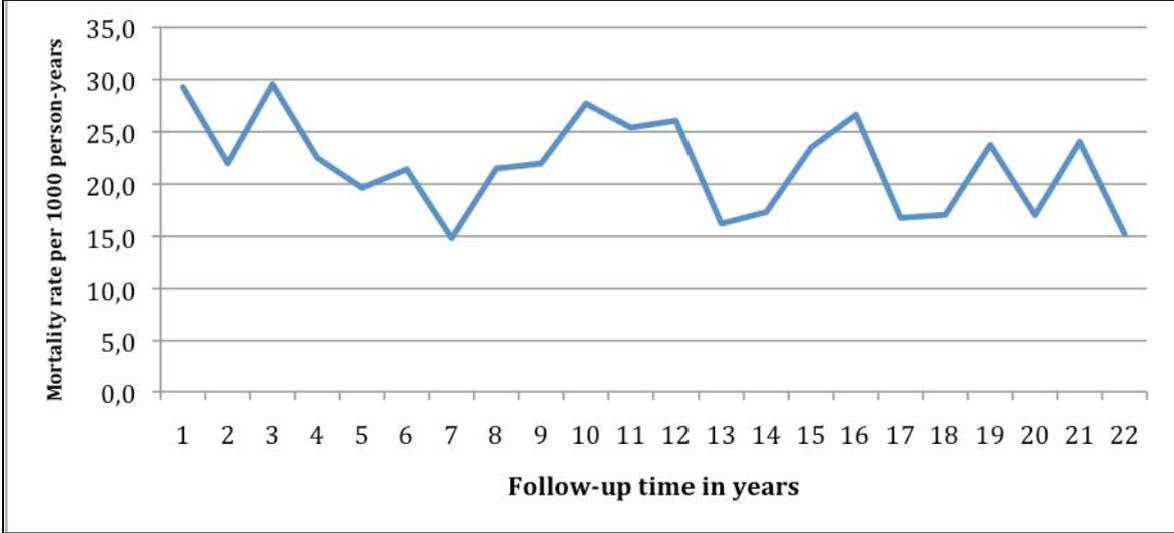
At the second follow-up in 2008, the annual mortality rate was as high as on the first occasion, 22 per 1,000 person-years. In total, 630 deaths had occurred. Opiate users had a higher mortality rate than mixed drug and amphetamine users. The mortality rate among males was higher than that among females. However, compared with the general population, females had a higher excess mortality (SMR = 18.3) than males (SMR = 13.8). After 22 years, 50 percent of the heroin users and 70 percent of the amphetamine users had survived (figure 12.1).

Figure 12.1: Survival in relation to drug use among hospitalised drug users in Stockholm, related to follow-up time and type of drug.



The annual mortality rate varies around 20 per 1,000 during the entire observation period (figure 12.2). Most of the heroin intoxication occurred in the beginning of the observation period. On the other hand, deaths caused by disease were more common at the end of the period.

Figure 12.2: Crude mortality rate in relation to follow up time among hospitalised drug users in Stockholm.



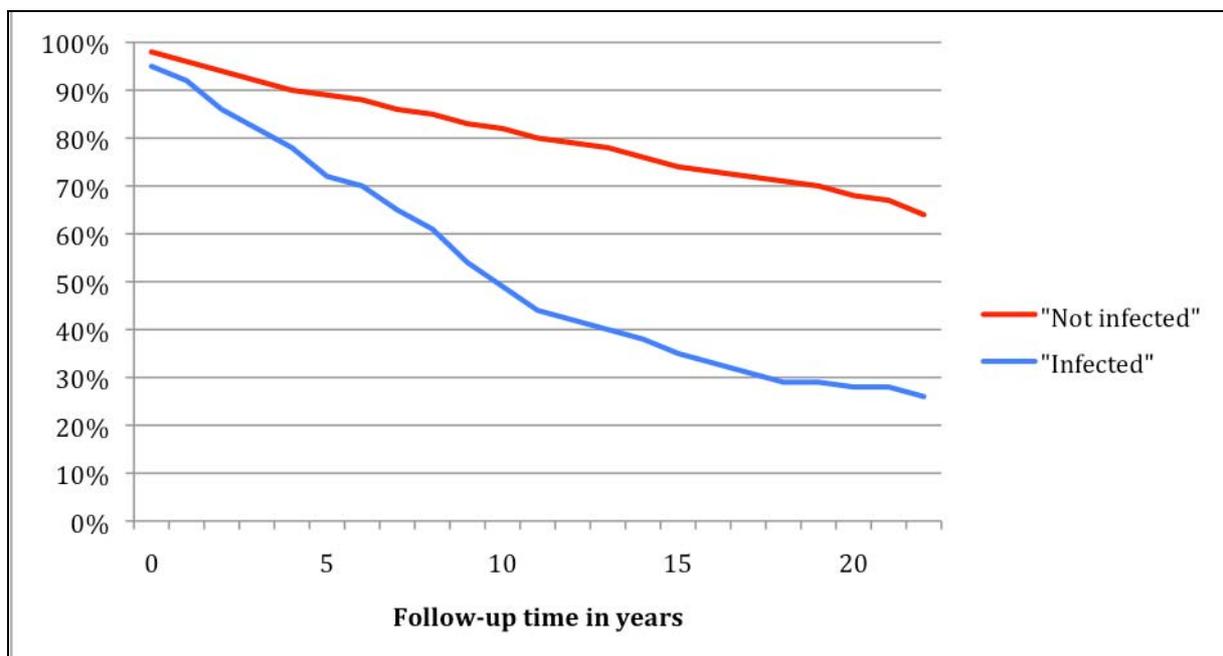
Most of the heroin intoxication and the AIDS-related deaths affected the heroin users. However, there are a number of deaths from heroin intoxication among other groups of drug users. This indicates that drug use habits are not constant over time and there is a shift between drugs used.

