European Monitoring Centre for Drugs and Drug Addiction

NDM NATIONALE DRUGMONITOR

# REPORT TO THE EMCDDA
# by the Reitox National Focal Point

# THE NETHERLANDS
## DRUG SITUATION 2007

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**REITOX**

# REPORT ON THE DRUG SITUATION 2007

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# PREFACE

The Report on the Drug Situation in the Netherlands 2007 has been written for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Each year, national centres of expertise on drug-related issues in the member states of the European Union ('Focal Points') draw up a report on their respective national drugs situation, according to guidelines provided by the EMCDDA. These reports form the basis of the "Annual Report on the State of the Drug Problem in the European Union" compiled by the EMCDDA. In keeping with the guidelines, the report focuses on new developments in the reporting year. In order to avoid too much overlap, the reader is repeatedly referred to previous National Reports.

This 2007 national report was written by the staff of the Bureau of the Netherlands National Drug Monitor (NDM) at the Trimbos Institute and staff of the Scientific Research and Documentation Centre (WODC) of the Ministry of Justice. The NDM was established in 1999 on the initiative of the Ministry of Health, Welfare and Sports. The Ministry of Justice also participates in the NDM. The NDM carries out the functions of the Netherlands Focal Point.

The NDM relies on the contribution of a multitude of experts and input from registration systems and monitors in the Netherlands. In particular, the authors would like to thank the members of the Scientific Committee of the NDM and other expert reviewers for their valuable comments on the draft version of the report.

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# Summary

## Developments in drug use and related problems

Between 2001 and 2005, the percentage of last year users of cannabis, cocaine, amphetamine and ecstasy remained stable among the general population of 15-64 years (2005: 5.4%, 0.6%, 0.3% and 1,2%, respectively).Cannabis use stabilised among pupils of secondary schools between 2003 and 2005. There are no new *national* data on the use of other drugs among school-goers.

Compared to the general and school population, drug use is more common among young people in the nightlife scene. Qualitative data from the Amsterdam Antenna Monitor nonetheless suggest that drug use in several nightlife settings is generally over its peak, although this may not pertain to other parts of the country. Possible reasons for a moderation of use include a more strict policy of body-searching at the doors of clubs, a changing image (excessive use is not cool), a subsiding dance music genre and increased importance of individual fitness and healthier lifestyle. On the other hand, cocaine use appears to remain popular and there are some signs for a comeback of GHB, also elsewhere in the country, but quantitative data are limited. In Amsterdam the number of GHB related emergencies increased from 76 in 2005 to 110 in 2006. Moreover, the number of emergencies in Amsterdam related to the use of hallucinogenic mushrooms increased (70 in 2005 and 125 in 2006), especially among drug tourists. This trend is probably explained by the increased influx of drug tourists in the past years and the increased availability of hallucinogenic mushroom. Amongst others, this increase and the unpredictable (behavioural) effects of hallucinogens were reasons for the Ministers of Health and Justice in October 2007 to decide that fresh hallucinogenic mushrooms will be brought under the control of the Opium Act[1].

In 2001 the number of problem *opiate*/*crack* users was estimated at 3.1 per 1000 people aged 15-64 years and there is no new estimate available. In the past decade, local field studies among traditional groups of problem opiate users have shown an increase in the co-use of crack cocaine and in the prevalence of psychiatric and somatic comorbidity. Also, a recent study on methadone clients fulfilling a diagnosis of opiate dependence showed that one-third had a concurrent major depression and 60% had a history of conduct disorder. Political and professional attention for dual diagosis patients is growing but there is ample room for improvement (see also below).

Data from a cohort study among problem hard drug users and as well as national treatment data still show a decreasing prevalence of injection (e.g. 8% in 2006 among opiate clients). This trend is also supported by the continuing decrease in the number of exchanged syringes in Rotterdam and Amsterdam (180,100 and 210,000, respectively). Data for Amsterdam point at an increasing overall mortality rate among methadone clients until 2005, which might be related to the progressive ageing and pathology in this group. In 2006, a sudden unexpected decrease was found, which can not be explained yet. Overdose mortality remained

[1] Dried or other preparations of hallucinogenic mushrooms are already under control of the Opium Act.

low since the mid nineties. With some fluctuations, national figures on acute opiate deaths tend to decrease (44 in 2006).

Data from various sources on infectious diseases suggest that HIV and hepatitis C incidence among hard drug users has decreased in the past decade. However, prevalence rates remain fairly high and injecting drug use is still the most important route of transmission of hepatitis C. An evaluation study showed that full participation in *both* needle exchange ánd high dose methadone programmes reduces the risk of HIV and hepatitis C in injecting drugs users, whereas participation in a single programme was not effective.

For several years, the growing popularity of *cocaine* in subgroups of the population (e.g. problem hard drug users and clubbers) was paralleled by increases in other indicators (e.g. treatment demand, hospital admissions, deaths), but this trend seems to have halted in the past years. In 2006 the proportion of new cocaine clients at outpatient drug treatment services was 35% (cf 38% in 2003). The increase in the number of hospital admissions where cocaine abuse or dependence is mentioned as a secondary diagnosis peaked in 2002 (562) and remained at more or less the same level in the following years (514 in 2005). Finally, the number of recorded acute cocaine deaths remains low since three years (21 in 2006, cf 34 in 2002).

As far as *cannabis* is concerned, the number and proportion of clients seeking treatment due to a primary cannabis problem continued to increase in 2006. Currently, 32% of all new drug clients are cannabis clients (cf 27% in 2005 and 15% in 2001). The number of hospital admissions with cannabis abuse or dependence as a secondary diagnosis has also increased (from 299 in 2005 to 377 in 2006). An increase has also been reported in the number of cannabis-related nonfatal emergencies in Amsterdam, from 342 in 2005 to 461 in 2006. Whether these developments signal an increase in problem cannabis use is not known, since no trend data are available for the number of problem cannabis users. There is often also a considerable time lag between the start of problem use and seeking help at treatment centres.

Market data show that the average THC concentration in Dutch home-grown marihuana bought in coffee shops peaked in 2004 (20%), levelled off in 2005 and 2006 (18% in both years) and decreased in 2007 (16%). In 2007 a decrease in the percentage of THC in imported hashish was found as well. In 2007 the price of Dutch marihuana significantly increased, which might be related to the intensified actions of police and justice to combat large-scale cannabis cultivation.

Finally, treatment data point to a rise in the number of *amphetamine* users and their proportion of all drug clients (6% in 2006, cf 1.5% in 2001). Whether this trend reflects an increase in the (problem) use of amphetamine is not known. Local studies suggest that amphetamine use is not common in the nightlife scene of Amsterdam. However, the drug seems to be more popular in other, less urbanised parts of the country, where it may be used as a cheaper substitute of cocaine.

## Developments in prevention and treatment

Prevention is a priority in current health policy and one of the five targets is alcohol misuse among young people. Mid 2007 the ”Centrum Gezond Leven” (*Centre for Healthy Living*) started its activities. It informs professionals about available and effective preventive interventions and coordinates the activities of more than ten stake holding organisations in this field. This centre supports local professionals by presenting the available interventions with judgments about their quality and coherence. The Healthy School and Drugs is still the most widely implemented universal school-based prevention in the Netherlands. Currently pilot studies are running to test electronic strategies. The programme *Alcohol and Education* targets parents of children at risk of alcohol misuse.

Risk groups for drug use (e.g. clubbers, children of addicted parents, low SES groups) are targeted in several longer term selective prevention projects, such as the *Clubs & Drugs* project*, Children of Addicted Parents*, the *Drugs Information and Monitoring System* (DIMS) and the family-based programmes *Strengthening Families* and the *Home Party's.* A recent study on e-health interventions in mental health reviewed eighteen Dutch preventive interventions targeting alcohol abuse. One of the three public campaigns during the past year is trying to increase effectiveness by using a combination of entertaining people and (unconscious) learning. A coming congress entitled “Youngsters under the influence” illustrates the current importance given to prevention in health policy. Finally, a study showed that behavioural therapy at mid-childhood, reduces the risks of substance use and disruptive behaviour in adolescence.

Effectiveness of treatments is of growing importance for being funded by insurance companies, due to the privatisation of health care and health insurances. Thus the evidence-base of treatments is increasingly considered important in changes of treatment supply. Compared to earlier years, the treatment options for dual diagnosis patients, the capacity of medical heroin co-prescription and the number of self-help groups are increasing. The policy programme Scoring Results that was started in 1999 to improve quality in drug prevention and addiction care is in its last phase. Many research publications and protocols have been published to support this target. Its current focus is at developing protocols, implementation of guidelines and professional training and education in addiction. Benchmarking of addiction care is studied and a new instrument for treatment allocation and evaluation (*Measurement of Addiction for Triage and Evaluation, MATE*) has been introduced that may replace the Addiction Severity Index during the coming years. Two organisations of addiction care are now certified by the national Expertise Centre on Quality Review in Health Care.

Though additional drug-free treatments are rare in methadone programmes, these are predominantly used in the treatment of dependence of other drugs. Cognitive-behavioural and family-based treatments are becoming more frequently used. Experiments are running which focus on problem use of cannabis and cocaine in response to the increases in the number of cannabis clients in treatment. For example, the Netherland are a collaborating partner in a current international study on the effectiveness of a comprehensive family-based treatment focusing on problem cannabis use (INCANT). Another experiment focuses on an incentive-based variant of the Community Reinforcement Approach for cocaine dependence.

A comprehensive guideline has been published for methadone maintenance treatment.

The attention for treatment of dual diagnosis patients is growing. Furthermore, integrated treatment options are more complex, thus more difficult to implement. Two projects try to determine important implementation facilitators and challenges. Dual diagnosis is also a growing topic on conferences.

## Developments in the field of law enforcement and the criminal justice system

In recent years (2006 and before), three special policy programmes are running in the Netherlands: (1) 'A combined effort to combat ecstasy in and from the Netherlands' which aims at a reduction in production and trafficking of ecstasy, (2) the 'Plan to combat drug trafficking at Schiphol Airport', which aims at the reduction of cocaine imports and (3) Intensified enforcement on cannabis cultivation and especially the organised crime behind it. Moreover, in June 2006 the maximum penalty for drug production and dealing and for possession of large quantities of drugs was increased from four to six years of detention or a certain fine.

In the context of these developments, several findings in law enforcement and criminal justice system statistics were noted:

- The inflow of Opium Act cases in the criminal justice chain did not change much in 2005-2006. The police registered 22,000 cases in 2006 (preliminary data) and the Public Prosecutor 20,000. The stabilization in 2006 applies to both hard drug en soft drug cases.
- The number of hard and soft drug cases handled by the Court increased (13,000 cases).
- The number of unconditional custodial sentences for Opium Act cases decreased. This decrease has been going on since 2004. The mean duration of the custodial sentences also shows a decrease.
- The number of community services applied for Opium Act cases decreased in 2006, after a continuous increase in the period 2000-2005.
- Hard drug cases still form the majority of the Opium Act cases, altough the difference with the number of soft drug cases is very small in the first parts of the criminal justice chain. Hard drug cases get a clear majority in the final parts, especially in prisons.
- Between 2000-2006 the fraction of soft drugs cases (of all Opium Act cases) in all parts of the criminal justice chain rises. This is especially true in 2005-2006. An increase of soft drug cases is also noted in custodial sentences and length of these sentences.
- 75% of the investigations into organised crime involve drug trafficking or production. The majority of these investigations targets cases with hard drugs (79%); 60% concerns cases with soft drugs; and 39% both hard- and soft drugs.

With regards to supply of drugs, the government aims at more vigorous law enforcement of the cultivation of cannabis. Within this framework, research was carried out to gain insight in the world behind the Dutch cannabis cultivation. Results showed that the cultivation of cannabis is widespread in the Netherlands and that many people have the necessary knowledge and skills to cultivate it. It appears that so-called growshops in particular seem to facilitate the production process. These results will be used for the development of more intense law enforcement actions against criminal organisations involved in large scale cannabis cultivation.

The intensified law enforcement efforts against ecstasy production and trafficking in the Netherlands and cocaine trafficking at the airport of Schiphol resulted in a situation that is well under control. The enforcement activities against ecstasy and other synthetic drugs will be continued with a special focus on precursors, hardware and financing, in international cooperation. The enforcement activities against cocaine were embedded in regular routine. The combat of organised crime involved in drugs is intensified.

With regards to *drug users in the criminal justice system*, research showed that in 2006/2007 60% of the inmates of Dutch prisons report problematic use of alcohol or drugs or problematic gambling in the year before their imprisonment. 30% is a problematic alcohol user, 33% is a problematic user of cannabis, 24% has a problem with the use of hard drugs, mainly cocaine and opiates. There are several forms of assistance available. The prevailing approach is the quasi-coercive referral to care facilities. Thit approach will be strenghtened in the future. For drug users with high criminal recidivism, for whom quasi-coercion did not work, the measure for Judicial Placement of Addicts (SOV) reached favorable results. This measure has been replaced by the measure of Placement in an Institution for Prolific Offenders (ISD). An estimated 95% of the persons under this measure is a hard drug addict. Psychiatric symptoms and co-morbidity have a high prevalence amongst offenders under ISD.

# Part A: New Developments and Trends

# 1 National policies and context

## 1.1 Legal framework: objectives

*Introduction*

In the Netherlands, the national drug policy has four major objectives:

- To prevent drug use and to treat and rehabilitate drug users.
- To reduce harm to users.
- To diminish public nuisance by drug users (the disturbance of public order and safety in the neighbourhood).
- To combat the production and trafficking of drugs.

The primary aim of Dutch drug policy is focused on health protection and health risk reduction. Of course, the enforcement of relevant laws has also special attention. This policy was first formulated in the white paper: The Dutch Drug Policy: Continuity and Change (1995) (Ministry of Foreign Affairs et al. 1995) The implementation of this policy was monitored and updated by four progress reports. Since then, Dutch drug policy has developed drug strategies for specific drugs and different initiatives to diminish public nuisance. The ecstasy and cocaine strategies have a strong focus on law enforcement, while the cannabis strategy touches upon all aspects of the phenomenon:

- Ecstasy: the white paper "A combined effort to combat ecstasy" (2001) announced intensified law enforcement in the battle against the production and trafficking of ecstasy (T.K.23760/14). In May 2007, the goverrnment decided to continue this policy on a regular basis (T.K.23760/20).
- Cocaine: ‘Plan to combat drug trafficking at Schiphol Airport’ (2002) is directed against the trafficking of cocaine at Schiphol Airport (T.K.28192/1);
- Cannabis: the Cannabis Policy Document (2004) tightened Dutch policy on cannabis (T.K.24077/125);
- Heroin: a scientific experiment to treat chronic and treatment-resistant opiate addicts by means of medically prescribed heroin (first announced in 1995).
- There are several laws and policies to diminish drug related nuisance with as ultimum remedium the possibility to sentence (addicted) frequent offenders for at most two years in a special unit, irrespective of the nature of the offence (E.K.28980/B); (Stb 2004/351). The new government intends to offer these offenders qualitative better compulsory addiction care (T.K.31110/1).

## 1.2 Legal framework: laws

*Laws*

NNIA (No New Information Available)

In the Netherlands, the most important laws on drugs are:

- Opium Act (Opiumwet) – (criminal law)

- Prisons Act (Penitentiaire Beginselenwet) - (criminal law)
- Placement in an Institution for Prolific Offenders Act (Plaatsing in een inrichting voor stelselmatige daders – ISD) - (criminal law)
- Temporary Measures for Penitentiary Capacity for Drug Couriers Act (Tijdelijke Wet Noodcapaciteit Drugskoeriers) - (criminal law)
- Closing Drug Premises Act (Wet Sluiting Drugspanden) - (administrative law)
- Abuse of Chemical Substances Prevention Act (Wet Voorkoming Misbruik Chemicaliën) - (chemical precursors – administrative law)
- Public Administration Probity Screening Act (Wet bevordering integriteitsbeoordelingen door het openbaar bestuur or Wet Bibob) - (money laundering – administrative law)
- Health Insurance Act (Zorgverzekeringswet)
- Drugs Act (Geneesmiddelenwet)

*The Opium Act*
Dutch legislation is consistent with the provisions of all the international agreements which the Netherlands has signed, i.e. the UN Conventions of 1961, 1971 and 1988, and other bilateral and multilateral agreements on drugs. The Dutch Opium Act (1928), or Narcotics Act, is a partly criminal law. It was fundamentally changed in 1976. A distinction was made between drugs presenting unacceptable risks (hard drugs- Schedule I) and drugs like cannabis (soft drugs- Schedule II), which were seen as less dangerous. Since then, the Opium Act has been amended on various occasions but its basic structure was maintained.

In 2006, an amendment to the Opium Act was proposed. Article 13b of the Opium Act combined with article 174a of the Local Government Act could only be used to close premises used for the sale of illegal drugs, if *disturbance of the public order* could be proved. In April 2006, a proposal was sent to Parliament, in which *only* the *sale* of illegal drugs has to be proved. The scope of this bill includes the sale of hard drugs as well as the illegal sale of cannabis. The tolerated sale of cannabis in the coffee shops falls outside the scope of this bill. In practice, in these cases law enforcement will be used in proportionality. That means that the closing of a premise will be the ultimate sanction in a chain of sanctions (T.K.30515/3). On 1 November 2007, this law will come into efect. It falls within the jurisdiction of the local authorities to use this new instrument of administrative coercion (E.K.30515/C).
The European Council Framework Decision from 25 October 2004, laying down minimum provisions on the constituent elements of criminal acts and penalties in the field of illicit drug trafficking, was incorporated into the Dutch Opium Act on 1 July 2006. Since then, the *cultivation* of cannabis plants is explicitly forbidden as well as membership of any organisation involved with illicit drugs (Stb 2006/292).
In June 2006 some changes of the Opium Act were introduced: the maximum penalty for drug production and dealing and for possession of large quantities of drugs was increased from four to six years of detention or a certain fine (Stb 2006/292). This change was an adaptation to EU-rules. In August 2006, the amounts of drugs that are considered ‘large quantities’ were defined (Stb 2006/416)

Since September 2003, physicians can prescribe cannabis for medical reasons, and pharmacies are allowed to supply this drug. A government agency, the Office of Medicinal Can-

nabis (OMC), regulates the entire process of production, delivery and quality control of medicinal cannabis. Actual sales still lag behind the estimated sales based on the number of potential patients, although in 2006 sales slightly rose (5-10%). Also, some official requests from patients of other countries for medical cannabis were approved. This medical cannabis is delivered only via their local pharmacies (Melchior 2007). In January 2007, the first official Dutch cannabis pharmacy opened in Groningen. At that pharmacy, patients can obtain cannabis on prescription at the coffee shop price. In February 2007, the OMC introduced a new variety of medical cannabis, Bediol granulate, which contains less THC and more cannabidiol than the other varieties (www.cannabisbureau.nl). In November 2007, the Minister of Health decided to continue the existing medical cannabis policy for another five years (T.K.24077/200).

*Hallucinogenic mushrooms*

In January 2007 the Municipal Health Service of Amsterdam published a report on the number and nature of incidents with hallucinogenic mushrooms from 2004 to 2007. A growing trend could be discerned: from 55 emergencies in 2004 to 70 in 2005 and 128 incidents in 2006 (see also § 6.4). More than 90 per cent of the victims are foreign tourists, mostly below the age of 25. Also, most of the victims had used mushrooms in combination with alcohol or illicit drugs. From 2002 until 2007 no deaths in relation with the use of mushrooms were reported (Buster et al. 2007). In a reaction to a lethal incident some political parties in Parliament asked to outlaw the mushrooms. The Minister of Health asked the advisory committee on the assessment of new drugs (CAM) for a risk assessment of fresh hallucinogenic mushrooms containing psilocybin or psilocin. In this report the CAM, the overall risks of hallucinogenic mushrooms were judged to be low but foreign tourists in Amsterdam were identified as a specific vulnerable group. The CAM advised to further regulate the sales of hallucinogenic mushrooms and improve information and education on the risks. However, on 19 October 2007, the Minister of Health and the Minister of Justice declared that fresh hallucinogenic mushrooms will be placed on Schedule II of the Opium Act (T.K.24077/199)[1]
This decision was made on the basis of four arguments:

- Use of hallucinogenic mushrooms may have unpredictable effects and lead to risky behaviour;
- it is unfeasible to guarantee a safe user situation by which the consequences of a bad trip can be minimised;
- the risks of fresh hallucinogenic mushrooms do not or only marginally differ from those associated with the dried versions (which are forbidden);
- in most EU countries hallucinogenic mushrooms are prohibited.

*Institution for Prolific Ofenders (ISD)*

On 1 April 2001 the Judicial Placement of Addicts *(Strafrechtelijke Opvang Verslaafden-SOV)* intervention was introduced. It allowed the courts to place prolific offenders, who are addicted to drugs, commit repeated petty crimes and who were expected not to benefit from other interventions, in a special institution. The aim of this initiative was to reduce public nuisance and to promote behavioural change among offenders. It was estimated that about 20

[1] Dried or other preparations of hallucinogenic mushrooms are already under control of the Opium Act..

percent of these judicially placed offenders might give up committing crimes after completion of this programme (E.K.28980/B). The maximum duration of this measure is two years.
In May 2007 the results of an effect evaluation of the SOV were published (Koeter et al. 2007). For more information: see § 9.2.

In 2004, the act 'Placement in an Institution for Prolific Offenders (Plaatsing in een inrichting voor stelselmatige daders – ISD)' came into effect (Stb 2004/351). This act refers to all prolific offenders, not only addicts. Since 2004 the Judicial Placement of Addicts (SOV) operates as a separate programme within the ISD-programme. The main targets of the Prolific Offenders Programme are to prevent high risk youth from becoming prolific offenders and to reduce recidivism for adult prolific offenders. Some personal support during detention plus individual aftercare following detention are part of this Programme. In April 2007, 556 of the 874 available intramural places, and 88 extramural places, were occupied. (T.K.31110/1) Differences between the SOV and ISD programme are described in § 9.2.

Serious problems in the implementation of this measure have been identified.
The Council for the Application of Criminal Law and Youth Protection (RSJ) published a critical report on the practice of the ISD order. Three main themes can be distinguished in the Council's findings: first, the ISD programme was implemented too hastily. As a result, staff were not properly prepared for their work and the programme is still not effectively understood by either staff or detainees. Secondly: the care, and particularly the mental healthcare, is inadequate. The main goal of the ISD-measure is to lead the offenders as soon as possible to health care facilities. During their stay in the ISD it became clear that the population needs more care than was foreseen. For that reason, the programme provides little opportunity to achieve lasting changes in the behaviour of persistent offenders. There is a lack of continuity in the treatment programmes and the daily activity programmes do little to motivate the participants (Raad voor Strafrechtstoepassing en Jeugdbescherming 2007). One of the conclusions of a report of the Monitor Prolific Offenders was that the number of registered prolific offenders was still rising (Tollenaar et al. 2007). Chapter 9.2 gives more details about bottlenecks in the implementation of the ISD.

The Ministers of Justice and Health reacted to these reports by announcing to substantially improve the quality of the ISD-programme. In this approach the drug depended offender has the choice between imprisonment or treatment. These also promised in a letter to Parliament to double by the year 2011 the number of addicts receiving apply pressure to force addicts in treatment (T.K.31110/1).

*Implementation of Laws*

*Opium Act Directive*
In the Netherlands, criminal investigation and prosecution operate under the so-called *opportuniteitsbeginsel* ('expediency principle' or principle of discretionary powers). Within certain boundaries, the Dutch Public Prosecution Service has full authority to decide whether or not to prosecute. For this it issues guidelines. The most recent set of comprehensive guidelines for enforcing the Opium Act was the Opium Act Directive of 2000, which was valid from 2001

until 2005 (Stc 2000/250). This Opium Act Directive has been extended until the end of 2008 (Stc 2004/246)).

The sale of cannabis is illegal, yet sale of cannabis in coffee shops is tolerated if they adhere to certain criteria: no advertising, no sale of hard drugs, not selling to persons under the age of 18, not causing public nuisance and not selling more than 5 grams per transaction (AHOJ-G criteria). Three additional criteria are: no alcohol vendor, no more than 500 grams in stock and -in most municipalities that allow coffee shops to open on their territory- a minimum distance to a school or to the Dutch border. Although these additional criteria are not yet integrated in the Opium Act Directives, the Public Prosecution Service is very strict in enforcing the alcohol and 500 gram criteria. More than three quarters of the municipalities with tolerated coffee shops have implemented the minimum-distance-to-schools criterium. Every municipality is, within certain limits, free to determine the exact distance. In a recent policy letter, the project “Safety starts with Prevention” was announced. Among the many targets, three coffee shop policy intentions are formulated by the government: In 2011, all the municipalities with coffee shops must have implemented a distance-to-schools criterium. Every coffee shop violating one of the AHOJ-G criteria will be closed down immediately. Thirdly, coffee shops in the border region will be discouraged (T.K.28684/119).. In the last 10 years, governmental policy has aimed to reduce the number of coffee shops.
However, the decision whether or not to tolerate a coffee shop lies with the local governments. At the end of 2005, the Netherlands had 729 officially tolerated cannabis outlets (coffee shops). This is a 1.0 percent overall decrease compared to the situation in 2004 (737 coffee shops, see § 10.1). In 2005, the majority of the 467 municipalities in the Netherlands pursued a zero policy (72%) or a maximum policy (22%) with regard to the number of tolerated coffee shops. For more information: see § 10.1

From July 2008 onwards, a smoking ban for whole the catering industry will come into effect . The Minister of Health was clear in his statement that the tolerated coffee shops also have to comply to this new rule. Every catering establishment, including coffee shops, are obliged to protect their employees against smoke. However, they are allowed to create a separate smoking area.(T.K.30800XVI/182).

*Drug related nuisance*
One of the main targets of Dutch drug policy is the reduction of drug-related nuisance, including nuisance due to drug tourism. Mainly the larger cities and border towns are confronted with these problems. Consequently, at set times initiatives are taken at the local level to address it. For example, in December 2005, three Dutch political parties and the mayor of the border town Maastricht announced the ‘Manifesto of Maastricht’, in which solutions to solve the harmful consequences –such as public nuisance and the use of herbicide – arising from the illegal production of cannabis were proposed. The municipality of Maastricht proposed to give selected cannabis cultivators a form of certified permit to supply the tolerated coffee shops on an experimental basis; and at the same time it intended to clamp down on all the other cannabis cultivators. This would have to be done in close collaboration with the Public Prosecution Service. The Minister of Justice clarified that he cannot support the call for such an experiment, because it is contrary to international law, it will not end the illegal cultivation, and by not enforcing the law it is against the principles of the constitutional state

(T.K.24077/179). The new government continues the policy of not allowing this kind of experiments. Another proposed experiment in the municipality of Tilburg was vetoed by the mayor.

In Rotterdam a study commissioned by the municipality was conducted to investigate whether the increase of public nuisance by young adolescents is related to an increase in the use of cannabis. The investigators concluded that a large part of the problematic adolescents is indeed also using marihuana, but the nature of the correlation needs further study (Biesma et al. 2007b).

A local study in Haarlem monitored the extent of perceived drug-related nuisance before and after the opening of a drug consumption room. The consumption room was located nearby a methadone distribution unit and hard drug addicts can use their own heroin or cocaine at certain times every day. One year after the opening of the consumption room the perceived drug-related nuisance of the neighbourhood had diminished (Bieleman et al. 2007a).

*Intensified actions against ecstasy*
In 2001, the national government announced measures against the production, sale and use of ecstasy in the white paper “A combined effort to combat Ecstasy” (T.K.23760/14). In 2007, a final evaluation of the action plan was published. It was concluded that one of the targets, an increase in the capacity of efforts to combat the synthetic drugs market, had been realised and lasting collaboration between relevant actors had been achieved. Judged by figures on seizures and dismantling of production locations, the production and trading of ecstasy in the Netherlands seems to have decreased since the implementation of the policy document, although it is not certain that this is an actual trend (Neve et al. 2007); (Expertisecentrum Synthetische Drugs en Precursoren 2007). For more information: see § 9.2.

The government decided to continue the intensified action against the synthetic drugs market in the Netherlands and to allocate the annual costs of about € 18.6 million on a structural base to the involved ministries. The Minister of Justice announced that in the following years the spearheads of the approach will be:
- greater emphasis on the investigation and prosecution of the ‘front end’ of the production process of synthetic drugs (precursors);
- greater emphasis for prevention and drug education initiatives;
- intensification of the international (operational) co-operation (T.K.23760/20).

*Combating cocaine trafficking*
In January 2002, the Dutch government presented the ‘Plan to combat drug trafficking at Schiphol Airport’, which was designed to intensify the existing two-pronged approach to combating cocaine smuggling from the Netherlands Antilles and Aruba, and Surinam (T.K.28192/1). The first prong comprises measures to prevent drugs transports to the Netherlands, while the second is directed at ensuring that intercepted drugs are confiscated and followed by judicial intervention against couriers.
Since early 2003, a special law court with prison facilities has been operational at Schiphol airport. Since the beginning of 2005, a *100%-control* of all flights from the Netherlands Antilles, Aruba, Surinam, Peru, Venezuela, Ecuador and Dominican Republic was completely

effectuated. In 2004, an average of 290 drug couriers were arrested monthly, whereas in 2005 this number decreased to 175 cocaine couriers monthly. In 2006, of a total of 1410 passengers who were controlled, more than 3200 kilo of cocaine was seized. In addition, the air freight controls resulted in about 1200 kilo of seized cocaine. The number of suspected passengers who are controlled and appear innocent is growing from about ten per cent to forty per cent (T.K.28192/43). The Dutch government wants to continue these 100% controls, but is also prepared to look more critically at the actual implementation after a report of the National Ombudsman was published (Schets et al. 2006).
Since June 2004, X-ray scans are used to determine immediately whether a passenger has swallowed drugs or not. Since June 2007, the X-ray scans have been placed on Schiphol centre with the consequence that the hold up of suspected passengers who appeared to be innocent is shorter. The names of the arrested persons are placed on a black list, which can be consulted by the airline companies in order to refuse them another ticket (T.K.28192/29);(T.K.28192/38:); (T.K.28192/41). In a verdict of Supreme Court it was forbidden to search any longer the body cavities of passengers suspected of smuggling cocaine (www.om.nl). In practice, this kind of body searches had only rarely been carried out.
For more information: see § 8.2 and chapter 10.

## 1.3 Institutional framework, strategies and policies

The overall coordination of the Dutch drug policy remains with the Ministry of Health, Welfare and Sports. The Ministry of Justice and the Ministry of the Interior are responsible for law enforcement and public nuisance issues.

In the Coalition Agreement of the new government (February 2007) the following national drug policy priorities were formulated:

- Combating production and trafficking of drugs and drug-related public nuisance will be continued unabated;
- More preventive actions will be directed to young people;
- Coffee shops in the neighbourhood of schools will be closed and coffee shops in border regions will be discouraged;
- The tough action against large-scale cannabis cultivation will be intensified;
- Experiments to regulate and legalise the supply of cannabis for local coffee shops will not be allowed;
- Medical heroin prescription will be continued (Rijksvoorlichtingsdienst 2007).

*Green Paper on the role of Civil Society in drugs policy in the European Union*

The object of the Green Paper was to explore the scope for bringing those most directly concerned by the drugs problem more closely into the policy process on drugs at EU Level as provided by the EU Action Plan on Drugs 2005-2008 and reflected in the European Transparency Initiative. The Commission submitted to public consultation two options for organising this dialogue, namely (1) a Civil Society Forum on Drugs and (2) thematic linking of existing networks. The official reaction of the Dutch government underscores the importance of founding a Forum on Drugs. According to the Minister of Health, the surplus value of such a Forum is that knowledge and experience can be easily exchanged. However, to prevent that

ideological discussions will delay the implementation of new policies, the Forum needs concrete scheduling. The EC proposal of thematic linking of the existing networks is seen by the Dutch government only as additional to the work of the Forum (T.K.22112/486)

*Local cannabis policy*
The Dutch cabinet launched proposals to intensify enforcement on cannabis cultivation from April 2004 on (T.K.28192/23;T.K.28192/36;T.K.24077/125). These proposals pay special attention for organised crime behind the cannabis cultivation. A clear nationwide trend is emerging of increasingly frequent and vigorous police cooperation with other institutions and with commercial firms (Wouters et al. 2007). In recent years, the dismantling of cannabis cultivation sites has taken on the character of a structured, streamlined and even routinely conducted campaign.
In June 2006, the government presented the so-called Integral Approach to Cannabis Cultivation. In this approach, administrative and civil law instruments are combined in clamping down on large-scale marihuana cultivation sites. Under the direction of local governments the following parties may enter into a special agreement: Public Prosecution Service, the police, power companies, insurance companies, housing corporations and the tax department. Every one of these organizations has its own interest in combating illegal cannabis cultivation (T.K.24077/184). A new element in this approach is that the dismantling costs are recovered from the owners or tenants of the premises where the cannabis plants were detected. The Netherlands Centre for Crime Prevention and Community Safety (CCV) developed a cannabis policy enforcement arrangement for the municipal authorities. With a local arrangement the local policy and procedures are made clear for every party involved[1].
In 2006 about 6000 large-scale marijuana cultivation sites were dismantled. It is estimated that roughly 2.7 million marijuana plants, clones and seedlings were confiscated during cultivation site dismantling operations (Wouters et al. 2007). This may have resulted in the increase in retail prices of Dutch marijuana (Niesink et al. 2007).
For more information: see § 8.2 and chapter 10.

In 2006 a pilot project started in Maastricht to investigate the possibility of barring non-residents from the tolerated coffee shops in that city. The intention of this measure is to reduce the number of foreign drug tourists and the nuisance they cause. The Ministry of Justice started a test case which may culminate in a ruling by the European Court of Justice.

In December 2005, the Dutch House of Representatives passed a motion asking the Government to regulate a ban on smoking marihuana in public spaces by analogy with the ban on public drunkenness. The Minister of Justice replied that the municipalities already have the power to enact effective by-laws to tackle this problem (T.K.24077/191;T.K.30300VI/98). The mayor of Amsterdam received approval from the Municipal Council to order bans on smoking cannabis (‘blowverbod’) for specific areas for at most one year. Offenders can get a 45 euro fine. In the reporting year, bans were expanded to other parts of the city and also taken over by other municipalities.

[1] http://www.hetccv.nl/

In the city of Rotterdam, the Council decided to close down from January 2009 every coffee shop within 250 meters from a school establishment. This means that 27 of the in total 62 coffee shops will disappear (Vermeer 2007). This policy is in line with the intentions of the new government and is already practised in the city of The Hague.

In the border town Venlo research was done on the consequences of the relocation of two coffee shops to the outskirts of town. The number of German drugs tourists and drug runners had diminished in the central part of the city (Q4), which had been problematic before. Nevertheless, the perceived safety of the local residents had not improved. This relocation is part of the Hektor project which is funded by both the ministries of Justice and Interior until 2009 (Bieleman et al. 2007b).
After an investigation, the Council of another border town, Terneuzen, expressed its intention to relocate in the future two coffee shops to a more peripheral part of town in order to diminish public nuisance by Belgian and French drug tourists (Bieleman et al. 2007c); (Gemeente Terneuzen 2007).

The first evaluation of the Public Administration Probity Screening Act (Wet BIBOB)- in effect since 2003-, which gives local administrators the power to screen all kinds of new licence requests, was published in Spring 2007. The actual screening is done by a special central BIBOB-office. Consistent use of this instrument can prevent criminals from entering the legal cannabis sector. Most of the local authorities are satisfied with this new legal instrument. Five per cent of the screenings had to do with coffee shop or grow shop owners (De Voogd et al. 2007).

*Prescription of medical heroin*
In June 2004, the Dutch government decided that the treatment capacity for the medical prescription of heroin for chronic and treatment-resistant opiate addicts could be extended from 300 to 1,000 places (T.K.24077/137). Since 20 December 2006, heroin is officially registered as a medicinal product for treatment-resistant heroin addicts (Central Committee on the Treatment of Heroin Addicts (CCBH) 2006). Most of the treatment costs for this special group of addicts have to be paid by the local municipal authorities. By the end of 2005 the Ministry of Health (VWS) adopted the plans of four out of the six municipalities already providing medical heroin co-prescription to increase their treatment capacity. Moreover, it approved the plans of eight other municipalities to develop a treatment unit. In the autumn of 2006, a total of 815 treatment places in 18 municipalities were approved by the Minister. This policy is continued by the new government. By the summer of 2007, six municipalities had not yet started with heroin prescription treatment units (personal communication CCBH).

## 1.4 Budget and public expenditure

NNIA. Information on this topic can be found in § 8.4 and chapter 11.
The first estimate of government expenditure on drug policy in the Netherlands was published in an international journal (Rigter 2006). Calculations and extrapolations of expenditures from 2003 budgets of all the Ministries of the national government, annual reports from other governments and agencies and White papers were analysed, supported by interviews with and information obtained otherwise from policy makers. Expenditure was allocated to

four drug policy functions: prevention, treatment, harm reduction and enforcement. The total drug policy spending estimate in 2003 was € 2,185 million. Allocation to functions amounted to € 42 million for prevention, € 278 million for treatment, € 220 million for harm reduction and € 1,646 for enforcement. Drug law enforcement clearly represents the dominant expenditure.

In January 2006, a new Health Insurance Act (Zorgverzekeringswet) came into force in the Netherlands for all health care, including addiction care. As a result of this law, outpatient addiction care and clinical addiction care up to one year will be reimbursed by health insurance companies (T.K.29660/5-6). The addiction care will be funded by the health insurance companies via the so-called "DBC system", (Diagnosis Treatment Combinations). It is expected that in the near future the DBC system will allow a more complete bottom-up approach to estimate the actual treatment costs of drug abuse.

## 1.5 Social and cultural context

*Public attitudes*
In Spring 2007, the second National Perceived Safety Monitor was published. The extent of perceived drug-related nuisance is one of the items which was measured at neighbourhood level. Less than one in twenty people (4.9%) report that drug-related nuisance is common in their neighbourhood. In comparison with 2005 and 2006, this is a slight decrease. Inhabitants of the four major cities (Amsterdam, Rotterdam, the Hague and Utrecht) more often perceive drug-related nuisance as a problem compared to the Netherlands as a whole (Centraal Bureau voor de Statistiek 2007).

*Organised crime in the Netherlands*
In 2006, the National Crime Squad published an analysis of the most important activities of organised crime in the Netherlands. According to this report, organised crime concentrates its efforts to eight main activities, among others, the trafficking of cocaine, heroin and synthetic drugs. Partly as a consequence of the main port function of the Netherlands for the European Union, a total of between 33 and 50 ton of South American cocaine enters the European market through the Netherlands, of which about 5 ton is consumed by Dutch users. Most of the cocaine is exported to other European countries. Large-scale transports of cocaine are smuggled with sea-going vessels, while small scale transports use mainly airplanes. Large amounts of heroin are smuggled from Turkey to the Netherlands, which remains an important heroin trade centre in Europe. The total European heroin market is estimated at 170 ton. Most of the precursors for ecstasy (such as BMK and PMK) are transported to the Netherlands from China. The total global consumption of ecstasy tablets is estimated between 160 and 320 million tablets, of which about 70% is produced in the Netherlands. Most of the organised crime organisations are rather small scale and flexible, and participate in more than one illegal activity (Dienst Nationale Recherche 2007a).

*Report crime anonymously: M*
The Dutch police also receive information from *M*. By calling *M.* people can pass on information about crime, anonymously. *M.* is meant for people who have information about crime, but don't dare to go to a police station — for fear of reprisals or a confrontation with the per-

petrator. *M.* is not a phone line of the police. This means that M. callers will not get the police at the other end. This means that it is not possible to officially report to the police via *M.* From 2002 until 2007, *M*. received almost 50,000 tip-offs, resulting in 4,500 arrests and more than 4,500 crimes being solved. As member of Crime Stoppers International, *M.* is based on the Crime Stoppers concept that has been successfully introduced in various countries, such as the UK and the US. In 2006, more than 7,000 tip-offs were about drug trafficking, of which 2,000 concerned hard drugs. As a result of these tip-offs a total of 18 persons a week are arrested suspected of involvement with illicit drugs (http://www.meldmisdaadanoniem.nl//ArticleSub.aspx?id=20)

*Rise of private addiction care facilities*

In the reporting year, several regular addiction care treatment centres decided to found private addiction care facilities and to start the competition with the mainly foreign private clinics. They try to attract to the more affluent (and generally well integrated) patients who want to be treated with discretion in a nice environment.

# 2 Drug Use in the Population

## 2.1 Drug use in the general population

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In 1997, 2001 and 2005 nationwide surveys on substance use in the general population were conducted. Methods of data collection were different between surveys. Trend analyses were conducted only on data collected with the Computerised Assisted Personal Interview (CAPI). For more information about the methods, see National Report 2006 and Online Standard Table 01[4].

- Table 2.1 gives the lifetime and last year prevalence rates of drug use. The results show that the lifetime use of cannabis and ecstasy was higher in 2005 compared to both 2001 and 1997. Lifetime prevalence of ecstasy showed a steady increase between 1997 and 2005. For heroin a significant increase between 1997 and 2005 was found. The percentage of last year users of ecstasy also increased between 1997 and 2001, and remained at the same level between 2001 and 2005. Last year prevalence rates of the other drugs were fairly stable across the years.
- Incidence rates, defined as the percentage of first time users of all respondents in the past year, decreased between 2001 and 2005 for cocaine (0.4% and 0.1%,respectively) and amphetamine (0.2% and 0.1%, respectively). Changes in incidence rates of cannabis, ecstasy and heroin were not significant.

*Table 2.1: Prevalence of drug use (%) in the Dutch population of 15-64 years in 1997, 2001 and 2005**

| | Lifetime prevalence (%) | | | Last year prevalence (%) | | |
|---|---|---|---|---|---|---|
| | 1997 | 2001 | 2005 | 1997 | 2001 | 2005 |
| Cannabis | 19.1 | 19.5 | 22.6 [b, c] | 5.5 | 5.5 | 5.4 |
| Cocaine | 2.6 | 2.1 | 3.4 [b, c] | 0.7 | 0.7 | 0.6 |
| Ecstasy | 2.3 | 3.2 [a] | 4.3 [b, c] | 0.8 | 1.1 | 1.2 [c] |
| Amphetamine | 2.2 | 2.0 | 2.1 | 0.4 | 0.4 | 0.3 |
| LSD | 1.5 | 1.2 | 1.4 | - | 0.0 | 0.1 |
| Heroin | 0.3 | 0.2 | 0.6 [b, c] | 0.0 | 0.0 | 0.0 |

Data collected by CAPI. * N= 17,750 in 1997; N= 2,312 in 2001; N=4,516 in 2005. a Significant change from 1997 to 2001. b Significant change from 2001 to 2005. c Significant change from 1997 to 2005. Figures in italics = less than 50 cases. Source: National Prevalence Survey, IVO(Rodenburg et al. 2007).