The amphetamine users have a higher proportion of deaths from natural causes and deaths from other violent causes and intoxication.

In the cohort, 39 suicides occurred, comprising 6 percent of the total number of deaths. The number of alcohol-related deaths is 197 or 30 percent of the total number of deaths. The highest proportion of alcohol-related causes of death is found among mixed drug users and the amphetamine users.

Mortality was high among HIV-infected drug users (figure 12.3). During the observation period, 171 of 235 HIV-infected persons died. Almost half of the deaths (82) were related to AIDS. One third (59 persons) died from heroin intoxication. Ten HIV-infected persons committed suicide, which is 6 percent of the deaths in the group.

Figure 12.3: Survival in relation to follow-up time and HIV status among hospitalised drug users in Stockholm.



The conscription cohort

In the end of the 1960s, a new system was introduced for assessing fitness among young men, who were called up for military service. The conscripts were asked to voluntarily complete two questionnaires and participate in various psychological assessments, performed by health professionals and psychologists. In the years 1969-1970, this data was linked to their personal identification numbers and was used to create a cohort that comprised 48,024 males.

The questionnaire included a number of relevant background variables, which included both protective and risk factors and items about drug and alcohol use. A number of epidemiological studies have been based on the conscription cohort. The cohort was started at a time when the prevalence of illicit drug use among young people was high. This may make it more difficult to generalise based on the results. It should also be noted that the cohort began at a time when heroin use had not yet been introduced in Sweden.

Andreasson and Allebeck (Andreasson et al., 1987) used the conscription cohort for a study of the relation between cannabis use and schizophrenia that has attracted much attention and was published in *Lancet*. In another study (Andreasson and Allebeck, 1990), an increased risk of violent death was found among cannabis users.

Davstad et al. (Davstad, 2010) followed up on mortality among 48,024 males from the conscription cohort. Of them, 8,767 had reported illicit drug use at the initial interview. The cohort was monitored until the end of 2004. The annual mortality rate among those who had reported any form of drug use was 2.2 per 1,000 and, among those not reporting drug use, it was 1.4 per 1,000. Among amphetamine users the mortality rate was 5.9, among opiate users 3.7 and among cannabis users 2.4. Those who had undergone hospital treatment for drug problems during the follow-up period had an increased mortality risk, compared with those not reporting any drug use (hazard ratio = 8.3).

A cohort of drug users who had been in contact with the social services

This cohort was reported to the EMCDDA in the 2009 National Report. Fugelstad examined a cohort that comprised 2,986 persons (2,229 males and 757 females), who were in contact with the social services and were problem drug users. Their average age was 36.5 years. The cohort was observed until the end of 2008. The annual mortality rate was 16 per 1,000 (males 17 and females 12). A higher mortality rate was found among opiate users (23 per 1,000) than amphetamine users (13 per 1,000). There were 555 persons in the cohort with cannabis as the only reported illicit drug. The annual mortality rate among cannabis users was 9 per 1,000.

Altogether, 296 deaths occurred during the follow-up period. The average age among the deceased was 45 years. Among these, there were 26 suicides, which is a higher proportion (9 percent) than in the cohort of hospitalised drug users. The highest proportion of deaths from natural causes was found among amphetamine users. Deaths from cardiovascular disease were fairly common in this group.

Cohorts of HIV-infected intravenous drug users

Two cohorts are based on information from the NBL/SMI. The cohorts comprise all intravenous drug users, identified as HIV-positive in the Stockholm region. Under Swedish law, physicians must report every new case of HIV infection to the NBL/SMI. According to various estimates, the percentage of IDUs tested for HIV was approximately 90 percent during the time period in question (Kall and Olin, 1990, Pehrson and Gaines, 1988).

The first study (Fugelstad et al., 1995) includes all HIV-infected IV drug users in the Stockholm region from 1986 to 1990, 472 people in total. Of them, 135 participated in the methadone programme and 69 died during the follow up period. The majority (52 individuals) died from violent causes or intoxication, mainly heroin injection, and 17 people died from natural causes such as AIDS, hepatitis and alcoholic cirrhosis.

The second study (Fugelstad, 1997) covers the period between 1985 and 1994, which corresponds to the first ten years of HIV-infection among intravenous drug users in Sweden. Information is available on the type of drug use (heroin or amphetamines) and estimated time from the first positive HIV testing for those who

died. There is also information on participation in methadone treatment. The study can be characterised as a survey and there is no calculation of mortality rates.

Altogether, 547 HIV-infected intravenous drug users were reported during the period. During the first two years 1984-1985, 237 newly infected persons were reported and the annual number decreased to 18 in 1994. The total number of deaths was 185 and 179 of them could be identified, 134 heroin users and 42 amphetamine users. The annual mortality in the group increased from 3.4 percent in 1985 to 9.3 percent in 1994. During the first three years, all deaths were from violent causes and intoxication, but during the latter part of the period, AIDS-related causes were dominant. In total, 34 percent of the deceased were diagnosed with AIDS.

There were clear differences in the causes of death between heroin and amphetamine users. (The information on drug use was only available at an aggregate level and it is not possible to calculate the mortality rate in the two groups of drug users.) Most amphetamine users died from natural causes and after a long period of infection (4-10 years). Death by injection was the most common cause of death among heroin users and the majority of deaths occurred after a short period of infection (0-3 years). In 1987, there was a peak in mortality, with 26 deaths occurring among HIV-infected drug users compared to eight the previous year and ten the year after. Heroin injections were the cause of death in 23 of the 26 deaths.

Follow up studies of the Swedish methadone programmes

The Swedish methadone maintenance treatment regulations followed the original model of Dole and Nyswander. The inclusion criteria demanded at least four years of compulsive intravenous opiate use. The number of patients allowed to participate in the programme was limited until 2005. The daily methadone dose was generally rather high. In 2008, the average dose in the Stockholm methadone programme was 90 milligrams.

From 1965 to 1985, there was only one programme in Sweden, located in Uppsala. In 1986, a new programme was started in Stockholm. After that, four new programmes were started at various places until 2005 when the regulations for methadone treatment were changed and the previous restrictions on the number of participants and new programmes were removed.

Grönbladh and colleagues (Grönbladh et al., 1990) followed up on mortality in the original Uppsala programme on several occasions. In a controlled study from 1981, it was shown that mortality in the programme was lower than among non-participants. Fugelstad et al. (Fugelstad et al., 2007) monitored the mortality rate related to the Stockholm methadone programme between 1988 and 2000, both mortality related to treatment and fatal methadone intoxication in the Stockholm area during the same period in order to estimate the leakage from the programme. The study comprised all individuals (n=848), who had applied for or had participated in the programme during the period studied.

The results indicated a lower mortality rate among those in treatment than among those discharged (RR=2.46). However, a considerable number of deaths occurred which were related to natural causes, mainly related to AIDS and hepatitis C. Those

who were discharged mainly died from heroin intoxication. No one in the programme died from accidental opiate intoxication (Fugelstad et al., 2007).

There was no indication of any increase in the number of methadone intoxication fatalities in the Stockholm region when the Stockholm methadone programme was introduced. A forensic medical review of all deaths with the presence of methadone in the body fluids showed that the leakage from the programme was negligible. Only two deaths from intoxication could be related to methadone obtained in the methadone maintenance programme.

Davstad et al (Davstad et al., 2009) observed 157 patients from the Stockholm programme during 18 years and obtained data on mortality, enrolment to and discharge from the programme, other hospitalisations and criminal offences. This study also showed a strong protective effect of the programme and all deaths occurring in the programme were AIDS related.

Early surveys of drug-related deaths

Surveys of drug-related deaths have been made on several occasions in different parts of Sweden. Most surveys have made use of forensic medical examinations. As 93 percent of all deaths in Sweden from violent causes and intoxication among those below 65 years of age undergo a forensic medical investigation, the majority of drug-related deaths are found in this way. A survey making use of forensic medical data was performed in the south of Sweden in 1984-1987 (Olsson et al., 1989).