*Cannabis: age and gender*

- NNIA (no new information available). Table 2.2 shows that the percentage of recent cannabis users decreases with age. In 2005, one in ten young people between 15 and 24 years had consumed cannabis in the past year as against one in sixty seven persons between 45 and 64 years.

4 According to guidelines of the EMCDDA references to (Online) Standard tables used by the EMCDDA for data collection are included in the text. The relevant data are also included in the text or other tables in this report.

- There was a shift towards the higher age groups between 1997 and 2001. The percentage of young cannabis users (15-24) decreased while the percentage of cannabis users aged 25-44 years increased in this period. This shift may have resulted from a cohort effect in that some of the cannabis users from the age group 15 through 24 years in 1997 migrated to the age group 25 through 44 years in 2001.
- In 2005, the prevalence of last year cannabis use was about 2.5 times higher among men than women (7.8% as against 3.1%). This male-female ratio was smaller in previous years (almost 2). Apparently the gender gap is broadening.
- The number of users of other drugs was too small too allow a breakdown.

*Table 2.2: Last year prevalence (%) of cannabis use by age group in 1997, 2001 and 2005*

| Age group (years) | 1997 | 2001 | 2005 |
|---|---|---|---|
| 15-24 | 14.3 | 11.6 | 11.4 |
| 25-44 | 5.2 | 6.5 | 6.4 |
| 45-64 | 1.1 | 1.1 | 1.5 |

Source: National Prevalence Survey, IVO(Rodenburg et al. 2007)

In conclusion, drug use in the general population remained fairly stable in the past years, and decreases in incidence rates of cocaine and amphetamine suggest a waning popularity of these drugs.This seems to be at odds with media reports and (qualitative) local studies suggesting increases in the popularity of cocaine (at least outside Amsterdam). Possibly observational/local data reflect trends among subgroups that are insufficiently captured in national population surveys.

*Cannabis use in the city of Rotterdam*
In 2005, the Rotterdam Public Health Service (GGD Rotterdam-Rijnmond) conducted a health survey among the inhabitants of Rotterdam aging 16 up to 84 years (Schouten et al. 2007). The response rate being 58%, the total net sample was composed of 6,449 persons. The use of cannabis was only investigated among inhabitants aging 16 up to 54 years.

- The last year prevalence of cannabis use increased from 8% in 2003 to 10.9% in 2005, but this difference was not significant. The lifetime prevalence in 2005 was 27.7% and the last month prevalence of cannabis use was 6.8%.
- Although age groups and methodogy are different from those in the National Prevalence Survey, it is clear that the prevalence of last year and last month cannabis use in this urban region is higher compared to the national average.

## 2.2 Drug use in the school and youth population

Data on trends in drug use among pupils aged 12-18 years are available from the Dutch National School Surveys on Substance Use carried out every 3 or 4 years since 1998 (Online Standard Table 02a)(Monshouwer et al. 2004). The last survey was conducted in 2003.

- In general, these surveys showed that drug use increased between 1988 and 1996, and stabilised or decreased among secondary school pupils between 1996 and 2003. For more details: see Online Standard Table 02 and National Report 2006.

- Data collection for the new survey will start in autumn 2007 and the results will be available in 2008.

In 2001 and 2005, the Netherlands also participated in the national Health Behaviour in School-aged Children Survey (HBSC; Online Standard Table 02b). In this survey questions on *cannabis* were included and the data can be compared with those of the National School Survey on Substance Use (Van Dorsselaer et al. 2007). The net sample consisted of 5,422 pupils of 12-16 years of secondary schools. data were collected by completing questionnaires which were distributed in classes.

- Table 2.3 shows the lifetime, last year and last month prevalence rates of cannabis in 2005. Differences between boys and girls were not significant. In general, rates increased with increasing age.
- Of all lifetime cannabis users, 16.5% could be denoted a discontinuous user (not used in the past year or month). The majority of lifetime users could be categorised as experimental users (32%), who consumed cannabis only once the past year, and regular users (39%), who used cannabis more than once but less than 40 times in the past year. Finally, one in eight lifetime users (12.5%) belonged the group of heavy users, who had consumed cannabis 40 times of more.
- A trend analysis showed that the last year prevalence of cannabis did not change significantly in the past years. Prevalence rates were 14.4% in 2001, 12.5% in 2003 (using data from the National School Survey on Substance Use) and 11.7% in 2005.

*Table 2.3: Prevalence of cannabis use (%) among pupils of secondary schools ( 12-16 years) in 2005*

| | boys | girls | total |
|---|---|---|---|
| Lifetime prevalence (%) | 15.7 | 12.8 | 14.3 |
| Last year prevalence (%) | 13.1 | 10.3 | 11.7 |
| Last month prevalence (%) | 8.4 | 5.6 | 7.0 |

Source: Health behaviour in School-aged Children, Trimbos Institute (Van Dorsselaer et al. 2007).

Information on drug use among other youth populations is included in Part A §2.3 (special groups) and § 8.1 (social exclusion), and Part B chapter 12 (Vulnerable groups of young people).

## 2.3 Drug use among specific groups

Socially excluded people are known to use drugs more often than people in the general population. Part A, § 8.1 and part B § 2.2 report that the use of various drugs is higher among socially excluded and vulnerable groups like prostitutes, especially young male and female prostitutes; the homeless, especially homeless adolescents; and problem youth in contact with youth health services.

Apart from marginalised groups, higher levels of drug use are found among young people in the nightlife scene, who are generally socially integrated. Prevalence rates of drug use among young people in different scenes have been published in the National Report 2006 for

the cities of Zaandam (2006), Amsterdam (2005), Noordwijk (2004), Nijmegen (2006), and Eindhoven (2005). Although comparisons are difficult due to methodological differences, these surveys showed that cannabis is the illegal drug used most often used by socialising young people (LMP varying between 12% and 24%, with much higher rates for visitors of coffeeshops, 84%). Amphetamines and GHB are used the least (LMP between 1.5 and 5.7% and between 1.5 and 2.2%, respectively). As a recreational party drug, cocaine is clearly competing with ecstasy, which used to be the most prominent recreational drug in the near past (LMP between 5 and 13% for ecstasy and 3 and 10% for cocaine). There are no new figures for the reporting year available (NNIA).

New *qualitative* data are available from the nightlife scene in Amsterdam (Nabben et al. 2007). For the observation year 2006, the qualitative panel study as part of the *Antenna* has monitored the use of alcohol, drugs, and tobacco among the pleasure-seekers in the nightlife of Amsterdam. This panel study "traces the latest developments by conducting regular interviews with a panel of insiders in the nightlife scene" (Nabben et al. 2007). The Antenna found that, in general, "there still seems to be a declining interest in taking drugs on a night out". This continued decreasing trend in drug use in the nightlife scene of Amsterdam can be explained by "the tenacious policies of body-searching at club entrances", "an increased tendency in nightlife circles to regard people who are 'doped up out of their minds' as common or vulgar", and "a more general fixation on individual fitness and healthier lifestyles".
With regard to the different drugs, the following observations were reported:

- Cannabis is smoked less, which is due to the fact that, for health reasons, less nightlifers are smoking tobacco and more and more of them are deciding to quit smoking.
- Ecstasy is taken "less frequently and more cautiously". Being "well aware of its unwanted negative effects", the nightlifers tend to reserve ecstasy for "special or 'ceremonial' occasions". However, "in trendsetting urban music circles, the curiosity about ecstasy now seems to be overcoming the scepticism, though the use of the drug is still confined there to small groups".
- Cocaine use "has stabilised or is still growing slightly, and is now comparable to that for ecstasy", its use being "less and less confined to the weekend".
- Amphetamine as a "'second-rate' upper has only a marginal place in Amsterdam nightlife", but in "some niches in the gay scene, the use of methamphetamine seems to be increasing slightly, as the drug is thought to boost the sex drive".
- GHB "is now making a cautious comeback (since 2000) in trendsetting circles" at "afterparties and sex parties".

Drugs that are used less frequently and only in specific subgroups are laughing gas, ketamine (used by freaks with a cult status), psychedelics (used by psychonauts and veteran trippers), viagra and poppers (used by gay men), and sleeping pills. Finally, all networks of the Antenna monitor have reported polydrug use, alcohol and stimulants being the most observed combination.

Note that these observational trends pertain to Amsterdam can not be generalised to other parts of the country. For example, in the 2006 survey “Tendens” in the eastern part of the Netherlands, amphetamines seem to be more popular compared to Amsterdam (Roomer et al. 2006). Last month prevalence rates were 3% for visitors of discotheques and 5% for visitors of coffeeshops in Nijmegen against 1.5% for visitors of trendy clubs in Amsterdam (see National Report 2006). Moreover, in the Tendens study key informants observed ampheta-

mine use in almost every nightlife scene, including regular bars. Its low price combined with its longer duration of action compared to cocaine may contribute to its popularity especially among young people. As shown in § 4.2 the number of amphetamine users applying for help at addiction care centres is low but slowly rising. Whether this is related to an increased use of amphetamine in specific subpopulations remains to be shown.

The above mentioned comeback of GHB in Amsterdam has also been observed elsewhere in the country, for example by the Tendens monitor in the province of Gelderland (Roomer et al. 2006), and by the police in the region Twente in the province of Overijssel (Visschedijk 2007). GHB has also been occasionally associated with involuntary use and sexual offences, but figures are lacking.

# 3 Prevention

*New developments and trends*

NNIA. "Integral health prevention" remains a priority in Dutch health policy. Its starting point is a public health perspective. Universal drug prevention is part of integral prevention and the current priority is on alcohol abuse (see National Report 2006). Comparing the Australian and the Dutch national prevention policy, Bohlmeijer et al. (2004) mentioned three important limiting factors for realising a centralised, national targeting of directive prevention policy (Bohlmeijer et al. 2004). First, the - still valid - Dutch consensus model of policy making does not reduce the large diversity of programmes, resulting in a lack of coherence. Second, the supply of preventive interventions is for a large part done on local level, which does not stimulate the necessary co-ordination of programmes and their aims. The current policy choices based on a free market ideology hampers an improved co-ordination between prevention programmes. Thirdly, there was no central vision formulated on evidence-based health policy, thus evidence-based long-term policy programmes for prevention are largely absent. An important exception is the policy programme Scoring Results (see National Report 2006). Besides addiction treatment, this programme also targets drug prevention.

On June 1st 2007, a new centre has been initiated in the field of health prevention, the Centre of Healthy Living (*Centrum Gezond Leven*) that has to enhance the use of lifestyle interventions. This centre supports local professionals by presenting the available interventions with judgments about their quality and coherence. The centre co-ordinates the activities on this subject of more than ten organisations covering the wide spectre of public health and safety.5

## 3.1 Universal prevention (school, family, community)

The project Healthy School and Drugs is after more than ten years still the most important school-based prevention programme in the Netherlands. The programme is an intervention-mix of several lectures in secondary school on alcohol, tobacco and cannabis. These lectures are supported by a Steering Group, parent activities, a school-policy on drug use, and case finding and support of at risk students (Meijer et al. 2006). The programme is implemented on a local level by municipal health services and regional organisations of addiction care and supported by the Trimbos Institute. Some organisations have their own variations of this programme implemented. The programme has been evaluated in earlier years and is now being evaluated in a randomised controlled trial (Meijer et al. 2006). At this moment the programme is participating in pilot implementations of electronic prevention strategies in schools. Electronic prevention strategies will be focussed on young people using alcohol, drugs and tobacco. A more comprehensive intervention package for parents is developed for effective discouragement of drug use by their children (Van Diest 2005).

A second universal prevention programme (Alcohol and Education) gives advice and supports parents of children under sixteen to prevent alcohol misuse outside school. This programme targets at the new strategy to reduce alcohol use among school students and uses strategies that were developed in earlier programmes (i.e. the Healthy School and Drugs, national alcohol

5 www.rivm.nl/gezondleven/centrum-gezond-leven

campaigns) and the network of the National Support Centre for Prevention (LSP) (Ruiter et al. 2005).

Since 1996, the National Drugs Information Line (*Drugs Info Lijn*) offers neutral, objective information, free leaflets and a counselling service. Since 2002, a website is also in operation.
In 2006 15,318 visitors used the "questions and answers" on this site. In 2006 the Drugs Information Line received 10,692 telephone calls (a reduction compared to 2005), answered 289 e-mails and 123 chat messages. Chat services were initiated in 2005 (Kok et al. 2007). The number of telephone calls has reduced since 2001 when this was 32,000 (see former National Reports).

*Public campaigns*
From November 6th to December 2nd 2006 the third public cannabis campaign targeted at young people was running, The campaign has been evaluated (Wammes et al. 2007). The leading theme was "You are not mad if you are not smoking joints, because 80% of all young people do not do so". The targets were modest: i.e. stimulating young people from 14-18 years to seek information about cannabis, reconfirming non-blowers not to start blowing, and to increase the awareness of the risks of cannabis use among blowers. More than half of the target group was reached by at least one of the interventions. The opinion of the campaign was positive among more than half and negative among 12% of those who were reached. Some 75% of the cannabis users know that the risks of using cannabis also counts for them and the same percentage think it is important to stay informed about the risks of cannabis use. However, the intention to seek information was very low, i.e. 5% instead of the targeted 20% (ibid.).
A new campaign targeting drugs in general is being prepared. This campaign combines different media, i.e. a television series with interactive online activities. Real life stories of young people (role models) will be presented primarily for youngsters until 18 years. The chosen educational principle is the 'Entertainment & Education strategy', a combination of entertaining people and (unconscious) learning. The purpose is to enlarge coverage, to attract attention, to stimulate communication, and ultimately to change behaviour.

The aim of the campaign "Alcohol and Education", which started on December 19th 2006 and ended in February 2007, was to increase the parents' consciousness on the risks of alcohol use of their children. The slogan is: "Prevent harm caused by alcohol misuse of your child." More than 60 municipal health services and organisations of addiction care co-operated in this campaign. Campaign materials include posters, picture postcards, leaflets for parents and municipality officials, DVDs and a fact sheet. Interventions are information and tips on the internet about alcohol for children; a national parent evening meeting on the internet and many of these meetings on local level. This campaign is part of the programme "Alcohol and Education". A report with the results of the effect-evaluation will be published later.

The Trimbos Institute in co-operation with the Centre for Safety and Prevention of Criminality has organised a congress on the 8-9th November 2007. The working title is "Youngsters under the influence: challenges for prevention from school desk to bar stool". Thus, the focus is on going out and having fun in a safe and healthy way, and drug prevention in schools. New insights, instruments and projects will be presented.
A congress on alcohol abuse in primary health care patients has been organised in November 2007. The results of a research project (SIGNAAL) of two addiction care organisations

were presented. This project aims to refer more primary health care patients with problematic alcohol use to regular addiction care, self help groups or to care facilities on the internet.[6]

## 3.2 Selective/indicated prevention (recreational settings, at-risk groups or families)

There are several selective prevention projects, targeting individuals or groups with higher risk of problems related to drug use (see former National Reports). Examples are the Clubs & Drugs project and the KVO-projects targeting at children of addicted parents (Meijer et al. 2006).

For the two family-based programmes (Strengthening Families and the Home Party's, see National Reports 2005 and 2006) there is not much new information available.
Interventions are now constructed and tested on family education in a broad sense, based on the principles of the Australian evidence-based Triple P- programme (Positive Parenting Programme). The aim of Triple P is to improve mental health of children and parents by changing parent behaviours that are increasing emotional and behavioural problemes in their children. It is also assumed to prevent substance use. Interventions are varying from less to more intense (from universal to selective prevention programmes), depending on the seriousness of parent problems (Sanders 2002).

On November 8 2007 a Handbook Local Alcohol Policy will be presented by the Dutch Minister for Youth and Families at a conference on substance abuse by youngsters targeting health and safety professionals. This handbook summarises knowledge on problematic alcohol use, effective and available preventive interventions, and main topics for starting local policies and prevention activities (N. van Hasselt, personal communication).

The *Drug Information and Monitoring System* (DIMS) tests drug samples supplied by consumers and samples confiscated by security staff. In 2006, 5658 samples were offered for testing (considerably more than in 2005) and 4287 of these were (also) analysed in a lab (see also § 10.3). No warning campaigns were held in 2006 (Van Dijk 2007). However, cocaine samples mixed with atropine were found in 2007 and this had resulted in a "red alert" warning campaign, including a press release which was sent to newspapers, municipal health services and other partners of the DIMS network. DIMS also monitors the THC content in cannabis samples sold in coffee shops (see also § 10.3).

*Other risk groups*
Both substance use and disruptive behaviour of adolescents may undermine their social adjustment. The long-term (5 years) preventive effects of treatment of disruptive behaviours among young people of 8-13 year were studied by the Rudolph Magnus Institute of Neurosciences (see also chapter 13). Outcomes included initiation of substance use and delinquency in adolescence. A group of 77 young people were random assigned to behavioural therapy (BT) that was checked on its validity by a manual or to treatment as usual (TAU). Substance use and delinquency were monitored 5 years later among 61 (79%). The BT-group had significantly lower follow-up outcomes on smoking and marijuana use, compared to the TAU-group. The

6 www.nispa.nl

authors conclude that manualised behaviour therapy for disruptive behaviour disorder in middle childhood has more powerful effects on substance use and delinquency at adolescence than treatment as usual (Zonnevylle-Bender et al. 2007).

*E-health interventions*

Applications of e-*mental* health via the Internet are growing in number. This also goes for drug prevention and addiction care. The Netherlands are a frontrunner in this field. A second international congress on e-mental health on January 11th, 2007 ("Log-in") attracted more than 400 visitors. There were more than 65 e-interventions available in our country, most of these in the domain of mental health (especially targeting depression and anxiety disorders). The first studies on effectiveness were published. Of equal importance is that online treatment supply increases the accessibility, reaches new patient groups, and enlarges the possibilities for individually choosing an intervention. This is also assumed to be valid for individuals with addiction problems. E-interventions are especially more acceptable for people because of its anonymous character, the lack of travel costs, and the availability beyond working hours. The costs of these interventions, when constructed, are low compared with regular therapies.

A recent review study on e-health showed, that worldwide probably four effect studies have been published on e-interventions for alcohol problems (Riper et al. 2007). Two of these come from the Netherlands. The two foreign studies showed small and non-significant effect sizes (decreased alcohol misuse) in student populations. The outcomes of the two Dutch studies could not be calculated in effect size measures. One appears to be effective in women (reducing the risk of problem drinking) and for men this is currently tested. The second randomised study resulted in a significant reduction of alcohol use among the treatment group participants compared to the control group who only got a digital information leaflet (see National Report 2006). So, there are still too few effect studies on e-interventions available to enable a grading of the evidence.

This review study also summarised eighteen e-interventions on alcohol misuse in the Netherlands. Most were evaluated, some are currently being evaluated and some other interventions have not yet been evaluated (Riper et al. 2007). Almost half of these are exclusively directing alcohol misuse. Three are offering treatment, the other 15 are preventive interventions. However, the authors state that the division between studies on prevention and on treatment is not always easy because several interventions may be both prevention and treatment. Thirteen interventions are free of charge and anonymous. All three treatments are paid by health insurance companies only when properly assigned by professional health care (ibid.).

The development of quality standards is necessary. For the Ministry of Health this is important in order to enable supervision and to facilitate decisions on selecting and funding existent e-interventions. This also applies to health insurance companies. Finally, it enables suppliers of e-health interventions to discriminate between delivered interventions and those from other organisations and it facilitates choices for the users of these interventions. There are no international or Dutch certification standards reported yet. However, 19 specific quality instruments for e-interventions have been developed, e.g. clinical, operational and technical guidelines from the psychological and psychiatric associations in the US, Canada and Australia, the Swiss Health on the Net Foundation, the Internet Healthcare Coalition and the Australian client-directed site of Yellowlees. Two specific certification standards were traced in the literature: the HON code for conduct for medical and health websites (not specifically meant for e-health) and the QMT

(quality for Medical Technology), i.e. a system for self certification with external reference.[7] (ibid.). Quality standards for health prevention are not yet in use in the Netherlands.

7 www.hon.ch/HONcode/Conduct.html and www.tno.nl/content.cfm?

# 4 Problem drug use and the treatment demand population

## 4.1 Prevalence estimates

*Cannabis, ecstasy and amphetamines*

NNIA. There are no recent data available on the number of problem users of cannabis, ecstasy and amphetamines

*Problem hard drug use (opiates and cocaine): national estimates*

NNIA. Table 4.1 lists the national estimates of the number of problem hard drug users as they have been conducted several times in the past years. For the 2001 estimate, three methods were used, namely the multivariate social indicator method (MIM) (or regression imputation), the multiple imputation method (on the same data), and the treatment multiplier (TM). These methods yielded a central estimate of about 33,500 problem drug users, which implies 3.1 problem drug users per 1,000 inhabitants aged 15 to 64 years (range 2.2 – 4.3). Due to the large confidence intervals, the estimate for 2001 did not differ significantly from the previous estimate for the year 1999. For this previous year the number of problem drug users per 1,000 inhabitants aged 15 to 64 years was estimated at 2.7. Results from a study investigating the feasibility of a capture-recapture analysis at the national level, using treatment and police statistics, will be available in 2008.

*Table 4.1: National estimates of the number of problem hard drug users**

| Site | Year | Method | Case definition* | Estimates (lowest – highest) | Source |
|---|---|---|---|---|---|
| National | 1993 | Multiple | Problem opiate users | 28,000 | (Bieleman et al. 1995) |
| National | 1996 | Treatment multiplier MIM | Problem opiate users | 27,000 (25,000 - 29,000) | (Toet 1999) |
| National | 1999 | Treatment multiplier MIM | Problem opiate users** | 29,213 (25,970 - 30,298) | (Smit et al. 2001) |
| National | 2001 | Treatment multiplier, MIM, Multiple imputation*** | Problem hard drug users** | 33,499 (23,773 - 46,466) | (Smit et al. 2006) |

MIM=Multivariate (social) indicator method. *Mainly opiate users who also consume crack cocaine (and other substances) **Variable case definitions of local estimates (anchor points) used by MIM. Mainly problem opiate users, who usually also consume crack. Yet, some anchor points – especially of the latest estimates - also include small numbers of primary crack cocaine users who do not consume opiates. Treatment multiplier is based on opiate users only. ***The MIM and the multiple imputation were based on local estimates for the years 1998 - 2002. Therefore, in contrast to the multiplier method, this estimate does not accurately refer to '2001'.

*Problem hard drug use: local estimates*

Table 4.2 gives an overview of the estimates of the number of problem hard drug users in various cities and regions in the Netherlands. For some of these estimates the capture-recapture method has been applied. In these cases the number of problem users may have been overestimated because of a violation of the closed population assumption. For example, an estimate for the number of opiate users in Amsterdam in 2004 based on a 3-months

observation period (with less risk of migration, death, etc.) yielded 3,524 persons, compared to 3,928 persons based on a 1-year observation period (Van Brussel et al. 2005).
New information has become available for the city of Apeldoorn (Standard Table 7 & 8). By means of a capture-recapture analysis on police and treatment data, the number of problem opiates users lingering around in this provincial town in the province of Gelderland in 2005 was estimated at about 223. This amounts to about 4.65 problem opiates users per 1,000 inhabitants aging 15 up to 64 years (Bieleman et al. 2006c).

*Table 4.2 Local and regional estimates of the number of problem hard drug users*

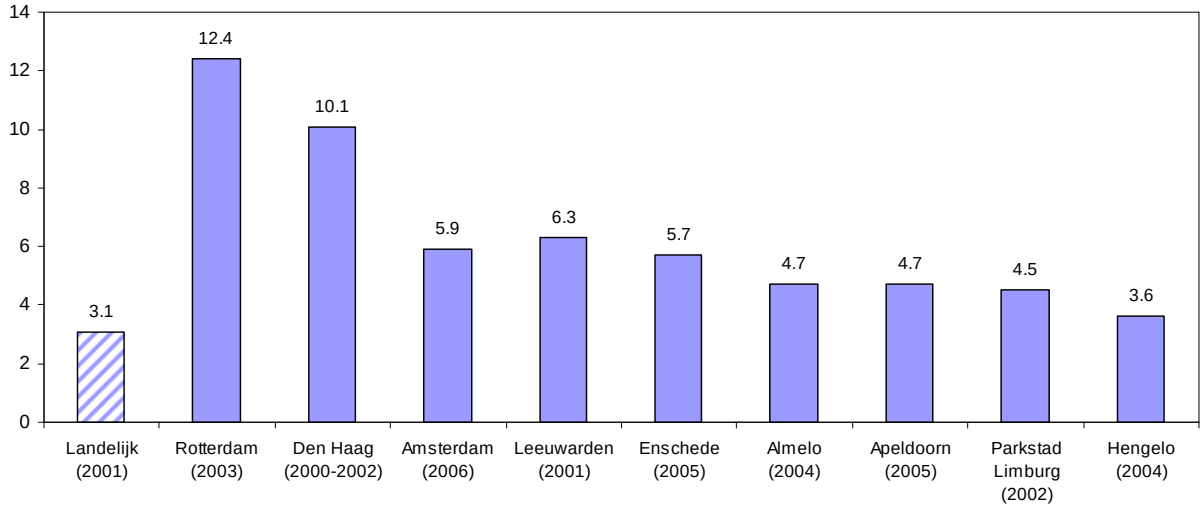
| City or region | Year | Method | Case definition* | Estimates (lowest – highest) | Source |
|---|---|---|---|---|---|
| Amsterdam | 2006 | 2-sample C-RC | Problem opiate users | 3,297 | Municipal Health Service Amsterdam (Buster, personal communication) |
| Rotterdam | 2003 | 3 times 2-sample C-RC | Problem hard drug users | 5,051 (4,804 - 5,298) | (Biesma et al. 2004) |
| The Hague | 2000 - 2002 | 3-sample C-RC | Problem hard drug users | 3,200 (annual) | (Burger 2007) |
| Groningen** | 1993/ 2002 | Treatment multiplier | Problem opiate users | 1,000 | (Bieleman et al. 1995) |
| Apeldoorn | 2005 | 2-sample C-RC | Problem opiate users | 223 | (Bieleman et al. 2006c) |
| Friesland*** (province) | 2001 | 2-sample C-RC, treatment multiplier | Problem opiate users | 1,007 | (Biesma et al. 2003) |
| Enschede | 2005 | 2-sample C-RC | Problem opiate users and poly drug users | 607 | (Bieleman et al. 2006a) |
| Hengelo | 2004 | 2-sample C-RC | Hard drug addicts | 191 | (Biesma et al. 2005b) |
| Almelo | 2004 | 2-sample C-RC | Problem opiate users | 229 | (Biesma et al. 2005a) |
| Stedendriehoek **** | 2000 | 2-sample C-RC, treatment multiplier | Problem opiate users | 750 (561 - 948) | (Bieleman et al. 2002) |
| South-Limburg ** | 1999/ 2002 | 1-sample C-RC (Chao's estim.) (a.o.) | Problem hard drug users | 1,100 | (Coumans et al. 2002); (Hoebe et al. 2003) |

* Problem opiate users often consume other substances as well (especially crack cocaine). Problem hard drug users consume opiates and/or cocaine and other substances.
** Estimates for the region/province are based on extrapolations from local estimates (cities). Parkstad-Limburg: 800.
*** Leeuwarden: 389; North-Friesland: 135; South-West Friesland: 169, Friese Wouden: 314.
**** Deventer, Apeldoorn, Zuthphen.
C-RC = capture-recapture. Samples come from treatment and police data.

Figure 4.1 gives the estimated number of problem hard drug users per 1,000 inhabitants aged 15 to 64 years at national level and for some cities and regions. The local estimates show that the highest concentrations of problem hard drug users were found in the three largest cities of Amsterdam, Rotterdam, and The Hague. Besides actual differences, the differences that were found between the cities and regions will also be due to variations in case definitions. Especially the differences between the three largest cities should be interpreted with great caution. For Amsterdam, the estimates are restricted to the problem opiate users

who were sampled from the central methadone register. Compared to Amsterdam, however, broader inclusion criteria have been applied in Rotterdam and The Hague (Biesma et al. 2004), (Burger 2007). Among homeless problem drug users in Amsterdam it was found that between 35% and 40% only use crack cocaine (Buster, Municipal Health Service Amsterdam, personal communication, 12-07-2007). Adding these percentages to the rate of 6.9 for the problem opiate users, it can be estimated that in total, when including problem opiate and problem crack cocaine users, there will be between 9.3 and 9.7 problem drug users per 1,000 inhabitants aged 15 to 64 years in Amsterdam. After this addition of the problem crack cocaine users, Amsterdam aligns again with The Hague in which in the same order of magnitude a rate of 10.1 was found. Moreover, in Rotterdam the case definition applies to the whole group of regular hard drug users. The group of problematic drug users (almost daily users, who were criminal and/or causing nuisance and/or homeless and/or had psychiatric comorbidity) was about one-third smaller. Although the wider definition more closely matches the definition of problem drug user of the EMCDDA, the more restrictive definition might be more in line with definitions in other cities.

*Figure 4.1: Estimated number of problem users of hard drugs per 1,000 inhabitants (15-64 years) at national level and for some cities and regions*



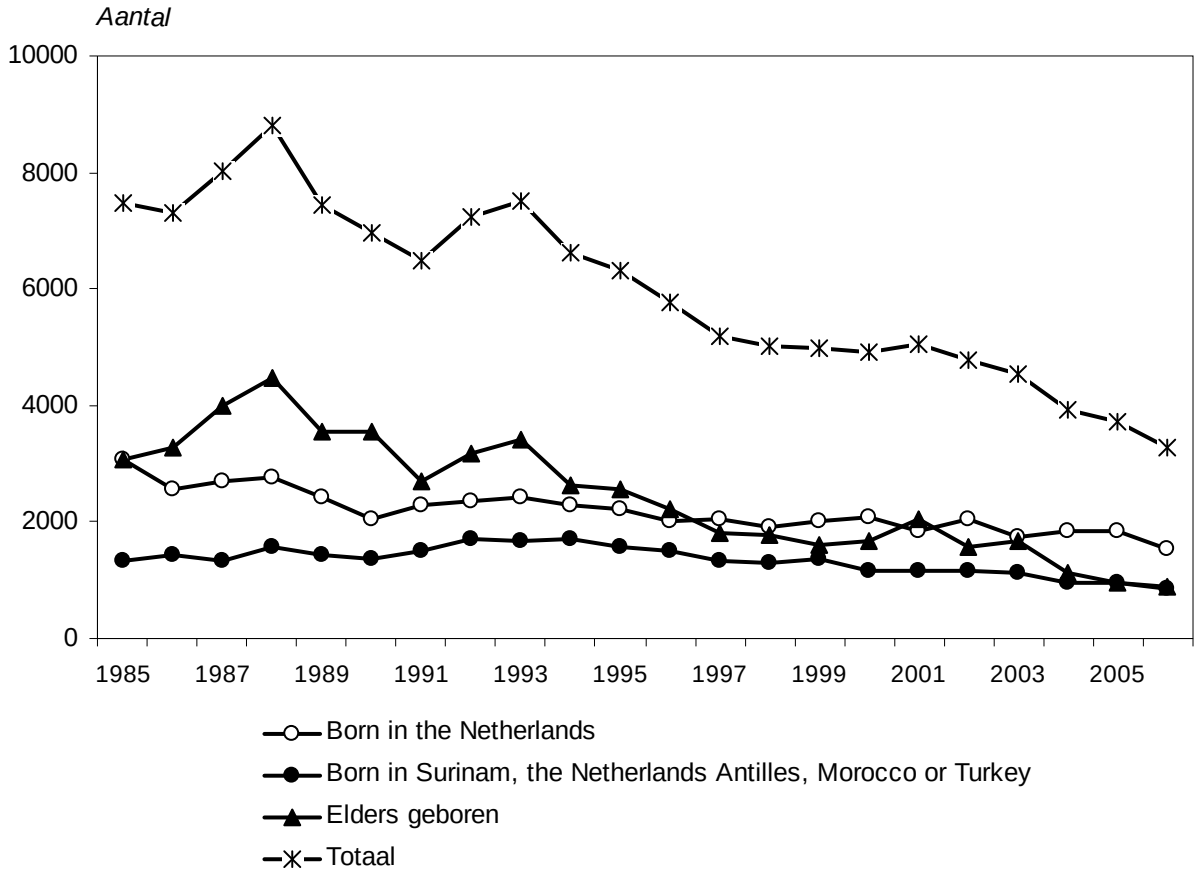

Sources and definitions: see table 4.1 and 4.2. Different case definitions and methods will have affected the comparability of the estimates.

*Declining number of opiate addicts in Amsterdam*

Estimates for the number of opiate addicts in Amsterdam are available since 1985. Figure 4.2 shows the estimated numbers broken down by country of origin.

- Since 1988 the estimated number of opiate addicts has declined (with a minor fluctuation in the early nineties). The largest decrease can be attributed to the group of foreign opiate users (category 'born elsewhere', including Italians and Germans), but in the past years the size of all groups has diminished.
- In 2006, the number of opiate addicts was estimated at 3,297 (one-year observation period). Of these opiate addicts 46% were born in the Netherlands, 27% in Surinam, the Netherlands Antilles, Morocco, or Turkey, and 26% were born elsewhere. Addicts of the first and second subgroup usually have a residence permit and maximum access to (methadone) treatment.

*Figure 4.2: Estimated number of opiate addicts in Amsterdam by country of origin*




Problem opiate users: those who have medical and/or judicial problems and/or have difficulties controlling their addiction. Estimates based on 2-sample capture-recapture applied to data from the Central Methadone Register (CMR). Source: Amsterdam Municipal Health Service.

*Injecting drug users*

NNIA. The number of drug users who are currently injecting their drug can be estimated from treatment data given by the National Alcohol and Drugs Information System (LADIS, see also paragraph 4.2), in combination with the estimated number of problem hard drug users at national level. According to the LADIS, 10% of the opiate clients in 2005 injected their drug. There were 16,199 clients who had a primary or a secondary problem with opiates. This implies that there were about 1,620 currently injecting opiate users in treatment.

There were 11,652 clients in treatment that had a primary or a secondary problem with cocaine or crack, who were not yet counted among the clients with a primary or secondary problem with opiates. Of these cocaine/crack clients only 1% injected, whereas 59% smoked, and 40% sniffed the drug. The approximately 4,661 clients who snort their cocaine are less problematic and less marginalised and are not included in the estimated number of problem hard drug users at national level. Of the remaining 6,991 problematic cocaine/crack users who are in treatment, about 117 clients are estimated to be injecting drug users.

All in all, these figures from the opiate and cocaine/crack clients imply that, of the 18,643 problem hard drug clients in treatment, about 1,737 currently inject, which comes down to about 9.3%. Given the estimated number of 33,499 problem hard drug users at national

level, it is then estimated that there are about 3,115 currently injecting problem hard drug users in the Netherlands, within a range of 2,211 to 4,321 injectors. Given the total of 11,008,282 inhabitants aged from 15 to 64 years in 2005, it is thus estimated that among the general population 0.03% are current injectors of hard drugs, within a range of 0.02% to 0.04% current injectors.

Above, the percentage of injectors among the hard drug users that are in treatment was generalised to the whole population of problem hard drug users. This generalisation is warranted as far as the problem users who are in treatment resemble their counterparts who are not in treatment. For the Netherlands, however, there are indications that those problem drug users who come for treatment are more problematic compared to those that do not yet seek treatment. These indications come from local studies that were conducted in Amsterdam (Buster et al. 2004), The Hague (Eland-Goossensen 1997), and the more provincial region of Parkstad Limburg (Coumans et al. 2001). It is likely that there is a higher percentage of injectors among the drug users who are in treatment compared to those who are outside treatment. Therefore, the number of currently injecting drug users as estimated above is most likely an overestimation. On the other hand, our estimate of the total number of hard drug users probably under-includes the number of crack/cocaine-only users, who do not consume opiates. As the injection rate is very low in this group (by virtue of their predominant consumption of crack cocaine), applying the slightly lower injection rate of 9.3% based on both opiate and 'crack only clients' as against 10% for the opiate clients, may not be fully appropriate. Nevertheless, this difference would scarcely affect the final estimate.

*Problem cocaine users*

It was already mentioned above that the estimated 33,499 problem drug users throughout the Netherlands in 2001 mainly include the traditional problem users of opiates, most of whom now also use cocaine, either as a primary or secondary drug. A new generation of problem drug users, who only use crack cocaine without using opiates, is still underexposed in this estimate. According to treatment data from the National Alcohol and Drugs Information System (LADIS) there were 16,199 clients in 2005 who had a primary or a secondary problem with opiates. There were 6,991 clients in treatment that had a primary or a secondary problem with crack cocaine, who were not yet counted among the clients with a primary or secondary problem with opiates. If the in-treatment rate would be available for these primary crack clients, a prevalence estimate could be made for this group. Applying the in-treatment rates of opiate users in 2001 (0.5 tot 0.76), this would amount to between 9,200 and 14,000 primary crack users. However, given the younger age of the new generation of crack cocaine users compared to opiate users and their relatively less worse health condition, it is likely that the in-treatment rate will be higher among the problem opiates users compared to the problem crack cocaine users. Therefore, the estimated total number of primary crack users might be an underestimation. On the other hand, problem drug users under the influence of crack cocaine tend to cause quite some public nuisance. It can be therefore also be assumed that rather soon they will come under pressure to seek addiction treatment, for example by referral through the criminal justice system. Moreover, there currently is a strong tendency in the Netherlands to outreach problem drug users on the streets as soon as possible. How these counteracting trends will finally affect the in-treatment rate, and hence the prevalence estimate, is not known.

## 4.2 Profiles of clients in treatment

*Specialised addiction treatment*

The National Alcohol and Drugs Information System (LADIS) is the most comprehensive information system in the Netherlands about clients in addiction treatment. The LADIS contains data from the regular drug treatment services, including probation services, and has nationwide coverage. During the past years, most regular organisations for outpatient treatment merged with the regular organisations for inpatient treatment within their region. As a result of these mergers most clients are now registered at a central intake location. Some private clinics and those organisations and departments of mental health that have not yet merged with an organisation for addiction treatment, are not represented so far in the LADIS.

The data in this paragraph are based on the protocol for the Treatment Demand Indicator (TDI) as established by the EMCDDA. This means that only those clients who have had at least a second face-to-face contact with an addiction counsellor are included. Moreover, the TDI only includes data from clients who subscribed in the year of registration. The TDI does not include subscriptions from a previous year that were continued in the registration year. Subscriptions within the registration year include clients that subscribed for the first time in their life for a drug problem (first treatments), as well as clients that resubscribed in the registration year. The TDI controls for double counting of persons. These criteria are more restrictive than the criteria applied by the holder of the LADIS, the Organization Care Information Systems (IVZ), to assess the annual LADIS Key Figures. The figures presented here will therefore deviate from the figures reported elsewhere.

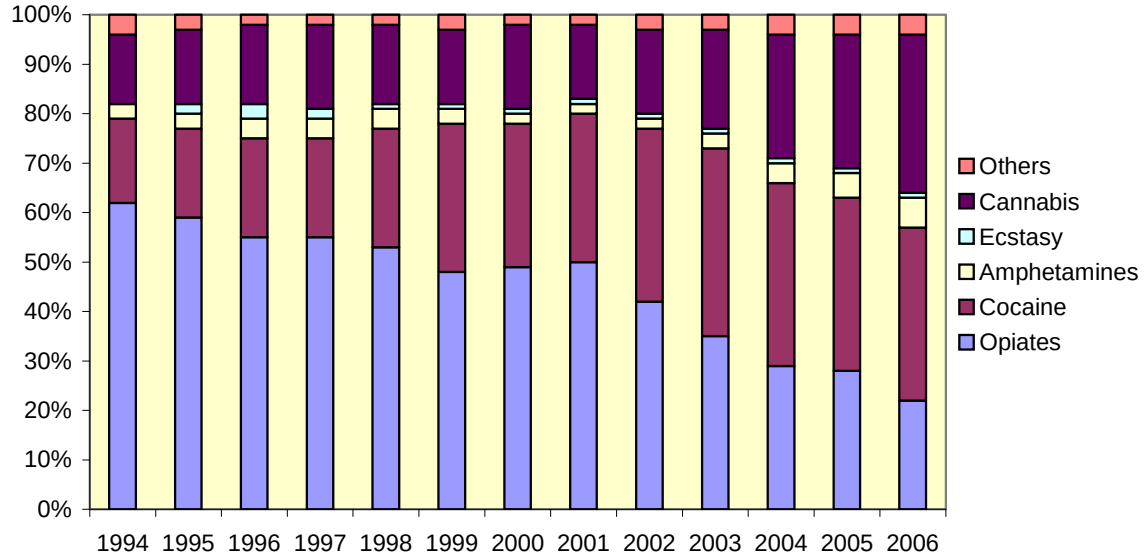
Some further observations should be made:

- Data will be reported from 1994 onwards, since this is the first year for which IVZ could control for double counting of persons.
- The coverage of the system in terms of participating services has improved over the years. The small relative increase in opiate clients from 2000 to 2001 is mainly due to the participation of the Municipal Health Service Amsterdam in the LADIS since 2001.
- Data for 2004 were lacking for one region (South-Limburg) due to a reorganisation of institutions. For this region, data from the registration year 2003 were extrapolated to 2004 in order to obtain nationally representative figures.
- Due to technical complications, data for 2005 were lacking for the Jellinek, a large organisation for addiction care and treatment in Amsterdam. For this organisation, the data from the registration year 2004 were extrapolated to 2005 in order to obtain nationally representative figures.
- "Cocaine" refers to both "cocaine HCL" and "crack cocaine".

*Trends*

Between 1994 and 2006, the annual number of new clients applying for help at the drug treatment services varied between eight and eleven thousand, with an increasing trend (although with some fluctuations) over the years, which has been levelling off in the past three years (see Standard Table 04). Figure 4.3 shows the distribution of the new clients from 1994 to 2006 for the drug that was the primary problem for these clients.

*Figure 4.3: Distribution of new clients recorded from 1994 to 2006 at centres for addiction treatment by primary drug**




* Selection of clients based on the EMCDDA's TDI protocol (TDI Data 34, Standard Table 04). Source: LADIS, IVZ.

Figure 4.3 shows the following:

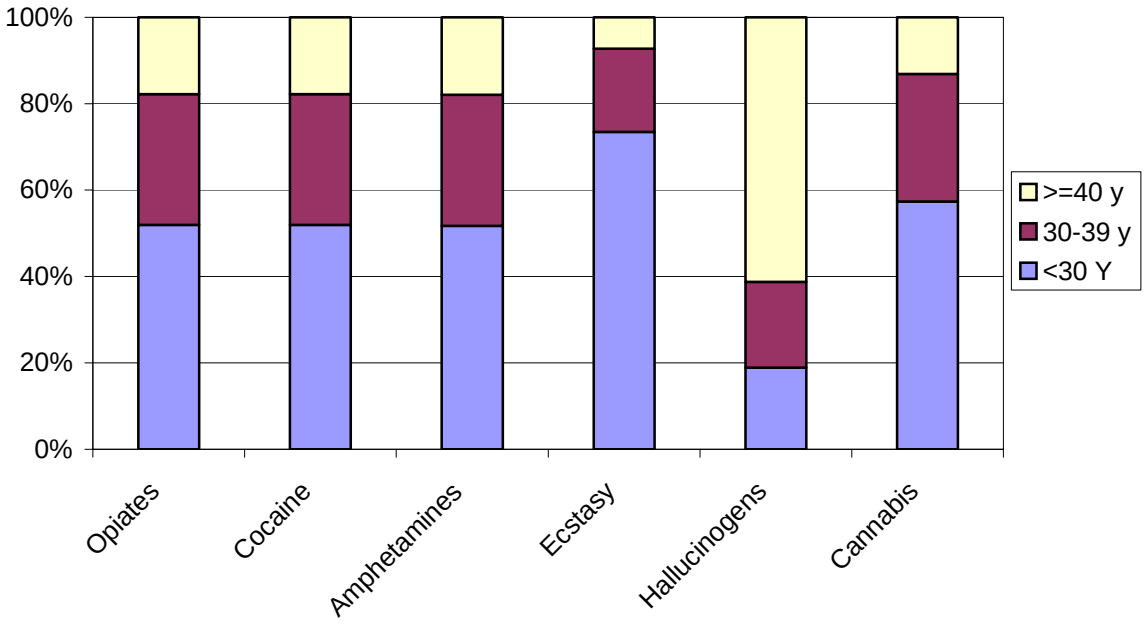
- The percentage of opiates clients among the new drug clients decreased from 62% in 1994 to 22% in 2006 (cf 28% in 2005). The percentage of cocaine clients increased from 17% in 1994 to 38% in 2003, and slightly decreased thereafter (35% in 2005 and 2006).
- Since 2003, the proportion of cocaine clients exceeds the proportion of opiates clients.
- The proportion of cannabis clients increased from 14% in 1994 to 32% in 2006 (cf 27% in 2005).
- When taken separately, the ecstasy and amphetamine clients never accounted for more than 6% of the new drug clients. However, the proportion of amphetamine clients is on the rise in the past years, from 1.5% in 2001 to 5.9% in 2006.

The shift in proportions among the primary drugs is even more visible in clients who have entered treatment for the first time. These first treatments reflect the incidence of drug users seeking help, and may be a better indicator of recent developments in problem use. Among the first treatments in 2006, the proportion of opiates clients was only 11% compared to 32% for the cocaine clients and 43% for the cannabis clients. The proportion of first treatments related to amphetamines was 8%.

*Age*

For the different drugs, figure 4.4 shows the distribution over the age groups of the clients in 2006. Clients demanding treatment for problem use of hallucinogens, opiates, cocaine, and amphetamines are on average the oldest. Clients who have a primary problem with ecstasy or cannabis are on average the youngest.

*Figure 4.4: Clients recorded in 2006 at addiction treatment centres by primary drug and age group**

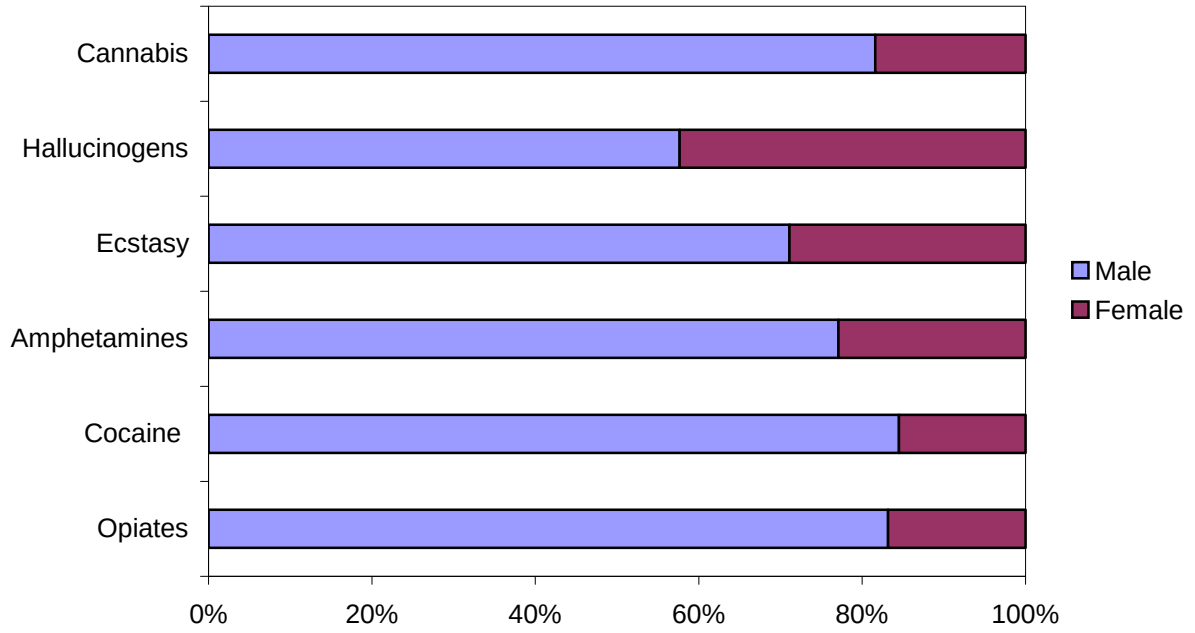



* Selection of clients based on the EMCDDA's TDI protocol (TDI Data 34, Standard Table 04). Source: LADIS, IVZ.

*Gender*

The percentage of females among all the new drug clients has varied over the years between 16% and 19%. Figure 4.5 shows the gender distribution by primary drug in 2006. The proportion of females was highest among the hallucinogens clients (42%), followed by the ecstasy clients (29%), and the amphetamines clients (23%). The proportion of females was the lowest among the cannabis (18%), opiates (17%), and cocaine (16%) clients. The proportion of females among the first ecstasy treatments rose from 21% in 2001 to 32% in 2006.

*Figure 4.5: Gender distribution by primary drug of clients recorded in 2005 at centres for addiction treatment**




* Selection of clients based on the TDI protocol. Source: LADIS, IVZ.

*Route of administration*

According to the TDI (LADIS, IVZ), injecting drug use among all the new primary drug clients strongly decreased from 12% in 1994 to 2% in 2006 (cf. 3% in 2005). Among the opiates clients a decrease was found from 16% in 1994 to 8% in 2006 (cf 9% in 2005). In 2006 the main route of administration for opiates was smoking or inhaling (71%). Of the cocaine clients, 44% smoked or inhaled and 53% sniffed the drug. In 2005, these percentages were 54% and 40%, respectively, which points at a relatively increase of clients who sniff cocaine. These different routes of administration probably reflect two different groups of problem cocaine users. On the one hand there are the problem users of crack cocaine, who often also consume other hard drugs like opiates. On the other hand there are the 'recreational' cocaine users who have run into problems because of compulsive sniffing (Stichting IVZ 2006). Cannabis is mainly smoked (98%), while amphetamines are sniffed (76%) as well as swallowed (19%).

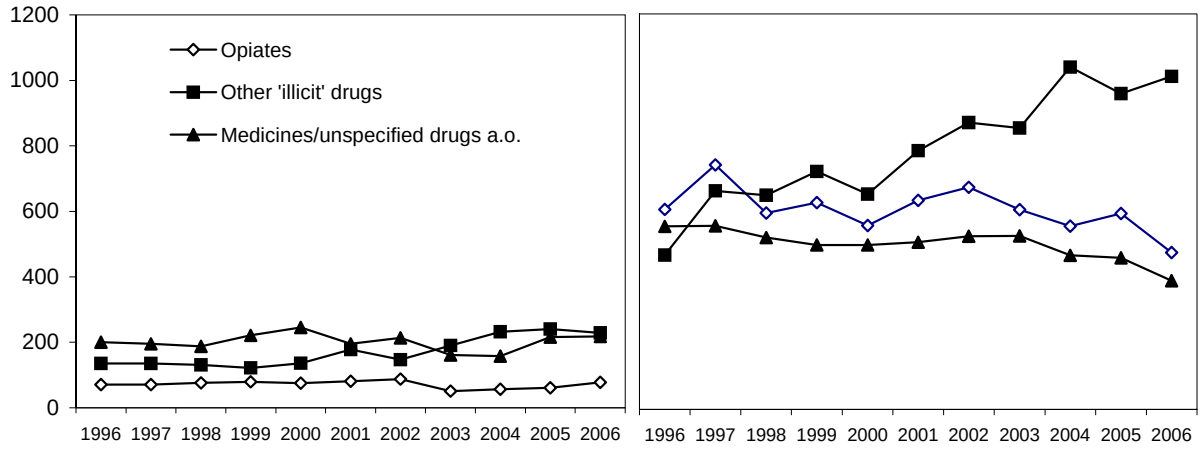
*General hospital admissions*

Admissions to a general hospital in the Netherlands are registered in the Dutch Hospital Registration (LMR). Figure 4.6 shows the number of clinical admissions to a general hospital because of drug dependence or abuse as a primary or a secondary diagnosis.

- In 2006, the LMR recorded a total of 1,747,198 clinical hospital admissions. Drug dependence and drug abuse were counted only 525 times as a primary diagnosis and 1,876 times as a secondary diagnosis.
- Within the category of admissions related to drug abuse and dependence, opiates made up 15% of the primary and 25% of the secondary diagnoses. Other illicit drugs accounted for 44% of the primary and 54% of the secondary diagnoses. In this category, cocaine ranked as the most frequent drug, followed by cannabis. Psychoactive medicines (e.g.

benzodiazepines) and unspecified substances accounted for 42% of the primary diagnoses and 21% of the secondary diagnoses.

*Figure 4.6: Number of admissions to general hospitals related to drug dependence or nondependent drug abuse (ICD-9 codes 304 and 305.2-9) as primary diagnoses (left) or secondary diagnoses (right), from 1996 to 2006*




Other 'illicit' drugs are cocaine, cannabis, amphetamines, and hallucinogens. Source: LMR, Prismant.

*Trends*

The number of admissions related to drug abuse or dependence as a primary diagnosis remained rather low over the past years. Minor increases were seen for cannabis (24 in 2000 and 54 in 2006) and cocaine (67 in 2000 and 90 in 2006). A stronger increase was observed for the number of admissions with other illicit drugs as a secondary diagnosis.

- This trend was mainly due to cocaine and to a lesser extent to cannabis. More specifically, cocaine dependence and abuse as a secondary diagnosis increased from 377 in 2000 to 562 in 2002, and remained at more or less the same level since then. In 2006, 514 secondary cocaine admissions were recorded.
- The number of cannabis related admissions was lower and more variable over time, although an overall increase in secondary diagnoses was observed from 193 in 2000 to 377 in 2006.
- The number of admissions related to opiates as a secondary diagnosis is also more variable, varying between 476 and 750 cases annually (476 in 2006).

Table 4.3 gives some more details about hospital admissions related to the main drugs of abuse.

- In accordance with the data from the addiction treatment services, the average age of the hospital patients was the highest for the opiates patients and the lowest for the cannabis and the amphetamines patients.
- With regard to the primary diagnoses, it is quite remarkable that the average number of days during which the patients stayed in the hospital was the highest for the cannabis patients. The lowest number of days was recorded for the amphetamine patients. There is no explanation for these differences.

*Table 4.3: Clinical admissions to general hospitals related to drug abuse and drug dependence in 2006**

| | Cannabis | Cocaine | Opiates | Ampheta-mines |
|---|---|---|---|---|
| Number of primary diagnoses | 54 | 90 | 78 | 39 |
| Average number of days | 9.43 | 4.8 | 7.7 | 1.2 |
| Number of secondary diagnoses | 377 | 514 | 476 | 88 |
| Total number of persons** | 381 | 514 | 439 | 119 |
| Average age (years) | 31 years | 35 years | 43 years | 29 years |
| Percentage male | 77% | 74% | 72% | 74% |

* ICD-9 codes: cannabis 304.3, 305.2; cocaine 304.2, 305.6; opiates 304.0, 304.7, 305.5; amphetamines 304.4, 305.7. These ICD-9 codes are not 100% specific with regard to the drugs in question. Clinical admissions do not include one-day admissions. ** Number of persons who were admitted at least once because of a drug-related disorder assigned as a primary or secondary diagnosis. Source: LMR, Prismant.

## 4.3 Main characteristics and patterns of use from non-treatment sources

In the past decade, field studies among traditional groups of problem opiate users have shown a strong increase in the use of crack cocaine, a reduction in injecting drug use and an increase in psychiatric and somatic comorbidity, which is partly associated with the ageing of this population. Observations from an association for heroin users also point at a recent up-surge of amphetamine, but this trend remains to be confirmed. The number of field studies providing quantitative data on characteristics of users and patterns of drug use and risk be-haviours has strongly declined in the past years. Recent field studies employing observa-tional methods and interviews among key informants point at new groups of (young) problem drug users, including those consuming crack as their first and main drug, and daily cannabis users, who may be at risk of becoming problem hard drug users (see National Report 2006). Moreover, these studies confirm the increase in comorbidity and poly drug use (including alcohol) among the traditional ageing population of hard drug users. In general, these find-ings are in agreement with the findings from treatment registrations given by the National Alcohol and Drugs Information System (LADIS).

One qualitative study in the South of the country suggests that the decreasing trend in inject-ing drug use might have halted now (Van der Dam et al. 2006). However, treatment data still point at a decreasing prevalence of injection (see § 4.2). Moreover, in the Amsterdam Cohort Study on hiv and aids the proportion of hard drug users who self-reported the sharing of needles decreased from 47% in 1986 to 9% in 2004 (Lindenburg et al. 2006). This decrease was most prominent in the period after 1996. In contrast, sexual risk behaviour remained quite common. The proportion of hard drug users in the cohort who self-reported unsafe sex decreased from 52% in 1990 to 40% in 1996, but remained stable since then.

# 5 Drug-Related Treatment

During the past years there is a greater research emphasis on neurobiological approaches to addiction, on psychiatric co-morbidity, and there have been many activities realised for enhancing the gradual introduction of evidence-based addiction care (see former National Reports).

## 5.1 Treatment system

*New developments and trends*

- Due to mergers, the number of organisations of addiction care that are funded by public money, has further decreased from 18 to 17 but the number of locations or units did not change much, i.e. somewhat more than two hundred.
- The privatisation of health care and health insurance companies during the past years has led to changes in strategies of insurance companies. Insurance companies are increasingly asking proven effective treatments as a prerequisite for funding and the organisations for addiction treatment and health insurance companies are not restricted anymore to offer funds or services within their traditional territories.
- Probably partly because of this increased privatisation, the number of private addiction treatments is growing.
- The number of clinics for special target groups is also rising, e.g. for mentally retarded people with an addiction.
- Most people with drug problems are still treated in outpatient care. Recent statistics on *inpatient* addiction care are not available. The introduction of a new information system for mental health care including addiction care, based on a pre-defined system of diagnose-behandel-combinaties (*diagnosis treatment combinations*) is still in development.
- The development and number of treatment options via the internet is slowly increasing (up to now mainly for problematic alcohol and cannabis use). Recently the development of a second internet treatment programme for young problematic cannabis users has started in the Eastern part of the country (the first one is operating in Amsterdam).
- Treatment options for dual diagnosis patients are also increasing. One example is a 24-hours care centre with closed inpatient units was started as a joint project of the addiction care and mental health care, also in the Eastern part.
- Farm work for addicted people and people with mental illnesses is becoming very popular. To date there are some 650 farms who engage these people in daily farm work for different reasons  Initially social reintegration was an important longer-term target, but in many cases this target may be too ambitious. It offers opportunities to addicted people to engage in paid structured day activities, social contacts and to stabilise their health and life situation (see National Report 2003, 10.1).
- Methadone maintenance is still a predominant outpatient treatment arrangement for opiate users.
- In 2004 it was planned to increase the treatment capacity for medical heroin prescription from 300 to 1,000 patients (T.K.24077/137). In 2006, 815 treatment places in 18 municipalities were actually approved.

- We still do not have insight in what specific types of interventions are in use nationwide in Dutch addiction care but knowledge of effective treatments is now trickling down in most addiction care organisations, due to the activities of the long term policy programme Scoring Results. Meanwhile, current research aims to stimulate the application of effective interventions and evaluation. For instance, the partly evidence-based lifestyle trainings and intensive case management techniques are reported to be (or become) implemented in most organisations ((Schippers et al. 2005).
- A guideline for case managers describes how this type of work can best be realised (Tielemans et al. 2007).
- The publication of a multidisciplinary evidence-based guideline on problematic drug use is delayed. This guideline will probably be published in Spring 2008 (Henkelman et al. 2007).[8]

In November 2007 a systematic review has been published on the effectiveness of treatments for young problematic drug users. This study is funded by the programme Scoring Results (Verdurmen et al. 2007).

*Quality of treatment*

The programme Scoring Results has been prolonged until 2008 with a focus on further developing protocols, on the implementation of guidelines and on starting specialised courses in professional training and education in order to improve the expertise of future professionals (Van Es et al. 2005) (Van Es 2004). Between 1999 and 2007, this programme has received € 2,450,000 for realising its activities.[9]

Monitoring the performance of addiction care will be facilitated by a set of outcome indicators (*prestatie-indicatoren*) for the broad domain of mental health and addiction care. The indicator set encompasses data on several aspects of effectiveness of care, safety, and client-centred data.

Benchmarking activities were gradually started in 1999 in addiction care as part of Scoring Results, aiming at continuously improving the quality and effectiveness in this professional field. After some pilots, the feasibility of benchmarking was evaluated and benchmarking was applied in Intramural Motivation Centers and Lifestyle training programmes. After evaluation, the results were fed back to the professionals for adapting their activities.

In the project OutcomeBench, four organisations of addiction care have collected data on the new Lifestyle Training programmes. These programmes have been initiated as part of the programme Scoring Results (see above). OutcomeBench resulted in several reports. One report concerns the evaluation of treatment outcomes of participants of Lifestyle Training programmes between October 2002 and March 2005. Another report presents facilitating and limiting factors for implementing outcome benchmark procedures. A third report is a literature study on effectiveness of benchmarking in mental health and addiction care. The fourth is a handbook as a guide for setting up benchmark projects. This handbook is partly based on facilitating and limiting factors for implementing bench marking in addiction care (Oudejans et al. 2006); (Oudejans et al. 2006); (Schramade 2005); (Verbrugge et al. 2005).

University chairs specialising in addiction and addiction care were established during the past years (see former National Reports). Moreover, international publications and contacts have increased considerably over the past years (see § 13). Finally, specialist courses in addiction medicine and addiction care in universities and higher vocational education were rare but new

[8] www.ggzrichtlijnen.nl

[9] GGZ Nederland, Mw. drs. M.L. Hoorn, personal communication

initiatives are now realised to meet the need for increasing the quality of schooling in addiction care.

In 2006 a brief literature review on evidence-based treatment of opioid-dependent patients was published. The review concluded that opioid dependence is a chronic relapsing disease that is difficult to cure. Still effective treatments are available to stabilise drug use and the general life situation of patients, to reduce harm, to increase life expectancy and quality of life. The most effective examples are crisis intervention with naloxone to reduce overdose death and substitution maintenance treatment (Van den Brink et al. 2007).

A new instrument for treatment allocation and monitoring of addiction and concomitant psychiatric problems – the Measurement of Addiction for Triage and Evaluation (MATE) - has been introduced in June 2007 as an alternative for the Addiction Severity Index (ASI) that is assumed to be obsolete now.[10] MATE covers drug use, individual an social functioning, need of care, indications of psychiatric or physical comorbidity, treatment history, and other patient characteristics. It also gives an indication of intensity of care based on a national guideline. The instrument is accompanied by a manual and protocol and is also available in an electronic version (Schippers et al. 2007).

More than ten years ago evidence-based treatment was introduced as part of a total quality management among 550 professionals in a Dutch addiction centre. By comparing scores on nine criteria of the European Foundation of Quality Management (EFQM) Excellence Model, the changes in treatment practices were evaluated. These criteria were: leadership, people, partnership and resources, protocol for internet support and treatment, protocol for cognitive behaviour therapy, specialised interventions, medical treatments and case management. Most intake, care and cure process were reorganised during those years, the support processes were restructured and ISO certified. Twenty-nine evidence-based treatment protocols were developed and implemented. During the follow-up period, patients outcomes were measured. Client satisfaction scores remained stable. The overall EFQM assessment by external assessors in 2004 shows much higher scores on the nine criteria, compared with 1994. A limiting factor was a lack of adequate registration data during the first years (Nabitz et al. 2006).

In an observational follow-up study, all 4,394 referrals in 2003 to two large centres of addiction care were entered. The study targets the feasibility of implementing evidence-based guidelines (i.e. the use of these guidelines) for patient-treatment-matching to levels of care. Data needed for treatment allocation according to the protocol were available for 2269 patients (52%) and for 1765 patients (40%) data were available for evaluation of the actual level of care. Of these, 1089 (61%) were allocated according to the protocol, i.e. 48% according to the guideline algorithm. The other 12% were based on clinically justified deviations from this algorithm (a different appraisal of the severity of addiction). The investigators concluded that guideline-based treatment allocation was seriously limited by inadequate collection of patient data and insufficient guideline-based treatment allocation. Only 24% of the patients were adequately matched to the planned treatment. The data collection infrastructure of these two centres of addiction care appears to be problematic and the non-adherence of the staff to the guidelines troublesome (Merkx et al. 2007).

[10] www.mateinfo.eu

A large organisation of addiction care in the West of our country (the Brijder Foundation) was the second to receive a certification from the national inspection service (HKZ Expertise Centre on Quality Review in Health care), meaning that this organisation is providing sufficient insight in care and management (transparency), and also that these characteristics are now measurable and testable. Addiction care in the Jellinek has already been certified.[11]

## 5.2 Drug-free treatment

Drug-free treatments are for instance used for drug dependent people in judicial settings (e.g. supportive interventions targeting money, housing or work), in experimental settings (e.g. the voucher-based Community Reinforcement Approach) and in general addiction care settings (variants of the lifestyle training, family-based therapies, and other psychosocial interventions). Psychosocial interventions are generally known to be used in treating opiate addiction to complement medically assisted treatment (medication) in order to attain longer term effectiveness. Cannabis, cocaine or ecstasy problems are generally treated with variations of cognitive behavioural treatment (CBT), because effective medication is still lacking. There are no specific admission criteria for drug free treatment. As part of the programme Scoring Results, different intensities of Lifestyle Interventions that are partly based on CBT have been introduced. Choices for one type or another are mainly dependent on individual treatment professionals.
Recent developments focus on treatment modalities for cocaine and cannabis users, in response to the increased treatment demand of this group of drug users. In our former national report we mentioned two existing intensive inpatient treatment possibilities for young people with alcohol and drug problems (Mistral and Bauhuus; see also chapter 12). Another example is the experimental treatment for cocaine users, using the Community Reinforcement Approach (CRA) with incentives, i.e. vouchers (see National Report 2006, 5.2). The results of this project will be reported in the beginning of 2008.
Concerning cannabis, the Netherlands are a collaborating partner in the European INCANT study (International Cannabis Need of Treatment), a randomised controlled trial initiated one year ago by five Western-European countries. The main question is if Multi Dimensional Family Therapy (MDFT), a treatment developed in the USA, is also effective for Western-European adolescents. INCANT stresses cannabis but does not exclude other issues, e.g. alcohol abuse, psychiatric problems, and psychosocial troubles. Besides the Main Study Protocol and two Newsletters, publications with the first findings are expected within two years (INCANT Study Team 2007).

Two years ago self help groups for addicted young people did not exist. To date there are five of these groups for alcohol abusing young people (AA), mainly in some bigger cities (Amsterdam, Haarlem, Breda and Groningen). In Amsterdam a self help group for drug addiction (NA) exists and in Volendam a self help group for young people of 12-20 years has been established. Volendam is a former small fishermen's village with a rather closed community where legal and illegal drug use is substantial (but hidden and denied) among young people. A few years ago a group of mothers (known as the "Courageous Mothers"[12]) took the initiative to bring this news to the outside world and ask for help (Van Rooijen et al. 2007b).[13]

[11] www.hkz.nl
[12] www.moedigemoeders.nl
[13] Adresses of these groups can be found on the web: www.zelfhulpverslaving.nl

The Jellinek in Amsterdam has started “reconsideration groups” (*overwegingsgroepen*) for double diagnosis patients. These groups are dealing with chronic psychiatric patients who (still) use drugs but who are also ambivalent about their drug use. Voluntary weekly sessions are held without treatment plans, that aim primarily at sharing experiences with patients in comparable situations. The groups are supported by a professional and an ex-patient, so actually these are not self help groups, although participants are primarily supporting each other. It is assumed that the experience in these groups will lower the threshold for getting into regular treatment. Current experiences with reconsideration groups show that many participants after some time have chosen to stop using drugs and others are now also participating in regular self help groups. This initiative shows that the gap between self help groups and regular addiction care has grown smaller (ibid.).

The Informatie- en Ontwikkelingscentrum Zelfhulpgroepen en Verslavingen (*Information and Development Centre Selfhelp Groups and Addiction*) organises a thematic meeting in October 2007 on the use of the 12-step model (the Minnesota Model) in addiction care and the significance of this for self help groups (ibid.). Topics include the advantages of this model and the role it can play in improving the cooperation between regular addiction care and self help groups (Van Rooijen et al. 2007c).

Information leaflets on self help for patients are issued by the Information & Development Centre for Self help groups and addiction.[14]

## 5.3 Medically assisted treatment

*Withdrawal treatment*
In former years two methods (with and without anaesthesia) were evaluated of ultra-quick detoxification strategies followed by a follow-up treatment strategy to maintain abstinence (De Jong et al. 2004). The follow-up treatment was based on the Community Reinforcement Approach (CRA), a comprehensive treatment targeting at reinforcing (as much as possible) positive stimuli in the direct environment of the patient (family, school, work, friends) and evading negative stimuli (i.e. drug use related). A protocol for post-detoxification treatment was constructed, combining maintenance treatment with naltrexone and CRA. This protocol was (pilot)implemented in five Dutch organisations of addiction care. The report describes several limiting factors for implementation. The main factor is that CRA is a complex set of interventions that needs an active, multidisciplinary approach that is not yet common among Dutch addiction treatment workers. Other examples of factors hampering this process are the lack of trained professionals and objections against supervision sessions (Dijkstra 2007).

*Substitution treatment*
There has been no change in the setting for drug substitution treatment (outpatient treatment) nor in the drugs that have been dispensed. In most cases methadone is used and to a much smaller extent (exact numbers are unknown) also buprenorphine. Due to some technical registration problems, only 9,811 methadone clients were registered in the National Alcohol and Drugs Information System (LADIS) in 2006. However, an inquiry by the Organization

[14] www.zelfhulpverslaving.nl

Care Information Systems among institutes for addiction care revealed that the actual number probably equals the number from the previous year of about 12,500 methadone clients. In 2006, the average dose was 62 milligram per day, compared to 54 mg per day in 2005.

As a consequence of criticisms against the non-medical character of maintenance treatment during the past decade (Loth et al. 2007), it is now going to be increasingly administered in keeping with transparent (explicit) medical treatment standards, and the dispensing of methadone during the first phase is being supervised (Merkx et al. 2005). Moreover, a comprehensive guideline on substitution treatment has been developed and published (Loth et al. 2005). Simultaneously, parts of this guideline were evaluated. The testing of this implementation was done by the National Health Care Inspectorate and it was based on the HKZ/ISO quality standards for certification and funding of evidence-based treatments. This guideline was piloted in two organisations of addiction care (Loth et al. 2006). For the evaluation criteria see table 5.1.

*Table 5.1 Reference frame for quality test of substitution treatment*

| **Primary phase of treatment choice** | **Minimal age; duration of addiction; use of urine-analysis; information of the patient.** |
|---|---|
| Treatment phase | Doses; dispensing frequency; medication type (pills, fluid); availability of treatment protocols; maximal dosage; participation in the Landelijke Centrale Middelen Registratie (*National Centre for Substance Registration*); vaccination for hepatitis B; prescription of other medication; availability of patient agreement and patient data file. |
| Evaluation phase | Regular tests for physical health and infectious diseases; reporting of incidents. |
| Organisation policy | Vision document on substitution treatment; integral care; characteristics of staff meetings; availability of treatment protocols. |
| Personnel | Professional structure of the staff; relation with the number of patients; job satisfaction; job description (tasks, responsibilities); availability of schooling/training plan. |
| Research and development | Presence of professional literature. |
| Physical environment | Housing; registration and storage of medication. |

The organisations of addiction care estimated an extra amount of money needed for the implementation of this guideline (€ 55.5 million). Possible solutions are prioritising parts of the guideline or realising the guideline-actions over a longer period.[15]

[15] Brief vws 0700908, d.d. September 11th 2007.

# 6 Health Correlates and Consequences

## 6.1 Drug-related deaths and mortality among drug users

*General Mortality Register: direct deaths*

In the Netherlands, statistics on drug-related deaths are available from the General Mortality Register (GMR), or Causes of Death Statistics, held by Statistics Netherlands (CBS) (Van Laar et al. 2006). In this register the causes of death are classified according to the International Classification of Diseases, Injuries and Causes of Death (ICD). The 9th edition of the ICD was used from 1979 through 1995, and the 10th edition of the ICD has been in use since 1996. The register has national coverage, but in a standard way only includes deceased residents of the Netherlands who were registered at a municipal register. However, data on drug-related deaths among non-residents are available from an additional database. The General Mortality Register especially provides data on acute mortality due to drug use, that is poisoning by drugs, or drug 'overdose'. These are the cases in which death is directly related to drugs. The GMR data do not make a distinction between experimental and habitual drug users, and are not suitable for tracing deaths due to rare toxicological substances like various synthetic drugs. Nonetheless, the registered cases can be selected according to the EMCDDA definition of acute drug-related death as reported in the Standard Tables ST05 and ST06.

*Overall trend*

- Figure 6.1 shows the number of cases recorded from 1986 through 2006 according to the EMCDDA selection of ICD-codes (ST05, ST06). The figure only includes cases from residents that were registered at a municipal register. Among non-residents, an additional number of 28 cases were registered in 2006 in a separate database. The total number of recorded drug-related deaths among residents increased between 1995 and 2001, decreased in 2002 and 2003, increased in 2004, and decreased again in 2005 and 2006. The increasing trend can be attributed to various factors, such as the change from ICD-9 to ICD-10 in 1996, since ICD-10 includes more cases. The increasing trend can also be attributed to the rise in acute cocaine deaths, which seems to parallel an increase in the problem use of this substance.
- From the 112 cases in 2006, a total of 47 cases were coded to unspecified substances, compared to 42 cases in the registration year 2005. Although the specific substances are not known, an inquiry at Statistics Netherlands (CBS) revealed that these cases are related to hard drugs and to polydrugs, and are therefore rightly included in the selection of drug-related deaths. From 1996 to 2006, the trend in the number of unspecified substances parallels the trend in the total number of drug-related deaths (pearson correlation = 0.63, p = 0.02 one-tailed). The number of unspecified cases ranges from 18 in 1996 to 53 in 2004.

*Substance specific trends*

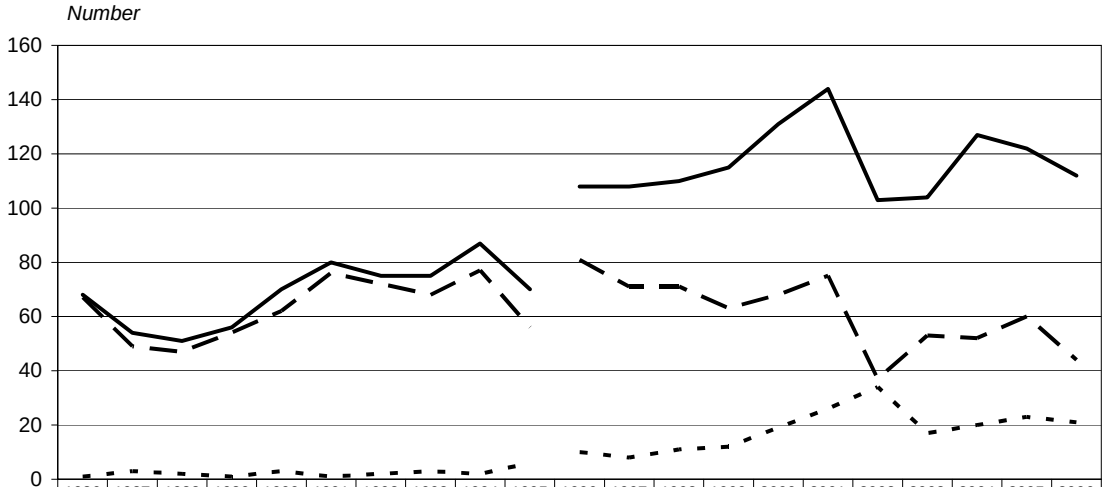
- Cases of "opiates" and "cocaine" refer to cases in which these substances were explicitly mentioned on the death certificate. Between 1985 and 2001, opiate intoxications were the most common causes of death recorded among Dutch residents. In this period, the casualty rate fluctuated between 47 and 77 cases. In 2002, the number of opiate deaths

decreased and reached about the same level as the number of acute cocaine deaths, which had slowly increased since the late nineties. However, since 2003 these converging trends have diverged. Since that year the number of cocaine deaths has slightly decreased and the number of opiate deaths has slightly increased.

- In 2006 there were 4 cases that were coded to an acute psychostimulant intoxication. Whether these fatal intoxications concerned amphetamines, MDMA, or other psychostimulants is not known.

Despite fluctuations over the years, the total number of drug-related deaths in the Netherlands has remained relatively low. This might be explained by prevention measures and protective factors, such as the nationwide availability of methadone-maintenance treatment and the low rate of injecting drug use in the Netherlands. There are, however, some indications that not all cases of drug-related deaths are recognised in the GMR (De Zwart et al. 2001).

*Figure 6.1: Number of acute drug-related deaths in the Netherlands according to the EMCDDA selection of ICD-9 codes (1986-1995) and ICD-10 codes (1996-2006)**




| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 68 | 54 | 51 | 56 | 70 | 80 | 75 | 75 | 87 | 70 | 108 | 108 | 110 | 115 | 131 | 144 | 103 | 104 | 127 | 122 | 112 |
| Opiates | 67 | 49 | 47 | 54 | 62 | 76 | 72 | 68 | 77 | 56 | 81 | 71 | 71 | 63 | 68 | 75 | 37 | 53 | 52 | 60 | 44 |
| Cocaine | 1 | 3 | 2 | 1 | 3 | 1 | 2 | 3 | 2 | 6 | 10 | 8 | 11 | 12 | 19 | 26 | 34 | 17 | 20 | 23 | 21 |

*Only residents that were registered at a municipal register in the Netherlands are included. Among non-residents, an additional number of 28 cases of acute drug-related deaths were registered in 2006. ICD-9 from 1986 through 1995: 292, 304.0, 304.2-9, 305.2-3, 305.5-7, 305.9, E850.0, E850.8, E854.1-2, E855.2, and E858.8, E950.0, E950.4, E980.0, E980.4 (selected in combination with N965.0, N968.5, N969.6 or N969.7). ICD-10 from 1996 onwards: F11-F12, F14, F16, F19; and X42, X41, X62, X61, Y12, Y11 (selected in combination with T40.0-9 or T43.6). Source: Causes of Death Statistics, Statistics Netherlands (CBS). The break in lines between 1995 and 1996 indicates the switch from ICD-9 to ICD-10 coding.

*Age and gender*

The population of problem hard-drug users is ageing and this trend is reflected in the increasing age of drug users that have died from drugs. Figure 6.2 shows that the percentage of victims aged 35 years and above increased from 22% in the late eighties to 65% at the beginning of this century.

Between 1986 and 2006, the percentage of female cases varied from 10 to 28% per year, without showing a clear trend.

*Figure 6.2: Trends in age distribution of cases of acute drug-related deaths in the Netherlands, according to the EMCDDA definition*

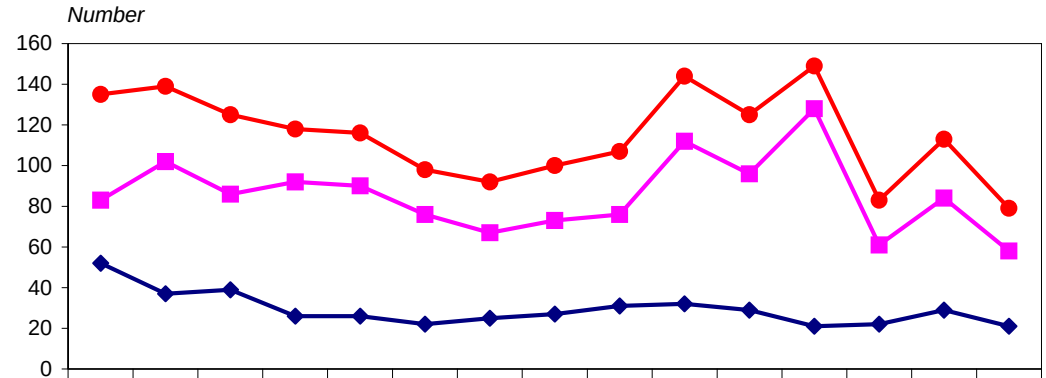

| | 1986-1990 | 1991-1995 | 1996-2000 | 2001-2006 |
|---|---|---|---|---|
| >=65 y | 2 | 3 | 3 | 3 |
| 35-64 y | 20 | 37 | 50 | 62 |
| 15-34 y | 77 | 60 | 47 | 35 |
| 0-14 y | 1 | 0 | 0 | 0 |

Source: Causes of Death Statistics, Statistics Netherlands (CBS).

*Mortality among drug users in Amsterdam*

Each year the Municipal Health Service Amsterdam (GGD Amsterdam) traces drug-related deaths by combining data from the Central Methadone Register, the municipal registrar's office, the municipal coroners, hospital records, and the police. Data on fatal poisonings ('overdoses') from the Amsterdam coroners also include tourists and drug users that stay illegally in the Netherlands and are therefore not included in the Population Registry. The General Mortality Register (GMR) on the contrary only includes residents of the Netherlands who are recorded in the Population Registry. Moreover, in addition to direct deaths (or 'overdoses'), the Amsterdam registration also includes mortality cases that are indirectly related to drugs. Figure 6.3 gives the number of deaths that were found according to this procedure among the drug users in Amsterdam.

*Figure 6.3: Number of deaths among drug users in Amsterdam*



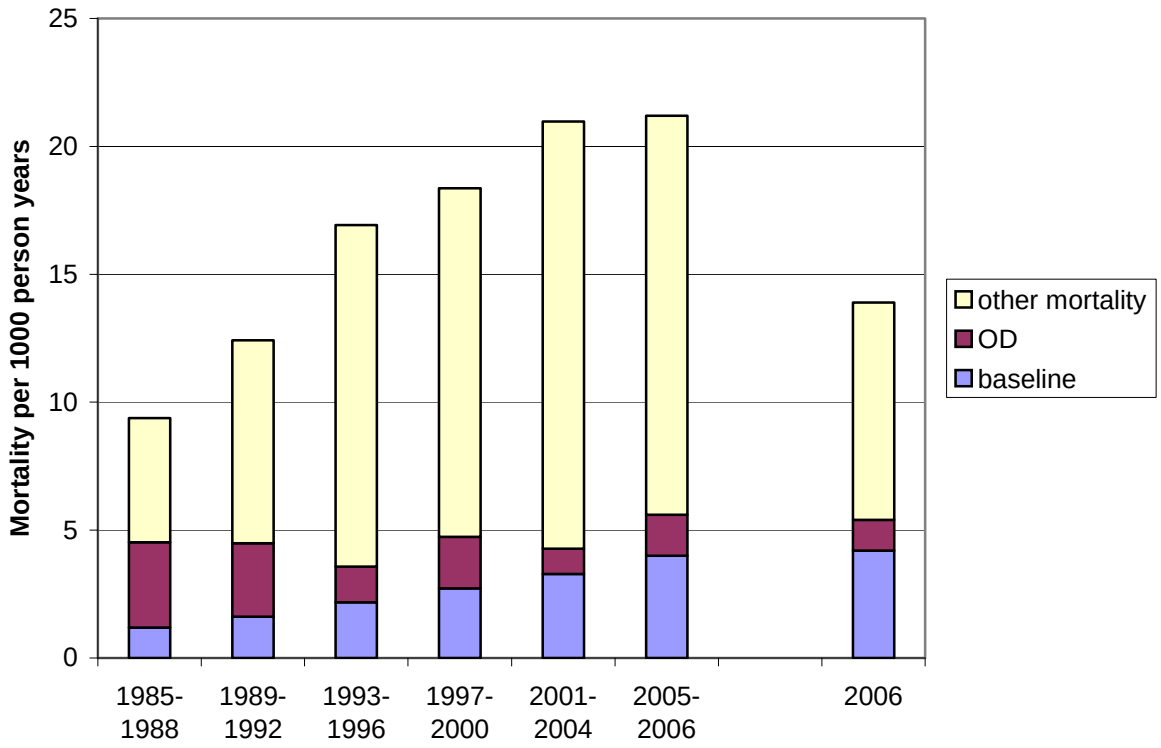

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Overdose | 52 | 37 | 39 | 26 | 26 | 22 | 25 | 27 | 31 | 32 | 29 | 21 | 22 | 29 | 21 |
| Other causes* | 83 | 102 | 86 | 92 | 90 | 76 | 67 | 73 | 76 | 112 | 96 | 128 | 61 | 84 | 58 |
| Total | 135 | 139 | 125 | 118 | 116 | 98 | 92 | 100 | 107 | 144 | 125 | 149 | 83 | 113 | 79 |

* Other causes include basic mortality, infectious diseases, violent deaths, accidents and suicide. Cases are counted among all drug users who have (ever) been registered in the Central Methadone Register of the Amsterdam Municipal Health Service. This may result in an overestimation of the number of cases in the category ‘other causes’.