A very comprehensive study based on both forensic data and information on drug-related deaths from hospitals, mostly from clinics for infectious diseases, was performed in the Stockholm area in 1985-1996 (Fugelstad, 1999).

Case-finding

One case-finding study that was under way for more than 40 years is the Injection Mark Study at the remand prison in Stockholm. This study was initiated in 1965 by Bejerot and ended in 2007. The investigation method involved inspecting the bends of the arms of the inmates for injection marks. Nurses at the prison did this and also completed a questionnaire form on those who had marks. To-date, approximately 80,000 individuals have been examined. By using the personal identification number, it is possible to follow-up on the whole remand prison population (Kall and Olin, 1990).

When HIV was discovered among intravenous drug users, a new project was begun at the remand prison. The aim was to screen drug users for HIV and Hepatitis and offer them vaccination. A comprehensive questionnaire that included items on drug use and risk behaviour was filled in. This project began in 1987 and is still under way, but does not cover the years 1999-2002.

There are plans to follow-up the above mentioned studies on mortality in the injection mark study and the more recent socio-medical project at the remand prison. However, there are problems concerning data quality as the items in the questionnaire have been phrased in differently.

Discussion on mortality cohort studies

The highest mortality rate was found in the cohort where the drug users were treated involuntarily pursuant to the Swedish Care of Alcoholics, Drug Abusers and Abusers of Volatile Solvents (Special Provisions) Act. The drug use was supposed to endanger their life and health. During the first year of the observation period, 12 percent of the cohort died. Another group of drug users with a high mortality rate are those who had been discharged from methadone treatment. The reason for the discharge is often a destructive drug use.

The cohort that was started at the special clinic for addictive disorders at Sabbatsberg Hospital when HIV was discovered among intravenous drug users in Stockholm comprised a number of HIV-infected persons. The same occurred in the Stockholm methadone programme some years later. This also affects the mortality rates.

Relatively high mortality rates are reported from cohort studies that are selected using diagnoses indicating drug-related disorders in the hospital discharge register. Persons who are hospitalized probably suffer a greater risk of death. This may involve those undergoing treatment for non-fatal overdoses and who are in an intensive phase of their drug career. It may also be individuals, who are treated for a somatic illness related to the drug use, individuals in a general psychiatric ward or people who have used legally prescribed drugs.

Cohorts with a rather low mortality rate include the conscription cohort, which uses information on self-reported drug use, and those based on case-finding studies. Cohorts recruited from special clinics for addictive disorders probably have a more “pure” selection of illicit drug users.

With this in mind, it is hard to see any major changes in the mortality rates over time, when comparing cohorts selected in the same way. With the exception of studies based on cohorts recruited in 1967-1970, there is a higher mortality rate among opiate users than among amphetamine users. The crude mortality rates among opiate users vary between 21-33 per 1,000 person-years and the rates among amphetamine users are 13-14 per 1,000.

The early cohorts show a higher mortality rate among amphetamine users than opiate users. Intravenous use of amphetamines was common in the 1960s, but intravenous use of heroin was introduced later in the 1970s. The opiate users in the early cohorts (Davstad, 2010, Stenbacka et al., 2010) are probably rather heterogeneous groups, where many were not intravenous users. In the later cohorts, most of the opiate users were probably intravenous heroin addicts.

The mortality rate among cannabis users was studied in some cohorts. In the conscription cohort, there is a higher mortality rate among those who had used cannabis compared with the non-drug use group. However, the majority of this difference disappears, when controls are applied for a number of background factors.

In studies based on hospital discharge registers and hospitalised drug users, there is an elevated mortality rate among cannabis users (SMR 5 – 23.5), but the numbers of cannabis users are rather small. A larger group of cannabis users (N=555) is found in

the cohort of drug users in contact with social welfare services and the mortality rate is 9 per 1,000 person-years.

Cause-specific mortality among problem drug users

Heroin intoxication or “overdoses” can be classified in various ways according to ICD. Consequently, it is difficult to estimate the proportion of these deaths in earlier cohorts where the deaths are reported using ICD categories. In the study of hospitalised drug users, monitored from 1985-2008, the cause-of-death certificates were examined and toxicological data was also available in many cases. In this study, 30 percent of the deaths are from heroin intoxication, but the proportion varies over time (figure 12.4). One finding in the study was that a number of amphetamine and mixed drug users died from heroin intoxication. (They had lower concentrations of morphine in blood on average, indicating a lower tolerance level and that the intake of heroin was probably occasional).