Each year more deaths were due to “causes other than overdose". Between 2004 and 2005 the number of deaths temporarily increased, but the general trend is a decrease since 2003. To some extent this decrease is associated with the decrease among HIV positive drug users (20-25 cases annually by the end of the nineties/early 2000 and 6,5 and 9 cases in 2003, 2004 and 2005, respectively).

Apart from the number of deaths per year, the Municipal Health Service Amsterdam also calculates the mortality rates per observed person years. In order to conduct a proper follow-up of drug users, only methadone patients who are likely to stay in Amsterdam are included in this calculation. Only those methadone patients are included who have a known address in the city and were born in the Netherlands, Surinam, the Netherlands Antilles, Turkey, or Morocco. Figure 6.4 gives the mortality per 1000 person years of observation for the four-year periods from 1985-1988 to 2001-2004, the two-year period 2005-2006, and for the registration year 2006. Until 2005, a steady increase in the baseline mortality was seen, which is related to the ageing of the population of opiate users. Moreover, while the overdose mortality tended to decrease, a steady increase was seen in mortality due to other causes until 2001-2004, which might be indirectly related to the ageing of the population (more somatic and psychiatric comorbidity).The lower mortality rate in 2006 is in accordance with the decrease in the number of deaths in 2006, although the sudden drop is hard to explain.

*Figure 6.4: Mortality per 1000 person years among Amsterdam methadone patients from 1985-1988 to 2005-2006, and during 2006*




The baseline mortality indicates the mortality among the Amsterdam population of the same age as the methadone patients. OD = overdose. Source: Municipal Health Service Amsterdam.

*Direct and indirect deaths for the whole of the Netherlands*

There is no new information available with regard to the total number of deaths. The total number includes the deaths that are directly as well as indirectly related to drugs. As reported already in the previous national report (Van Laar et al. 2007), it is estimated that in 2001 there was a total of 479 deaths of which 11% was considered to be the base-rate mortality not related to drugs, 23% was attributed directly to drugs (poisoning, overdose), and 66% was attributed indirectly to drugs (Cruts et al. 2008). Given the fact that a decreased mortality rate has been found in Amsterdam in 2006, the mortality rate may have started to decrease throughout the Netherlands.

## 6.2 Drug-related infectious diseases

The most important drug-related infectious diseases include HIV/ AIDS, and hepatitis B and C. They are transmissible through sexual contact (HIV, hepatitis B) and blood (hepatitis C, HIV and hepatitis B). Infectious diseases associated with poor living conditions (such as hepatitis A and tuberculosis) may also have higher incidence and prevalence rates among drug users. In the Netherlands, three sources for up to date information on the prevalence of HIV are currently available, including (for HIV/ AIDS) the HIV/ AIDS registration of the HIV Monitoring Foundation (containing HIV treatment data), data of the 8 regional STI (sexually transmitted infections) centres, and data from a local (Amsterdam) prospective study on in-

fectious diseases among drug users, the Amsterdam Cohort Studies. For hepatitis B and C, notification data are available, which are reported by the municipal health services to the National Institute of Public Health and the Environment (RIVM). The latter sources do not give unbiased estimates of prevalence rates for various reasons (e.g. most infections remain subclinical),, but they may (in the long run) give additional indications of trends on the incidence of infectious diseases. Additionally, data from several local or nationwide studies give some prevalence estimates (e.g., Municipal Health Service Amsterdam, hepatitis B vaccination campaign). Until recently, the main source of information in the Netherlands on the prevalence of HIV and hepatitis B and C has been the (HIV) sentinel surveillance system among injecting drug users of the RIVM, but this survey has been discontinued. For the data collected as part of this surveillance system we refer to the National Reports in previous years.

*HIV*

Three sources of surveillance data with regard to HIV among injecting drug users are currently providing data on newly diagnosed HIV infections.

a. *The national HIV/ AIDS registration of the HIV Monitoring Foundation (SHM)* was appointed by the Dutch Ministry of Health Welfare and Sports as the executive organisation for the monitoring of HIV in the Netherlands in 2002. This registration contains data on HIV-infected patients who are seen regularly by HIV/ AIDS treating physicians in one of the 23 collaborative HIV treatment centres throughout the country, and also includes data from a prior project on HIV positive patients treated between 1998 and 2001 (the ATHENA cohort). The data are used to monitor changes in the HIV epidemic and the effect of treating infected patients with antiretroviral combination therapy.

- At the beginning of 2007 13,071 HIV-infected individuals were registered by the treatment centres and the HIV Monitoring Foundation; for 12,903 patients background information and date of diagnosis was available (9,985 male and 2918 female).
- In 2006, 833 new HIV diagnoses were reported, which number is likely to increase due to reporting delay. In 94% of cases the most likely route of transmission was known, which was for 8 cases through injecting drug use (1%). For comparison: In 33% of cases heterosexual contact was pointed out as the route of transmission, and in 59% homosexual contact. Table 6.1 gives the number of diagnoses by route of transmission up to 2005, since data for 2006 were not complete (expected in November 2007).
- In the total database of the SHM, the percentage of patients infected through injecting drug use is 5%, indicating that there has been a serious relative reduction of this mode of transmission since the start of the registration.
- A study on the effects of HAART during a longer period, showed a surprisingly increased mortality risk in patients who started treatment between 2002 and 2005 compared to patients who started earlier. Additional risk factors identified were higher age, injecting drug use and co-infection with hepatitis C (De Wolf 2007).

*Table 6.1: Number (%) of recorded HIV infections by year of diagnosis and by route of transmission*

| Transmission group | <=2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Homo-/bisexual | 3,812 (56%) | 401 (45%) | 444 (45%) | 429 (44%) | 512 (49%) | 501 (52%) |
| Heterosexual | 1,850 (27%) | 379 (42%) | 427 (43%) | 429 (44%) | 419 (40%) | 374 (39%) |
| Injecting drug use | 520 (8%) | 18 (2%) | 15 (2%) | 23 (2%) | 10 (1%) | 10 (1%) |
| Blood (products) | 130 (2%) | 9 (1%) | 11 (1%) | 8 (0.8%) | 4 (0.4%) | 3 (0.3%) |
| Mother to child | 59 (0.9%) | 18 (2%) | 13 (1%) | 19 (2%) | 11 (1%) | 6 (0.6%) |
| Needle stick injury | 12 (0.2%) | 1 (0.1%) | 5 (0.5%) | 2 (0.2%) | 3 (0.3%) | 3 (0.3%) |
| Other/unknown | 407 (6%) | 69 (8%) | 70 (7%) | 77 (8%) | 93 (9%) | 73 (8%) |
| Total | 6,790 | 895 | 985 | 987 | 1,052 | 970 |

'Year of HIV diagnosis' refers to the date of the first HIV positive blood sample known by the HIV Monitoring Foundation. Figures are adjusted constantly because of reporting delays. Data for 2006 were only partially available and have not been included in this table. Source: (De Boer et al. 2006).

b. *The 8 regional STI centres* form the STI sentinel surveillance network. The network was implemented in January 2003 and collects a minimum set of epidemiological data to meet surveillance criteria. On average, 80% of consultations is covered by this network. The web-based application SOAP facilitates the reporting of consultations (Van de Laar et al. 2005).

- In 2006, 68,953 consultations have been recorded. Of these, 147 (50% males) were consultations from drug users who ever (but not in the previous 6 months) injected, 90 (56% males) were consultations of drug users who reported to inject drugs in the past 6 months.
- In 2006, 2 individuals of the 237 (0.8%) reporting drug injecting were known with a previously diagnosed HIV infection. In 182 individuals (excluding the two cases already known to be HIV-positive) HIV-testing was performed, with a positive result in 2 individuals (1.1%). For comparison: in the 48,790 persons who indicated never to have injected drugs and who were tested for HIV, 252 new diagnoses (0.5%) were made.

c. *The prospective Amsterdam Cohort Studies (ACS)* has been carried out since 1984 among homosexual men and since 1985 among drug users. Since 2000, only young drug users (aged <30 years) are allowed to enter the cohort (YODAM). Participants are followed-up every 4 to 6 months, with questionnaires on risk behaviour, and blood samples for virological and immunological testing. In January 2006, in total 405 drug users were in follow-up.

- HIV incidence rate among ever-injectors dropped from 8.5/ 100 person-years in 1986 to approximately 0 since 2000, with a slight increase in 2005, in which year 2 HIV-cases were found (van den Berg et al. 2007). The decline in HIV incidence has been accompanied by a reduction in injecting drug use and needle sharing. Sexual risk behaviour continued, and the few new HIV seroconversions in the last years are related mainly to unprotected heterosexual contacts. In this way, injecting drug users may function as a bridge group through which HIV can be transmitted to the general population.
- Sexual risk and injecting behaviour has been prospectively studied in HIV-infected drug users receiving highly active anti-retroviral therapy (HAART) (van den Berg et al. 2007). The study concluded that drug users who are treated with HAART are not increasing their risk behaviour, although the selection of drug users to start HAART may be based on their current (non-injecting) drug use, and their early response to HAART is similar to that

in homosexual men, showing that HIV-infected drug users can be treated effectively. The findings of the study also pointed out that a large number of HIV-infected drug users eligible for HAART were still not receiving this treatment.

- In a study on the impact of harm reduction programmes in the ACS it was shown that full participation in the two most important components (methadone dose and needle exchange programme use) was related to a lower risk of HIV and hepatitis C in injecting drug users compared to no participation. These data suggest that combined prevention measures, but not the use of either methadone or needle exchange alone, may contribute to the reduction of spread of these infections (Van den Berg et al. 2007).

*AIDS*

NNIA. Until 2001 AIDS cases meeting WHO criteria were registered in the national Information System on AIDS Statistics, maintained by the Health Care Inspectorate (IGZ). In 2002 this AIDS registration was replaced by the HIV/ AIDS registration of the SHM mentioned above. As the IGZ data appeared to be incomplete since 2000, the data below are based on the IGZ registration until 1999 and the SHM data from 2000 onwards. The year of AIDS diagnosis refers to the date of the first CDC-C diagnosis (classification C according to the Centres for Diseases Control).

- By the end of 2005, the cumulative total of reported AIDS diagnoses was 6,931, and 4,398 AIDS deaths (122 deaths in 2005). The annual number of AIDS cases peaked between 1992 and 1995 (from 480 to 533 cases) and then dropped to around 280 cases in recent years. The decrease since 1996 is related to the availability of HAART, which slowed progression from HIV to AIDS. The estimated numbers of AIDS patients alive is 2,540 (De Boer et al. 2006).
- In 2005, 278 new AIDS diagnoses (of which 17 (6%) related to injecting drug use) were made, but this number is subject to change due to reporting delay (de Boer et al. 2006).
- In previous years, the number of cases related to injecting drug use peaked in 1995 (74), dropped to 9, 8, 13 and 6 cases in 2001, 2002, 2003, and 2004 respectively. Until 2005, 659 AIDS patients were registered as being infected through injecting drug use. The annual proportion of injecting drug users varied between 2% and 14% (De Boer et al. 2006).

*Hepatitis B and C: notification data*

Since 1976 acute hepatitis B infections have to be notified to the Health Care Inspectorate (IGZ). It is of note that estimating the incidence of hepatitis B based on notification data of acute cases will give an underestimation, as a large part of new infections remains asymptomatic. In April 1999, newly diagnosed chronic and subclinical HBV infections also became notifiable diseases.

- In 2006, 1,772 cases of hepatitis B were diagnosed, of which 240 (14%) acute, 1,492 (84%) chronic cases, while in 40 (2%) of cases the infection was of unknown nature (Koedijk 2007).
- Table 6.2 shows the number of acute cases by route of transmission in 2005 and 2006. Injecting drug use was among the least important transmission routes (in 2006, 1 of 181 notified acute HBV cases with known transmission route was an injecting drug user; see also ST09). These findings are in line with the results in previous years: both in the chronic and acute cases notified between 2001 and 2005 (n=7017), the contribution of injecting drug use was limited (1.3%) (Koedijk 2007). Note however that the percentage of cases with an unknown transmission route is high (25% of notified cases of acute infections in 2006).

- A nationwide survey in the Netherlands in 2004 on the molecular epidemiology of hepatitis B showed that injecting drug use only plays a minor role in transmission. Of the 291 cases of acute hepatitis B reported that year, 158 were available for genotyping of the virus. Of the 3 reported cases that were related to injecting drug use, 1 was available for sequencing, and was classified as genotype A, the predominant genotype in the Netherlands, especially among men having sex with men (Van Houdt et al. 2007).

*Table 6.2: Notifications of HBV acute infections by route of transmission*

| Acute infections | 2005 | | 2006 | |
|---|---|---|---|---|
| | N | % | N | % |
| Injecting drug use | 0 | 0 | 1 | 0.4 |
| Homo-/ bisexual contact | 101 | 33.6 | 76 | 31.6 |
| Heterosexual contact | 87 | 28.9 | 76 | 31.6 |
| Sexual contact of unknown nature | 3 | 1.0 | 6 | 2.5 |
| Exposure accidents ( needle stick/ bite) | 4 | 1.3 | 4 | 1.7 |
| Other | 24 | 8.0 | 18 | 7.5 |
| Unknown | 82 | 27.2 | 59 | 24.6 |
| Total | 301 | 100 | 240 | 100 |

Source: RIVM (Koedijk 2007).

NNIA. Hepatitis C is a notifiable disease since April 1999. Until October 2003 both chronic and recent HCV infections had to be reported to the Health Care Inspectorate within 24 hours after the diagnosis (positive test for HCV or HCV-RNA-PCR, with or without clinical symptoms). Since October 2003, this procedure only applies to (suspected) acute or recent infections. As acute infections are often asymptomatic, an unknown rate of missed diagnoses and underreporting is possible. Underreporting also occurs because until 2004 data from the Amsterdam Municipal Health Service are lacking. The registration system also changed in 2002, which hampered the analyses of data even further, and the transmission route is missing for a substantial number of cases.

- In table 6.3 the numbers of notified acute hepatitis C infections are listed from 2002 to 2005. Data for 2006 will be available in November 2007. The reported increase in 2004 has not been sustained and the absolute number of reported cases in 2005 is similar to that in previous years. In 2005, the transmission route of 11 of 19 cases has been reported. The contribution of injecting drug use in the routes of infection has sharply decreased (from 45% in 2005 to 31% of cases with known transmission route in 2006).

*Table 6.3: Notifications of HCV acute infections by route of transmission (NNIA)*

| Acute infections | 2002 | | 2003 | | 2004 | | 2005 | |
|---|---|---|---|---|---|---|---|---|
| | N | %* | N | %* | N | %* | N | %* |
| Injecting drug use | 7 | 50.0 (77.8) | 6 | 31.6 (37.5) | 12 | 31.6 (44.4) | 5 | 26.3 (45.5) |
| Accidental exposure incidents | 0 | 0 (0) | 3 | 15.8 (18.8) | 0 | 0 (0) | 1 | 5.3 (9.1) |
| Sexual contact | 1 | 7.1 (11.1) | 4 | 21.0 (25.0) | 11 | 28.9 (40.7) | 2 | 10.5 (18.2) |
| Vertical transmission | 0 | 0 (0) | 0 | 0 (0) | 0 | 0 (0) | 1 | 5.3 (9.1) |
| Other | 1 | 7.1 (11.1) | 3 | 15.8 (18.8) | 4 | 10.5 (14.8) | 2 | 10.5 (18.2) |
| Unknown | 5 | 35.7 | 3 | 15.8 | 11 | 28.9 | 8 | 42.1 |
| Total | 14 | 100 | 19 | 100 | 38 | 100 | 19 | 100 |

* In brackets percentage of total cases with a known route of transmission. Source: RIVM (De Boer et al. 2006).

*Hepatitis B and C: treatment data and other sources*

Screening of drug users in treatment is no routine procedure, but various pilot studies assessing the feasibility of screening and vaccination or treatment programmes are running (see also chapter 7.2).

- Since 2003, the Municipal Health Service (GGD) of Amsterdam collects information on hepatitis C virus antibodies in methadone clients participating in low threshold services. In 2006, HCV antibodies were detected in 38 of 54 (70%) tested injecting drug users. Prevalence of HCV antibodies increased with the age of the injecting drug users (see also ST09). Note however that HCV RNA was only found in 22 of the 54 (41%) tested injecting drug users.
- Apart from this active screening in clients attending methadone services, the GGD Amsterdam also receives notifications of newly diagnosed hepatitis C infections (Bovée et al. 2007). In 2006, 193 patients were reported, of which 8 had an acute infection (in 1 patient the most likely route of infection was injecting drug use), and 185 had a chronic hepatitis C infection (in 97 cases most likely due to injecting drug use and in 66 cases without known route of infection). When comparing the proportion of cases with injecting as most likely route of transmission, the difference between acute infections (13% of total through injecting) with chronic infections (82% of cases with a known route of transmission through injecting) is striking. It underscores that using incidence data of acute hepatitis C infection is not an adequate indicator to estimate the prevalence of hepatitis C infection among drug users.
- Also data on hepatitis B infections are collected this way by GGD Amsterdam. In reported hepatitis B infections, injecting drug use as the route of administration plays a minor role. In 2005 and 2006, none of the respectively 36 and 3016 acute hepatitis B cases was associated with injecting drug use. Of the total 255 (in 2005) and 286 (in 2006) reported hepatitis B carriers in Amsterdam 4 respectively 1 were related to injecting drug use17 (Bovée et al. 2007).

16 Note that the source of transmission was unknown in 5 and 8 cases respectively.

17 Route of transmission was unknown in 18 cases in 2005 and 19 cases in 2006.

The open and ongoing Amsterdam Cohort Studies (ACS) among drug users (see above) retrospectively studied prevalence and incidence of hepatitis C virus infections over the past two decades. For 1,259 drug users (including 952 ever-injectors), HCV antibodies were studied in stored serum. The ACS found a major decline in the hepatitis C incidence rate (van den Berg et al. 2007).

- Among ever-injecting drug users the prevalence of HCV antibodies was 84.5% at study entry, but varied from 92.9% in 1986 to 69.2% in 2001. A co-infection with HIV was found in 30.9%. The prevalence of HCV among never-injectors was 6.5% over the total study period (ranging from 0 to 22.2% per calendar year). The HCV prevalence in all drug users was 63.8% at study entry.
- As expected, the HCV prevalence at study entry was related to the time since start of injecting: 60% for participants who started injecting less than two years before entry, 83% for those who started 3 to 5 years before, and 95% in participants injecting for more than 10 years.
- In the 1980s, HCV incidence was found to be 27.5/ 100 person years, and dropped to 2/ 100 person years in recent years. Drug users who were currently injecting or borrowing needles were found to be at increased risk for HCV seroconversion (incidence rate ratio 29.9, 95% confidence interval 12.6 - 70.9) compared to ever-injecting DU who did not currently inject. The risk of HCV seroconversion decreased over calendar time.
- The HCV incidence in ever-injecting DU was on average 4.4 times the HIV incidence, a pattern seen over the entire study period. This is in line with the fact that HCV is more contagious than HIV. The simultaneous decline of both HCV and HIV incidence probably results from reduced risk behaviour at the population level.

A further source of information is the national hepatitis B vaccination campaign for behavioural risk groups. *See also § 7.2.*

- From November 2002 until the end of 2007, 12,732 drug users (including current, ever and never injectors, mean age 39 years) received a first vaccination. During this visit, a blood sample was taken to screen for a previous hepatitis B infection. Chronic carriership was found in 0.8% of drug users and immunity (implying a previous infection, which has been cured) was found in 14.6% of the drug using participants. The data presented are preliminary and subject to change, since the campaign is ongoing (data are provided by M-L Heijnen, Netherlands Association for Community Health Services).
- In the region Nijmegen, the hepatitis B vaccination campaign has been used as a starting point to invite patients at methadone posts in the region Nijmegen to be tested for hepatitis B and C, HIV, and syphilis. This ‘OD’ (Onderzoek Druggebruikers)-project was an initiative of the local municipal health service, the local addiction care institute (Iriszorg) and specialists in internal medicine and infectious diseases from two nearby hospitals (UMC sint Radboud and Canisius Wilhelmina). The project offered referral to the appropriate specialist for further treatment after a positive test result. Between 2003 and 2006, 140 of 149 participants in the hepatitis B vaccination campaign gave informed consent for additional infectious disease testing. None was found positive for HIV, 1 drug user was carrier of the hepatitis B virus, 29 (21%) had been infected with hepatitis B in the past (anti-HBc positive), 49 (35%) were anti-HCV positive and 1 drug user was diagnosed with lues latens. Of 49 anti-HCV positive drug users, 26 started treatment; the remainder could either not be traced, or treatment was judged to be unfeasible (Koene 2007).

*Tuberculosis*
In Amsterdam, infection with tuberculosis is actively traced in risk groups, among others hard drug users. The most recent data are from 2005. As part of the periodical screening, 2,586 drug users visited the Municipal Health Centre and had a chest X-ray. The prevalence of pulmonary tuberculosis found in hard drug users was 57 per 100,000 screened individuals. In total, 153 new patients with tuberculosis were registered in 2005 (a decrease of 25% compared with 2004) (Tuberculosebestrijding GGD Amsterdam 2007).

## 6.3 Psychiatric co-morbidity

Recent data on the prevalence of psychiatric co-morbidity are not available. According to local field studies, mental problems are fairly common among problem hard drug users. In Rotterdam (2003), 33% of this group reported severe mental problems in the past month and/or received medication and/or had been hospitalised for psychiatric problems (Jansen et al. 2003). In Parkstad-Limburg (2002), more than half (51%) of the problem hard drug users reported mental problems (45% depression, 15% severe anxiety, 16% concentration problems) (Coumans et al. 2002) (see also § 4.3). These problems might be a consequence of a hard drug use career but might also be one of the causes.

A study among 202 opiate dependent methadone clients of an addiction centre in North-Brabant (see map 15.4), illustrate the high co-occurrence of mood, anxiety and psychotic disorders and opiate dependence (see table 6.4) (Knapen et al. 2007). The main instrument was the MINI, which generates proxy DSM-IV diagnoses. Most prevalent current disorders were major depression and generalised anxiety disorders in almost one-third of the sample. Moreover, over one in three clients had previously had a psychotic disorder. A comorbid substance use disorder was also very common; 84% fulfilled a diagnosis of substance dependence and 96% of substance abuse. Cocaine, alcohol and sedatives were the most common substances. Furthermore, a probable diagnosis of current ADHD was made among 21% of the clients, and 60% had a history of conduct disorder. This study also included the Euro-Qol-5D, which showed a stong reduction in quality of life among clients with comorbid mental disorders compared to those without cormorbid disorder.

*Table 6.4: Prevalence of mood, anxiety and psychotic disorders among opiate dependent methadone clients (N=202)*

| | Prevalence (%) |
|---|---|
| **Mood disorders** | |
| - Major depression, current | 34% |
| - Dhysthymia, current | 11% |
| - Hypomanic episode, lifetime and current | 4.5% |
| - Manic, lifetime and current | 30% |
| **Anxiety disorders** | |
| - Panic disorder, current | 11% |
| - Agoraphobia, current | 16% |
| - Social phobia, current | 11% |
| - Obsessive-compulsive disorder, current | 4% |
| - Post traumatic stress disorder | 14% |
| - Generalised anxiety disorder, current | 31% |
| **Psychotic disorder** | |
| - Current | 9% |
| - Lifetime, not current | 39% |

Source: (Knapen et al. 2007).

The Amsterdam Municipal Health Service also signalled an increase in psychiatric co-morbidity among heroin users compared with the start of the heroin epidemic (Van Brussel et al. 2005). The following reasons were put forward to explain this trend:

- Self-selection (natural recovery is more common among addicts without psychiatric co-morbidity compared to double diagnosis patients)
- Harmful effects of a chronic life on the streets
- Harmful effect of frequent interruption of methadone treatment, for example in prison
- Trends in drug use, i.e. use of crack without concomitant use of heroin.

## 6.4 Other drug-related morbidity

*Drug-related emergencies*

There is no national registration system yet for drug-related emergencies in the Netherlands, although the Ministry of Health has indicated that such as system has to be developed soon. Various systems give information on some of the cases, such as hospital admissions (LMR, see chapter 4) or cases reported by the Central Post for Ambulance Transports in Amsterdam (see below). In addition, the injury information system (Letsel Informatie Systseem, LIS) of the Consumer Safety Institute gives information on the number of people treated annually at the emergency departments of hospitals. These data are derived from a representative selection of hospitals and are extrapolated to yield national estimates.

- NNIA (data for 2006 will be available soon).
- Averaged over 2001-2005, it is estimated that 2,900 people are treated annually at a hospital emergency department following an accident, violent incident or self-mutilation related to drug use (cp. 13,000 on account of alcohol).
- Forty-two percent are aged between 20 and 29 years and 73% are male.

- Poisoning is the most frequent cause of emergency and the proportion of cases requiring hospitalisation is relatively high (33%).
- Cocaine is the most frequently cited drug (35%); cannabis is involved in 18% of the cases with a known substance. Lower proportions are found for ecstasy (12%), heroin (4%), hallucinogenic mushrooms (4%) and amphetamines (2%). Note, however that it was not possible to specify a drug in 29% of the cases. The proportions of different drugs among valid cases is therefore higher.
- These figures are likely to be an underestimate of the true number of emergencies related to drugs due to underreporting.

*Drug-related non-fatal emergencies in Amsterdam*

The Amsterdam Municipal Health Service keeps a record of non-fatal emergencies brought to its attention (Central Post for Ambulance Transports). The more serious emergencies require transportation to the hospital by ambulance. The link with drug use has been based on case history and circumstantial data; there is no toxicological confirmation. Table 6.5 gives the annual number of emergencies per drug from 2000 to 2006.

- In 2006, the total number of drug-related requests for emergency assistance was 1,043, which is an increase of 20% compared to 2005.
- This increase is due to cannabis (+36%), hallucinogenic mushrooms (+77%) and GHB (+45%).
- About half of the increase of cannabis emergencies was related to space-cake, which almost doubled from 61 to 114.
- LSD and amphetamines are hardly associated with emergencies, but the number of emergencies related to amphetamine was higher in 2006 compared to 2005. The number of ecstasy emergencies slightly decreased.
- The proportion of cases requiring transportation to a hospital varied between 34% (cannabis) to 72% (ecstasy) and 93% (GHB). This latter substance is difficult to dose because of the small safety margin, which often results in loss of consciousness.
- The increasing trends for space-cake and hallucinogenic mushrooms are probably related to the growing number of (fun) toursists visiting Amsterdam. Preliminary figures for the first half of 2007 showed a continuation of the trend in emergencies related to hallucinogenic mushrooms. Four cases reported in 2007 were potentially serious and/or life threatening. They were all related to secondary injuries as a consequence of behavioural changes. One (fatal) case concerned a girl with a history of a suicide attempt, and in the remaining cases poly substance use probably played a role. These emergencies and the risk of behavioural changes with possible severe consequences were, amongst others, reasons for the Ministers of Health and Justice to decide that fresh hallucinogenic mushrooms will be brought under the control of the Opium Act (see also §1.1). Dried or other preparations of hallucinogenic mushrooms are already under control of the Opium Act.

*Table 6.5: Number of non-fatal emergencies* due to hard drugs and recreational drugs recorded by the Amsterdam Municipal Health Service*

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|
| Opiates/cocaine | 188 | 208 | 216 | 226 | 239 | 230 | 234 |
| Cannabis | 141 | 289 | 285 | 257 | 320 | 342 | 461 |
| Hall. mushrooms | 24 | 49 | 50 | 60 | 55 | 70 | 125 |
| Ecstasy | 36 | 42 | 39 | 39 | 59 | 63 | 53 |
| Amphetamine | 30 | 6 | 5 | 7 | 9 | 3 | 13 |
| LSD | 2 | 3 | 1 | 1 | 7 | 1 | 1 |
| GHB | 25 | 69 | 67 | 74 | 98 | 76 | 110 |
| Unknown/other | 20 | 37 | 38 | 29 | 54 | 89 | 46 |
| Total | 466 | 703 | 701 | 693 | 841 | 874 | 1043 |

Source: Amsterdam Municipal Health Service.

*Information requests on acute intoxications*

Another source of information on trends in emergencies is the number of information requests from physicians, health authorities and others on acute intoxications recorded by the National Poisons Information Centre (NVIC) of the RIVM. Note, however, that these data are just indicative and do not reliably represent the actual number of acute intoxications.

*Table 6.6: Information requests related to drugs at the National Poisons Information Centre*

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | *2007 (first half)** |
|---|---|---|---|---|---|---|---|---|
| Ecstasy | 164 | 194 | 184 | 208 | 246 | 217 | 183 | *109* |
| Amphetamines*** | 42 | 39 | 39 | 47 | 51 | 128 | 106 | *48* |
| Cocaine | 150 | 184 | 217 | 247 | 227 | 254 | 211 | *114* |
| Cannabis | 71 | 129 | 141 | 144 | 191 | 202 | 186 | *77* |
| GHB | 91 | 174 | 194 | 212 | 190 | 241 | 203 | *102* |
| Opiates | 51 | 42 | 95 | 112 | 112 | 129 | 32* | *24** |
| Ephedra | 16 | 28 | 61 | 110 | 127 | 67 | 55 | *16* |
| Hallucinogenic mushrooms | 34 | 58 | 49 | 65 | 52 | 62 | 67 | *32* |
| Other smart (shop) products | 37 | 56 | 43 | 65 | 89 | 83 | 103 | *21* |
| Total drugs | 656 | 904 | 1,023 | 1,210 | 1,285 | 1,383 | 1,146 | *543* |

* Due to a change in registration: since 2006 methadone is not counted in the group of illicit drugs but in the group of medicines. ** Provisional figures. ***Including also methamphetamine. Source: NVIC, RIVM (Van Velzen et al. 2007).

Table 6.6 shows that the total number of information requests related to drugs strongly increased between 2000 and 2005 but dropped in 2006. Possibly physicians have become more familair with recognising and treating problems related to these drugs, especially if they are on the market for some time, which reduces the need to consult the NVIC for information.

- In 2006, most information requests were related to cocaine (18%), GHB (18%), ecstasy (16%) and cannabis (16%). This distribution did not change much from that in 2005. Other drug categories made up less than 9% of all requests.
- Despite an overall downward trend, an increase in the number of amphetamine requests is apparent since 2004, while the reverse seems to be true for ecstasy.
- In the past years, requests for methamphetamine have been recorded occasionally, but their number is very low (20 in 2004; 14 in 2005; 9 in 2006). However, it is not known whether the distinction between methamphetamine and amphetamamine is or can be made reliably by victims or physicians.
- The provisional figures in the first half of 2007 do not seem to deviate much from the pattern seen in 2006.

# 7 Responses to Health Correlates and Consequences

The broad lines of drug policy at the national level aimed to limit the health consequences of drug use are put into practice by many local or regional initiatives.

## 7.1 Prevention of drug-related deaths

NNIA. Interventions that aim to prevent mortality due to overdose include First Aid courses for workers in addiction care and in general health care, publicly propagated pill testing by the websites of several organisations of addiction care, and dedicated drug consumption rooms. A guideline has been published for the prevention of suicide among clients in addiction care, describing risk factors for suicide and possible pharmacological and drug-free interventions that may prevent suicide or may be used during crisis intervention (De Jong et al. 2006).

It was already mentioned above (§ 1.1, see also § 8.2) that at Schiphol airport a 100%-control takes place on all flights entering the Netherlands from specific countries of departure. X-ray scans are applied to determine whether a passenger has swallowed drugs. Those bodypackers who swallow pallets of cocaine to smuggle in the illegal drugs, are especially at risk to die from accidental poisoning. With regard to preventing these deaths, a medical question is whether the bodypackers should receive surgical treatment or just conservative treatment without surgical intervention (Van Geloven et al. 2002). Given the fact that surgery "is often followed by serious complications related to contamina-tion of the peritoneum that frequently occurs", conservative treatment will suffice in most of these patients (Henebiens et al. 2007). By means of a conservative treatment the pallets of cocaine leave the body by the natural way. To implement a conserva-tive treatment, building on the specialized "drug courier toilet", specialized mobile detention centres have been developed in the Netherlands, consisting "of a cell complex with a staff building", in the form of "a self-supporting system where all facilities are housed in standard sea containers" (Kint 2006). It is hoped that this way lethal cocaine poisonings will be prevented.

## 7.2 Prevention and treatment of drug-related infectious diseases

Many initiatives on the prevention and treatment of infectious diseases among drug users have been realised in former years and many are ongoing. Examples are: peer support for drug-using immigrants; drug consumption rooms, HIV counselling and HIV tests; HIV treatment; hepatitis B vaccination and prophylactic vaccination of early stage syphilis among (drug-using) sex workers. On the website http://www.infectieziekten.net information and several fact sheets in Dutch are downloadable (hepatitis B and C, HIV and tuberculosis) that give basic information about these diseases, do's and don'ts, and information about treatment. In the Netherlands, the organisation of prevention and treatment of infectious diseases is rather complex. Activities for all those who are (at risk of becoming) infected, thus encompassing a much broader group than drug users, are within the remit of the Municipal Health Services (*GGDs*) and its National Coordinating Agency (*GGD Nederland*). Activities targeted specifically at drug users are often offered by organisations for addiction care, because these organisations are the primary agents in motivating addicts to join preventive and treatment

activities. Co-operation in this domain is crucial, especially for drug dependent groups. To date the National Support Center for Prevention (LSP) coordinates the National Network Infectious Diseases and Drug Use. Most Organisations of Addiction Care and some Municipal Health Services that feel responsible for drug users are members of this network.

The grassroots organisation Mainline develops and implements many prevention projects on drug-related infectious diseases. The main projects in 2006 included “Always safe” (Altijd Veilig), which aimed at increasing safe use and safe sex; “Take it”, to provide objective health information to HIV-infected drug users and support them with treatment compliance; hepatitis B vaccination (part of the national vaccination campaign), and an information campaign on Hepatitis C, Rate your state. Most of these projects are part of the programme Infectious Diseases and Drug use, which is an information campaign on risks targeting drug users as well as professionals, financed by the Ministry of Health (Stichting Mainline 2007).

*National hepatitis B vaccination campaign*
In line with a recommendation of the Dutch Health Council, free vaccination of behavioural risk groups (drug users, men having sex with men, heterosexuals with multiple sex partners, including commercial sex workers) is taking place nationwide since 2002. So far, almost 80,000 participants have been included. Since their formal involvement in 2004, the 50 participating penitentiary institutions have been vaccinating 12% of the total number of participants of the campaign, for which they were awarded with the WHO Award Health in Prisons Project (HIPP) in 2005.

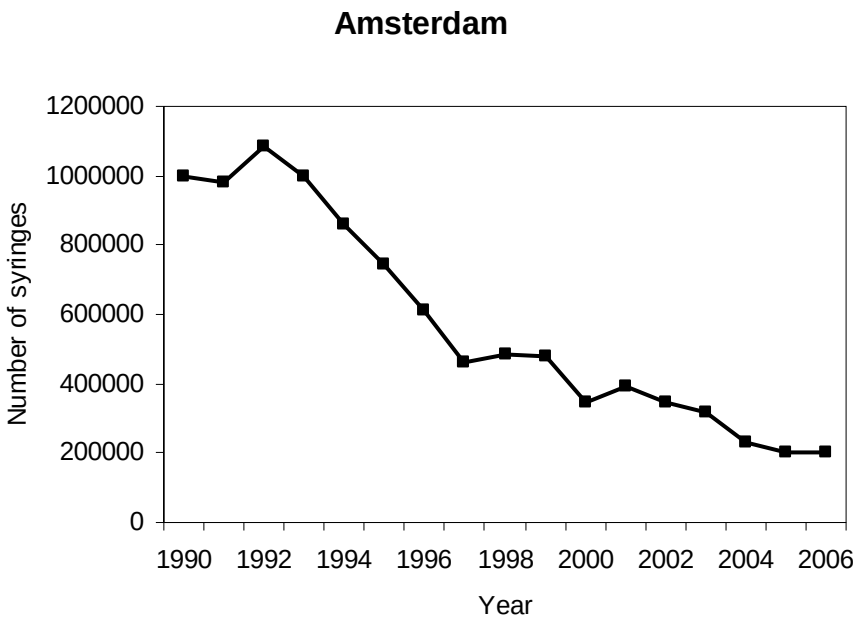
In March 2007, an expert meeting discussed the necessity of adjustments with regard to the previously identified risk groups. It was advised to focus the campaign on (especially young) men having sex with men, and to remove the heterosexuals with multiple sex partners from the target groups. The continued inclusion of drug users has also been heavily debated. Although in recent years very few cases of acute hepatitis B through injecting drug use have been recorded and genotypic studies suggest that there is limited or no transmission of the virus in drug users or their acquaintances, the finding of a high percentage among drug users of hepatitis B virus immunes and carriers in the campaign, which is much higher than the percentage of immunes and carriers in the general population, the continued transmission through unsafe sex and unsafe injecting practices, and the cost-effectiveness of vaccination in this target group, were arguments to continue free hepatitis B vaccination in drug users. In January 2009, the national coordination of the campaign will be transmitted from the Netherlands Association for Community Health Services to the Centre for Infectious Disease Control of the National Institute for Public Health and the Environment. See also § 6.3

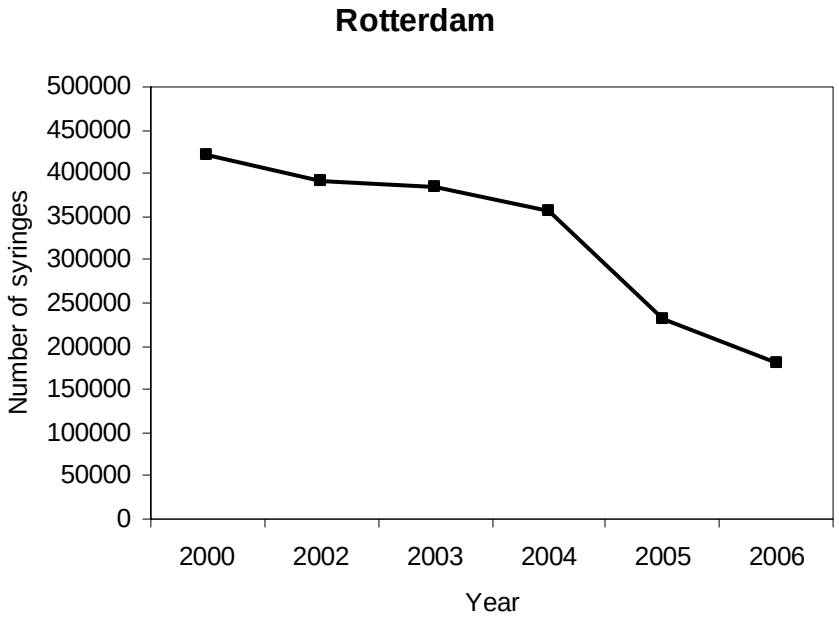
From November 2002 until the end of 2007, 12,732 drug users received a first vaccination. Compliance of those drug users with the indication for a second vaccination (susceptible, *and* the first vaccination more than a month ago) was 82.2 %. Compliance for the third vaccination (six months after the first vaccination) is currently 57.9%. These data imply that the protection rate of the 12,732 drug users taking part in the campaign until now is 64%, including individuals receiving the full vaccination schedule and those tested as either immune or carriers. As it is currently unclear whether an incomplete series of vaccinations - two or one vaccination(s) - may also be effective, the actual number of protected drug users may be higher. The data presented are preliminary and subject to change, since the campaign is

ongoing (data are provided by M-L Heijnen, Netherlands Association for Community Health Services).

*Needle exchange*
There are only limited data on needle exchange. Data from Amsterdam show that from 1990 to 1993 around one million needles were exchanged. Since 1993 there has been a sharp decline to 200,800 syringes in 2006 (see figure 7.1)(M. Buster, personal communication).

*Figure 7.1: Syringe exchange Municipal Health Services of Amsterdam and Rotterdam*



The total number of needle exchange programmes in the Netherlands is not known, nor are there national registration data on the number of exchanged syringes or needles. The web-site of Mainline (the grassroots organisation of drug users in Amsterdam) only presents some 120 exchange points in different cities[18]. In addition, there are several pharmacies exchanging needles.

## 7.3 Interventions related to psychiatric comorbidity

There is growing attention for co-morbidity in addiction care and mental health care. Data from a local study on co-morbidity among methadone clients have been reported in § 6.3. The results of this study were presented on a congress named “Not with methadone alone”.[19] It was concluded that funds for treating these difficult-to-treat drug-dependent people are still lacking. In psychiatry, drug-dependent patients are expected to be “clean” when entering psychiatric treatment. This group is also excluded in many randomised clinical trials. But there is not enough budget for employing more psychiatrists and psychiatric nurses in addiction care for treating this patient group.

Integrated Dual Disorder Treatment (IDDT) is the first comprehensive, integrated evidence-based practice for people with severe mental illness and co-occurring substance use disorder (Drake et al. 1990). In a joint study of Dutch and American researchers the implementation facilitators and challenges are explored for several issues assumed to be pivotal in IDDT, i.e. stage-wise group interventions, participation in alcohol or drug self-help groups, the role of the psychiatrist in a multidisciplinary team in delivering pharmacological treatment, and the provision of supervision of IDDT teams. Implementation of IDDT is more complicated than non-integrated treatment modalities because IDDT also contains assertive community treatment, supported employment, illness management and recovery, and family psycho-education. Results showed for instance that the American 12-step method may be effective in the Netherlands (Boyle et al. 2006).

A currently running randomised controlled trial is targeting at differences in effectiveness between in- and outpatients integrated care for patients with mental health and substance abuse disorders.[20] This project determines facilitators and challenges for effective integrated and intensive outpatient treatment, which is assumed to be cheaper than inpatient treatment facilities. The project further determines the reliability and validity of several measurement instruments.
Several years ago the comorbidity of attention deficit hyperactivity syndrome (ADHD) was not recognised in addiction treatment. A pilot project for development of a screening, diagnosis and treatment procedure aims to help organisations of addiction care to avoid suboptimal treatments for this patient group. This procedure was meant as a supplement to primary addiction treatment and tested in two organisations. The pilot is also targeting at more awareness about ADHD among addicted people. Several symposia attracted many caregivers and health care professionals. Although an evaluation of the specificity and sensitivity of this screening procedure still have to be performed, the protocol appeared easy to implement. More than 20% of the new patients screened positive and more than 60% of those who came for further diagnosis met criteria for ADHD (Goossensen et al. 2006).

[18] www.mainline.nl; consulted September 2007
[19] www.nispa.nl
[20] http://www.ggd.nl/kennisnet/uploaddb/downl_object.asp?atoom=28320&VolgNr=106

Comorbidity is also increasingly a topic at conferences. In February 2007 a congress was held entitled “Care for addicted young people with psychiatric problems: crashing the barriers between mental health care and addiction care”. One of the lecturers concluded that Multi Dimensional Family Therapy (MDFT) works well for this target group. MDFT is being used in a European trial (INCANT) for young cannabis abusers.[21] However, a key limitation is that at this moment the three sectors involved (youth care, mental health care for youth and addiction care for youth) do not cooperate sufficiently (Van Leeuwen 2007). In September 2007, a symposium was held in Zwolle on comorbidity and psychiatry (“Addiction rarely comes alone”) that tackled different kinds of comorbidity, e.g. psychotrauma, personality and addiction, schizophrenia and cannabis, bipolar disorder and alcohol, attention deficit hyperactivity syndrome and addiction, psychosis and polydrug use, and anxiety disorder and alcohol.[22] A second symposium in November 2007 focuses on a benchmark in four departments for dual diagnosis patients targeting an improvement of care for this patient group. The usefulness and possibilities of benchmarking for dual diagnosis departments will also be discussed.[23]

## 7.4 Interventions related to other health correlates and consequences

NNIA. Drug consumption rooms aim to reduce public nuisance, e.g. publicly using illegal drugs, leaving used needles around in the neighbourhood, or drug dealing. These rooms are also supposed to reduce the risk of transfer of infectious diseases and drug-related death, because drugs can be used in a safe, non-harassing and supervised environment with clean syringes and medical support on request. The number of drug consumption rooms in the Netherlands increased from some 20 to 32 in 2003. After that period some new rooms were initiated and others disappeared. The total number in 2006 was around 40.

Medical heroin (co)prescription aims to improve the physical and psychosocial situation and to reduce drug-related crime within a selected group of chronic treatment resistant opiate addicts. In the Netherlands it is also supposed to reduce drug-related nuisance and crime. Two experiments have shown that these effects are realistic. As a result, medical heroin co-prescription is increasingly implemented for this selective group of opiate drug users. In 2006, 815 treatment places in 18 municipalities were approved.

[21] www.incant.eu
[22] www.scem.nl
[23] T.holsbeek@iriszorg.nl

# 8 Social correlates and consequences

## 8.1 Social exclusion

*General trends in the Netherlands*

In the Netherlands there are three monitors that follow the general trend in poverty and social exclusion:

- the annual monitor conducted by Statistics Netherlands (CBS) and the Social and Cultural Planning Office of the Netherlands (SCP) (Otten et al. 2006);
- the biannual monitor *The Social State of the Netherlands,* conducted by the Social and Cultural Planning Office of the Netherlands (SCP) (Bijl et al. 2007);
- the annual *Integration Monitor,* conducted by The Scientific Research and Documentation Centre (WODC) of the Ministry of Justice, Statistics Netherlands (CBS), and the Netherlands Institute for Health Services Research (NIVEL) (Jennissen et al. 2007).

Between 2003 and 2004 the percentage of households getting by on a low income increased from 9.8% to 10.3%. However, preliminary figures indicate that this trend is breaking since 2006. It is estimated that in 2007 the percentage of low income households will have decreased to 8.8%. Groups at risk for a low income are single-parent families, singles and ethnic minorities. Within households having a non-western ethnic breadwinner, 33% had a low income, compared to only 8% among the native Dutch. However, compared to the 33% having a low income among the first generation of non-western ethnic minorities, a lower percentage of 21% had a low income among the second generation of ethnic minorities (Otten et al. 2006).

With regard to "the climate of public opinion", the percentage of the Dutch public believing "that there were too many people of different nationalities living in the Netherlands" between 2000 and 2006 decreased from 51% to 40%. However, in spite of this ray of hope, the SCP still warns for confrontations between native Dutch and ethnic minorities. Unfortunately, social cohesion in the Netherlands "appears to be limited to people's own social network of contacts with the same ethnic or socioeconomic background". Apart from non-Western ethnic minorities, groups identified for showing a lower quality of life are the over-65s, people with an income below the low-income threshold, people not in work, and people with a low education level (Bijl et al. 2007).

Ethnic minorities account for one third of the population in the three largest cities of Amsterdam, Rotterdam, and The Hague. The 2006 Integration Monitor has signalled that "the employment market participation of people of non-western origin is lower than that of the autochthonous Dutch population", and that they are "over-represented in lower-qualified and often physically demanding jobs". Moreover, "the performance of people of non-western origin is, on average, is below that of the autochthonous Dutch population in all stages of education", but looking at the trends over time "it appears that the performance of people of non-western origin is getting more in line with those of the autochthonous population". Currently however, "people of non-western origin are over-represented in the registered criminality figures", especially Antilleans and Moroccans (Jennissen et al. 2007).

*Social exclusion and drug use*

There is a clear link between social exclusion and the use of drugs. The previous national report (Van Laar et al. 2007) already notified higher prevalences of drug use among socially excluded groups like neighbourhood youth, especially youth from ethnic minorities, homeless adolescents, young hard-drug users, female as well as male prostitutes, young people that hang around, problem youngsters, and the homeless in general. More recently, higher prevalences of drug use were found among vulnerable groups of young people like young detainees, dropouts, youth in youth services, and young people who hang around (see chapter 12). Other recent information has become available for the homeless in general.

*Addiction among the homeless*

People from a low-income group run the risk to slide down further on the social ladder and to end up homeless. The four largest cities in the Netherlands are Amsterdam, Rotterdam, The Hague, and Utrecht. For the reference date of the first of January 2006, it was estimated that in these four cities there were about 10,150 homeless people. It was further estimated that 45% of them were addicted without having another mental disorder, and that 15% of them suffered from an addiction in combination with another mental disorder. All in all, a majority of 60% of the homeless in the four largest cities appeared addicted. The national government and the four largest cities have developed a *Plan van Aanpak,* a Plan of Approach, to reach all the homeless in the four largest cities by means of case management that will be conducted by a personal lifeguard (Rijk et al. 2006).
Throughout the Netherlands, it is estimated that between 2003 and 2006 the number of homeless people decreased from about 65,000 to 50,000 homeless people. However, no decrease was observed in the number of young drifters. It is estimated that throughout the Netherlands there are between 5,000 and 10,000 young drifters (Hövels 2007), (Stichting Leger des Heils Welzijns- en Gezondheidszorg 2007). On the other hand, there is a growing group of ageing people among the homeless. Therefore, the social relief must reckon with more ageing homeless people who have more complex problems and who will have to stay in relief for longer periods (Kuppens et al. 2007).

## 8.2 Drug-related crime

Reported are (a) drug law offences and (b) offences committed by drug users. Drug law offences consist specifically of offences against the Opium Act: trafficking, production and cultivation, dealing and possession of drugs. Important to note is that drug use is *not* a criminal offence and prosecution of the possession of small amounts for own use has a low priority. The amounts are specified in prosecution protocols. The Opium Act makes a distinction between soft drugs (mainly cannabis) and hard drugs (like heroin, cocaine, ecstasy, amphetamines). Offences committed by drug users consist mainly of property crimes.

*Offences against the Opium Act*

In 2006, four developments are relevant with regards to investigation, prosecution and sanctioning of offences against the Opium Act (see chapter 1 for more information). These con-

cern the following three special policy programmes: (1) ‘A combined effort to combat ecstasy in and from the Netherlands’ which aims at a reduction in production and trafficking of ecstasy (started in 2001), (2) the ‘Plan to combat drug trafficking at Schiphol Airport’, which aims at the reduction of cocaine imports (started in 2002) and (3) Intensified enforcement on cannabis cultivation and especially the organised crime behind it (since April 2004). Moreover, in June 2006 the maximum penalty for drug production and dealing and for possession of large quantities of drugs was increased from four to six years of detention or a certain fine.

Although conclusions about causal relationships between these policy programmes and the 2006 data on drug offences cannot be drawn, this framework is relevant for interpreting and understanding the data.

We use databases from the police, the Public Prosecutor and the judicial documentation system at the Research and Documentation Centre (WODC) of the Ministry of Justice.
It should be noted that figures from registrations, that are reported here, always depend for a certain part on the activities and priorities of law enforcement agencies as well as completeness of the registrations. Also, databases are often adapted and improved in the course of time. Later versions may differ from former ones. We have to deal with ‘living systems’. Figures and trends should therefore be interpreted carefully.

Main findings 2006

- The inflow of Opium Act cases in the criminal justice chain did not change much in 2005-2006: the number of cases registered by the police in 2006 is more or less constant (22,000 cases in 2006, preliminary data), and the same is true for the number of cases registered by the Public Prosecutor (20,000 cases in 2006).
- The number of cases registered by the police in 2006 are more or less constant (22,000 cases in 2006, preliminary data).
- The same is true for number of cases registered by the Public Prosecutor (20,000 cases in 2006).
- The stabilization holds true for both hard drug en soft drug cases.
- The number of hard and soft drug cases handled by the Court increased (13,000 cases). This might be a consequence of a certain backlog of court’s handling of cases that had their intake some time earlier.
- The number of unconditional custodial sentences for Opium Act cases decreased. This decrease has been going on since 2004. The mean duration of the custodial sentences also shows a decrease.
- The number of community services applied for Opium Act cases decreased in 2006, after a continuous increase in the period 2000-2005.
- Opium Act cases still have a relatively high chance of passing through the whole criminal justice chain.
- Hard drug cases still form the majority of the Opium Act cases, but the difference with the number of soft drug cases is very small in the first parts of the criminal justice chain. Hard drug cases get a clear majority in the final parts, especially in prisons.
- A general trend over the period 2000-2006 is the rise of the fraction of soft drugs cases (of all Opium Act cases) in all parts of the criminal justice chain. Of the Opium Act cases registered by the Police, the fraction of soft drug cases increased from 27% in 2000 to 37% in 2006. The Public Prosecutor registered 39% soft drug cases in 2000 and 47% in

2006. The Court handled 35% of soft drug cases in 2000 and 45% in 2006. An increase of soft drug cases is also noted in custodial sentences and length of these sentences.
- 75% of the investigations into organised crime involve drug trafficking or production. The majority of these investigations targets cases with hard drugs (79%); 60% concerns cases with soft drugs; and 39% both hard- and soft drugs.

*Opium Act cases at Public Prosecutor (table 8.1)*
- The number of Opium Act cases registered by the Public Prosecutor increased continuously in the period 2000-2004: from 11,600 to 22,000 cases. In 2005 a decrease occurred: 20,000 cases (minus 8%). In 2006, the same number of cases (20,000) is registered.
- In 2006 the number as well as the percentages of both hard- and soft drugs cases remain on the same level as in 2005. Soft drugs rose substantially between 2000 and 2005.
- Most of the Opium Act cases concern production, trafficking or dealing of drugs (67% in 2006; not in table). The rest concerns possession of drugs, in most cases hard drugs. 55% of the cases of drug production, trafficking or dealing concerns soft drugs.
- Opium Act cases make up 8% of all cases registered by the Public Prosecutor, which is the same fraction as in 2004 and 2005.
- The overall Opium Act offender profile did not change much. In 2006 the profile is as follows (police data; not in table).
  - Most suspects are male (84%). More females are somewhat more involved: from 13% in 2000 to 16% in 2006. Females are more often involved in soft drug offences (19%), male more in hard drug offences (87%).
  - Most offenders are 18-44 years old. There are relatively few suspects who are younger than eighteen (4%) or older than 45 years (16%). The mean age is 33 years.
  - 40% is living in cities with more than 100,000 inhabitants, 18% is living abroad. Hard drug suspects live more often in one of the four major cities in the Netherlands. They also live more often abroad. Soft drug suspects live more in medium sized or smaller cities.
  - A substantial part of the Opium Act suspects has a criminal history: 33% has been arrested five or more times, 17% has more than ten arrests. Suspects of hard drug crimes have been arrested more often: 11% of the suspects have more than 20 arrests each.

*Table 8.1: Number and percentage of Opium Act cases recorded by Public Prosecutions Service, by drug type (2000-2006)*

| | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** |
|---|---|---|---|---|---|---|---|
| Total | 11,638 | 13,875 | 16,572 | 18,201 | 21,908 | 20,099 | 20,135 |
| Hard drugs | 6,676 | 7,894 | 9,504 | 10,305 | 11,967 | 9,910 | 9,870 |
| Hard and soft drugs | 402 | 459 | 455 | 613 | 695 | 714 | 804 |
| Soft drugs | 4,560 | 5,522 | 6,613 | 7,283 | 9,246 | 9,475 | 9,461 |
| | | | | | | | |
| Hard drugs | 57% | 57% | 57% | 57% | 55% | 49% | 49% |
| Hard and soft drugs | 3% | 3% | 3% | 3% | 3% | 4% | 4% |
| Soft drugs | 39% | 40% | 40% | 40% | 42% | 47% | 47% |
| Total | 100% | 99% | 100% | 100% | 100% | 100% | 100% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Proportion Opium Act | 4.9% | 5.9% | 6.5% | 6.7% | 8.0% | 7.5% | 7.5% |

Source: OMDATA, WODC. Note that more than one case may be recorded per suspect and that cases may have been 'filtered' at the level of the police (only cases with a reasonable chance of being prosecuted will be sent to the public prosecutor). II Due to rounding differences percentages do not always add up to 100%.

*Organised crime (table 8.2)*

- In 2006, 333 investigations into more serious forms of organised crime were surveyed. 75% of these involve trafficking or production of drugs. The majority concerns cases with hard drugs (79%); 60% concerns cases with soft drugs, and 39% cases with both hard- and soft drugs.
- Cocaine is the prevailing drug of the investigations into hard drugs (68%). 43% concerns synthetic drugs, and heroin comes third (29%). The National Crime Squad reports that it conducted 30 investigations into cocaine in 2006, in which network-like structures were investigated (T.K.28192/43; not in table).
- The investigations into soft drugs concern mostly trafficking or growing of Dutch grown weed ('nederwiet', 72%) or else the trafficking of hashish (29%) (not in table).

*Table 8.2: Investigations into more serious forms of organised crime, percentage of drug cases, and type of drug involved, 2000-2006*[I]

| | **2000** | **2001** | **2002** | **(II)** | **2003** | **2004** | **(III)** | **2005** | **(IV)** | **2006** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| ***Total number of investigations*** | 100% | 100% | 100% | | 100% | 100% | | 100% | | 100% |
| *N* | *148* | *146* | *185* | | *221* | *289* | | *176* | | *333* |
| - Targeting drugs | 53% | 62% | 63% | | 66% | 69% | | 72% | | 75% |
| | | | | | | | | | | |
| ***Investigations targeting drugs by hard- and soft drugs*** | | | | | | | | | | |
| *N* | *78* | *90* | *117* | | *146* | *200* | | *127* | | *250* |
| - cases with hard drugs | 82% | 83% | 83% | | 83% | 84% | | 85% | | 79% |
| - cases with soft drugs | 55% | 41% | 45% | | 39% | 27% | | 41% | | 60% |
| | | | | | | | | | | |
| - only hard drugs | 45% | 59% | 55% | | 61% | 69% | | 59% | | 40% |
| - only soft drugs | 18% | 17% | 17% | | 17% | 11% | | 15% | | 21% |
| | | | | | | | | | | |
| - hard- and soft drugs | 37% | 24% | 28% | | 22% | 16% | | 26% | | 39% |
| | | | | | | | | | | |
| ***Investigations targeting hard drugs by type of drugs*** | | | | | | | | | | |
| *N* | *64* | *75* | *97* | | *121* | *168* | | *108* | | *198* |
| - Cocaine | | | | | 60% | 57% | | 54% | | 68% |
| - Synthetic drugs | | | | | 54% | 39% | | 44% | | 43% |
| - Heroin | | | | | 17% | 18% | | 29% | | 29% |

I. Investigations may involve trafficking or production of several drug types, therefore the numbers in the table categories cannot be added up. II. Since 2002 a new format is used and data from 2000-2002 and 2003-2005 are not fully comparable. III. Data from 2005 concern January-November and not the whole year of 2005. IV. In 2006 a larger scope of selection was implemented; as a consequence the number of investigations is substantially higher than in the years before; in particular the number of soft drugs trafficking investigations is concerned; therefore the 2006 data can not be compared to the data of the years before. Source KLPD-DNRI, 2006.

*Decisions made by Public Prosecutor in Opium Act cases (table 8.3)*

- The Public Prosecutor took 21,000 decisions in Opium Act cases in 2006, 4% more than in 2005.
- Most of these cases are submitted to court. This fraction is as high as in 2005 and higher than in 2004, but still lower than in the years before 2004. 2004 was low, particularly in cases of hard drug trafficking at Schiphol Airport by drug couriers. Non-prosecution was a policy decision and part of the temporary drug oriented approach of drug couriers at Schiphol. In 2006 this percentage has risen. In 2007, all cases are prosecuted again and it could be expected that the percentage will increase in 2007.
- The percentage of hard drug cases submitted to court increases (68%). The percentage of soft drugs cases remains constant the last two years (63%; not in table).
- 20% of the Opium Act cases ends with a transaction of the Public Prosecutor. This percentage fluctuates between 18% and 20% in the last years.
- The percentage of cases ending with a transaction or submitted to court can be seen as a rough indicator of the effectiveness of the judicial system: the higher the percentage, the less cases are put aside (dismissal). Between 2001 and 2003 this percentage increased from 89 to 92%. In 2004 the percentage decreased to 83% (mainly due to the Schiphol drug courier policy). In 2005 the percentage increased to 86% and again in 2006 to 88%.
- Opium Act cases make up 8% of the total number of cases dealt with by the Public Prosecutor in 2006. This is the same fraction as in 2004 and 2005. Between 2000 and 2004 this percentage has increased from 5% to 8%.

*Table 8.3: Decisions by the Public Prosecution in Opium Act cases (2000-2006)*

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|
| Total Opium Act cases | 11,479 | 13,115 | 16,056 | 17,985 | 20,997 | 19,912 | 20,779 |
| Submitted to court | 73% | 71% | 70% | 72% | 61% | 65% | 66% |
| Transaction | 10% | 15% | 19% | 18% | 20% | 19% | 20% |
| Case dismissal for policy reasons | 5% | 4% | 3% | 3% | 10% | 8% | 6% |
| Case dismissal for technical reasons | 9% | 7% | 5% | 5% | 7% | 6% | 5% |
| Joinder of charges | 3% | 3% | 3% | 3% | 2% | 2% | 2% |

Source: OMDATA , WODC.

*Court sentences and sanctions for Opium Act offences (table 8.4)*

- The number of Opium Act cases handled by the court increases to more than 13,000, plus 7% compared to 2005 (not in table).
- Opium Act cases form 9% of the total number of cases handled by the courts in 2006. This fraction did not change very much since 2002 (between 8% and 9%; not in table).

- Both hard and soft drug cases show an increase. Hard drug cases increased with 6%. Soft drug cases handled by the Court – which increased from 2004 to 2005 +14% – increase again substantially in 2006 (+12%; not in table).
- The fraction of hard drug cases of all Opium Act cases shows a decreasing trend, that of soft drugs cases an increasing trend.
- The Court cases for Opium Act offences usually result in a conviction with a community service order (41%), an unconditional prison sentence (37%) or a fine (8%). These sanctions, together with the financial transactions by the Public Prosecutor (which are also considered a sanction) are shown in table 8.4.

*Table 8.4: Number of sanctions in Opium Act cases imposed by the courts and financial transactions of the Public Prosecutor (2000-2006)*[I]

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|
| Community service order[II] | 2,521 | 2,701 | 3,053 | 3,868 | 4,390 | 5,096 | 4,919 |
| Unconditional prison sentence | 3,478 | 4,414 | 5,767 | 6,413 | 5,399 | 4,811 | 4,392 |
| Fine | 1,518 | 1,645 | 1,813 | 1,864 | 2,110 | 1,815 | 1,620 |
| Financial transaction Public Prosecutor | 202 | 699 | 993 | 1,117 | 1,316 | 1,171 | 994 |

I. There can be combinations of sentences. II. This order can consist of work, treatment, education or a combination of these. Source: OMDATA, WODC.

- Between 2000 and 2005, the number of community service orders grew continuously. In 2006 this increase has come to an end. The mean number of days of these orders is 114 in 2006 (not in table). This number did not change much compared to 2005.
- The number of unconditional prison sentences increased first (2000-2003), but in 2004-2006 a substantial decrease was found (-32% compared with 2003). The mean duration of prison sentences shows a decreasing trend since 2002 and is 296 days in 2006.
- The number of unconditional fines also shows a substantial decreasing trend since 2004 (-23% in 2004-2006). In 2006 the decreasing trend continues for the second year on a row.
- The number of financial transactions increased in 2000-2004. In 2005 and 2006 a decrease was found (-24%). The median amount of money in fines fluctuates between 450 and 500 euros, in 2006 it is 470 euros.
- The median amount of money in financial transactions of the Public Prosecutor fluctuates between 110 and 270 euros, in 2006 it is 250 euros.

*Custodial sentences for Opium Act offences (table 8.5)*

- The percentage of Opium Act cases of all prison sentences increased from 2001 to 2002 (14% -18%), remained constant from 2002 to 2005 (16%) and increased again in 2006 (17%). There is no clear continuous tendency, fluctuations are quite limited.
- The percentage of detention years for Opium Act cases shows the same trends. In 2006 there is a slight increase in comparison with 2005 (29%).
- Hard drug offenders get more and longer prison sentences than soft drug offenders.
  - In recent years – 2002 to 2006 – the percentage of unconditional prison sentences for hard drug offences fluctuates between 13% and 14%. That for soft drug offences is much lower (1%-2%).

- The fraction of detention years for hard drugs is 24% in 2006. That for soft drugs is low, but it shows an increase (1%-2%-3%).

- In September 2006 16,230 persons are detained in total, of which 20% due to an Opium Act offence. In 2005 this was 16% (Source: CBS; number of detainees on every 30th of September; not in table).

*Table 8.5: Total custodial sentences and detention years and percentage of Opium Act sentences and detention years; 2000- 2006*[I]

| | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** |
|---|---|---|---|---|---|---|---|
| Number of prison sentences | 26,152 | 27,770 | 31,774 | 35,757 | 32,443 | 28,713 | 23,658 |
| Opium Act total | 12% | 14% | 16% | 16% | 16% | 16% | 17% |
| - hard drugs | 10% | 12% | 14% | 14% | 13% | 13% | 14% |
| - soft drugs | 1% | 1% | 1% | 1% | 2% | 2% | 2% |
| - hard and soft drugs | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| All other criminal cases | 88% | 86% | 84% | 84% | 84% | 84% | 83% |
| | | | | | | | |
| Detention years[III] | 8,873 | 9,904 | 11,993 | 13,070 | 12,766 | 10,799 | 7,842 |
| Opium Act total | 26% | 29% | 33% | 33% | 30% | 28% | 29% |
| - hard drugs | 22% | 26% | 30% | 30% | 26% | 23% | 24% |
| - soft drugs | 2% | 1% | 1% | 2% | 2% | 3% | 3% |
| - hard and soft drugs | 2% | 2% | 2% | 1% | 2% | 2% | 2% |
| All other criminal cases[IV] | 74% | 71% | 67% | 67% | 70% | 72% | 71% |

I. Excluding youth detention. II. Cases involving a soft drug offence as well as a hard drug offence are classified as hard drug cases. III. Detention years are calculated by adding all unsuspended parts of sentences and deducting early releases. IV.'Other criminal cases' contain the sentences/detention years for all crimes except Opium Act crimes Source: OBJD, WODC.

*Opium Act crimes in the criminal justice chain*

- Opium Act cases have a relatively high chance of passing through the total criminal justice chain.
- The fraction of Opium Act cases of all registered cases at the Police and the Public Prosecutor is 7-7.5%. The fraction at Courts is 9%. The fraction of all prison sentences is 17% and of all detention years 29%.
- These findings are valid for the whole period 2001-2006. During this period, the percentage of Opium Act cases registered by the Police and the Public Prosecution Office fluctuates between 6% and 8%, at courts it fluctuates between 7% and 9% and in prison between 12% and 13%. Most fluctuation is seen in the number of detention years applied for Opium Act offences: beween 26% and 33% percent. 2006 is not exceptional.
- In 2006, there are almost as much hard- and soft drugs cases in the first links of the criminal justice chain. Hard drug cases gain the upper hand in the later links of the chain.
- Soft drug cases are on the rise in 2001-2006, in all links of the chain.

*New developments in Opium Act offences*

- A change in the Opium Act is in preparation. One of the articles (13b) will be widened, giving mayors the competence to take firm action against drug dealing in houses or premises. Violation of public order will no longer be a requirement for action – as it was

until now. Closing down of houses and premises is possible. Action can be taken in mutual agreement with the local police and the local prosecutor, when large amounts of drugs are detected or when drugs are dealt. Actions should be embedded in a stepped approach against illegal drug dealing in municipalities (E.K.30515/C;T.K.30515/3;T.K.30515/4;T.K.30515/5). The change of the law is considered necessary because existing laws proved to be insufficient to tackle the problem of drug dealing in houses or premises. The change constitutes a sharpening of the drug law, because it will lead to a more vigorous approach of offences against the Opium Act. The change is approved by both Houses of Parliament in 2007.

- Law enforcement interventions aimed at the criminal organisations behind production of Dutch-grown weed will be developed and implemented. Preparations started in 2006 in the south of the country and are under further development in 2007. Police and municipalities work together already in combating and dismantling cannabis farms, in particular when located at residences, and in preventing criminal activities of growshops (see also chapter 10).
- Law enforcement efforts aimed at organisational crime involved in heroin, cocaine and synthetic drug offences are priority areas for the justice system (see also chapter 10).
- The prosecution of drug couriers caught at Schiphol Airport is normalized again since 15th of May 2007 (T.K.28192/45).
- The new policy programme of the Dutch cabinet aimes at enhancement of law enforcement efforts on production and trafficking of drugs in the Netherlands (Coalitieakkoord, February 2007).
- Fresh hallucinogenic mushrooms will be included in de Opium Act, as a soft drug[24]. This was announced by the minister of Health, Welfare and Sports in October 2007, after questions in the Parliament and after a report about incidents with these mushrooms in Amsterdam in 2007 (Coördinatiepunt Assessment en Monitoring nieuwe drugs 2007;T.K.30515/12;T.K.30515/15).

*Other drug-related crime (i.e. crimes committed by drug users)*

*Offences by drug users (table 8.6)*

The Police Records System includes a classification “drug user”. It is important to note that in the Netherlands drug use as such is not illegal. The designation “drug user” is accorded by the Police to a suspect only if he/she may constitute a danger to others due to his or her drug use, if he/she indicates being a drug user or if he/she asks for methadone. The classification is made by the police, but while drug use is not assessed systematically, its validity is disputable. A considerable proportion of the drug using offenders seems to be missing in the classification.

- Until 2004, 9,000-10,000 suspects classified as a ‘drug user’ were arrested one or more times for committing one or more crimes. This number decreased: from 10,500 in 2004, via 9,700 in 2005 to 8,600 in 2006 (-19% in 2004-2006). Last years findings are not definitive, changes may be due to the provisional status of the data.
- Based on police data, the following offender profile for registered drug users can be made (not in table):
  - 90% is male. The male/female distribution remained constant between 2001 and 2006.

[24] Dried or other preparations of hallucinogenic mushrooms are already under control of the Opium Act..

- The group of registered drug users is a greying population. The mean age increases from 35 years in 2001 to 39 years in 2006. In 2006 94% is over 24 years old.
- The percentage living in the largest cities (250 000 or more inhabitants) decreases from 45% to 40%. 11% is living abroad in 2006, which is about the same as in 2005.
- Many of them are repeat offenders: 70% was arrrested more than ten times before and more than 20% more than 50 times.

- Most of them committed one or more property crimes (50% in 2006). This fraction decreased in the recent period. Also, the percentage of drug users suspected of property crimes with violence decreases. The percentage of drug users suspected from other violence, however, increases. And so does the percentage of drug users suspected of opium Act offences: from 18% in 2001 to 25% in 2006.

*Table 8.6: Type of crime of which suspects classified by the Police as drug users are suspected, by type of crime (2000-2006)*

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|
| Property crimes without violence | 63% | 63% | 63% | 58% | 56% | 53% | 50% |
| Property crimes with violence | 11% | 11% | 12% | 11% | 10% | 8% | 8% |
| Other violence (against persons) | 19% | 20% | 22% | 23% | 24% | 25% | 25% |
| Opium Act offence | 18% | 18% | 19% | 22% | 22% | 24% | 25% |
| Vandalism, disturbance of public order | 20% | 21% | 23% | 23% | 23% | 22% | 22% |
| Traffic offence | 10% | 10% | 10% | 10% | 11% | 11% | 11% |
| Sexual offence | 1% | 1% | 1% | 1% | 1% | 1% | 1% |
| Other | 10% | 10% | 10% | 11% | 11% | 11% | 10% |

I. Suspects may commit more than one type of offence; percentages do not add up to 100. Source: HKS, KLPD/DNRI, group Research and Analysis.

## 8.3 Drug use in prison

A prevalence study on problematic drug and alcohol use and gambling amongst prison inmates was published in 2007 (Oliemeulen et al. 2007). It was carried out by the Addiction Research Institute in co-operation with two other institutes under the supervision of the Research Centre of the Ministry of Justice (WODC). The study was conducted between July 2006 and July 2007. Respondents are 637 detainees in Remand Centres. They were screened on problematic use of alcohol, drugs, or problematic gambling in the year before detention. Assessment took place in the first weeks after entry in the House. This may have affected the assessment of psychiatric symptoms, due to the rather sudden abstinence from alcohol or drugs. Standard instruments were used, like the Candel Scale, the Cannabis Abuse Screening Test, the South Oaks Gambling Screen and the Addiction Severity Index. Subsequently, 161 out of the 383 problematic users or gamblers got an in-depth interview, in which severity of use and other problems were inventarised. In addition, registration data from the police and the penitentiary institutes were analysed. Women, youngsters, respondents of Dutch orgine and inmates with a legal status are somewhat overrepresented in the sample.

Main results are (see Standard Table 12):

- 60% of the inmates reports problematic use of alcohol or drugs and/or problematic gambling.
- 30% is a problematic user of alcohol. Their age is mainly between 25 and 44 years. The police registration shows a mean of 20 previous offences. Their age at the first offence as registered by the police is 21 years. They committed relatively often a death offence.
- 33% is a problematic user of cannabis. Especially young male offenders are a high risk group for problematic use of cannabis. Their offences consist relatively often of property crimes with violence and assault. The police registered a mean of 27-29 previous offences; mean age of the first offence is 18 years.
- 24% has a problem with the use of hard drugs: cocaine (19%) or opiates (12%).
- Problematic opiate users often commit property crimes without violence. The police registered a mean of 58 offences, the first of which was registered at 20 years.
- Problematic cocaine users often commit property crimes (also qualified crimes) and offences against the Opium Act. Mean number of previous offences registered by the police: 47, the first at the age of 19.
- Problematic use of sedatives (without prescription) is found in 15% of the detainees. This use is mostly combined with problematic use of other drugs. Age is 25-44 years. They committed relatively often offences against the Opium Act. The police registered 44 offences, the first at the age of 20.
- Other problematic drug use has a low prevalence.
- 6% of the inmates is a problematic gambler. Their offences are relatively often qualified property crimes. They were 20 at the time of their first registered offence.
- 47% of the problematic users/gamblers has problems with only one substance (including gambling). 27% has problems with 2 substances (including gambling) and 26% has problems with 3 or more substances. The group with problematic use of 2 or more substances shows more symptoms of dependence, abuse and craving.
- Psychological and psychiatric problems are high amongst the problematic users and gamblers. More than half reports personality problems. Anxiety disorders and psychotic complaints also are prevalent in substantial groups. Physical functioning is bad, especially amongst opiate and sedatives users.

The reseachers also analysed the care demand. It was shown that inmates themselves demand help and guidance with regards to basic needs: living, health, personal care, and social relations. Professionals on the other hand, distinguish 8 types of care demands. Most of all, guidance, aimed at stopping or regulating the use of drugs, is needed. In addition, care is needed with regards to working, day activities or education.

Results on the prevalence are in accordance with other research amongst representative groups of inmates. The psychological and psychiatric problems were also signaled in a recent report of the Council for Societal Development (Raad voor de Maatschappelijke Ontwikkeling 2007). This report sees these problems as a major bottleneck for resocialisation and criminal recidivism.

The age of onset of criminal behaviour, as registered by the police, is between 17 and 21 years. They have been committing criminal acts since then for between 7 and 19 years.

## 8.4 Social costs

NNIA. For more information on this topic: see § 1.4 and chapter 11. The World Health Organization (WHO) has issued international guidelines for estimating the costs of substance abuse (Single et al. 2003). The WHO on the one hand makes a distinction between tangible and intangible costs, and on the other hand makes a distinction between private costs and social costs. Intangible private costs are, for example, the pain and suffering resulting from drug abuse. Estimates of the costs associated with substance abuse generally do not include intangible costs and private costs. Estimates usually include tangible social costs. Currently, there is a strong tendency in econometry to express intangible values as much as possible in monetary terms. However, as a leading critical Dutch economist, Heertje, in his *Echte economie* (True economy) argues that we should accept as a fact of life that there are qualitative values which cannot be aligned with financial standards (Heertje 2007). The true economist warns us that, when taking political decisions, we should never close our eyes for the values that have no quantifiable financial weight.

With regard to the social costs that are tangible, the WHO distinguishes four categories:
1. Health and welfare costs due to the treatment of substance abuse, prevention and research.
2. Productivity costs due to lost employment, lost productivity, and premature mortality.
3. Law enforcement and criminal justice costs.
4. Other costs like property destruction.

The four categories as distinguished by the WHO are a further breakdown of a prevailing distinction that is usually made between direct and indirect costs (Hakkaart-van Roijen et al. 2004). Health and welfare costs and law enforcement and criminal justice costs are *directly* related to drug abuse. Productivity costs and other costs like property destruction are *indirectly* related to drug abuse. Costs that are directly related to drug abuse become visible as expenditures. Indirect costs like travel costs also become visible as expenditures. However, costs that are indirectly related to drugs not always become visible as actual expenditures. For example, due to public nuisance caused by drug abuse the market value of premises near the drug scene may decrease. This decrease in value counts as a cost indirectly related to drug abuse in the form of property loss. However, such a cost will not always become visible as an actual financial expenditure.

Expenditures can be studied from a top-down approach or from a bottom-up approach. A top-down approach follows the financial resources that are allocated by the government and governmental institutions to treatment and law enforcement. A bottom-up approach, for example, follows drug abusers that are in treatment to assess the financial resources that are actually spent on their treatment. It can also be studied from a bottom-up approach how much law enforcement is actually being spent on a group of drug abusers. Table 8.7 gives an overview of current research in the Netherlands on the costs related to drug abuse.

*Table 8.7: Research on the costs related to drug abuse in the Netherlands*

| Costs | | Top-down approach | Bottom-up approach |
|---|---|---|---|
| Direct (Expenditures) | Treatment | (Rigter 2006) | (Dijkgraaf et al. 2005) |
| | Law enforcement | (Rigter 2006): governmental expenditures | (Dijkgraaf et al. 2005) |
| Indirect | Travel costs | not yet available | (Dijkgraaf et al. 2005) |
| | Lost productivity | not yet available | not yet available |
| | Other costs | not yet available | (Dijkgraaf et al. 2005) |

From a top-down approach, the governmental expenditures on treatment, prevention, harm reduction, and law enforcement have been mapped for the year 2003 (Rigter 2006). The total drug policy spending was estimated at 2,185 million Euros of which 42 million Euros were allocated to prevention, 278 million Euros to treatment, 220 million Euros to harm reduction and 1,646 million Euros to law enforcement. As Rigter (2006) concludes from these figures, for the Netherlands, "law enforcement is clearly the dominant expenditure".

A bottom-up approach has been applied to compare the costs of methadone maintenance treatment to co-prescribed heroin treatment (Dijkgraaf et al. 2005). It was found that the co-prescription of heroin decreased the law enforcement costs and the costs of damage to victims. All in all, this resulted in a saving of 12,793 Euros per patient per year. Given the unit costs of 2001 for the different social costs, the mean annual costs per patient were estimated at 1,412 Euros for the methadone maintenance programme, 1,126 Euros for addiction treatment and other healthcare, 12,885 Euros for law enforcement, 34,991 Euros for damage to victims and 146 Euros for travel costs, resulting in a total of 50,560 Euros per patient.

# 9 Responses to Social Correlates and Consequences

## 9.1 Social reintegration

The addiction care in the Netherlands boasts a long social tradition, in which addiction is not just seen as a medical problem but also as a social problem that requires social reintegration (Van der Stel 1995). Among addicts there are strong differences in the level of social exclusion, conversely social integration. With regard to housing, addicts can live lower or higher on the *housing ladder*, the low ones sleeping on the streets, and the high ones living more self-reliant in a hostel or in their own home (Bieleman et al. 2006b), (Barendregt et al. 2007). Each level of functioning requires its own approach to re-establish an addict's social position as much as possible. In line with the collective labour agreement (cao), the College of Utrecht (Hogeschool Utrecht) has established an overview of the job specifications and required competences for the different professions that contribute to the social reintegration of the homeless. Contributions are made by night watchmen, social wardens, assistants welfare, group workers, and social pedagogical workers (Schriever 2007). In general, the regular institutes for addiction care offer a diversity of programs for clients situated on these different levels of social functioning. In the following, an overview will be given of programs that range from interferential care for evasive addicts to hostels for fairly self-reliant addicts.

*Interferential care for evasive addicts*
The most socially excluded addicts are those who not only live on the streets, but also avoid contact with the regular addiction care. Moreover, these evasive addicts tend to cause public nuisance. At the end of 2006, in-depth interviews were held with ten inflictors of public nuisance in the provincial town of Dordrecht (Biesma et al. 2007a). It was found that the regular addiction care was evaded for reasons like the addiction care having no appeal, imposed sanctions, not agreeing with policy and personnel, having heard strange stories about treatment, not wanting to drag up the past while in treatment, little confidence in the results of treatment, feeling belittled, and not seeing one's drug use as a problem.
To reach these kind of evasive addicts, the Dutch addiction care has developed *bemoeizorg*, which is a special form of interferential care. Scoring Results (see § 5.1) has developed a practice-based guideline about how to apply this interferential care (Doedens et al. 2004). Its targets are first to put evasive addicts in contact with the regular addiction care, and next to keep in touch with them by means of intensive case management (see § 5.1). Given the special skills that are required to practice interferential care successfully, and given the need for more specialized interveners, the city of Amsterdam in May 2007 launched a special campaign to recruit *streetwise nurses* (JellinekMentrum 2007). In the summer of 2006, the early-intervention project *VRINT* started in the city of Nijmegen. The project aimed to reach potentially evasive addicts as soon as possible, that is before they become homeless and before they evoke public nuisance (Teering 2006). In the city of Utrecht, the Cabrio-team of the University Medical Center Utrecht (UMC) targets about a hundred young drifters between 18 and 24 years. After diagnosing their psychological and addiction problems, the Cabrio-team marks the young drifters down for the most appropriate care (Langelaan 2007).
In September 2005, the city of Rotterdam closed a prostitution area situated along a run-down street called the *Keileweg*. Being committed by addicted women, the prostitution in this area had evoked much public nuisance. In January 2007, from the total of 237 former street

prostitutes 38% was now reached by interferential care, 21% was admitted to a clinic for being diagnosed, and 41% was living in a supervised hostel (Kriens 2007).
Since 2003, a total of 277 different programs for interferential care have been identified throughout the Netherlands, of which "167 programs were identified as genuine intensive community-based care programs" (Roeg 2007). These programs are more intensive than the average community reinforcement program as mentioned above in paragraph 5.1. It was found that the main strategic components of these Dutch programs were as follows: "case finding was largely done by working with reports and less often with fieldwork, the focus was more often on care than on nuisance, the used strategy was more often referring than providing direct services, the care package usually consisted of medical ánd practical services, and staff mostly had individual caseloads". From an organizational point of view it was found that "the Dutch programs are generally (93.3%) a collaboration of two or more organizations, of which mental healthcare and addiction care are the most important partners".
Better functioning addicts can be kept in touch with by means of outreaching treatment, but other addicts are that much slided down, that compulsive inpatient admission is required. A new form of compulsive inpatient treatment has been developed for these evasive addicts, which in Dutch is called *Duurzaam Verblijf*. This can be translated as *Durable Stay*. The cities of Amsterdam and Rotterdam have decided to convey their evasive addicts for Durable Stay to the country side in the province of Drenthe, and a first shift of 36 addicts was transported in February 2007 (Knoops 2006). On the contrary, starting in 2009 and opting for a more long-term reintegration, the city of The Hague has decided to offer Durable Stay within its own area (Parnassia 2007b). Durable Stay especially targets addicts with co-morbid mental disorders. Only in the long-term, returning to society will be an option for some of these co-morbid addicts (Rijk et al. 2006). The legal base to coerce addicts into Durable Stay is given by the *Wet Bijzondere Opnemingen in Psychiatrische Ziekenhuizen (BOPZ),* which is the Dutch *Psychiatric Hospitals (Compulsory Admissions) Act (BOPZ).* According to this law, an addict can only be kept in Durable Stay on the condition that the court at least every two years will prolong the stay.
At the start of 2006, a new health insurance act called the *Zorgverzekeringswet* was enacted, which holds each citizen in the Netherlands responsible for being insured. Especially homeless addicts who tend to neglect paying their insurance contribution, run the risk to end up uninsured by July 2007 (Rensen 2007). To tackle this problem, the city of Amsterdam has started an experiment in which a special health insurance policy is offered to about a hundred uninsured homeless people. This experimental health insurance is called the *Parkpolis,* and is part of a broader outreaching program to keep in touch with chronic patients (Van Delft 2007a).