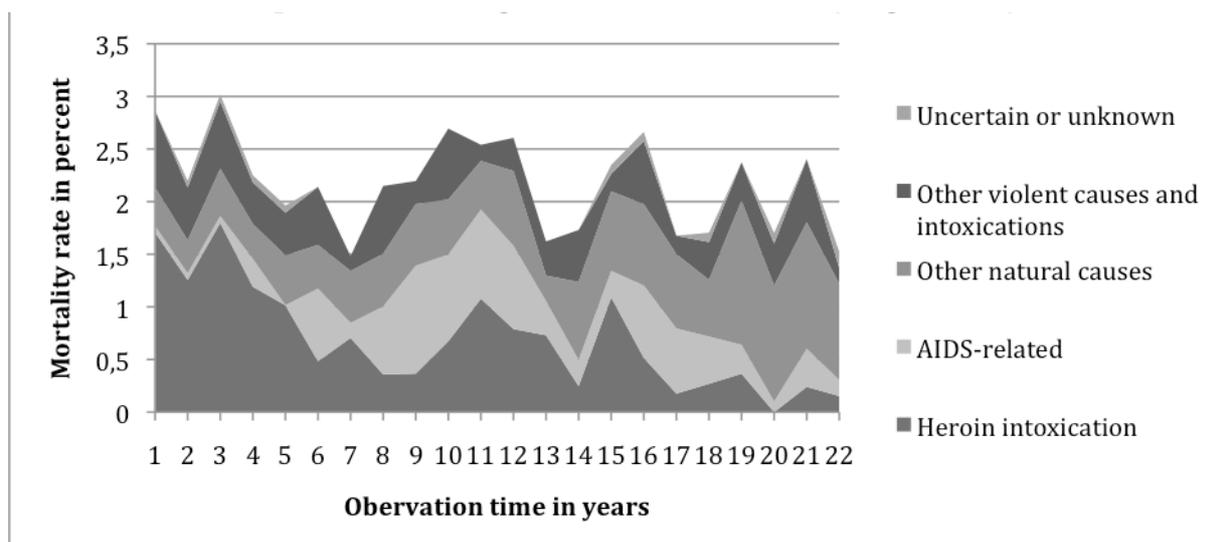
The proportion of drug users that died from suicide varies between different studies. The lowest proportion, 6 percent, is found in the long-term follow-up study of hospitalised drug users. The percentages of suicides are higher in cohorts where hospital discharge registers have been used and includes patients from psychiatric wards and those addicted to prescription drugs.

In the conscription cohort, the proportions of suicides among those who had reported drug use and those who had not are similar (17 percent and 18 percent).

With the exception of cohorts with only HIV-positive drug users, the highest proportion of AIDS-related causes of death was found among hospitalised drug users in 1985-2008. Of all deaths in this cohort, 31 percent were from AIDS-related causes (figure 12.4). The deaths occurred during the entire follow-up period, with a maximum between 6 and 11 years.

Deaths from natural causes increased with the length of the period of observation. A high proportion of such deaths occurred in amphetamine users and in many cases the deaths were related to cardiovascular disease. This connection will be studied further in a planned follow-up study of amphetamine users with at least 20 years' exposure to the drug.

Figure 12.4: Mortality rates for main causes of death in hospitalised drug users 1985-2008.



Risk/protective factors among problem drug users

The results from the cohorts indicate that HIV infection is a risk factor and methadone treatment is a protective factor. In the study of hospitalised drug users in 1985-1992, a multivariate analysis was performed on how the HIV infection and the participation in methadone treatment influence the risk of death. The analysis shows that, compared to those without infection, HIV-infection results in a hazard ratio of 2.78. Compared to those in treatment, those who were discharged had a hazard ratio of 2.56 and those who had never been in treatment had a hazard ratio of 1.28.

The Stockholm methadone programme prioritised HIV-infected heroin users. During the early years, more than half of the participants were infected. This resulted in a high mortality rate both among those in the programme and those who were discharged. The difference was that those in the programme died from natural causes, mostly HIV-related, and those who were discharged died from violent causes and intoxication.

An analysis of the cohorts with a very long follow-up period indicates that alcohol is a risk factor for mortality, as many die from alcohol-related causes of death.

Complementary sources with drug-related mortality information

Toxreg

The conditions for creating a register and a system to monitor deaths related to illicit drugs are good in Sweden. 93 percent of all violent deaths and intoxication fatalities among persons below the age of 65 are forensically examined and undergo toxicological screening for illicit drugs, alcohol and pharmaceuticals.