*Hostels for fairly self-reliant addicts*
Addiction clients who, to a certain extent, are self-reliant may qualify to live in a hostel. Although these clients are not yet self-reliant enough to live on their own, they may succeed in living under the supervision of a hostel. In 2000, the city of Rotterdam started the project *(z)Onderdak* which aimed to reduce public nuisance by housing addicts in a hostel. Operating in this project, the housing supervisors reached about 350 clients in July 2006. During the first half of 2006, about five percent of the clients was able to move up to completely self-reliant living (Barendregt et al. 2007).
The city of Apeldoorn, a provincial town in the province of Gelderland, has started the *Omnizorg* project. The aim of Omnizorg is to locate all facilities for homeless addicts "under one roof", including "day and overnight accommodation, facilities where addicts can take drugs in

a controlled environment, accommodation for homeless people with psychiatric problems, low-threshold residential facilities, care co-ordination and programme supervision, social and medical services, day activities and work projects, and medical, psychological and psychiatric care"; and not to forget "a recreation area and a music room". The accommodation for the hostel facilities will be made available by the Regional Institute for Protective Housing (RIBW) Oost-Veluwe (Voortman 2004).
Also in Utrecht, the fourth city of the Netherlands, institutes that offer protective housing have now founded hostels for homeless addicts. Until the start of 2007, seven hostels were realised and two more hostels are in formation. Offering *Ketenzorg* this way, that is a closed chain of care for the homeless addicts in which all parties co-operate, has become known as the *Utrecht model*. By means of a qualitative process evaluation, the following factors have been identified to explain the success of the Utrecht model: a broadly shared view on the need of care for chronic addicts, a closed chain of care givers co-ordinated by the municipality, political and administrative decisiveness, and a control group for each hostel in which all parties concerned participate. When following the Utrecht model, the municipality joins the forces with the municipal health service, the health insurance company, public mental health, the institute for addiction care, the institute for protective housing, representatives from the target group, the housing corporations, the police, institutes for social work, and the people living in the neighbourhood (Van Rooijen et al. 2007a), (Van Rooijen et al. 2007d). At national level, a guideline has been made available about how to perform quality management for a closed chain of care for the homeless (Van der Aa et al. 2006).

## 9.2 Prevention and reduction of drug-related crime

*Prevention and reduction of crimes committed by drug users*
A considerable fraction of crime and recidivism in the Netherlands is atributable to drug (or alcohol) users. A substantial reduction of this type of crime can only be realised by offering them help for their problems and their addiction, is the Dutch viewpoint. This viewpoint is confirmed again in a recent policy document (T.K.31110/1). From this viewpoint, the criminal justice system offers several types of assistance to drug using offenders. Assistance is aimed at all drug users, but hard drug users, and especially prolific offenders amongst the drug users, get a lot of explicit attention in recent policy programmes, because of their very frequent criminal recidivism.
The approach is mainly quasi-compulsive in nature, which means that offenders can participate in health care programmes as an alternative for detention, but under conditions set by the judicial system. Mostly it concerns suspension of prosecution and remand detention under the condition of participation in a health care programme, or suspension of detention after sentencing under the same condition. If offenders do not comply with these conditions, prosecution or detention will be enforced.

The following services and judicial measures are applicable for drug users (and other offenders) in the criminal justice system in 2007:
- addiction probation services
- (reintegration) programmes and facilities in prisons
- participation in health care programmes as an alternative to imprisonment
- the Measure of Placement in an Institution for Prolific Offenders (ISD)
- aftercare.

*Addiction Probation Services*

Addiction Probation Services had 16,385 clients in 2006. This number is higher than in the years before (see table 9.1). Their mean age is 36,5 years, the largest group (26%) being between 40 and 49 years old. 91% is male. 72% is of Dutch cultural origine. Their resources are low: only 28% has work, 48% has at maximum a primary school education, 53% lives alone. The addiction problems have lasted more than five years for 74% of them. Most of them have primary problems with alcohol. This percentage is increasing. Amongst drug users cocaine problems are more prevalent than heroin of cannabis problems. The fraction of clients with primary opiate problems is decreasing. The general picture 2005-2006 did not change much.

*Table 9.1: Clients of addiction probation services 2002-2006*

| Clients: | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Total number | 12,399 | 14,579 | 14,875 | 15,574 | 16,385 |
| Percentage of clients who alternately use voluntary outpatient addiction care | 7,794 (63%) | 8,501 (58%) | 8,489 (57%) | 8,734 (56%) | 9,457 (58%) |
| Mean age[II] | 35 | 35,3 | 35,6 | 36,1 | 36,5 |
| Male | 92% | 92% | 92% | 92% | 91% |
| Primary problem is alcohol | 38% | 40% | 43% | 46% | 47% |
| Primary problem is opiates | 25% | 21% | 18% | 16% | 15% |
| Primary problem is cocaine/crack | 26% | 27% | 25% | 24% | 24% |
| Primary problem is cannabis | 6% | 6% | 7% | 8% | 8% |

Source: Information Services for Addiction Care/SIVZ, 2007.

The activities of Addiction Probation Services 2002-2006 are shown in table 9.2.

- Most activities show an increasing trend: first visits to arrestees and prisoners in remand, reports to the judge with advice regarding continuationof remand custody, referral to care programmes, supervision of clients in the framework of a judicial decision, supervision of working and learning sentences, advisory reports.
- Some show a decrease: reintegration programmes and diagnoses.
- The general trend is an increasing one.
- Diagnostic activities are carried out most frequently: more than 9,900 times in 2006. Diagnoses are carried out partly by using the former procedures and partly by using the newly introduced standard instruments of Quick Scan and RISc (Risk Assessment Scales/Risico Inschattings Schalen). These instruments are still undergoing development and are the subject of (validity) research.

Advisory activities and supervision of addicts in the framework of a judicial decision will be intensified (T.K.31110/1).

*Table 9.2: Types of assistance offered by addiction probation services and number of times the service was provided, 2002-2006*[I]

| Type of assistance | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| First visit to arrestee/prisoner in remand | 3,629 | 4,305 | 4,110 | 3,962 | 4,400 |
| Report to judge with advice regarding continuation of remand custody | 995 | 922 | 889 | 1,152 | 1,494 |
| Devising, coordinating and evaluating a plan of approach following a systematic method[II] | 10,048 | 9,156 | 1,028 | - | - |
| Referral to care programmes | 1,568 | 2,115 | 2,254 | 2,081 | 3,226 |
| Supervision of clients in the framework of a judicial decision | 2,407 | 3,726 | 4,919 | 5,454 | 7,880 |
| Interventions/Reintegration programmes | 1,696 | 2,566 | 2,929 | 2,806 | 2,624 |
| Supervision of working sentences | 3,382 | 4,098 | 4,650 | 4,904 | 5,293 |
| Supervision of learning sentences | 139 | 217 | 241 | 286 | 360 |
| (Advisory) reports | 7,587 | 8,746 | 8,369 | 8,454 | 8,931 |
| Diagnoses[III] | | 10,615 | 10,605 | 11,504 | 9,935 |
| Total number of activities | 31,451 | 43,900 | 39,994 | 40,603 | 44,143 |

I. No figures on case level, no specification for type of drug/alcohol/gambling II. Service is discontinued in 2004. III. Newly defined service in 2003, RISc's included (3,664). Source: Foundation of Addiction Probation Services, 2007.

*Programmes and facilities in prison*

- During their stay in prison, drug users (and other inmates) can participate in intramural programmes. The prison system recently aims at selectivity (resocialisation programmes will be offered to those offenders for whom an improvement can be expected), differentiation (offenders in remand custody stay in a basic regime, convicted offenders with a relatively short custodial sentence get no resocialisation programmes). For every detainee, aftercare is prepared by social service workers in the prison facility. Those convicted to a longer sentence can participate in resocialisation programmes, if improvement is expected. If not, they will stay in a basic regime. Systematic assessment will show the chances for improvement. More attention is given to effectiveness of sanctions. In October 2007, five interventions for adults were accredited, of which one is especially set up for addicts: lifestyle training, which got a preliminary accreditation in October 2006.
- In some prison facilities drug users can participate in resocialisation programmes in Drug-free Addiction Support Units (Verslaafden Begeleidingsafdelingen, VBA). These are fifteen drug-free units in prisons which offer a programme for addicts who are motivated to stop their drug use, and who are eligible for a programme preparing them for treatment outside detention. By the end of 2006, 280 cells were occupied, which is about the same number as in 2005. This figures also includes non-addicts who stay in these units.

*Treatment as an alternative to imprisonment*

This is the prevailing approach in The Netherlands, called 'quasi-compulsive', which will be strengthened in the future. In 2006, referral to care programmes from the criminal justice system took place more than 3,000 times. Most referrals concern placement in outpatient/semi-

residential addiction care (1,194 times in 2006, more than in the years before) or residential addiction care (934 times, more than in the years before) (www.svg.nl).

The approach is not without bottlenecks and improvements are considered necessary (Raad voor de Maatschappelijke Ontwikkeling 2007;T.K.31110/1). The high prevalence of psychological and psychiatric problems in the addict population in the criminal justice system calls for tailored interventions, aimed at improvement of the individual problems.

Two special pilot projects started in 2005, aiming at piloting methods for referral of addicts to health care programmes. An audit in 2006 revealed that the processes are hampered by bottlenecks: responsibilities of actors in the chain of cooperation are not clearly defined, there is a lack of standards in the methods used, and indicators of achievements in the process are scarce (TNO Management Consultants, December 2006). It is the ambition of policy makers to increase this number twice: to 6,000 in 2011 (T.K.31110/1). For young detainees in youth detention centres, the use of quasi-compulsive methods with regards to their addiction problems, will be intensified (T.K.31110/1).

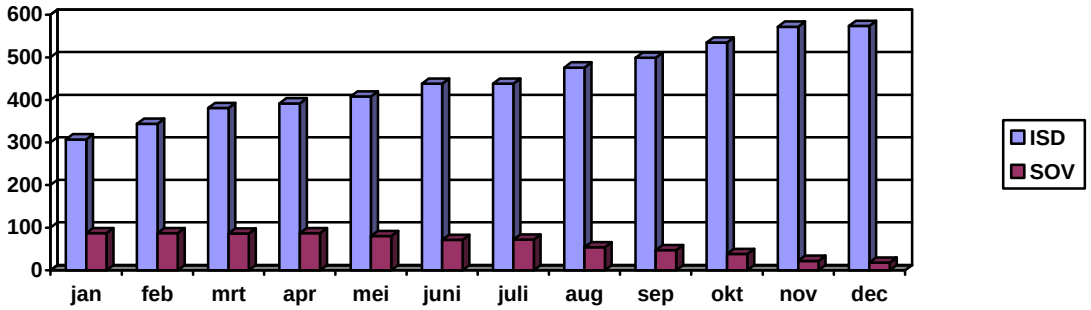
*Measure of Placement in an Institution for Prolific Offenders (ISD)*

- This measure is applicable for prolific offenders, of whom a majority (an estimated 71%) is a hard drug user. The measure is in force since October 2004 (Ministerie van Justitie 2007;Stb 2004/471).
- Aim of the measure is to secure society from offences committed by prolific offenders (for a maximum of two years). The measure also offers options for behavioural interventions to reduce criminal recidivism, and in the case of addiction and/or psychological, these problems can be dealt with.
- ISD replaces the former Measure of Placement in a Judicial Institution for Addicts (SOV). Differences between the two measures are (Biesma et al. 2006;Voorhuis et al. 2007)):
  - ISD has a broader target group: also women, non-addicted offenders and offenders with serious psychiatric problems can get an ISD (they were contra-indicated for SOV). Prior goal of the ISD is safeguarding of society and reducing recidivism. Improving the individual problem situation of the offender is a secundary goal. This was different in SOV, where both goals were of equal importance.
  - ISD has a higher detention capacity: 1,000 places in 2007, of which 874 in penitentiary facilities and 126 in health care facilities outside prison.
  - Offenders under the measure of ISD get a systematic screening with a standard instrument (RISc).
  - The programmes are more flexible and can be adapted to individual needs.
  - There are systematic case discussions at entry in the criminal justice system, aimed at setting out an adequate line for interventions.
  - In SOV, the offender was placed in a special penitentiary institution with a treatment setting. He could, however, refuse participation in treatment. Treatment was not compulsive. When he refused participation, he was placed in basic detention regime. In ISD, the offender is placed in a regular penitentiary institution, in basic regime. He can participate in treatment if – amongst other conditions - he is motivated for it.
- Recent evaluations reveal that some of the assumed surplus value is realised (Biesma et al. 2006):
  - More persons get a measure of ISD than formerly under SOV. In september 2007, there were 622 persons with an ISD-measure in prisons (of the total capacity of 874).

- Systematic screening takes place with RISc.

- However, serious bottlenecks in the implementation of ISD have been revealed(Biesma et al. 2006;Raad voor Strafrechtstoepassing en Jeugdbescherming 2007;Snippe et al. 2006):
  - The capacity of ISD is not fully used yet. The number of participants in ISD is increasing (see figure 9.1). The mean number of participants in ISD per month was 448 per month, which is considerably higher than in 2005. Of these participants, a mean of 140 per month were in basic prison regime, 264 participated in an behavioural intervention inside prison and 44 in a care programme outside prison (but still under the measure and under supervision of probation services).
  - An estimated 95% of the persons under ISD is an addict. There is almost no expansion to non-addicted offenders.
  - The connection between detention and health care facilities outside prison hampers, although there are signs of some improvements in co-operation.
  - Employees in ISD and addiction probation workers involved indicate, on the basis of their experiences, that the group under ISD is very difficult to deal with because of severe psychiatric problems, sometimes in combination with limited intellectual capacities.
  - Cooperation between the criminal justice sytem, health care facilities and local actors is experienced as better than before.
  - The introduction of ISD was too hasty and ill-prepared, causing problems for the personnel.
  - The psychological care is not adequate. The population of ISD is much more difficult than foreseen, this asks for more qualified personnel. Referral to care is not implemented and treatment is limited.

*Figure 9.1: Number of participants per month in Measure of Placement in an Institution for Prolific Offenders (ISD) and Measure of Judicial Placement of Addicts (SOV), 2006*




Source: Service for Judicial Facilities/Dienst Justitiële Inrichtingen, 2006

*Judicial Placement of Addicts (SOV)*

The experiment with the compulsory measure of Judicial Placement of Addicts/Strafrechtelijke Opvang Verslaafden (*SOV*) started in 2001. It was stopped at the end of 2006 because a broader measure (ISD, see above), not only aimed at male addicts without serious psychiatric problems (like SOV was), was targeted at in the Safety Programme of the government. SOV is retained as a programme within the new measure. Drug users in the

SOV follow a stepwise reintegration programme into society. There is a first closed phase (day-and-night in SOV), followed by a second half-open phase (extramural during daytime, in SOV during the night) and a final open extramural phase. Each phase lasts 6 to 9 months. The number of SOV-participants strongly decreased; the measure ended in 2004.

Koeter and Bakker (2007) published an effect study with the following main results (Koeter et al. 2007).

- SOV-participants are chronically addicted to opiates mainly; they were in treatment many times before and have a long criminal carreer of mainly property crimes.
- Soon after entry in SOV, they experience an improvement of their physical and psychological health.
- A great deal of them does not finish all the phases of SOV. Half of them does not get any further than phase 1, 21% stops at phase 2 and 32% really did come into phase 3.
- More than 40% can be considered a success after finishing of SOV: they show less criminal recidivism (but still some) or have a substantial lower frequency of drug use (but most still use methadone), or show better societal functioning (more working or day activities, no new debts, stable housing).
- If success is defined more strictly as ‘improvements in criminal recidivism and addiction’, then the rates of succes decrease to 12-28% (instead of 40%).
- If success is defined even more strictly as ‘improvements in criminal recidivism and addiction and societal functioning’, then the rates of success decrease to 12-21%.
- The succes decreases in time: a year after leaving SOV, a success rate of 7-22% (dependent on exact definitions) is recorded.
- SOV is more effective than regular imprisonment.
- SOV is as effective as regular interventions under quasi-coercion.

When we take into consideration that that SOV-participants have a longer history of treatment, criminal recidivism and imprisonment than the persons under quasi-coercion, this could indicate that the SOV-programme reached a more difficult group and that the results, seen from from this viewpoint, are favorable for SOV.

*Aftercare*

In the new approaches towards prolific offenders (of whom a majority is a drug-addict), all partners in the chain of the criminal justice and the health care system work together to reach the common goal: a safer society. In this framework, so-called local ‘security houses’ are developed, in which prolific offenders are discussed individually and monitored in a continuing agreed-upon approach. Agreements about aftercare proved to be made in good agreement (Snippe et al. 2007). There are some issues, however, which led to repeated discussions: the distribution of responsibilities on an executive level, the choice of implementing parties, the involvement of mental health care, capacity issues and funding. Debts of the prolific offenders and information exchange form a problem also.

*New developments*

Strenghtening of quasi-coercive approaches by:

- increase of use of the options already existing in the law
- implementation of new options (conditional release at the end of the detention period)
- improvement of advisory and supervising activities of addiction probation services

- financing of places in care programmes by the Ministry of Justice, so that this Ministry will be able to ‘buy’ adequate places in care (from 2008 on)
- improvement of the cooperation within the chain of criminal justice system- care system – and municpalities (who are should carry out after care programmes).
- ISD will be continued, but improvements are planned.

# 10 Drug Markets

## 10.1 Availability and supply

*Availability*

NNIA. According to the Dutch National School Survey (2004), pupils of 12-18 years perceive cannabis as the most easily available substance (30%), followed by both ecstasy (10%) and cocaine (9%) (Monshouwer et al. 2004). More boys than girls rated these drugs as being easily or very easily available. Moreover, perceived availability strongly increased with age.

As far as the sources are concerned where pupils obtained cannabis, “through friends” is the most frequently reported option (67% of the last month or current users). One in three pupils obtained cannabis in coffee shops (35%). Dealers (12%) and indirect sources (e.g. through other people; 9%) were mentioned by one in ten pupils; 6% reported other sources. Friends are a more important source for girls than for boys while coffee shops are more important for boys than for girls. A surprising number of pupils between 15 and 17 years reported buying cannabis in a coffee shop (22% of the pupils between 12-15 years; 57% for boys of 16-17 and 37% for girls of 16-17) although the age limit for entrance to a coffee shop is 18 years (see also § 2.2). However, it is possible that some pupils indicated this source, while in fact they meant that others had bought cannabis for them in a coffee shop.

*Coffee shops*
NNIA. Cannabis can be obtained in coffee shops that adhere to certain criteria (AHOJ-G; see chapter 11). From 1995 onwards, Dutch policy has focused on controlling public nuisance problems associated with coffee shops. As a result of strict enforcement and various administrative and judicial measures, the number of officially tolerated coffee shops has decreased in the past years (table 10.1).

- This trend was most pronounced between 1997 and 1999 (-28%), especially in the smaller towns and Rotterdam.
- Since 1999, the annual reduction in the number of coffee shops is smaller: 4% from 1999 to 2000, 1% from 2000 to 2001, 3% from 2001 to 2002, 4% from 2002 to 2003, 2% from 2003 to 2004, and 1% from 2004 to 2005.
- In 2005, coffee shops were present in 105 municipalities. This is 22% of all municipalities, about the same level as in previous years. Thus, almost eight in ten municipalities do not have any coffee shop.
- The majority of all coffee shops (52%) was located in the largest five cities with more than 200 thousand inhabitants.

*Table 10.1: Number of coffee shops in the Netherlands*

| Number of inhabitants | 1997* | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|
| < 20,000 | ±50 | 14 | 13 | 11 | 12 | 12 | 10 | 10 |
| 20-50,000 | ±170 | 84 | 81 | 86 | 79 | 73 | 77 | 75 |
| 50-100,000 | ±120 | ±115 | 109 | 112 | 106 | 104 | 101 | 103 |
| 100-200,000 | 211 | 190 | 168 | 167 | 174 | 168 | 166 | 161 |
| >200,000 (total) | 628 | 443 | 442 | 429 | 411 | 394 | 383 | 380 |
| - Amsterdam | 340 | 288 | 283 | 280 | 270 | 258 | 249 | 246 |
| - Rotterdam | 180 | 65 | 63 | 61 | 62 | 62 | 62 | 62 |
| - The Hague | 87 | 70 | 62 | 55 | 46 | 41 | 40 | 40 |
| - Utrecht | 21 | 20 | 18 | 17 | 18 | 18 | 17 | 17 |
| - Eindhoven** | | | 16 | 16 | 15 | 15 | 15 | 15 |
| Total | 1,179 | 846 | 813 | 805 | 782 | 754*** | 737 | 729 |

* Estimated number of coffee shops. ** Eindhoven exceeded the category of 200,000 inhabitants in 2000. This partly explains the slight decrease in the number of coffee shops in cities with 100-200,000 inhabitants. ***In 2003, 3 coffee shops were not allocated to a municipality. Source: (Bieleman et al. 2006d).

*Non-tolerated cannabis markets*

As indicated above, not all cannabis users obtain their cannabis in or through officially tolerated coffee shops. According to a study of the University of Amsterdam, there are two main categories of non-tolerated sales points: 1) fixed sales points, such as house dealers and under-the-counter dealers primarily at clubs or pubs, and 2) mobile sales points, including home delivery after cannabis has been ordered by phone, and sales in the street and at spots where people hang around (street dealers) (Korf et al. 2005). It has been estimated that in the municipalities with officially tolerated coffee shops, about 70% of the local cannabis sales go *directly* through the coffee shops. In addition, coffee shops are indirect suppliers of cannabis, through friends of users but also through non-tolerated sales points.

*Smart shops*

Fresh hallucinogenic mushrooms and other non-traditional psychoactive substances can be bought in so-called smart shops[25]. Reliable figures on the number of smart shops are not available. According to the police there are 35 smart shops in Amsterdam and 9 elsewhere in the country. However, according to other sources, estimates vary between 100 and 200 (Coördinatiepunt Assessment en Monitoring nieuwe drugs 2007). Hallucinogenic mushrooms can also be bought on internet.

*Supply*

Cannabis:

- In 2007, research was published about the organization of the professional production of Dutch-grown weed: 'The world behind cannabis cultivation' (Spapens et al. 2007). This research was carried out within the framework of the government's aim to intensify law

25 Recently (October 2007), the Minister of Health, Welfare and Sports decided to bring fresh hallucinogenic mushrooms under control of the Opium Act, which implies that sale will be forbidden.

enforcement actions against the cultivation of cannabis. The research showed that the cultivation of cannabis is wide-spread in the Netherlands. Many people have the necessary knowledge and skills to cultivate it. Furthermore, most of the materials required for the production of cannabis are widely used in other applications. It appears that so-called grow-shops in particular seem to facilitate the production process. They usually supply the legal cultivation equipment and they also give advice to growers. None of these activities are currently punishable by law. However, there are also a number of mala fide grow shops that will refer prospective cannabis growers to sellers of cuttings, wholesale cannabis buyers and service providers such as electricians and 'grow room builders'. They also collect hemp waste from cannabis growers.

- The researchers discovered four principal variations of cannabis-growers: (1) small and medium-sized independent growers who operate at their own risk and use their own money to grow between 100 and 1,000 plants on their own premises, (2) larger-scale independent growers who operate plantations in (rented) commercial properties or farm sheds, where 1,000 plants or more are cultivated, (3) operators who install 5-10 plantations in other people's houses, mostly acquaintances in their social network; with the occasional exception, there is no coercion involved in the running of these plantations, and the focus of the activities is at the local level, (4) criminal cooperatives which are involved in buying, processing and selling cannabis products on a large scale and often run their own sizeable plantations. There is a link between some grow shops and criminal cooperatives.
- Cannabis products of the criminal cooperatives are largely exported and also sold domestically to coffee shops in the Netherlands. No signs were found of coercion involved in recruting small scale growers. However, there were signs of 'horizontal' violence between criminal cooperatives. Also, violence related to 'rip-offs' of plantations was found. More attention of law enfocement is needed for the criminal cooperatives, whereas these might take over the market from small scale growers that are arrested by the police by means of the recent more vigorous integral approaches.
- The tendency that criminal cooperatives get a more important role in the market of cannabis, at the expense of smaller, more ideologically driven weed growers, is also signaled in another research project (Maalsté et al. 2007).
- Wouters et al (Wouters et al. 2007) found (small) changes in the cannabis production market: more production sites outside urban areas, scale enlargement and technological innovations.
- Price rises of cannabis were signaled in 2006, possibly (partly) due to both the dismantling operations and the hot 2006-summer in the Netherlands, which lead to a relatively high number of crop failures (Wouters et al. 2007).

Cocaine:

- The special law enforcement actions that were implemented in recent years aiming at reducing the import of cocaine at Schiphol Airport became regular routine since 2006 (T.K.28192/41). The situation at the airport is well under control and the targets of the special enforcement programme are realised (T.K.28192/41 Tweede Kamer der Staten-Generaal vergaderjaar 2004-2005 publicatienummer 28192 nr.41 2006). However, co-

caine trafficking and the organised crime involved in it is considered still a major threat[26] for Dutch society since 2005 (T.K.29911/1). Combating cocaine-related organised crime one of the (six[27]) priority areas with regards to organised crime set by the Ministers of Justice and of Interior Affairs and approved by the Dutch Parliament. Implementation is carried out in 2005-2010 by National, supraregional and regional Crime Squads and the National Public Prosecutor's Office. In 2006, the National Crime Squad carried out 15 investigations into cocaine 2007 (T.K.29911/4).

Heroin:

- Heroin trafficking via the so-called Balkan-route is also defined as a major threat in terms of serious or organised crime since 2005. Combating it is one of the (six) priority areas in the fight against this crime (T.K.29911/1). In 2006, the National Crime Squad carried out 17 investigations into heroin (T.K.29911/4).

Synthetic drugs:

- The number of production locations for ecstasy has fallen since the all time high in 2002, although it has increased in 2006 compared to 2005 (Expertisecentrum Synthetische Drugs en Precursoren 2007;Neve et al. 2007). The facilities discovered recently were very large, and the police reports that producers go to great lengths to hide the locations. Ecstasy still seems readily available on the user market. Production is carried out now in other countries too (Australia, Canada, Belgium) (Expertisecentrum Synthetische Drugs en Precursoren 2007). In 2006, the old Unit for Synthetic Drugs was reorganized under the new name Expertise Centre for Synthetic Drugs and Precursors. Organised crime with regards to synthetic drugs is also a priority area in the fight against organised crime (T.K.29911/1). In 2006, the National Crime Squad carried out 22 investigations into synthetic drugs (T.K.29911/4) 23 production locations were dismantled in 2006, of which 9 laboratories for amphetamines and 5 for MDMA (Expertisecentrum Synthetische Drugs en Precursoren 2007). There were 7 plants were pills were produced. 52 warehouses of hardware and precursors were dismantled. Most production places were found in the west and the south of the Netherlands. This is confirmed by the number of waste dumpings, which occur most in these parts of the countries (42 in 2006). There is a sharp decrease of BMK and PMK confiscations: almost none of these were confiscated in 2006 (resp. 174 and 105 litres). This does not mean that MDMA production in the Netherlands is jeopardized by lack of raw material (Jaarrapport synthetische drugs en precursoren 2006, 2007). There are indications that several large seizures in 2003 and 2004 have led precursor traffickers to change their smuggling routes. At the same time, total domestic seizures of MDMA have increased in 2006 and reached the highest point since 2002. There is a shift from tablets to powder seizures. Global quantities of seized MDMA connected to the Netherlands have been falling between 2003 and 2006, but reached a new peak in 2006.
- A thesis by Spapens showed that the judicial instruments and human and facilitary resources that were available for the combat of ecstasy production and trafficking in recent years, were, in general, adequate to stop criminal logistic and production processes and

26 Defined as a criminal phenomenon that will have serious consequences for the Netherlands in the next five years (T.K.23760/14).

27 1=terrorism and other extreme forms of ideologically motivated crime; 2=cocaine and heroin trafficking; 3=production and trafficking of synthetic drugs; 4=trafficking and smuggling of humans/mensenhandel en smokkel; 5=trafficking and use of fire arms and explosives; 6=money laundering.

to detain key persons in the criminal networks (Spapens 2006). Criminal networks, however, are rather stable and it is impossible to wipe out them totally (in the given democratic context). It is more feasible to control them and prevent them from getting more powerfull. Therefore, it is important for law enforcement to be well informed about the networks.

- Amphetamine production is still going on in the Netherlands (Expertisecentrum Synthetische Drugs en Precursoren 2007).

New synthetic drugs were confiscated in 2006: mCCP (about 380,000 pills), methamphetamines (about 5,000 pills) and other forms of MDMA ('Original 69' and 'Explosion').

*New developments on drug supply in 2007 (see also § 1.1 and 1.2)*

- Implementation of intensified enforcement of cannabis production is ongoing (Spapens et al. 2007;T.K.24077/184). As mentioned above, research shows that the integrated approach, in which police forces co-operate with electricity companies and housing corporations and in which the latter can terminate the housing contract of tenants who cultivate cannabis at home, is frightening for tenants and works in a preventive way for home-grown cannabis cultivation. This may lead to a shift of the cultivation to owned houses, big sheds and company sites, in which criminal organizations are involved (Spapens et al. 2007;Wouters et al. 2007). The government aims at more vigorous law enforcement of the organised cultivation of cannabis and will develop strategies for this in 2008 (Spapens et al. 2007).
- The government plans to continue and intensify law enforcement on production and trafficking of drugs and to combat organized crime involved in it (Rijksvoorlichtingsdienst 2007).
- The situation around import of cocaine by swallowers and bodypackers at Schiphol Airport is under control, according to the 2007 progress-report: only limited numbers of couriers are detected and all couriers are prosecuted again since 15th of May 2007 (T.K.28192/41;T.K.28192/45).
- The special efforts with regards to synthetic drugs (especially ecstasy and amphetamines), which were introduced as a special programme for 2001-2006, is continued and made structural from 2007 on (see also chapter 1). A strong focus is laid on prevention of production by enforcing at the front side of the process: the precursors, the hardware, and the financing. Also, international co-operation will be continued and strengthened (T.K.23760/20:;T.K.23760/26). The special Centre of Expertise from the National Crime Squad will focus on criminal organizations involved (Dienst Nationale Recherche 2007b). A budget of 18,6 million Euros is available each year. There has been (body)search actions by local police on visitors of dance parties, aimed at finding potential dealers of ecstasy (T.K.Aanhangsel/616).

## 10.2 Seizures

Figures about seizures in 2006 are reported by the National Police Force (see Standard Table 13). Figures include seizures by police forces, Royal Military Police, Customs and Fiscal Information and Investigation Service (the tax authorities). Registration methods and definitions differ per police region, which may lead to unreliability in the information and makes it difficult to interpret the figures (Wouters et al. 2007). The figures are truncated to avoid quasi-exactness and seizures less than 10 kg/liters are omitted. Figures do not permit con-

clusions about developments and trends. They must be seen as a minimum estimate of seized drugs in the Netherlands.
The following seizures are reported for 2006:

- Cannabis resin: about 4,600 kilos
- Herbal cannabis: 6,600 kilos
- Cannabis plants (including cuttings): 1,650,500
- Heroin: 1,000 kilos
- Cocaine: 10,600 kilos
- Amphetamine: 600 kg, 38,100 tablets and 3 kilos of pasta
- Ecstasy MDMA/MDA/MDEA: 700 kilos, 4,118,300 tablets and 100 liters
- LSD: 22,600 trips and 2,500 tablets
- GHB: 2,000 tablets, 58 liters
- Methadone: 11,600 tablets
- Hallucinogenic mushrooms: 150 kilos
- BMK: 170 liters
- PMK: 100 liters.

Further details:

- At Schiphol Airport, customs seized 9,084 kilograms of cocaine in 2006: 3,200 kilograms at 1,410 controls of passengers, 1,200 kilograms at 1,336 controls of airfreight and post paquets, and 4,500 kilograms at 26 controls of overseas ship transports (one seizure of 2,000 kilograms) (T.K.28192/43).
- 23 production locations of synthetic drugs were dismantled, nine amphetamine labs and 14 ecstasy labs (in 2005: a total of 18 and in 2004: 29) (Expertisecentrum Synthetische Drugs en Precursoren 2007). Labs are found mostly in the west and the south of the country.
- According to research, about 6,000 cannabis cultivation sites were dismantled In 2005 and also in 2006 (Wouters et al. 2007). These researchers estimate that about 2,7 million cannabis plants and cuttings were confiscated in 2005, and 2,8 million in 2006.

## 10.3 Price/purity

The Drug Information and Monitoring System (DIMS) of the Trimbos Institute provides detailed information on the quality of ‘ecstasy’ and other drugs submitted by consumers at test locations of drug treatment services. Some of the submitted tablets can be identified visually on the basis of comparing specific characteristics (colour, logo, weight, diameter etc.) and reaction in the Marquis test[28] with previously analysed tablets. All other samples are sent to the laboratory for chemical analysis.

Since 2003, DIMS also reports on drug samples confiscated by the security staff in clubs. Where these data are given in this chapter, this will be mentioned explicitly. DIMS is used here to refer to the testing system for consumers at treatment locations.

*Ecstasy*

28 The Marquis test gives an *indication* of the composition of a sample based on a colour reaction.

Table 10.2 shows the percentage of analysed tablets containing certain substance(s), or combination of substances (See also Standard Table 15). These categories are mutually exclusive.

- The total percentage of ecstasy tablets containing only MDMA (or an MDMA-like substance, such as MDEA, MDA) as the only scheduled drugs has decreased between 2004 and 2006, while the percentage of tablets containing miscellaneous substances has increased. This increase was mainly due to mCPP (9%), which was detected both with and without an MDMA-like substance.
- (meth)amphetamine was detected in 4% of the samples, both with and without an MDMA-like substance.

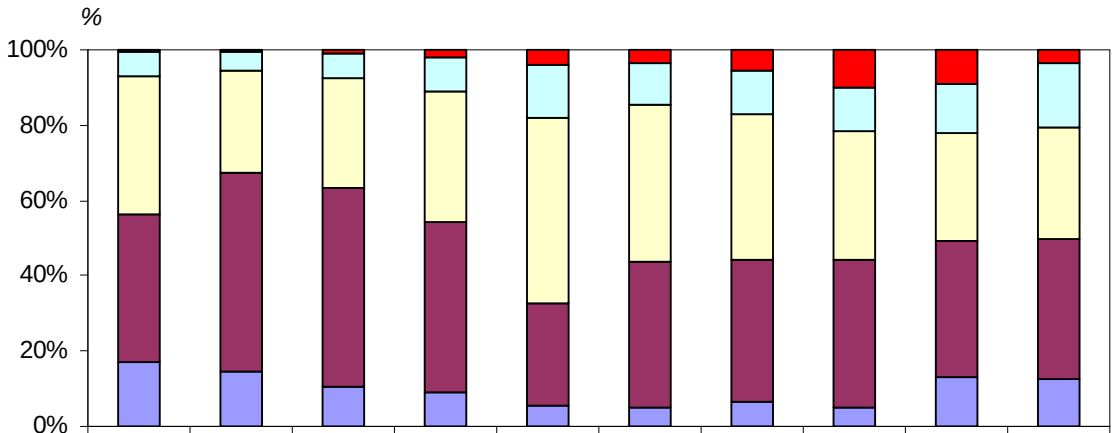
*Table 10.2: Content of tablets sold as 'ecstasy' based on laboratory analyses*

| | 2004 | 2005 | 2006 |
|---|---|---|---|
| Number of tablets analysed | | | |
| - MDMA-like substances | 93.90% | 88.00% | 83.90% |
| - (METH)AMPHETAMINE | 1.90% | 4.90% | 2.10% |
| - MDMA-like substances and (meth)amphetamine | 0.60% | 1.20% | 1.70% |
| - Others | 0.40% | 0.40% | 0.80% |
| - Miscellaneous | 3.20% | 5.50% | 11.50% |

Source: DIMS, Trimbos Institute.

- Figure 10.1 illustrates that the concentration of MDMA in tablets has always shown a wide variation. Nonetheless, the proportion of high dose (>140 mg) MDMA tablets increased from 1% in 1998 to 10% in 2004. However, from 2005 to 2006, this proportion dropped from 9 to 3%.
- Findings for the first half of 2007 (not shown here) suggest that the percentage of high dose MDMA tablets increases again (5%).
- The average amount of MDMA was slightly lower in 2006 (74 mg) compared to 2005 (78 mg) and 2004 (82 mg). The highest dose detected in 2006 was 173 mg (202 mg in 2005).

*Figure 10.1: Percentage of ecstasy tablets by content of MDMA (mg)*




| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|
| >140 mg | 1 | 1 | 1 | 2 | 4 | 4 | 6 | 10 | 9 | 3 |
| 106-140 mg | 6 | 5 | 6 | 9 | 14 | 11 | 12 | 12 | 13 | 17 |
| 71-105 mg | 36 | 27 | 29 | 35 | 49 | 42 | 38 | 34 | 28 | 30 |
| 36-70 mg | 39 | 53 | 52 | 45 | 28 | 39 | 38 | 39 | 36 | 37 |
| 1-35 mg | 17 | 15 | 11 | 9 | 5 | 5 | 7 | 5 | 13 | 13 |

Source: DIMS, Trimbos Institute. Only ecstasy tablets tested in the laboratory and containing at least 1 mg MDMA or more have been included.

*Amphetamines*

In 2006, 553 powder samples analysed in the laboratory were sold as speed. This is similar to 2005 (552) but more than in previous years (393 in 2003, 490 in 2004). There were no major changes in composition.

- The majority (93%) of the powders contained amphetamine, with an average concentration of 34%; in addition, 2.3% (also) contained methamphetamine, with an average concentration of 42%.
- 3.4% contained solely another psychoactive substance and 1.3% contained no psychoactive substance at all.
- Over half (59%) of the powders sold as speed contained caffeine, about the same as in 2004 and 2005 (58% and 56%, respectively).

*Cocaine*

The number of cocaine (powder) samples analysed by DIMS increased from 229 in 2003 to 640 in 2005 and remained at the same level in 2006 (630 samples).

- In 2006, a large majority (94%) did indeed contain (among others) cocaine, with an average concentration of 53% (no change from 2004 and 2005).
- 4.1% of the samples solely contained another psychoactive substance and 1.2% contained no psychoactive substance at all.

*Adulterants or diluants in cocaine*

The increase in the number of pharmacologically active adulterants or diluents in cocaine powders has continued in 2006.

- Most commonly detected is phenacetin, an analgesic withdrawn from the market because of serious kidney damage in chronic use with high therapeutic doses. In 2006 46% of the cocaine samples contained phenacetin, against 35% in 2005. In 2002 only 8.5% of the

cocaine samples contained this substance. It is not likely that the doses of phenacetin used in snorting cocaine cause any serious health damage, since these doses are much lower than the therapeutic doses known to cause kidney damage. However, little is known about the risks of smoking (and heating) crack cocaine contaminated with phenacetin.

- In 2005 atropine was detected several times in cocaine samples and people were hospitalised due to a cocaine/atropine intoxication. In 2006 no atropine was found but in the first week of August 2007, atropine again appeared on the cocaine market. DIMS recorded 15 cases in which people presented with clinical symptoms of a cocaine/atropine intoxication. As in 2005, a red alert warning campaign was started to inform a wide network of medical and addiction care professionals, policy makers and general public about the health dangers related to atropine/cocaine. The red alert was ended at the end of August 2007.
- Other adulterants detected in 2006 in cocaine included procaine (10%), caffeine (10%), lidocaine (8%) and the medicines diltiazem (6%) and levamisol (4%). In the first half of 2007, the proportion of cocaine samples with levamisol was even higher (10.5%). Levamisol is an anthelminticum and anti-cancer drug.

*Other substances (based on DIMS and security staff)*

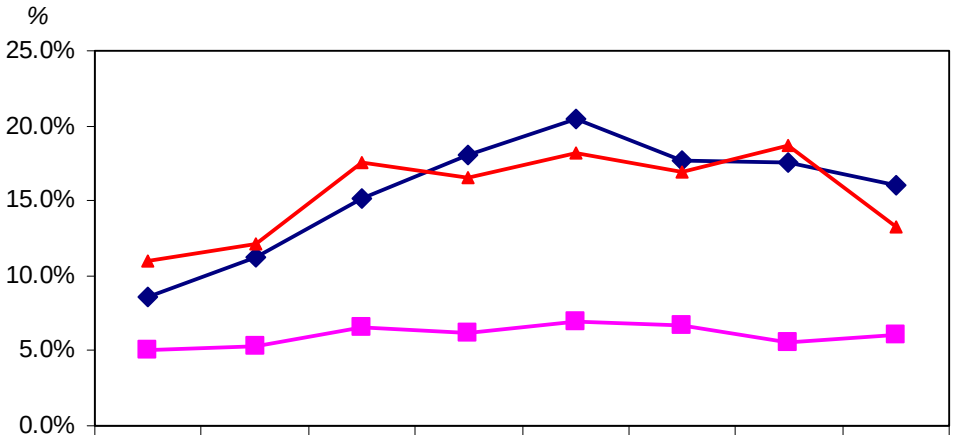
- There is an increase in drug samples containing mCPP, mainly tablets. Taking all samples analysed by DIMS together, mCPP was detected 92 times in 2005 and 249 times in 2006. Consumers of tablets containing mCPP report negative side effects, including nausea and hallucinations. In the first half of 2007, mCPP was detected in 99 tablets.
- Samples containing GHB and/or GBL (mostly liquids) are still being detected by DIMS: 118 times during 2005 and 133 during 2006.
- Ketamine was detected in 54 samples in 2006, against 17 samples in 2005.

*Cannabis*

Since 1999 the Trimbos Institute also monitors THC content and prices of cannabis (THC-monitor) (Pijlman et al. 2005). Samples of different cannabis products (about 1 gram each) are regularly procured from a random sample of 50 coffee shops and chemically analysed. Figure 10.2 shows the average concentration of THC in Dutch marihuana (‘nederwiet’), imported marihuana and imported hashish (see also Standard Table 14).

- Dutch marihuana contains on average over two times more THC than imported varieties.
- Between 2000 and 2004, the percentage of THC in Dutch marihuana significantly increased. However, from 2004 to 2005, a significant decrease was found. In 2006 the average THC concentration (17.5%) remained at the same level as in 2005 (17.7%) and dropped again in 2006 (16.0%).
- The THC concentration in imported marihuana did not change significantly over the years.
- The most remarkable finding concerned the decrease in the percentage of THC in imported hashish from 18.7% in 2006 to 13.3% in 2007. It is hard to explain this change. Results from the 2008 assessment may indicate whether the reduction reflects a trend or just random variation.
- THC concentrations are highest in hashish derived from Dutch hemp (‘nederhashish’), a relatively unpopular cannabis variety. The annual number of samples is low (14 in 2007), which contributes to the variability of results across years. The average THC concentration was 29% in 2007, and varied between 33 and 26% in the previous four years.

*Figure 10.2: Average THC percentage in cannabis products*




| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|
| Dutch-grown marihuana | 8.6% | 11.3% | 15.1% | 18.1% | 20.4% | 17.7% | 17.5% | 16.0% |
| Imported marihuana | 5.0% | 5.3% | 6.6% | 6.2% | 7.0% | 6.7% | 5.5% | 6.0% |
| Imported hashish | 11.0% | 12.1% | 17.5% | 16.6% | 18.2% | 16.9% | 18.7% | 13.3% |

Source: THC-monitor, Trimbos Institute (Niesink et al. 2007).

- The relatively high THC content in Dutch hemp is probably due to highly professional cultivation methods.
- Relatively high and increasing THC concentrations have also been found in particular kinds of American cannabis ('sinsemilla'). Moreover, a study in Italy also showed an increase in THC potency, mainly in home grown marihuana. Since 2000, the proportion of marihuana containing relatively high THC concentrations (13-20%) strongly increased in that country (Licata et al. 2005).
- There have been some indications that Dutch cannabis has been adulterated increasingly in the past years in order to increase its weight (e.g. by adding certain powders or glass crystals) and improve its appearance ('more glossy'). Although some 'suspected' samples did indeed such adulterants, further research showed that this was not the case with samples sold in Dutch coffee shops.

Prices

- According to the THC-monitor, the average retail price of a gram of imported marihuana is consistently lower compared to other cannabis products (table 10.3; see also Standard Table 16).
- The retail price of Dutch marihuana increased (18%) significantly from 2006 to 2007. Possibly this increase is related to the intensified efforts to combat large-scale cannabis cultivation (see National Report 2006, § 1.2), which may hamper the supply of cannabis in coffee shops.

*Table 10.3: Average retail price per gram of cannabis products (in €)*

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|
| Dutch marihuana | 5.8 | 5.9 | 6.1 | 6.4 | 6.0 | 6.2 | 6.2 | 7.3 |
| Imported marihuana | 3.9 | 4.0 | 4.2 | 4.3 | 4.9 | 4.1 | 4.4 | 4.3 |
| Imported hashish | 6.3 | 6.4 | 7.1 | 7.6 | 6.6 | 6.8 | 7.3 | 7.7 |

Source: THC-monitor, Trimbos Institute (Niesink et al. 2007).

Retail prices of other drugs did not change much over the past three years (see Standard Table 16). In 2006, the price of an ecstasy tablet varied between 1 and 10 euros and one gram cocaine between 30 and 60 euros . Amphetamine is much cheaper than cocaine - one gram costs between 3 and 10 euros - which is sometimes mentioned as a reason to use it as replacement for cocaine (Van der Poel et al. 2005).

# Part B: Selected Issues

# 11 Public expenditures

*In 2003 drug-related public expenditures in the Netherlands have been estimated at 2,185 million Euros. The predominance of non-labelled drug expenditures argues against an easy application of COFOG functions and necessitates a detailed study beyond the context of this National Report. Moreover, recent changes in the financing structure of health care, including addiction care, imply that the results of studies based on data from 2005/2006 would probably be nonvalid for the current situation.*

*Introduction*

In the Netherlands, many different parties are involved in allocating public resources to drug-related issues, ranging from different ministries at national level, to governmental institutes at provincial and municipal level, to non-governmental organizations like the health insurance companies. In many cases, it is not labelled beforehand which part of the financial resources is to be allocated to drug-related issues. Moreover, the Netherlands currently find themselves in a position in which the funding of addiction care is rapidly changing on several fronts, involving the reallocation of public resources between ministries, from ministries to municipalities, and from the national government to the health insurance companies. Tracing these shifting flows of expenditures would require a separate line of research.

The quality of all products of the Netherlands National Focal Point, including the national report, is supervised by the Scientific Committee (Wetenschappelijke Raad) of the Netherlands National Drug Monitor (NDM). Recognizing the importance of the subject without any restriction, the Scientific Committee, in its meeting on the 26th of September 2007, nonetheless judged that it would not be responsible to perform a precipitated inquiry into the public expenditures on drug-related issues in the Netherlands. It has therefore been decided to restrict the report on this selected issue to research that has already been conducted for the year 2003.

*Traced drug-related expenditures*

Rigter has traced the governmental drug-related expenditures for the year 2003 (Rigter 2006). To trace these expenditures, Rigter has applied a combination of information sources like parliamentary accepted budget allocations from the ministries, White Papers on drug-related topics, research papers and annual reports from organizations that carry out drug policy, and expert information from civil servants and employees of agencies on missing figures. As much as possible, substance abuse budgets were corrected for their 'alcohol share' by means of data on the incidence or prevalence of alcohol abuse versus drug abuse.

With regard to Reuter's division into four drug programs (Reuter 2006), Rigter estimated that the total drug policy spending of 2,185 million Euros in 2003 was allocated as follows:

| | |
|---|---|
| 1) Prevention programs: | 42 million Euros; |
| 2) Treatment programs: | 278 million Euros; |
| 3) Enforcement programs: | 1,646 million Euros; |
| 4) Harm reduction programs: | 220 million Euros. |

Reuter's four drug programs can be mapped on COFOG, the United Nation's Classification of the Functions of Government (United Nations Statistics Division 2007). Table 1 gives this mapping.

Table 11.1 shows that a single COFOG category is often mapped on different Reuter categories.

*Table 11.1: Estimated drug policy spending in the Netherlands in 2003 according to Reuter's division of four drug programs and the corresponding Classification of the Functions of Government (COFOG)*

| Reuter's division of four drug programs | COFOG |
|---|---|
| 1. Prevention programs: 42 million Euros. | 07.2 Outpatient services: prevention departments at schools: 3.8 million Euros.<br>07.2 Outpatient services: prevention departments otherwise than at schools: 6 million Euros.<br>07.4 Public health services: mass media campaigns: 1.5 million Euros.<br>07.4 Public health services: other Trimbos drug prevention programmes: 3.8 million Euros.<br>07.4 Public health services: drug prevention project other ministries: 11.4 million Euros.<br>07.4 Public health services: drug personnel at the Ministry of Health: 1 million Euros.<br>07.5 R&D Health: project subsidies by the Ministry of Health: 5.6 million Euros.<br>07.5 R&D Health: ZonMw drug prevention projects: 3 million Euros.<br>09.2 Secondary education: teacher hours: 4.3 million Euros. |
| 2. Treatment programs: 278 million Euros. | 03.4 Prisons: probation: 30.5 million Euros.<br>03.4 Prisons: treatment programs: 56.3 million Euros.<br>03.4 Prisons: judicial placement of addicts: 22.3 million Euros.<br>07.2 Outpatient services: medically prescribed heroin: 6.6 million Euros.<br>07.2 Outpatient services: treatment projects paid by ZonMw: 7.0 million Euros.<br>07.2 Outpatient services: re-entering the labour market: 68.7 million Euros.<br>07.2 Outpatient services: addiction care centres: 74.3 million Euros.<br>07.4 Public health services: drug personnel and subsidies Ministry of Health: 4.9 million Euros.<br>07.4 Public health services: general health care: 7.1 million Euros. |

*Continued*

*Table 11.1: Continued*

| Reuter's division of four drug programs | COFOG |
|---|---|
| 3. Enforcement programs: 1,646 million Euros. | 03.1 Police services: police: 430.2 million Euros.<br>03.3/4 Law courts/Prisons: 1,007.0 million Euros.<br>03.6 Public order and safety n.e.c.: inter-ministerial programmes: 125.2 million Euros.<br>02.1 Military defence: army: 60.9 million Euros.<br>02.1 Military defence: fiscal intelligence and customs: 22.9 million Euros. |
| 4. Harm reduction programs: 220 million Euros. | 07.4 Public health services: drug personnel and subsidies at the Ministry of Health: 11.4 million Euros.<br>07.4 Public health services: personnel of the municipalities: 6.5 million Euros.<br>07.4 Public health services: other budgets for municipalities: 10.9 million Euros.<br>07.4 Public health services: general health care: 2.6 million Euros.<br>07.2 Outpatient services: funds to municipalities: 116.0 million Euros.<br>10.7 Social exclusion n.e.c.: social cohesion funds: 72.7 million Euros. |

Sources: (Rigter 2006); (Reuter 2006); (United Nations Statistics Division 2007).

Summing up the expenditures according to the same COFOG category reveals the following allocation of expenditures:

02.1 Military defence: 83.8 million Euros;
03.1 Police services: 430.2 million Euros;
03.3/4 Law courts/Prisons: 1,007 million Euros;
03.4 Prisons: 109.1 million Euros;
03.6 Public order and safety n.e.c.: 125.2 million Euros;
07.2 Outpatient services: 282.4 million Euros;
07.4 Public health services: 61.1 million Euros;
07.5 R&D Health: 8.6 million Euros;
09.2 Secondary education: 4.3 million Euros;
10.7 Social exclusion n.e.c.: 72.7 million Euros.

According to the COFOG categories a majority of 80.4% of the drug-related expenditures in the Netherlands is allocated to law enforcement and only a minority of 19.6% is allocated to health and education. Reuter's categories revealed a similar proportion of 75.2% to 24.7%.

*National studies and experts*

Below, in alphabetical order, an overview is given of Dutch experts on drug-related expenditures and experts on expenditures in general.

Cnossen

Prof. dr. S. Cnossen is affiliated with the Faculty of Economics and Business Administration of Maastricht University. He is also affiliated with the CPB Netherlands Bureau for Economic Policy Analysis (CPB). Cnossen has estimated the indirect (external) costs of harmful alcohol use in the European Union in comparison to the alcohol excise duty collections in the various Member States (Cnossen 2006).

Dijkgraaf

Dr. M.G.W. Dijkgraaf is affiliated with the Department of Clinical Epidemiology and Biostatistics of the Academic Medical Centre of the University of Amsterdam. Dijkgraaf has performed a cost utility analysis of co-prescribed heroin compared with methadone maintenance treatment in heroin addicts (Dijkgraaf et al. 2005).

Hakkaart-van Roijen

Dr. L. Hakkaart-van Roijen is affiliated with the Institute for Medical Technology Assessment of the Erasmus University Rotterdam, the Netherlands and has investigated the societal costs and quality of life related to diseases, inter alia bipolar disorder (Hakkaart-van Roijen et al. 2004). She worked on the first general cost of illness study for the Netherlands and the methodology of measuring production losses from paid and unpaid employment (Hakkaart-van Roijen et al. 1999). Together with the Trimbos Institute, she has developed the Trimbos/iMTA questionnaire for Costs associated with Psychiatric Illnes (TiC-P) (Hakkaart-van Roijen et al. 2002).

Heijink

Drs. R. Heijink is affiliated with the Centre for Public Health Forecasting of the National Institute for Public Health and the Environment (RIVM). Heijink has performed a cross-country comparison of costs of illness in which the Netherlands is compared with nine other countries with regard to the costs and with regard to the differences in the health system (Heijink et al. 2006).

Hoeymans

Dr. N. Hoeymans is affiliated with the National Public Health Compass of the National Institute for Public Health and the Environment (RIVM). For different diseases, Hoeymans compiles the burden of disease by computing the Disability-Adjusted Life-Years (DALY's) (Hoeymans et al. 2007).

Kommer

Ir. G.J. Kommer is affiliated with the Centre for Public Health Status and Forecasts of the National Institute for Public Health and the Environment (RIVM). Kommer has investigated developments in health care expenditures in order to forecast future care expenditures (Kommer et al. 2006).

Koopmanschap

Dr. M.A. Koopmanschap is affiliated with the Institute for Medical Technology Assessment (IMTA) of the Erasmus University Rotterdam. The main methodological issues he has worked on are for cost of illness scenarios, productivity costs due to disease, the theoretical foundations of economic evaluation in health care (for example the decision maker’s approach versus welfarism), quality of life and the explanation and valuation of informal care in economic evaluations. He participated in compiling the international comparison of cost of illness (Heijink et al. 2006).

Leertouwer

Dr. E.C. Leertouwer is affiliated with the Department of Statistical Information Service and Policy Analysis (SIBa) of the Scientific Research and Documentation Centre (WODC) of the Ministry of Justice. He has developed a prognosis model for the civil judicial chain

(Leertouwer et al. 2004). He investigates whether other countries, just like the Netherlands, apply a similar prognosis model to forecast the future need for penitentiairy capacity.

Moolenaar

Dr. D.E.G. Moolenaar is affiliated with the Department of Statistical Information Service and Policy Analysis (SIBa) of the Scientific Research and Documentation Centre (WODC) of the Ministry of Justice. She participates in forecasting future needs for penitentiairy capacity (Moolenaar et al. 2002), (Moolenaar et al. 2005), and takes issue with practical problems and challenges involved in measuring the expenditures on crime (Moolenaar 2006). She also participates in the EU-project "Mainstreaming the methodology for estimating the cost of crime".

Oostenbrink

Dr. J.B. Oostenbrink is affiliated with the Institute for Health Policy and Management of the Erasmus University Rotterdam. He has compiled the unit costs of inpatient hospital days for different hospitals (Oostenbrink et al. 2003). Oostenbrink has also investigated the current situation of the DBC-system of *Diagnose Behandel Combinaties* (Diagnosis Treatment Combinations) and has stipulated its most likely future developments (Oostenbrink et al. 2006).

Polder

Prof. dr. J.J. Polder is affiliated with the Centre for Public Health Forecasting of the National Institute for Public Health and the Environment (RIVM), and is affiliated with TRANZO, the Scientific Center for Transformation in Care and Welfare of Tilburg University. He has investigated the costs of illness (Polder et al. 2002) and performs economic evaluations of health care services. He participated in the international comparison of cost of illness (Heijink et al. 2006).

Postma

Prof. dr. M.J. Postma is affiliated with the Research Institute of Pharmacy of the University of Groningen. He has investigated the public expenditures in the field of drugs in the European Union (Postma 2004).

Rigter

Prof. dr. H.G.M. Rigter is affiliated with the Department of Public Health of the Erasmus University Rotterdam, the Netherlands. For the year 2003, he has investigated the governmental drug-related expenditures, inter alia according to Reuter's drug programs division (Rigter 2006).

Van Baal

Dr. P.H.M. van Baal is affiliated with the Centre for Public Health Forecasting of the National Institute for Public Health and the Environment (RIVM). He has compiled estimations of the health care costs related to unhealthy behaviours like smoking, overweight, high blood pressure, elevated cholesterol levels, insufficient physical activity, poor eating habits, and has studied the interactions between these variables (Van Baal et al. 2006). Van Baal is also involved in making international comparisons in the costs of unhealthy behaviour.

Van der Veen

Dr. H.C.J. van der Veen (WODC) is affiliated with the Department of External Scientific Relations (EWB) of the Scientific Research and Documentation Centre (WODC) of the Ministry of Justice. He is project supervisor of different projects with regard to estimating the costs of crime.

Van Kuijk

Mr. (LL M) M.H. van Kuijk is secretary to the members of the Council for the Judiciary Act (Raad voor de Rechtspraak). She is also the director of its office. The Council is charged with promoting good quality execution of judiciary duties by the courts. The law has entrusted the Council with four tasks: budget and budget allocation, management, quality improvement and, finally, an advisory task. The first important task is to prepare the joint budget for the Council and the courts. The Council allocates contributions to the courts from the National Budget and it supervises budget implementation. The Council reports the allocated budgets in its annual reports (Raad voor de Rechtspraak 2005).

# 12 Vulnerable groups of young people

*Vulnerable groups of young people are especially at risk to end up in social exclusion. In the Netherlands, several qualitative and a few quantitative studies have been conducted recently into the drug use of vulnerable young people. Compared to their peer groups in the general population, these young people use drugs more often, but the order of ranking between the different drugs in broad lines remains the same in that cannabis is being used most often, followed by ecstasy, cocaine, amphetamines, crack, and heroin. Preventing drug abuse among vulnerable young people takes place against the background of a national youth and family policy for which a special "Program Ministry Youth and the Family" has been installed. Different prevention programs target the young people as well as their parents and two specialized clinics for young people are already in operation.*

## 12.1 Drug use and problematic drug use among vulnerable groups

Vulnerable groups are those groups in society that due to biological, psychological, and sociological factors are especially at risk to become socially excluded. With regard to vulnerable groups of young people, drug use and problematic drug use have been investigated recently in the Netherlands among neighbourhood youth, problem youth, and youth in youth services in Amsterdam, detainees and dropouts in the Three Provinces Area of North-Holland, Flevoland, and Utrecht, problem youth in Rotterdam, young people hanging around in Utrecht, and young people who hang around in Heerlen. Quantitative data are only available from two studies in Amsterdam and one study in Heerlen. Table 12.1 gives an overview of the prevalence rates of drug use among these vulnerable groups.

Although vulnerable young people use drugs more often when compared to their peer groups in the general population, the order of ranking between the different drugs in broad lines remains the same in that cannabis is being used most often, followed by ecstasy, cocaine, amphetamines, crack, and heroin. Only among the dropouts in the Three Provinces Area, the last-year prevalence is slightly higher for amphetamines (9%) compared to cocaine (7%).

*Table 12.1: Drug use among vulnerable groups of young people*

| Vulnerable group of young people | Substance | | | | | |
|---|---|---|---|---|---|---|
| | Cannabis | Ecstasy | Cocaine/ Crack* | Ampheta-mines | Heroin | Mushrooms |
| Amsterdam: youth in youth services, 2006 | LTP 66%<br>LYP 59%<br>LMP 45% | LTP 14%<br>LYP 8%<br>LMP 2% | LTP 8%/4%<br>LYP 5%/1%<br>LMP 2%/1% | LTP 7%<br>LYP 4%<br>LMP 1% | LTP 1%<br>LYP 0%<br>LMP 0% | LTP 13%<br>LYP 6%<br>LMP 2% |
| Three Provinces Area of North-Holland, Flevoland, Utrecht:<br>-Detainees, 2002-3 | LTP 82%<br>LYP 77%<br>LMP 59% | LYP** 23% | LYP 15%/4% | LYP 8% | LYP 2% | |
| -Dropouts, 2002 | LTP 77%<br>LYP 70%<br>LMP 55% | LYP** 20% | LYP 7%/3% | LYP 9% | LYP 1% | |
| Heerlen: young people who hang around, 2006 | LMP 35% | LMP harddrugs 7.5% | | | - | - |

LTP = life-time prevalence, LYP = last-year prevalence, LMP = last-month prevalence.
*First the percentages are given for cocaine, and next for crack. **Includes hallucinogens. For a description of the target groups: see text.
Sources: Amsterdam: (Nabben et al. 2007), Three Provinces Area of North-Holland, Flevoland, Utrecht: (Adlaf et al. 2006), (Benschop et al. 2006), Heerlen: (Kramer et al. 2006).

*Neighbourhood youth in Amsterdam*

A qualitative study among neighbourhood youth in Amsterdam mainly reached youth from Moroccan backgrounds, some of them having police records (Nabben et al. 2007). Although many of these neighbourhood youth are "talking and behaving tough", sociologically they are in a rather vulnerable position since living on the streets "further reduces their chances of getting anywhere in society". Moreover, they are in a vulnerable position psychologically due to being "caught up in a personal or religious identity crisis". This identity crisis results from, on the one hand, having parents who "preach Muslim orthodoxy and apply strict rules at home", and on the other hand having "the streets as their home". A large majority had experience with cannabis and this drug was used because "it chills them out and is a great remedy for stress". The researchers conclude that, when using cannabis this way, "drug dependency looms large for heavy tokers who have no rewarding daily activities". With regard to the use of ecstasy, it was found that most neighbourhood youth "will have nothing to do with it". Cocaine was even less popular (Nabben et al. 2007).

*Problem youth in Amsterdam*

Two groups of problem youth were investigated by means of key informants in Amsterdam: homeless youth using shelters and male sex workers. Cannabis was found to be popular among the homeless youth, and signs were found "that alcohol and cannabis are increasingly used in combination".

Most of the young male sex workers in Amsterdam come from Eastern Europe. Among these young sex workers, the so-called *fortune hunters,* who enter Amsterdam on a tourist visa, revolt the most from being a prostitute. This makes them especially vulnerable for problematic drug use. There is a high level of cannabis use among these fortune seekers, who often use cannabis in a group to tighten the internal bonds. Within the group of young sex workers,

cocaine and ecstasy are used the most by those workers who commit prostitution in a more professional and businesslike manner (Nabben et al. 2007).

*Youth in youth services in Amsterdam*
The *Spirit* is the largest youth service in Amsterdam for children and adolescents having problems with growing up. In 2006, 311 clients of the Spirit completed a written questionnaire, of whom 82 young people had problems with upbringing, 97 were young offenders, 65 were homeless youth, and 67 young people were in various other care or support pathways. Their average age was 17 years, and a majority of 59% was male. More than two thirds came from an ethnic minority. From the total sample, 15% used cannabis daily, and nearly one quarter of the sample qualified as hazardous cannabis users. Moreover, many of the current users themselves believed they were smoking too often or too much (27%) and wanted help in cutting down or stopping (11%) (Nabben et al. 2007).

*Detainees and dropouts in the Three Provinces Area*
The Drugs, Alcohol and Violence International study, the DAVI study, investigates drug use and violence among adolescent detainees and dropouts aged 14 up to 17 years in Philadelphia, Toronto, Montreal, and the Three Provinces Area given by the Dutch provinces of North-Holland, Flevoland, and Utrecht (Adlaf et al. 2006), (Benschop et al. 2006). In the three Dutch provinces a total of 205 detainees and 189 dropouts were interviewed. Detainees were defined as adolescents "being in custody in a juvenile detention centre for no more than 6 months", and dropouts were defined as adolescents "not attending school for 4 weeks consecutively in the past year while school was in session". From the detainees 65.9% was male, 60% aged between 14 and 15 years, and 40% aged between 16 and 17 years. From the dropouts 60.8% were male, 40.7% aged between 14 and 15 years, and 59.3% aged between 16 and 17 years. The fact that the prevalences are higher among the dropouts than among the youth in the youth services suggests that the dropouts are more socially excluded than the youth in the youth services.

*Problem youth in Rotterdam*
The municipality of Rotterdam estimates that one out of five of its youngsters belongs to a risk group, which implies about 35,000 young people up to 23 years of age being at risk for causing public nuisance or criminal behaviour. Interviews with key informants have revealed that the use of cannabis is quite common among these young people, "it's all part of the game", and starts at a younger age. According to the key informants, problem use results from a vicious circle in which a young person starts using cannabis to suppress problems and next becomes less and less motivated to solve these problems. Especially among young people from Antillean and Moroccan origin, smoking cannabis seems to get interwoven with hanging around on the streets (Biesma et al. 2007b).

*Young people hanging around in Utrecht*
In 2006, *Centrum Maliebaan*, the institute for addiction care in the city of Utrecht conducted a quick scan among key informants about the use of drugs among young people hanging around in four neighbourhoods that are at risk. The key informants have signalled excessive alcohol use and increased use of cannabis, which is smoked as frequently as common cigarettes (Centrum Maliebaan 2006).

*Young people hanging around in Heerlen*

Heerlen is a provincial town in the south in the province of Limburg. In 2006, the local institute for mental health care and addiction care the *Mondriaan Zorggroep* investigated the use of substances among young people who hang around and tend to cause public nuisance (Kramer et al. 2006). It was found that part of the hanging-around youth were not reached adequately by means of prevention projects at schools and clubs. Especially these young people who were not reached appeared a vulnerable group. By way of the youth work in problem areas, 106 young people were recruited to complete a questionnaire about the use of substances. From the respondents 62% was male, 38% was female and most were between 15 and 20 years old. The last-month prevalence of 35% for cannabis was at least three times as much when compared to the prevalence among their peers in the general population (5%-10%). Those using cannabis used it rather frequently, some even fifty times a week. During the last month, 7.5% had used harddrugs like ecstasy, amphetamines, or cocaine, compared to about 2% among their peers in the general population.

*Young problem drug users in Amsterdam*
Additional insights are revealed by research among young problem drug users in Amsterdam. Within the framework of the Young Drug users in Amsterdam study, the YODAM study, a qualitative study has been conducted into the personal, social, and environmental factors that facilitated these young drug users' initiation into cocaine and heroin. The qualitative study was conducted during 2001 among 50 young problem drug users from 20 to 30 years, the mean age being 27.2 years (Witteveen et al. 2007). A majority of 58% of the young drug users reported that they started to use cocaine or heroin between the age of 16 and 20 years, the average age of onset being 16.5 years. It was found that factors perceived as facilitating drug use were a desire for affect regulation to make reality less harsh, the availability of drugs, curiosity, a desire to be part of a group, and being misinformed about the substances being taken. For cocaine, a specific facilitating factor was a desire for energy, and for heroin a specific factor was a desire for a depressant effect, especially to relax from cocaine.

## 12.2 Policy and legal development

In the Netherlands, preventing drug abuse among vulnerable young people now takes place against the background of a national youth and family policy. On the 22nd of February 2007, the Balkenende IV government was installed. To co-ordinate the policy around youth, family, education, and work, which had been fragmented before over different ministries, a special *Program Ministry Youth and the Family* was installed. The program minister for Youth and the Family has given priority to streamlining the youth care, improving the quality of the youth care, and establishing *Centres for Youth and Family* (T.K.31001/1). For all children in the Netherlands, these Centres for Youth and Family will have to signal early whether there are developmental or pedagogical problems, and to offer easily accessible services.
It is estimated that there are between 12,000 and 14,000 obstinate young people who do not attend school, have no job, have no starting position on the labour market, receive no social benefit, and are not looking for a job or education. The minister considers to incarcerate these unwilling youth in special re-education camps.
In general, it is a government's priority to promote a healthy lifestyle. Together with the ministry of Health, Welfare, and Sport, the minister for Youth and the Family intends to establish a

united prevention policy to reduce the use of alcohol, drugs, and tobacco among young people.

## 12.3 Prevention and treatment

*Prevention*
Children from addicted parents are especially at risk to become addicted themselves.

- To support these children, the institute for addiction care TACTUS has developed the *Talk 'n Joy clubs* (Ooink 2007). At these clubs children at risk from 12 up to 16 years of age can enjoy pleasurable activities together, whereas there is also room for a serious conversation. In a playful manner, themes like dealing with emotions, loyalty, and the social network are made the subject of discussion. All in all, the aim of the project is to enhance the children's resilience. It has been planned to also start Talk 'n Joy clubs for children aging 8 up to 12 years and youngsters aging 16 up to 23 years.
- The evidence-based *Strengthening Families Program* was developed in the United States of America and has been adapted by the Trimbos Institute to the Dutch situation in the form of the course *Gezin aan Bod*. The experimental implementation of the course turned out successful in three Dutch institutes for addiction care. Characteristic of this intensive 14-meetings course is that parents and children participate together and learn to interact with one another in a more relaxed manner (Bool 2006).
- To protect their children, parents who have been addicted themselves can participate in *Projekt 4*, which is also organized by the institute for addiction care Parnassia. The project targets addiction, social integration, and educational goals. In 2004, a total of 20 parents participated in Projekt 4 (Blanken et al. 2007).

Parents and other educators who feel powerless about their children's drug use can attend a parents' course organized by the institute for addiction care Parnassia. At this course the parents can practice to make their children's drug use a subject of discussion. The parents also learn to draw the line and learn how to negotiate with their children about their drug use (Hoff 2007).

The *Windroos* is a foundation which specialized in helping young people who have to live with a psychological impairment because of having had a psychotic disorder once in their live. The Windroos supports social-communicative and computer skills, which the young people need to perform better at school, work, and other activities. Evaluation research for the period 1999 - 2003 has shown that the foundation's formula has been successful in that 40 out of 70 young people had found a job, trainee post, or education (Planije et al. 2007). However, some stakeholders regret the stringent cannabis policy of the Windroos, which unfortunately makes many young people fall by the wayside. The Windroos demands complete abstinence from cannabis.

Given the fact that high levels of drug use were found among the young people who hang around, initiatives have started in the city of Heerlen to reach these youth in an early stage. The early intervention programs from the addiction care will have to be integrated with the youth prevention platform, the advise teams at schools, the neighbourhood projects, and the truancy consultations (Kramer et al. 2006).
In the province of Utrecht, young people at risk from 17 up to 23 years old who have already come in contact with the law, may still qualify to participate in the daytime project *Titan* (IJzerman 2006). Under individual supervision, the youngsters at risk in this project learn to

participate in society by working in a special workplace for the green space, the metal and car industry, or the woodcraft.

It is estimated that there are about five thousand young homeless people in the Netherlands who are socially excluded from the regular institutes. When ageing between 17 and 23 years, these problematic young drifters can nonetheless boarder at the *Singelzicht* in the city of Utrecht (Van Tilburg 2006). In this boarding house, the young drifters are approached as individuals having a developmental problem in making the transition from childhood to adulthood, emotionally as well as practically. These young people remain separated from the boarding houses for the adults, which protects them from coming into contact with the hard-drug scene and protects them from losing the motivation to fight for a better life. Other specialized boarding houses for young drifters in the Netherlands are *Mijnzicht* in the city of Heerlen, the *Bertolt Brechthuis* in the city of Amsterdam, and *Maaszicht* in the city of Rotterdam.

*Treatment*

In the Netherlands, two institutes for addiction care have already established specialized clinics for addicted young people. In the city of Groningen, *Verslavingszorg Noord Nederland* operates the *Bauhuus* (Verslavingszorg Noord Nederland 2007). In the city of The Hague, *Parnassia* operates the *Mistral* (Parnassia 2007a). Moreover, in the city of Amsterdam, JellinekMentrum is founding a new specialized clinic for addicted youngsters (Van Delft 2007b), whereas the institute for addiction care Novadic-Kentron, in co-operation with the regional institute for mental health, is founding a youth clinic in the city of Eindhoven (Jongerius 2007).

- The Bauhuus targets addicts aging 13 up to 18 years, whereas the Mistral targets the age group 12 up to 20 years. The Bauhuus offers treatment in a group, specialized treatment like family counselling, activities for hobbies, school and work, and offers sport facilities.
- The Mistral offers treatment in three stages, running from introduction and observation to treatment and rehabilitation, during which special attention is given to relapse prevention. The Mistral also applies Multi Dimensional Family Therapy (MDFT). During 2004, 102 young people had been in clinical or outpatient treatment in the Mistral. Their average age was 18.3 years, 67% of them were male, and for almost half of them cannabis was the main problem (Blanken et al. 2007).
- Starting in 2009, the clinic to be operated by JellinekMentrum in Amsterdam will target at young people who excessively use cannabis or alcohol, and who have comorbid psychiatric problems like ADHD, autism-related disorders, anxiety and mood disorders, or behavioral disorders. Cognitive behavioral therapy will be a main part of the treatment program. The stages of treatment will be detoxification (about three weeks), diagnosis and motivation (four to five weeks), short clinical treatment (twelve weeks at a maximum), and outpatient aftercare (three to four months). Working on facilities for a total of 32 addicted young people, Novadic-Kentron has also planned to open its youth clinic in 2009. Specialized outpatient clinics for young people are already in operation in the cities of Tilburg, Den Bosch, Eindhoven, and Breda (Jongerius 2007).

Far from treating addiction only superficially as an isolated problem, the Bauhuus and the Mistral target the problem of addiction at a more in-depth level. Addictive behaviour is seen as a symptom of underlying problems in developing psychologically. The young addicts are therefore addressed on their respective developmental level, especially with regard to their

way of dealing with emotions. Special attention is given to the young addict's way of attaching to other people, which often ends up in a problematic manner. Behind the addiction problem there is the underlying psychopathology of a disturbed attachment history. In some cases, addiction results from having been abused as a child, and not being able to maintain secure attachment relations becoming dependent instead on alcohol or drugs (Vos et al. 2001).

# 13 Drug-related research in the Netherlands

*Findings from research on illegal drugs, especially in the field of epidemiology, are mentioned frequently in national drug policy documents. The relationship between research and policy is complicated because many factors may influence this relationship. It is often hard to determine how and when research results ultimately will influence drug policy and how this will happen. Still, several research findings had a direct impact on Dutch drug policy (e.g. the experiments on heroin co-prescription). Drug research in the Netherlands is quite extensive and covers many domains. Funding of drug-related research has been largely delegated to intermediary institutions although ministries and municipalities may also directly fund research. In addition, many (semi-)university institutes are involved in drug research, sometimes together with researchers from organisations of addiction care. From 1985 to 2002 the bi-annual number of studies varied between 131 and 200. In 2006 a literature search revealed 77 publications in international journals from Dutch research(ers) in the field of drugs and in the first half of 2007 this number stuck on 34. The actual number of publications is much larger. Three recent large-scale research programmes ("main recent studies") are described. There is no national structure for disseminating research findings. Ministries, intermediary institutions and research institutes have their own dissemination methods. A national meeting is organised each year for drug researchers to stay informed about recent developments. Nowadays one Dutch scientific journal is specialised on addiction.*

## 13.1 Research structures

*Drug-related research in national policy*

In the Netherlands findings from research in the field of drugs (e.g. prevalence data, criminality, treatment) are mentioned in various national drug policy documents (e.g. Drugs Policy in the Netherlands: Continuity and Change (Ministry of Foreign Affairs et al. 1995) to support evidence-based drug policy in the country. This has also been done in the bi-annually Progress Reports on the Drug Policy of the Netherlands that have been published in (roughly) the decade thereafter. Research findings are further used to support the answers of the Minister of Health, Welfare and Sports to questions about drug policy issues in Parliament. All areas of drug research are amply covered by research organisations, but data from epidemiological research seems to be most common in policy documents. Examples of epidemiological sources used for monitoring the drugs situation are listed in table 13.1. Table 13.3 (see § 13.2) shows that the research endeavour has not been restricted to epidemiology.

*Table 13.1 Surveys on drug use in the Netherlands*

| Survey | Scope | Measurements | Organisation |
|---|---|---|---|
| National Prevalence Survey on Substance Use (NPO) (Nationaal Prevalentie Onderzoek) | National, Dutch population | 1997, 2001, and in 2005 (15-64 years). | CEDRO, University of Amsterdam, with Statistics Netherlands (1997, 2001); IVO (2005) |
| National Youth Health Survey | National, pupils of primary and secondary schools (10-18+ years) | 1988, 1992, 1996 and 1999, 2003, 2007 | Trimbos Institute |

| | | | |
|---|---|---|---|
| (Peilstationsonderzoek Scholieren) | | | |
| Antenna Survey (Antenne onderzoek) | Amsterdam youth, incl. pupils and occasionally special groups (e.g. visitors of settings in the nightlife scene) | Annually since 1993, but frequency depends on target group | Institute Bonger, University of Amsterdam and Jellinek Drug Prevention Group |
| Local and regional monitors | General population and/or youth depending on location and region | In most cases annually (varies per location and region) | Municipal Health services, their umbrella organisation, municipal statistical offices and private research bureaus |
| NL.Trendwatch | Drug trends and markets in recreational settings | 2003, 2004-2005 | Institute Bonger, University of Amsterdam |

In 2004, an inventory was made of monitoring sources (registrations, surveys a.o.) in the Netherlands in the field of alcohol and drugs (Cruts et al. 2004;Van de Mheen et al. 2006). Table13.2 gives the number of sources by thematic area.

*Table 13.2: Monitoring sources on alcohol and drugs in the Netherlands*

| *Theme* | *Number of monitors* |
|---|---|
| Use and problem use | 24 |
| Treatment demand | 13 |
| Morbidity & mortality | 7 |
| Drugs market | 3 |
| Law enforcement & criminal justice | 13 |

Sources: Cruts et al. 2004.

There are some 24 national, regional or local survey or monitor activities in the domain of alcohol and drugs, amongst which eight cohort studies that follow individuals in time and some studies on health issues that incorporate drug and alcohol use. Thirteen monitors register data on medical or psychosocial care in case of problems with alcohol and drugs and seven other monitors cover alcohol- or drug-related diseases {(Cruts et al. 2004). Relevant data from these sources are compiled in the annual reports of the National Drug Monitor (NDM).

*Relationship research - policy*

Although research results may be mentioned or used in policy documents, this does not mean that research is used in policy making or in actual policy measures. It is often shown that in general political choices are different or sometimes even contrary to those that scientific results would imply. Probably due to the fact that drug issues are sensitive from a political point of view, the barriers between science and policy may appear to be even wider in the domain of illegal drugs (Small et al. 2006). Although Dutch drug policy has been called fact-driven, this does not justify the conclusion that research results are directly used in political choices. These choices and their impact on society may also be determined by other factors (e.g. international pressure). Nonetheless, there are various examples where research findings or monitoring data are used in Dutch drug policy. For example, indicators pointing at

increasing problem use of cannabis and cocaine have prompted preventive measures and research into effective treatments. Also the outcomes of a trial on medical (co)prescription of heroin to treatment-resistant heroin addicts (see § 13.2.1) have been directly used by policy makers.

Research may influence the practice of addiction care when processes of dissemination and implementation are well organised, guided, evaluated and improved (see the programme Scoring Results in § 13.2). In order to have success this should be initiated or at least funded by (in most cases national) policy and maintained for at least several years because system changes are usually slow. Still, it is often hard to determine how and when research results ultimately will influence practice. The influence may turn out to be small or large, the utilisation process may be slow (indirect use by 'trickling down' of research information) or fast ('direct use'), and the duration of change may be short- or long-term. The literature on effective implementation (Van Megchelen 2006) showed us that many influencing factors are involved in these processes and the outcomes cannot easily be predicted.

*Main national structures for drug related research*

An explicit national policy for addiction research in the Netherlands does not exist but several organisations are active in research. First, judging and funding research has partly been delegated to intermediary organisations that are judging research proposals in several scientific domains, amongst which drug related subjects. In addition, several Ministries are also funding research, especially monitoring studies and other activities (e.g. the National Drug Monitor, NDM, see later this chapter).

*The Netherlands Organisation for Health Research and Development (ZonMw)*
There is a national arrangement for funding scientific research (apart from studies funded by universities) that includes a specific research programme on addiction. This arrangement has been institutionalised within the Netherlands Organisation for Health Research and Development.
The Netherlands Organisation for Health Research and Development is primarily funded by the Ministry of Health, Welfare and Sports. It has an intermediary position between this Ministry and researchers by getting funds from the Ministry and developing and co-ordinating research programmes and procedures for approval of research proposals. The former Dutch Health Research and Development Council (ZON) merged in 2001 with the branch of Medical Sciences of the Netherlands Organisation for Scientific Research (NWO). It is now called ZonMw and covers the entire spectrum from basic to applied science in the medical field, (mental) health care and addiction. The council deals with research and development in the field of health, prevention and care. This institute stimulates innovation in intervention and implementation of knowledge and innovative methods. ZonMw operates as an intermediary between the Ministry of Health and all institutions conducting research in the health sector (including mental health and addiction).

The first programme of six years on addiction research (1997-2003) resulted in nearly 90 research projects covering several subject areas, ranging from improvement of addiction care and innovation in indicated prevention to basic neuroscientific research and clinical studies (Van de Goor et al. 1999); (Van Megchelen et al. 2004); (Van Megchelen et al. 2005). An overview of these projects can also be found in the Journal of Substance Use

(2005, 10, (2), 169-174). The second programme on addiction called “Risk behaviour and dependence” is running from 2006 to 2010. The amount of funding for this 5-year programme is 13 million Euro. The programme covers four themes:

- factors affecting the initiation of risk behaviour and dependence;
- factors effecting progression and chronicity of risk behaviour and dependence;
- nature, magnitude and extent of problems associated with drug use and dependence;
- effectiveness of interventions.

Study proposals are evaluated by a scientific committee . The programme focuses on behaviour and determinants that characterise abuse and dependence, not on the toxic effects of drugs. The primary emphasis is on problematic cocaine, cannabis and polydrug use in relation to other risk behaviour. The programme aims to identify key factors that influence the onset, course and chronicity of substance dependence. It will unravel the interactions between the internal and external factors that underlie addiction, and develop and implement prevention and treatment methods based on that knowledge. The programme thus embraces the full innovation cycle, linking knowledge development, synthesis, translation, dissemination, implementation and evaluation .

ZonMw also plays a key role in cooperation between the United States (NIDA) and the Netherlands. Both countries contributed to joint projects that are not exclusively restricted to illegal drugs. These projects were prioritised in joint meetings. Examples are: Drug prevention in school children (Nick Lalongo John Hopkins, Baltimore and Alfons Crijnen, Erasmus Medical Center, Rotterdam); Implicit cognition and early intervention (Alan Stacy, Univ. of Southern California and Reinout Wiers, University of Maastricht);  (Geoffrey Hunt, SAC, San Francisco and Dike van de Mheen, Addiction Research Institute, Rotterdam); Prevention of substance abuse in ADHD children (Timothy Wilens, Harvard Medical School, Boston and Geurt van de Glind, Trimbos Institute); Opioid receptors and addiction, a genetic approach (Mary Jeanne Kreek, Rockefeller Univ., New York and Jan van Ree, Rudolf Magnus Institute, Utrecht); and Brain development of adolescent marijuana users (Robert Block, Univ. of Iowa and Nick Ramsey, Rudolf Magnus Institute, Utrecht) .

*The Netherlands Mental Health Organisation and the programme ’Scoring Results’*

The Netherlands Mental Health Organisation (GGZ Nederland) is a merger of several branch organisations that existed in the field of mental health and addiction. This organisation deals with the national co-ordination of the regional and local facilities for the mentally ill and addicts and it also stimulates the implementation of new methods for prevention and treatment based on scientific evidence (‘evidence-based mental health and addiction care’).
Since 1999 this organisation funds a long-term policy programme aiming to support an improvement of the quality of addiction care (“Scoring Results”). This programme funds studies in the field of addiction care and will be funded until January 1st 2008 ({Nieuwsbrief Resultaten Scoren 2007 1550 /id}. The first phase (1999-2003) has been evaluated ({Mulder & Schippers 2004 543 /id}. During this phase 23 research projects have been conducted (Van de Goor et al. 1999). The output of these studies ranges from exploratory reports, measurement instruments and review studies to working books, intervention modules, guidelines and protocols. Topics included drug consumption rooms, treatment indication and routing, clinical crisis intervention, self help, substitution treatment, and special interventions e.g. the home-party. The website gives an overview of results of the first period of this programme in English.

*The Netherlands Institute of Mental Health and Addiction (Trimbos-instituut)*
Part of the activities of the Netherlands Institute of Mental Health and Addiction (Trimbos-instituut) concern drug research. The mission of the institute is to improve the quality of life by developing and disseminating knowledge on mental health and addiction. The Trimbos Institute provides research-based services for prevention, cure and care in the broad field of mental health, including addiction. Core activities also involve generating, synthesising and disseminating evidence-based information about mental health and addiction. With regard to demand reduction the institute produces and implements a programme for secondary schools preventing pupils from experiments with or abuse of drugs.

*The National Drug Monitor (NDM)*
The Trimbos Institute also houses the National Drug Monitor (NDM), which has been initiated by the Ministry of Health, Welfare and Sports and is now also supported by the Ministry of Justice. The NDM carries out the operational tasks of the National Focal Point for the EMCDDA. The NDM publishes the Jaarberichten (Annual Reports) on drug use for the national government and other interest groups. The NDM also publishes background studies e.g. on cannabis (Rigter et al. 2003), immigrants and treatment demand {(Eland et al. 2001), and effectiveness of treatments for drug problems (Rigter et al. 2004); (Van Gageldonk et al. 2006).