The main aim of the Toxreg project has been to create a forensic medical research register that includes all deaths in Sweden that has undergone a forensic medical

investigation. This research register forms the basis of the register on drug-related deaths and is also used for controlling its completeness. In the future, Toxreg is planned to be included in the General Mortality Register in order to give rapid information on drug-related deaths. In order to achieve that goal, all forensically examined deaths have been ICD-coded with priority by the National Board of Health and Welfare since 2003.

Stockholm register

In the period between 1985 and 1996, a survey of all known cases of drug-related deaths was conducted in the Stockholm region. The survey included all forensically examined deaths where illicit drugs were found in the body fluids at death or there was evidence of illicit drug use in the case reports. Individuals who had been treated in hospital for late complications from heroin or amphetamine injection and HIV-infected drug users who died in the infectious disease wards of the hospitals in the Stockholm region were also included. During the study period, approximately half of the drug related deaths in Sweden occurred in the Stockholm region. In total, 1,212 deaths were classified as drug related during the study period.

Mortality among AIDS cases: EuroHIV

See above for detailed information regarding HIV related death

A comparison between the Stockholm register and the GMR showed that 63 percent of the deaths in the Stockholm register were found with a drug related diagnosis in the General Mortality Register. Nearly all of the deaths in connection with heroin injection were diagnosed as drug related. Half of the suicides and other accidents and intoxication cases (heroin injections not included) were diagnosed as drug related. Among murder victims, only 2 percent were deemed to be drug related and, among those who died from their HIV infection, 11 percent were deemed to be drug related in the GMR.

The Stockholm register provided information about the annual number of drug-related deaths, but it was also possible to follow how the drug use patterns and different causes of death developed over time. One observation was that deaths from drug-induced diseases and organ lesions increased over time. Deaths from infections as HIV and hepatitis increased, but also deaths from cardiovascular lesions caused by amphetamine use. It was obvious that these deaths were rarely classified as drug related in the General Mortality Register. This also means that an increasing proportion of the drug-related deaths were not diagnosed as such.

Mortality due to diseases and external causes of death

Table 12.2 is based on the Stockholm register and gives an overview of the cause of death pattern in relation to different illicit drugs. The proportion of suicides is lower among opiate related deaths than among deaths related to psychoactive drugs such as amphetamines, cocaine and THC. The proportion of deaths from natural causes is highest among deaths related to amphetamines.

Table 12.2: Causes and manners of death related to main drug in the Stockholm register (N=1,211).

	Death by accidental injection	Other accident not injection	Suicide	Homicide	Undetermined	Natural causes	Unknown	N
Methadone	6.9%	51.7%	13.8%	0.0%	6.9%	20.7%	0.0%	29
Heroin	65.3%	8.6%	9.4%	0.8%	1.1%	14.2%	0.7%	754
Amphetamine	0.0%	39.7%	14.8%	7.9%	2.4%	34.8%	0.3%	290
Cocaine	0.0%	40.0%	26.7%	33.3%	0.0%	0.0%	0.0%	15
THC	0.0%	39.4%	35.2%	14.1%	0.0%	8.5%	2.8%	71
Other or unknown	2.0%	19.6%	19.6%	3.9%	5.9%	41.2%	7.8%	51
Total	40.9%	19.7%	13.0%	3.8%	1.7%	19.9%	1.0%	1,211

It should be noted that only a minority of the drug-related deaths from natural causes will be found in a register of forensically examined deaths. The actual number of amphetamine related deaths is probably much higher.

In Toxreg (table 12.3), the heroin related deaths have been divided into deaths with the presence of both 6-mam and morphine (probable overdose) and deaths with morphine only. The proportion of deaths in the 6-mam group is 3.6 percent and in the morphine only group 10.3 percent.

Table 12.3: Proportion of deaths from suicide and natural causes among different drug groups – forensically examined drug-related deaths 1997-2007.

	Suicide	Natural causes
6-MAM	3.6%	1.7%
Morphine	10.3%	15.0%
Methadone	8.2%	22.6%
Amphetamine	14.2%	21.6%
Cocaine	21.1%	1.3%
Other illicit drugs	19.7%	11.1%
THC	20.7%	19.8%

The proportion of drug related cases among different types of violent deaths is shown in table 12.4. As nearly all violent deaths under the age of 65 are forensically examined, the table indicates that every fifth death with an uncertain intention is drug related. The proportion of drug related cases among homicides is 14.2 percent and among car accidents 7.3 percent. The lowest percentage is found among suicides, 3.2 percent.

Table 12.4: Proportion of deaths with presence of illicit drugs among forensically examined deaths (N=59,208) 1997-2007.