*(Semi-)Academic drug research institutes*
Drug research is carried out by several institutes allied to universities that are often specialised in the field of drugs and drug use. These institutes often operate as public consultants. Their general goal is to gain and translate scientific knowledge for the benefit of different user groups (policy, research and practice).

- Amsterdam Institute for Addiction Research (AIAR) in the University of Amsterdam (a broad spectre of subjects, e.g. epidemiological and longitudinal research on illicit drugs, addiction theory, effectiveness of drug prevention and treatment of addiction, and drug policy developments in Europe),
- Scientific Bureau on Lifestyle, Addiction and Related Social Developments (IVO) originated within the Erasmus University in Rotterdam but now an independent national institute (research in causes and effects of the use of legal and illegal drugs and medical drugs for the individual user, for his/her direct environment and society).
- CVO Research, Education, Training, Consultancy, Cooperation (CVO) originated within the Faculty of Social Sciences of the University of Utrecht but now an independent institute (recreational drug use, (inter)national drug policy, prevention, treatment and harm reduction, homeless addicts),
- Nijmegen Institute for Scientist-Practitioners in Addiction (NISPA) (chronicity of addiction, client-therapist relationship, effectiveness and efficiency of treatments, quality of guideline development and implementation),
- Bonger Institute for Criminology, University of Amsterdam (among other things, qualitative research in addiction, several monitor studies targeting new trends in drug use).
- Tranzo, Tilburg University (Narrowing the gap between science and practice in care and welfare, innovation and quality of addiction care and drug prevention).

Besides these specialised institutes we have many university departments and institutes within universities that – amongst many other subjects – also cover the research domain of

drugs and related issues. The list below does not mention research subjects. These can be found in the list of references under § 13.2.

University of Amsterdam
- Amsterdam School for Social Science Research (ASSR), University of Amsterdam,
- Academic Medical Centre: Departments of Clinical Epidemiology and Biostatistics, Human Retrovirology, Nuclear Medicine, Psychiatry,
- Graduate School of Neurosciences, Department of Radiology,

VU University Amsterdam
- University Medical Centre: Department of Psychiatry, Department of Biological Psychology, Institute of Extramural Medicine,
- Department of Clinical Psychology, VU University Amsterdam,

Utrecht University
- University Medical Centre,Rudolf Magnus Institute of Neuroscience, Department of Psychiatry,
- Julius Centre for Health Sciences and Primary Care,

Erasmus university Rotterdam
- Institutes of Psychology, of Health Policy and Management, and of Psychology,
- Department of Psychiatry, O3 Research Centre Mental Health Care Rijnmond,

Radboud University Nijmegen, Medical Centre
- Departments of General Practice and Family Medicine, of medical Technology Assessment, and of Clinical Psychology,
- Department of Psychiatry,

Groningen University
- Departmentr of Sociology

Leiden University, Medical Centre
- Department of Psychiatry

Maastricht University
- Departments of Psychiatry and Neuropsychology; of Experimental Psychology, of Neurocognition, Brain and Behaviour, the Experimental Psychopharmacology Unit,
- Health Care Sciences, Section Medical Sociology,

Research is also carried out by university institutes in cooperation with regional organisations for addiction care (cf. the semi-academic institutes above).

*Municipal health services*
These institutes also have special research units, mostly specialised in epidemiological research, e.g. the ones in the bigger cities.

*Drug research conducted by private research organisations*
Finally, several private institutes are frequently commissioned to do research in the addiction field. Some examples and their main subjects are:
- Bureau Driessen (methadone maintenance studies);
- Regioplan Stad en Land (evaluation of drug policy);
- Intraval (evaluation projects on demand and harm reduction, policy evaluation; prevalence estimates).

*Main funding frameworks (see also some above mentioned organisations)*
The Dutch funding system for addiction research is complex. During the past decades the largest flow of research money in addiction research is indirect. Expenditures from the Ministry of Health, Welfare and Sports and (to a lesser extent) from the Ministry of Justice, targeting social research in several domains, including addiction research, are delegated to an intermediary organisation, the Netherlands Organisation for Health Research and Development (ZonMw). Today this organisation has started a second five-year research programme "Risk behaviour and dependence" with € 13 million available for studies.

In addition, the Ministries directly fund separate large research projects or programmes outside the scope of ZonMw. For instance the Ministry of Health, Welfare and Sports funds the activities of a long-term research programme (Scoring Results) targeting an improvement of Dutch addiction care. This programme has funded many projects in the domain of addiction. This Ministry has also funded the second nationwide longitudinal study called the Netherlands Mental Health Survey and Incidence Study (NEMESIS), that also includes drug and alcohol use, abuse and dependence. The study will start this year and has two follow-up assessments. Another example of projects directly funded by the Ministry of Health, Welfare and Sport concerns the two trials on effectiveness of medical heroin (co-)prescription. Smaller studies may also (partly) be funded by the ministries, mainly dependent on the political importance of the subject, e.g. projects that fit the policy making process in the field of illegal drugs at that moment or projects that are considered of importance for the working field of addiction and are not funded by ZonMw. The Ministry of Justice spends money on research targeting judicial addiction care activities and drug policy issues.

The Ministry of Justice has a special Department for funding social and statistical research, the Scientific Research and Documentation Centre (Wetenschappelijk Onderzoek en Documentatie Centrum or WODC). The WODC funds large and smaller research projects mostly on drug policy and drug supply. Some examples are studies that were done as part of the long-term programme on a combined effort to combat ecstasy (Inspannen tegen XTC) and a systematic review on quasi-compulsory treatment for drug dependent offenders.
University research is funded by the Ministry of Education, Culture and Sciences (Onderwijs, Cultuur en Wetenschappen or OC&W).

Municipalities also directly fund drug related studies that are in their interest, for example on public nuisance, drug consumption rooms, hostels for drug users or experimental outreach for crack users in the street. Indirectly, municipalities fund drug-related research done by Municipal Health Services. These studies may include studies on registration data but also epidemiological or cohort studies (e.g. in Amsterdam). Many organisations of addiction care have research departments. Nowadays these organisations have grown larger and are operating on a regional level, due to mergers with other organisations of addiction care or of mental health care. These organisations get their funds from different sources, e.g. the Health Insurance Act, insurance companies and the municipalities.

## 13.2 Main recent studies and publications

*An overview of numbers and subjects of older drug related research*

Until 2001-2002 Bureau Bèta (Registration of Dutch Drug Research) collected data about drug research projects in the Netherlands. Studies were gathered with questionnaire and on a voluntary basis. The presented numbers may therefore be slight underestimations. The bi-annual publications of this register give a fairly reliable snapshot of the amount and the main scientific subjects over a period of seventeen years (see the appendix of the table below). The scope of research topics is fairly broad (see footnote table 13.3). Taken together, the nine reports of this register give an overview of numbers of research subjects over nearly twenty years, divided by their main subject. Table 13.3 shows that the number of projects remained fairly constant from 1985 to 1999 and show a slight increase until the end of 2002. Epidemiological studies have been published most frequently, followed by treatment studies and psychological or sociological studies on drugs and addiction. Medical, pharmacological and nutritional studies were done far less and the same conclusion can be drawn for drug prevention. This is in line with former observations that many prevention projects are done in this field but evaluation studies are far less numerous. Even smaller in number are studies on drug policy and on costs of drugs and addiction. Less surprising is probably the low frequency of studies on measurement instruments.

*Table 13.3 Number of research projects by main subject over 1985-2002*

| *Subject* | *1985-1986* | *1987-1988* | *1989-1990* | *1991-1992* | *1993-1994* | *1995-1996* | *1997-1998* | *1999-2000* | *2001-2002* | *Total (%)* |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 16 | 16 | 8 | 11 | 12 | 19 | 20 | 20 | 138 (10) |
| 2 | 4 | 5 | 7 | 13 | 9 | 15 | 12 | 13 | 17 | 95 (7) |
| 3 | 36 | 38 | 27 | 31 | 20 | 26 | 29 | 28 | 43 | 278 (19) |
| 4 | 27 | 39 | 44 | 34 | 36 | 52 | 55 | 48 | 35 | 370 (25) |
| 5 | 40 | 43 | 33 | 25 | 37 | 41 | 36 | 42 | 50 | 347 (24) |
| 6 | 12 | 20 | 19 | 14 | 11 | 7 | 7 | 16 | 23 | 129 (9) |
| 7 | | | 7 | 5 | 5 | 7 | 13 | 15 | 12 | 64 (4) |
| 8 | 11 | 10 | 7 | 1 | 5 | | | | | 34 (2) |
| Total (%) | 146 (10) | 171 (12) | 160 (11) | 131 (9) | 134 (9) | 160 (11) | 171 (12) | 182 (13) | 200 (14) | 1455 (100) |

Main subject of the studies
1. Medical, pharmacological and nutritional research
2. Political and economical research
3. Psychological and sociological research
4. Epidemiology
5. Registration and evaluation of treatment
6. Registration and evaluation of prevention
7. Development of research instruments
8. Other

Source: Bureau Beta. Register of Alcohol, Drugs, and Tobacco Research (bi-annual). Nijmegen (www.beta.nl).

*Main recent studies and publications (since 2000)*

Taking both budget and scientific productivity into account, the following large research programmes can be mentioned:

*The Netherlands XTC Toxicity (NeXT) Study*
The Netherlands XTC Toxicity (NeXT) Study investigates the possible neurotoxic effects of the party drug ecstasy (MDMA) on brain and brain functioning in humans. It was running from 2002 to 2005 and resulting publications are still appearing in scientific journals. It is a joint project of the universities of Utrecht, Amsterdam and Rotterdam. The focus is on the causality, course, and clinical relevance of ecstasy neurotoxicity. It combines three different approaches in three sub-studies: 1) a cross-sectional study among heavy ecstasy users and controls with variation in drug use; 2) a prospective cohort study in ecstasy-naïve subjects with high risk for future ecstasy use; 3) a retrospective cohort study in lifetime ecstasy users and matched controls of an existing epidemiological sample. These studies are meant to provide the following information: 1) Potential neurotoxic consequences of ecstasy compared to other drugs; 2) the causality and short-term course of ecstasy use and potential neurotoxicity; 3) long-term course and outcome of ecstasy use in the general population.

Neurotoxicity has been studied with different imaging techniques (beta-CIT SPECT, 1H-MR spectroscopy, diffusion tensor imaging, perfusion weighted imaging and functional magnetic resonance imaging), and neuropsychological and psychiatric assessments of memory, depression, and personality. The NeXT study is also meant to deliver psychosocial information on ecstasy users (e.g. reasons for initiating ecstasy use, risk perception of users, the role of peers in ecstasy use, and long-term effects of heavy ecstasy use on social relationships and work). The summarised results have led to conclusions that were used in prevention messages; results were also meant to aid clinical decision making and the development of an (inter)national ecstasy policy.

Some publications are:


- De Win, M.M., Reneman, L., Jager, G., Vlieger, E.J., Olabarriaga, S.D., Lavini, C., Bisschops, I., Majoie, C.B., Booij, J., den Heeren, G.J., van den Brink, W. (2007). A prospective cohort study on sustained effects of low-dose ecstasy use on the brain in new ecstasy users. Neuropharmacology, 32, (2), 458-470.
- De Win, M.M., Jager, G., Vervaeke, H.K., Schilt, T., Reneman, L., Booij, J., Verhulst, F.C., den Heeten, G.J., Ramsey, N.F., Korf, D.J., van den Brink, W. (2005). The Netherlands XTC Toxicity (NeXT) study: objectives and methods of a study investigating causality, course, and clinical relevance. International Journal of Methods in Psychiatric Research,14, (4), 167-185.
- De Win, M.M., Schilt, T., Reneman, L., Vervaeke, H., Jager, G., Dijking, S., Booij, J., van den Brink, W. (2006). Ecstasy use and self-reported depression, impulsivity, and sensation seeking: a prospective cohort study. Journal of Psychopharmacology, 20, (2), 226-235.
- Jager, G., van Hell, H.H., de Win, M.M., Kahn, R.S., van den Brink, W., van Ree, J.M. (2007). Effects of frequent cannabis use on hippocampal activity during an associative memory task. The Journal of the European College of Neuropsychopharmacology, 17, (4), 289-297.
- Jager, G., Kahn, R.S., van den Brink, W., van Ree, J.M., Ramsey, N.F. (2006). Long-term effects of frequent cannabis use on working memory and Attention: An fMRI study. Psychopharmacology, 185, (3), 358-368.
- Jager, G., de Win, M.M., Vervaeke, H.K., Schilt, T., Kahn, R.S., van den Brink, W., van Ree, J.M., Ramsey, N.F. (2007). Incidental use of ecstasy: no evidence for harmful effects on cognitive brain function in a prospective fMRI study. Psychopharmacology, 193, (3), 403-414.

- Jager, G., de Win, M.M., van der Tweel, I., Schilt, T., Kahn, R.S., van den Brink, W, J.M., Ramsey, N.F. (2007). Assessment of cognitive brain function in ecstasy users and contributions of other drugs of abuse: results from an fMRI study. Neuropsychopharmacology, Apr 25 (ahead of print).
- Schilt, T., de Win, M.M., Koeter, M., jager, G., Korf, D.J., van den Brink, W., Schmand, B. (2007). Cognition in novice ecsatsy users with minimal exposure to other drugs: a prospective cohort study. Archives of General Psychiatry, 64, (6), 728-736.
- Vervaeke, H.K.E., Korf, D.J. (2006). Long-term acstasy use and the management of work and relationships. International Journal of Drug Policy, 17, (6), 484-493.
- Vervaeke, H.K., Korf, D.J., Benschop, A., van den Brink, W. (2007). How to find future ecstasy users: targeted and snowball sampling in an ethically sensitive context. Addictive Behaviors, 32, (8), 1705-1713.
- Vervaeke, H.K.E., van Deursen, M.C., Korf, D.J. (2007). The role of peers in the initiation and continuation of ecstasy use. Substance Use & Misuse, 42, (accepted for publication).
- Vervaeke, H.K.E., Benschop, A., Korf, D.J. (2007). Fear, rationality and opportunity: reasons and motives for not trying ecstasy. Drugs, Education, Prevention and Policy, (accepted for publication).

*Results of 8 years Dutch substance abuse treatment redesign*

The programma *Scoring Results* (Resultaten Scoren) has been realised in two phases. The first phase was from 1999 to 2003 and the second phase ended in 2005. The main goal was "(…) to improve treatment outcomes by redesigning all major primary treatment processes." (Van Es 2004). The protocol for this program was aiming at reviewing existing knowledge and evidence in order to determine best practices, drawing up new treatment service protocols, evaluation of the draft protocols, (piloting and) adapting the protocols, (piloting and) implementing in some treatment centres, and national dissemination of the final protocol. Some 60 products have been published in Dutch (i.e. literature reviews, protocols, guidelines, handbooks). Many of these have been mentioned in former national reports. The second phase of this programme runs to 2008 with a focus is on further developing protocols, on the implementation of guidelines and on contacts with professional training and education in order to improve the expertise of future professionals (Van Es 2004). Between 1999 and 2007, this costs of this programme were around € 2,450,000.

A product of this program is the start of a National Council for Competence Building in Addiction (NCCBA) with 14 members meeting 6 times annually to develop strategies and actions on evidence-based competence building in (under)graduate education. A 1-year specialisation in addiction care for applied sciences in universities is set up, creating a Masters in addiction for physicians and psychologists. In the near future the council will provide for accreditation to educational institutions for the domain of addiction care (ibid.).

*The Dutch studies on medical heroin (co)prescription*

In 1996 the Central Committee on the Treatment of Heroin Addicts (CCBH) was installed by the Minister of Health, Welfare and Sports to report – on the basis of scientific research – on desirable and undesirable effects of medical heroin prescription to heroin addicts who are resistant to current treatments. In 2002 a report was published of two randomised controlled trials among methadone clients in six cities. After political debate in parliament on this subject, medical heroin prescription for heroin addicts in methadone programmes was initiated in six cities for 300 patients. This has expanded to 815 patients in eighteen cities (T.K.24077/137). Many Dutch and English publications resulted from these trials. This project may be considered as the most successful example of using research results in national drug policy (see § 5.1 and § 13.1).

Some publications are:

- Van den Brink, W., Hendriks, V.M., van Ree, J. (1999). Medical co-prescription of heroin to chronic treatment-resistant methadone patients in the Netherlands. Journal of Drug Issues, 29, 587-608.
- Central Committee on the Treatment of Heroin Addicts. Medical co-prescription of heroin. Two randomized controlled trials. Utrecht, CCBH, 2002.
- Central Committee on the Treatment of Heroin Addicts. Information about the state of play in research into heroin on medical prescription. Utrecht, CCBH, 2004.
- Van den Brink, W., Hendriks, V., Blanken, P., Koeter, M., van Zwieten, B., van Ree, J.M. (2003). Medical prescription of heroin to treatment resistant heroin addicts: two randomised controlled trials. Addiction, 100, (1), 89-95.
- Dijkgraaf, M.G.W., van der Zanden, B.P., de Borgie, C.A.J.M., Blanken, P., van Ree, J., van den Brink, W. (2005). Cost-utility analysis of co-prescribed heroin compared with methadone maintenance treatment in heroin addicts in two randomised trials. BMJ, 330, (7503), 1297

*Articles from Dutch researchers in international peer-reviewed scientific journals*

Using different sources (e.g. PubMed, PsychInfo, the Dutch Digital Academic Repository, and the websites of institutes) an overview has been produced of articles from Dutch authors, that were published in international peer-reviewed scientific journals in 2006 and 2007. Although certainty on the completeness of this overview is impossible, this list gives a fairly recent indication of the diversity of Dutch research in this scientific domain. It should be noted that a distinction may be relevant between articles that have been written by a Dutch scientist as the first author, articles with exclusively Dutch authors, articles with Dutch and foreign authors, articles with only one Dutch author amidst several foreign ones. These distinctions were not made. Animal studies were not included.

Seventy-seven articles from 2006 and 34 from 2007 were found. As can be seen when looking at the (sub)titles, these articles cover a wide range of subject areas in drug research. It should be noted that the actual number of articles and other publications (books, chapters in readers, articles in non-peer-reviewed journals) is much larger.

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## 13.3 Collection and dissemination of research results

*Information flows*

There is no national structure for disseminating research results in the domain of illegal drugs. The picture of dissemination strategies is diverse. The role of the National Focal Point in collecting research data is restricted to activities that are relevant to the EMCDDA working programme (e.g. national report, Early Warning System, and EDDRA) or its function as National Drug Monitor. Dissemination of research activities and publications is done by most organisations mentioned in § 13.1.
Larger programmes (“Scoring Results” of the Ministry of Health, Welfare and Sports and “Addiction” of ZonMw) developed their own way of disseminating research findings via regular published bulletins, symposia or congresses, and overviews of programme products (hard copies and electronic). Dissemination is an explicit part of research proposals for ZonMw in order to be accepted. Research products of the Trimbos Institute (including those of the National Drug Monitor and the National Focal Point) are actively spread to its main target groups, including members of the government, several ministries and parliament as well as professionals in the field. Further dissemination takes place via the PR-department (mailings to journals, newspapers, via newsletters and the Trimbos website).
University-based research has its own dissemination strategies via the scientific journals and other types of publications. For subjects that are sensitive on a political level (e.g. the heroin trials), a special committee was installed to take care of information dissemination. Drug research institutes and organisations of addiction care have their own website with publications (see Annex 14.3). At the national Forum of Alcohol and Drug Research (FADO), some 120 researchers and other interested parties meet annually to exchange the latest information on alcohol en drug research. Belgian researchers are also participating in this forum. Fall 2007 the 17th FADO will be realised. Finally, proceedings and results of drug-related research are disseminated via (inter)national symposia and congresses.

*National scientific journals*

There are four scientific journals in the Netherlands that (also) cover the addiction field. The oldest journal that was specifically meant for drug-related subjects stems from 1974, the Tijdschrift voor Alcohol, Drugs en andere Psychotrope Stoffen (Journal for Alcohol, Drugs and other Psychotropic Substances).This journal appeared very irregularly until a few years ago when it stopped. The last issue was published in 2005. Additionally, drug-related research articles are published in other peer-reviewed Dutch journals, the 150 year old Nederlands Tijdschrift voor Geneeskunde (Journal of Medical Sciences), the Tijdschrift voor Ge-

zondheidswetenschappen (Journal of Health Sciences), that exists 85 years, and the Tijdschrift voor Psychiatrie (Journal of Psychiatry). In this last journal most articles deal with comorbidity. In 2004, a second journal was started named Tijdschrift Verslaving (Addiction Journal) and it was initiated by Prof.dr. G.M. Schippers from the Amsterdam Institute of Addiction Research (AIAR). This is nowadays the only Dutch peer-reviewed journal specialised in this research domain. Both the articles and abstracts are written in Dutch.
Today many addiction researchers are publishing in international journals. This is partly resulting from a (national) trend in stimulating researchers during the past decades to publish in international journals. An important incentive is that one of the prerequisites for funding research is to publish one or more articles in international journals.

*Other means of dissemination*

Since 1999 a Landelijke Stuurgroep Multidisciplinaire Richtlijnontwikkeling in de GGZ (National Steering Committee for the Development of Multidisciplinary Guidelines in Mental Health) has been established. The tasks of this committee are: 1) to create and maintain support for multidisciplinary guidelines in the mental health field; 2) to determine important subjects for guidelines; and 3) to start and coordinate current and future initiatives of guideline development. The committee is supported by an advisory committee with representatives from several stakeholder organisations (e.g. several health insurances, the Health Care Inspectorate, the Ministry of Health, Welfare and Sports, the Dutch Research and Development Council, the Netherlands Mental Health Organisation).

Both the Kwaliteitsinstituut voor de Gezondheidszorg - CBO (Dutch Institute for Health Care Improvement) and the Trimbos Institute, take care of methodological and organisational support for guideline development. The Trimbos Institute also publishes newsletters (Nieuwsbrief GGZ-richtlijnen) and it supports a website. During the past years guidelines have been published for schizophrenia, depression, ADHD among children and the younger ones, eating disorders. And others are still in preparation, e.g. somatoform complaints and disorders, personality disorders, early psychosocial interventions after disasters, terrorism and other disruptive actions, chronic fatigue syndrome and last but not least a guideline on drug and alcohol disorders.

The development of multi-disciplinary evidence-based guidelines is beneficial for dissemination and implementation of research findings. Dissemination is done by using research findings (and other information of patients and interventions) in formulating recommendations for good practice or evidence-based work. To enhance the implementation of these guidelines, the Commissie Implementatie (an implementation committee) has produced a working plan for writing and disseminating abstracts of multidisciplinary guidelines, making these guidelines part of professional (re)education, creating patient versions of these guidelines, evaluation of implementation of these guidelines, taking care of the publicity of guidelines (Henkelman 2006b). Furthermore, user-friendly electronic versions of guidelines will be presented on the web that enable quick updates and easier access to the content for professionals and clients (Henkelman 2006a).

The fourth bi-annual Congress on “Kennis beter delen” (Improving Knowledge Sharing) will take place in March 2008. During these congresses professionals from all health care fields

are exchanging knowledge and insights about different aspects of dissemination and implementation .

# Part C: Bibliography, Annexes

# 14 Bibliography

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## 14.2 Alphabetic list of relevant data bases

(Source: Cruts et al. 2004)

Amsterdamse cohortstudie, Amsterdam Cohort Study
Local cohort study on mortality among methadone clients registered at the CMR (see below), conducted by the Amsterdam Municipal Health Service. Homepage: www.gggd.amsterdam.nl

Antenne (Amsterdam Antenna)
Local monitor of the use of alcohol, tobacco, and drugs by school-goers and socialising young persons in Amsterdam, conducted by the Bonger Institute of the University of Amsterdam (UvA). Homepages: www.jur.uva.nl & www.jellinek.nl

Causes of death statistics
National registration of causes of death, that is the Dutch General Mortality Register (GMR), including deaths due to drugs, conducted by Statistics Netherlands (CBS). Homepage: www.cbs.nl

CBS Politiestatistiek, Statistics Netherlands (CBS) Police Statistics
National registration of the number of police reports on offences against the Opium Act, conducted by Statistics Netherlands (CBS). Homepage: www.cbs.nl

Cliënt Volg Systeem Amsterdam, Client Monitoring System, Amsterdam
Local registration system of treatment given by the Municipal Health Service, Addiction Care, and Public Mental Health Care, including treatment for drug users. Homepage: www.gggd.amsterdam.nl

Cliënt Volg Systeem van Stichting Verslavingsreclassering Nederland, Client Monitoring System of the Foundation of Addiction Probation Services
National registration of probation services offered to drug using offenders, conducted by the Foundation of Addiction Probation Services. Homepage: www.ggznederland.nl

CMR, Centrale Methadon Registratie, Central Methadone Register (CMR)
Local registration of methadone substitution treatment, conducted by the Amsterdam Municipal Health Service. Homepage: www.gggd.amsterdam.nl

CPA, Centrale Post Ambulancevervoer, Central Post for Ambulance Transports (CPA)
Local registration of ambulance transports, including transport due to problem use of alcohol and drugs, conducted by the Amsterdam Municipal Health Service. Homepage: www.gggd.amsterdam.nl

DIMS, Bureau Drugs Informatie en Monitoring Systeem, Drugs Information and Monitoring System (DIMS)
National survey on the contents of synthetic drugs, conducted by the Bureau of the Drugs Information and Monitoring System (DIMS) at the Trimbos Institute. Homepage: www.trimbos.nl

DMS, Drug Monitoring Systeem, Drug Monitoring System (DMS)
Local monitor on problem drug use and living conditions of marginalised hard drug users in the cities of Rotterdam and Utrecht, and the region of Parkstad Limburg, conducted by the Addiction Research Institute Rotterdam (IVO). Homepage: www.ivo.nl

Educare monitor
National monitor on first aid given at house parties, including first aid for problem alcohol and drug use, conducted by Educare Ambulant, Foundation of Nursing & Education Consultancy. Homepage: www.educaregroningen.nl

Haags Uitgaansonderzoek

Local monitor on the use of alcohol and drugs by young people in the nightlife scene (16-35 years) in The Hague, conducted by the Research Committee on Monitoring & Registration (MORE). Homepage: www.denhaag.nl/

HBSC, Health Behaviour in School-Aged Children
National monitor on physical and mental health and well-being of school-aged children, including high-risk use of cannabis, conducted by the Trimbos Institute, Radboud University Nijmegen, and Utrecht University. Homepages: www.trimbos.nl & www.hbsc.org

HIV/aids-registratie, HIV/AIDS Registration
National reporting system for diagnoses of HIV and AIDS assessed by doctors, including HIV and AIDS due to injecting drug use, conducted by the HIV Monitoring Foundation (SHM). Homepage: www.hiv-monitoring.nl

HIV-surveillance among drug users
Local surveys in different cities of HIV-infection among injecting drug users, conducted by the National Institute of Public Health and the Environment (RIVM) and the municipal health services. Homepage: www.rivm.nl

Inbeslagnames drugs, Drug Seizures
National registration of drug seizures, conducted by the Research and Analysis Group of the National Criminal Intelligence Service of the National Police Agency (O&A/dNRI/KLPD). Homepage: www.politie.nl/KLPD/

LADIS, Landelijk Alcohol en Drugs Informatie Systeem, National Alcohol and Drugs Information System (LADIS)
National registration system of outpatient addiction care and treatment, conducted by the Organization of Care Information Systems (IVZ). Homepage: www.sivz.nl

Landelijke Jeugdmonitor CBS-SCP (POLS), National Youth Monitor CBS-SCP (POLS)
National monitor on the living conditions of young persons (12-29 years), including drug use, conducted by Statistics Netherlands (CBS) and the Social and Cultural Planning Office of the Netherlands (SCP). Homepage: www.cbs.nl

LIS, Letsel Informatie Systeem, Injury Information System (LIS)
National survey on injuries treated at emergency departments of hospitals, including injuries due to alcohol and drugs, conducted by the Consumer Safety Institute. Homepage: www.veiligheid.nl

LMR, Landelijke Medische Registratie, Dutch Hospital Registration (LMR)
National registration of admissions to hospitals, including admissions due to problem alcohol and drug use, conducted by Prismant. Homepage: www.prismant.nl

Monitor gedoogde coffeeshops, Monitor of tolerated coffeeshops
National monitor of the number of coffeeshops that are officially tolerated by the local municipal policy, conducted by Bureau Intraval. Homepage: www.intraval.nl/

National Investigation Information Services (Opsporingsonderzoeken Georganiseerde Criminaliteit)
National survey on organised crime, including offences against the Opium Act, conducted by the Research and Analysis Group of the National Criminal Intelligence Service of the National Police Agency (O&A/dNRI/KLPD). Homepage: www.politie.nl/KLPD/

NEMESIS, Netherlands Mental Health Survey and Incidence Study

National cohort study on the general population (16-64 years) focussing on mental disorders including the abuse of and dependence on alcohol and drugs, conducted by the Trimbos Institute. Homepage: www.trimbos.nl

NPO, Nationaal Prevalentie Onderzoek, National Prevalence Survey (NPO)
National survey on the use of alcohol and drugs in the general population aged 12 years and older, conducted by the Centre for Drug Research (CEDRO) of the University of Amsterdam (UvA). Homepage: www.cedro-uva.org

NSO, Nationale Scholierenonderzoek, National School Survey (NSO)
National survey on alcohol and drug use among pupils in relation to their physical and mental health, conducted by the National Institute for Family Finance Information (NIBUD). Homepage: www.scp.nl

NVIC Monitor, Nationaal Vergiftigingen Informatie Centrum, National Poisons Information Centre (NVIC)
National registration of information requests for poisonings, conducted by the National Institute of Public Health and the Environment (RIVM). Homepage: www.rivm.nl

OBJD, Onderzoeks- en Beleidsdatabase Justitiële Documentatie, Research and Policy Database Judicial Documentation (OBJD)
National registration of criminal cases registered at the Public Prosecutions Department (OM), including offences against the Opium Act, conducted by the Research and Documentation Centre (WODC) of the Ministry of Justice. Homepage: www.wodc.nl/

OGGZ Monitor Amsterdam, Public Mental Health Care Monitor Amsterdam
Local monitor on marginalized inhabitants of Amsterdam including problem drug users, conducted by the Amsterdam Municipal Health Service (GG&GD Amsterdam). Homepage: www.gggd.amsterdam.nl

OMDATA, Openbaar Ministerie Data, Public Prosecutions Department Data (OMDATA)
National registration of criminal cases registered at the district courts, including offences against the Opium Act, conducted by the Office of the Public Prosecutions Department. Homepage: www.wodc.nl/

Peilstationsonderzoek scholieren, Dutch National School Survey (sentinel stations)
National survey on alcohol and drug use among pupils (10-18 years), conducted by the Trimbos Institute and the Municipal Health Services. Homepage: www.trimbos.nl

Police Records System (HKS)
National identification system for the police, including drug use of suspects, conducted by the Research and Analysis Group of the National Criminal Intelligence Service of the National Police Agency (O&A/dNRI/KLPD). Homepage: www.wodc.nl/

Politiemonitor Bevolking, Police Population Monitor
National survey on safety and public nuisance due to alcohol, drugs and other sources, conducted by a consortium of the B&A Groep Beleidsonderzoek & -Advies B.V. and Intomart GfK B.V. Homepage: www.politie.nl/Overige/Documentatie/politiemonitor_bevolking.asp

SOV-onderzoek, Strafrechtelijke Opvang Verslaafden, Judicial Treatment of Addicts (SOV) Survey
National registration of addicts subject to the Judicial Treatment of Addicts (SOV), conducted by the Amsterdam Institute for Addiction Research (AIAR). Homepage: www.aiar.nl

SRM, Strafrechtmonitor, Criminal Law Monitor (SRM)

National in-depth survey on a sample of criminal cases, including offences against the Opium Act, conducted by the Research and Documentation Centre (WODC) of the Ministry of Justice. Homepage: www.wodc.nl/

THC-monitor
National monitor on the concentration of THC in cannabis products sold in coffeeshops, conducted by the Bureau of the Drugs Information and Monitoring System (DIMS) at the Trimbos Institute. Homepage: www.trimbos.nl

Trendwatch
National qualitative panel monitor on the use of alcohol and drugs by young people in the nightlife scene, conducted by the Bonger Institute of the University of Amsterdam (UvA). Homepage: www.jur.uva.nl/criminologie

TULP/GW, Ten UitvoerLegging van vrijheidsbenemende straffen en maatregelen in Penitentiaire inrichtingen, Execution of detentions in penitentiaries (TULP/GW)
National registration of detentions, including detentions for offences against the Opium Act, conducted by the Judicial Detention Service (DJI). Homepage: www.dji.nl/

USD monitor, Synthetic Drugs Unit (USD) Monitor
National registration of seizures of synthetic drugs, precursors and production locations, conducted by the Kernteam Zuid-Nederland/Synthetic Drugs Unit. Homepage: www.politie.nl/Overige/Overigepolitieorganisaties/

WODC-Recidivemonitor, WODC Monitor on Recidivism
National registration of suspects and convicts that repeat the offence, including offences against the Opium Act, conducted by the Research and Documentation Centre (WODC) of the Ministry of Justice. Homepage: www.wodc.nl/

## 14.3 List of relevant Internet addresses

*This list contains only a selection of websites in the Netherlands on the subject of substance use.*

| Website | Contents |
|---|---|
| http://www.trimbos.nl/ | Netherlands Institute of Mental Health and Addiction |
| http://www.minvws.nl/ | Ministry of Health, Welfare and Sports |
| http://www.justitie.nl | Ministry of Justice |
| http://www.wodc.nl | Research and Documentation Centre of the Ministry of Justice |
| http://www.drugsinfoteam.nl/ | Drugs and Alcohol Info Team of Brijder Addiction Care |
| http://www.unitydrugs.nl | Unity: educational peer project in Amsterdam |
| http://www.jellinek.nl | Jellinek Addiction Care Amsterdam |
| http://www.cedro-uva.org | Centre for Drug Research, University of Amsterdam |
| http://www.intraval.nl | Intraval. Bureau for Research and Consultancy |
| http://www.aiar.nl/ | Amsterdam Institute for Addiction Research |
| http://www.drugsinfo.nl/ | Objective information on drugs for the general public |
| http://www.ivo.nl/ | Addiction Research Institute Foundation, Rotterdam |
| http://www.ggd.amsterdam.nl/ | Municipal Health Service of Amsterdam |
| http://www.cbs.nl/ | Statistics Netherlands |
| http://www.ggznederland.nl/ | Netherlands Association for Mental Health Care |
| http://www.rivm.nl/ | National Institute for Public Health and the Environment |
| http://www.sivz.nl/ | Care Information Systems Foundation |
| http://www.hiv-monitoring.nl/ | HIV Monitoring Foundation (HMF) |
| http://www.politie.nl/KLPD/ | National Police Agency |
| http://www.prismant.nl/ | Prismant: Consultancy agency for the Social Care Sector |
| http://www.scp.nl/ | Social and Cultural Planning Office of the Netherlands |
| http://www.nispa.nl/ | Nijmegen Institute for Scientist-Practitioners in Addiction |
| http://www.zonmw.nl/ | Netherlands Organisation for Health Research and Develop- |

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|---|---|
| | ment |
| http://www.boumanhuis.nl/ | Bouman GGZ (Addiction Care Rotterdam) |
| http://www.brijder.nl/ | Brijder verslavingszorg (Addiction Care North Holland) |
| http://www.centrummaliebaan.nl/ | Centrum Maliebaan (Addiction Care Utrecht) |
| http://www.vnn.nl/ | Verslavingszorg Noord Nederland (Addcition Care Northern Netherlands) |
| http://www.parnassia.nl | Parnassia, psycho-medisch centrum (Addiction Care The Hague) |
| http://www.novadic-kentron.nl/ | Novadic-Kentron, netwerk voor verslavingszorg (Addiction Care North Brabant) |
| http://www.tactus.nl/ | TACTUS, Instelling voor verslavingszorg (Addiction Care Gelderland and Overijssel) |
| http://www.ggznml.nl/ | GGZ Noord- en Midden-Limburg (Addiction Care Northern and Central Limburg) |
| http://www.mondriaanzorggroep.nl/ | Mondriaan Zorggroep (Addiction Care Southern Limburg) |
| http://www.emergis.nl/ | Emergis – Centruim voor Geestelijke Gezondheidszorg (Addicti-on Care Zeeland) |
| http://www.om.nl/english/ | Public Prosecution Service (English section) |
| http://www.intraval.nl/ | Intraval-Bureau voor onderzoek en advies (Social Scientific Research Institute) |

# 15 Annexes

## 15.1 List of Tables used in the text

## 15.2 List of Graphs used in the text

## 15.3 List of Abbreviations used in the text

| | |
|---|---|
| 2C-B | 4-bromo-2,5-dimethoxyphenethylamine |
| 4-MTA | 4-methylthioamphetamine |
| ACS | Amsterdam Cohort Studies |
| ADHD | Attention-Deficit/Hyperactivity Disorder |
| AIAR | Amsterdam Institute for Addiction Research |
| AIDS | Acquired Immune Deficiency Syndrome |
| ASI | Addiction Severity Index |
| BIBOB | Public Administration Probity Screening Act |
| BMK | Benzyl-Methyl-Keton |
| BZK | Ministry of the Interior and Kingdom Relations |
| CAM | Coordination Centre for the Assessment and Monitoring of New Drugs |
| CAPI | Computerised Assisted Personal Interview |
| CBS | Statistics Netherlands |
| CBT | Cognitive Behavioural Treatment |
| CBO | Dutch Insitute for Health Care Improvement |
| CBZ | Board of Construction of Facilities for Hospitals |
| CCBH | Central Committee on the Treatment of Heroin Addicts |
| CCV | Netherlands Centre for Crime Prevention and Community Safety |
| CEDRO | Centre for Drug Research |
| CMR | Central Methadone Registration |
| COFOG | Classification of the Functions of Government |
| CPB | Netherlands Bureau for Economic Policy Analysis |
| CRA | Community Reinforcement Approach |
| DBC | Diagnosis Treatment Combinations |
| DIMS | Drugs Information and Monitoring System |
| DNR | National Crime Squad |
| DOB | 2,5-dimethoxy-4-bromoamphetamine |
| DSM | Diagnostic and Statistical Manual of Mental Disorders |
| E.K. | Senate |
| EMCDDA | European Monitoring Centre for Drugs and Drug Addiction |
| EU | European Union |
| FIOD | Fiscal Intelligence and Investigation Department |
| GGD | Municipal Health Service |
| GG&GD | Area Health Authority |
| GGZ | Mental Health Service |
| GGZ Nederland | Netherlands Association for Mental Health Care |
| GHB | Gamma-hydroxy-butyrate |
| GMR | General Mortality Register |
| HAART | Highly Active Anti-Retroviral Treatment |
| HAVO | Secondary education at middle level |
| HBV | Hepatitis B |
| HCV | Hepatitis C |
| HIV | Human Immune Deficiency Virus |
| HKS | Defendant Recognition System (of the Police) |
| ICD | International Classification of Diseases, Injuries and Causes of Death |
| IDDT | Integrated Dual Disorder Treatment |
| IDUs | Injecting Drug Users |
| IGZ | Health Care Inspectorate |
| IMC | Inpatient Motivation Centre |
| ISD | Institution for Prolific Offenders |
| IVO | IVO, scientific bureau on lifestyle, addiction and related social developments |

| | |
|---|---|
| IVV | Foundation of Information on Addiction Care |
| IVZ | Care Information Systems Foundation |
| KLPD | National Police Agency |
| LADIS | National  Alcohol and Drugs Information System |
| LCI | National Coordination Structure on Infectious Diseases |
| LIS | Injury Information System |
| LMR | National Information System on Hospital Care and Day Nursing |
| LSD | D-Lysergic acid diethylamide |
| LSP | National Support Centre for Prevention |
| LTP | LifeTime Prevalence |
| LMP | Last Month Prevalence |
| LYP | Last Year Prevalence |
| MATE | Measurement of Addiction for Triage and Evaluation |
| MBDB | N-methyl-1-(3,4-methylenedioxyphenyl)-2-butanamine |
| mCCP | Meta-chloro-phenyl-piperazine |
| MDA | Methylene-dioxyamphetamine |
| MDEA | Methylene-dioxyethylamphetamine |
| MDFT | Multi Dimensional Family Therapy |
| MDMA | 3,4-methylene-dioxymethamphetamine |
| MIM | Multivariate (Social) Indicator Method |
| NDM | National Drug Monitor |
| NEMESIS | Netherlands Mental Health Survey and Incidence Study |
| NIGZ | National Institute for Health Promotion and Disease Control |
| NIVEL | Netherlands Institute for Health Services Research |
| NNIA | No new information available |
| NPO | National Drug Use Survey/National Prevalence Survey |
| NVIC | National Poisons Information Centre |
| OBJD | Justice Documentation Research Database |
| OMC | Office of Medicinal Cannabis |
| OMDATA | Public Prosecution Department Data |
| PMA | Paramethoxyamphetamine |
| PMK | Piperonyl-Methyl-Keton |
| RISc | Risk Assessment Scales |
| RIVM | National Institute for Public Health and the Environment |
| SCP | National Institute for SocioCultural Studies |
| SHM | HIV Monitoring Foundation |
| SOV | Judicial Treatment of Addicts |
| SRM | Criminal Justice Monitor |
| STI | Sexually Transmitted Infections |
| SVO | Steering Committee for the Reduction of Nuisance |
| TBC | Tuberculosis |
| TDI | Treatment Demand Indicator |
| THC | Tetrahydrocannabinol |
| T.K. | House of Representatives |
| TM | Treatment Multiplier |
| USD | Synthetic Drugs Unit |
| VBA | Drugfree Addiction Support Unit |
| VMBO-p | Secondary practical education at the lower level |
| VMBO-t | Secondary theoretical education at the lower level |
| VVGN | Dutch Association of Addiction Physicians |
| VWO | Secondary education at the higher level, pre-university education |
| VWS | Ministry of Public Health, Welfare and Sports |
| WHO | World Health Organisation |

| | |
|---|---|
| WODC | Research and Documentation Centre of the Dutch Ministry of Justice |
| XTC | Ecstasy |
| ZonMw | Netherlands Organisation for Health Research and Development |
| ZORG-IS | Registration System for Mental Health Care |

## 15.4 Map of the Netherlands: provinces and major cities