All violent deaths	8.3%
Car accidents	7.3%
All traffic accidents	5.0%
Drowning	3.3%
Suicide	3.2%
Homicide	14.2%
Uncertain intention	21.9%

Risk/protective factors based on complementary sources with drug related information

The study of risk factors connected with heroin injection (overdose), which is based on all deaths with the presence of 6-monoacetylmorphine in the Stockholm register, indicates two risk factors. The factors are the concurrent intake of alcohol and interruptions in drug use and an increased susceptibility to heroin.

Alcohol is probably also a risk factor in connection with other types of drug-related deaths, such as accidents, suicide and various diseases and organ lesions. The mortality rate in Swedish cohorts of drug users is approximately 20 per 1,000, which is relatively high in an international perspective (Darke, 2007). Important factors are probably high alcohol consumption and binge drinking among young persons, especially males.

One probable example of lowered tolerance is the clustering of injection deaths that occurred among HIV-infected drug users in 1987. This was some years after the discovery of the HIV infection among drug users. As a response to this, there was an increased funding of treatment facilities and a strong commitment to outreach activities in order to get HIV-infected drug users into treatment. Many drug users began treatment, but were not motivated and relapsed after a short time. An investigation of the 23 deaths in 1987 showed that they were preceded by a shorter or a longer break in their heroin use. The concentrations of morphine in the blood were lower than among the other heroin deaths in the study (0.28 microgram/millilitre compared to 0.39).

Persuading heroin addicts to stop their drug use when they are not sufficiently motivated or without available substitution treatment probably increases the risk of sudden deaths in connection with relapses.

Methadone treatment is a protective factor for those in treatment but may also be a risk factor if the methadone is sold on the black market. The doses of methadone used in substitution treatment in Sweden are often lethal for individuals without a tolerance to opiates.

A previous study (Fugelstad et al., 2007) showed that leakage from methadone treatment was very uncommon before 2005. After 2005, when the policy for methadone treatment was changed, the number of methadone related deaths has tripled.

Public health perspectives

Public health implications

The conditions for performing follow up studies of mortality cohorts in Sweden are good. The availability of a reliable population register, a cause-of-death register of good quality and the unique personal identification number makes it possible to follow up mortality and emigration. There is a very high proportion of forensic examinations and toxicological screening in violent deaths. This makes it possible to establish a register of drug-related deaths that completes the GMR and provides added information about types of drugs and causes of death.

However, there are problems in creating mortality cohorts originating from 'problem drug users in treatment settings' according to the EMCDDA standard. Another problem is with obtaining cohorts with a sufficient number of participants.

Sweden has a history of amphetamine use since the 1950s. In contrast to opiates, amphetamines have considerable organ toxicity and prolonged use of the drug causes diseases and lesions. The experience from the use of the legal drugs alcohol and tobacco, which also cause organ lesions after prolonged exposure shows that deaths often occur in higher age groups, often after the age of 60. Today, there is no available method to identify diseases and lesions in connection with long-term use of amphetamines in the same way as following up acute drug induced deaths such as overdoses of heroin. A new study is planned in order to contribute to solving this problem.

The personal identification number makes it possible to follow an individual in several cohorts and in case finding studies, such as the injection mark study. It is accordingly possible to create a new cohort of amphetamine users that can be followed up on several occasions with more than 20 years between the first and last occasions.

Alcohol use is probably a contributing factor to the high mortality rate among Swedish illicit drug users. This concerns not only heroin deaths, but also fatalities related to amphetamines. It is difficult to estimate the magnitude of the problem, as alcohol use is very frequent among Swedish drug users, making it difficult to find control groups.

When studying the development of drug-related deaths in Toxreg, the most acute risk today is the increase in methadone-related deaths. As the increase coincides with an expansion of the methadone programmes and the majority of the deceased were not in treatment, one probable explanation is leakage of methadone from the programmes.

The trend in the cohort studies is an increased number of deaths from natural causes. All three mortality registers show a long term increase in the number of drug related deaths. As it concerns an important public health problem, it is desirable to get an assessment of the actual number of deaths related to illicit drugs.

The previous comparison between the drug index of the GMR and the Stockholm register showed that the former register both exaggerated and underestimated the number of drug related deaths. Of the deaths in the Stockholm register, 37 percent

were not registered as drug related and 20 percent of the deaths in the GMR index were probably not related to illicit drug use.

The comparison between three registers of drug-related deaths indicates a considerable underestimation. In the three registers, a total number of 6,584 deaths were registered between 1993 and 2007. Of these deaths, 72 percent were found in the GMR illicit drug index, 61 percent in Toxreg and 38 percent in the EMCDDA index.

An estimation of the proportion of unregistered drug-related deaths can also be made by using cohort studies. Among the deaths in the previously described cohort of hospitalised drug users in 1985-2008, 49 percent were registered as drug related in the GMR. The corresponding proportion among drug users in contact with the social welfare services was 55 percent.

These results strengthen the hypothesis that all registers underestimate the actual mortality rate related to illicit drugs. The underestimation involves both cases of death from natural causes and deaths from violence or intoxication.

In order to support preventive activities, it is important to have good and reliable information about drug-related mortality and how it develops over time.

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Annex 3 List of full references of laws in original language

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- (2006) SFS 2006:323 *Lag om utbyte av sprutor och kanyler*. Stockholm, Riksdagen

Annex 4 List of abbreviations

ADHD	Attention Deficit Hyperactivity Disorder
ANDT	Alcohol-, Narcotics-, Doping- and Tobacco
ASI	Addiction Severity Index
BRÅ	Brottsförebyggande Rådet [eng. National Council for Crime Prevention, NCCP]
CAN	Swedish Council for Information on Alcohol and Other Drugs
CMR	Crude Mortality Rate
COPE	Community Parent Education
CRA	Community Reinforcement Approach
CRD	CAN Reporting system on Drugs
CS	Central Stimulants
DRD	Drug Related Death
DUID	Drivers Under Influence of Drugs
ES	Electronic Monitoring
EU	European Union
GIR	Göteborgs Implementering av Riktlinjer [eng. Gothenburg's Implementation of Guidelines]
GMR	General Mortality Register
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HSL	Health and Medical Services Act
ICD	International Classification of Diseases
IDU	Injection Drug User
ITOK	Integrated Team for Opiate-dependent Clients
IV	Intravenous
KIM	Klienter i Missbruksbehandling [eng. Clients in Substance Misuse Treatment]
LVFS	Läkemedelsverkets Föreskrifter [eng. Medical Products Agency's provisions and guidelines]
LVM	Care of Alcoholics, Drug Abusers and Abusers of Volatile Solvents Act
MARP	Most At Risk Population
MI	Motivational Interviewing
MMTP	Methadone Maintenance Treatment Programme
MPA	Medical Products Agency's
MPHASIS	Mutual Progress on Homelessness Through Advancing and Strengthening Information Systems
MUMIN	Maria Ungdom Motiverande Intervention
NBL	Swedish National Bacteriological Laboratory
NBHW	National Board of Health and Welfare
NCCP	National Council for Crime Prevention

NGO	Non-Governmental Organisation
NICE	National Institute for Clinical Excellence
NLAO	Network of Local Authority Observatories on Active Inclusion
NR	National Report
NSEP	Needle and Syringe Exchange Programme
PAR	In-Patient Registry
PDU	Problem Drug Use
PFL	Prime for Life
PR OROS	Prolonged Release OROS
PRISM	Programme for Reducing Individual Substance Misuse
PTN	Nordic Police and Customs Cooperation
R&D	Research & Development
RCT	Randomised Controlled Trial
RFHL	Riksförbundet för hjälp åt narkotika- och läkemedelsberoende [eng. National Association for Aid to Drug Abusers]
RIS	Riktlinjer i Samverkan [eng. Guidelines In Collaboration]
SAMANT	Workgroup for coordination Alcohol-, Narcotics-, Doping- and Tobacco Politics
SBR	Swedish Dependency Register
SBU	Swedish Council on Technology Assessment in Health Care
SEK	Swedish Krona
SET	Social and Emotional Training
SFS	Svensk Författningssamling [eng. Swedish Code of Statutes]
SHP	Swedish Prison Programme
SITOK	South ITOK
SKL	Swedish Association of Local Authorities and Regions
SMI	Swedish Institute for Infectious Disease Control
SMR	Standard Mortality Ratio
SNBYA	Swedish National Board for Youth Affairs
SNIPH	The Swedish National Institute of Public Health
SoRAD	Centre for Social Research on Alcohol and Drugs
SOSFS	Socialstyrelsens Författningssamling [eng. National Board of Health and Welfare Code of Statues]
SOU	Swedish Government Official Reports
SPPS	Swedish Prison and Probation Services
SRR	Standardised Rate Ratio
ST	Standard Table
STAD	Stockholm Prevents Alcohol and Drug Problems
STI	Sexually Transmitted Infection
TDI	Treatment Demand Index
UNODC	United Nations Office of Drugs and Crime
UN-UNGASS	United Nations General Assembly Special Session
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation
WURS	Wender Utah Rating Scale

