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by the Reitox National Focal Point**

**THE NETHERLANDS  
DRUG SITUATION 2011**

**FINAL VERSION**

**Approved by the Scientific Committee of  
the Netherlands National Drug Monitor (NDM)**

**REPORT ON THE  
DRUG SITUATION  
2011**

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## **PREFACE**

The Report on the Drug Situation in the Netherlands 2011 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 2011 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 Research and Documentation Centre (WODC) of the Ministry of Security and Justice. The NDM was established in 1999 on the initiative of the Ministry of Health, Welfare and Sport. The Ministry of Security and 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 law and policies (chapter 1 and 9)*

The Opium Act and the Directives for prosecution are subject to (planned) changes:

- The regulation of the coffee shop policy will be sharpened by adding the closed club criterion and the resident criterion to the existing criteria for exploitation (start in 2012). GHB will be added to Schedule I (hard drugs) of the Opium Act.. Probably qat will be forbidden.
- An addition to the Opium Act is in preparation which penalizes preparation acts or facilitation of illegal large-scale cultivation of cannabis (Stc. 2011, nr. 13125). This amendment aims especially at grow shops, where materials and equipment for cannabis cultivation are sold and which function as a liaison between cannabis producers and coffee shops.
- An expert committee advised to keep two drug schedules (soft and hard drugs) in the Opium Act, but to consider cannabis with a THC-content of more than 15% as a hard drug (schedule I). The implementation of this advice is in preparation.
- The Opium Act Directives for prosecution were specified, to include all professional cultivation of cannabis, independent of the number of plants under cultivation.
- In the future, coffee shops will be not allowed within a distance of 350 metres from schools ('distance criterion').

With regards to other drug-related laws there are the following developments:

- Cut-off levels of drugs in blood for drugged driving offences will be defined in the Road Traffic Act. An addition to the Act is in preparation.
- The use of alcohol and drugs will be a reason for an aggravation of sentences in cases of violent offences. This amendment of the law is in preparation.
- A new Act for forensic care for detainees with addiction or mental health problems will be in force in 2013. This Act promotes systematic screening, diagnosis and diversion to care.

The combat of professional cultivation of cannabis and the investigation and prosecution of organised crime in relation to drugs (cocaine, synthetic drugs, heroin and cannabis) is a priority area for police and Prosecution, also in 2010 and 2011. A combination of administrative and preventive measures, judicial approaches and international co-operation is applied, with a strong focus in a combat on the local level.

### *Developments in drug use in the population and specific target groups (chapter 2)*

The most recent survey on drug use in the general population was conducted in 2009. However, due to methodological changes, the data are not comparable with those of previous surveys (1997, 2001 and 2005). Hence, recent trends cannot be described. In 2009 last year prevalence of cannabis use in the population of 15-64 years was 7.0% and last month prevalence was 4.2%. Almost one-third (30%) of the last month users had used cannabis daily or almost daily in the past month. The percentage of recent users of cocaine and ecstasy was almost the same (1.2% and 1.4%, respectively). Amphetamine remained least popular with 0.4% recent users.

Cannabis use among pupils (12-16 years) from regular secondary schools showed a decreasing trend between 2001 and 2009. In 2009, 9% of the pupils had used cannabis in



the past year against 14% in 2001. Four in ten recent users had used only once in the past year, and a minority was a frequent blower (40 times or more).

Prevalence rates of drug use are appreciably higher in (local) studies among various subpopulations, including pubgoers and nightlifers (cannabis, ecstasy, cocaine), neighbourhood and hang-around youth (cannabis, ecstasy, cocaine) and men who have sex with men (ecstasy, cocaine, GHB). However, no higher levels but even *lower* levels of drug use (cannabis, ecstasy, cocaine) were found among first-year students.

Various indicators strongly point at an increase in the (problem) use of GHB in some subpopulations both in and outside the nightlife scene. In 2009, 0.4% of the population between 15 and 64 years had used GHB and 0.2% reported use in the past month. These figures are comparable to those of amphetamine but much lower compared to ecstasy and cocaine. Higher percentages of GHB users are found among populations in the nightlife scene, although GHB is not by definition a club drug and use at home is also commonly reported.

#### *Developments in prevention (chapter 3)*

According to the Minister of Health, Welfare and Sports, healthy behavior is primarily the responsibility of individual persons thus not a responsibility of the national government. However, special attention is given to early identification of drug problems in vulnerable groups, especially young people. The responsibility and additional funding of prevention activities has been largely delegated to the municipalities. National preventive initiatives that are maintained are, among others, the project Healthy School and Drugs and database of effective youth interventions that also contains interventions for drug prevention. In the reporting year, two systematic review studies on alcohol and drug prevention for youth and for adults and a guideline on early identification of drug problems for professionals who work with young people were published. Several preventive activities targeting GHB use were started.

#### *Developments in problem use (chapter 4)*

The number of problem opiate users has decreased in the past years. Using the treatment multiplier method, their number was estimated at about 18 thousand at national level in 2008. There are indications that the size of the population of primary crack users who do not use opiates has grown in the past decade, but their number is not known.

#### *Developments in treatment (chapter 5)*

The activities of several programmes for the improvement of the quality of addiction care are still running. The programme Scoring Results is continued in another organizational context. The second research programme on addiction of the Netherlands Research Organisation on Health Research and Development (ZonMw) ended in 2010. Four state of the art studies on the consequences of drug use will be written, which may be a prelude to a third research programme, although the availability of financial resources is unlikely. The introduction of Routine Outcome Monitor (ROM) in addiction care is further developed and a new instrument for triage and evaluation of treatment (MATE) has been introduced and evaluated. Treatment interventions have been enlarged by treatments via the internet, and programmes for specific target groups, especially young people, and other addictions (e.g. gaming). Furthermore there are experimental initiatives and studies to engage to a larger extent the individual client in decisions on treatment and rehabilitation. The Dutch results of the European INCANT study of the effectiveness of Multi Dimensional Family Therapy

(MDFT) for cannabis dependent young people and their parents were published. Online therapies are currently being evaluated and an evaluation of several pharmacological treatment options for cocaine dependence is set up. Finally a experience-based protocol for the treatment of GHB dependence is developed.

#### *Health correlates and consequences (chapter 6)*

Several sources indicate that the incidence of HIV and hepatitis B and C among (ever) injecting drug users remained low in the past years. Since years, the main route of HIV transmission in the Netherlands is sexual, both through MSMs and heterosexuals. Nonetheless, the number of chronically infected drug users and hence (future) disease burden is fairly high, especially with regard to hepatitis C. The registration of the HIV Monitoring Foundation shows that 91% of HIV-positive IDUs is also infected with HCV. Data from the hepatitis B vaccination campaign show that chronic carriage of hepatitis B is relatively low, which has been one of the arguments to stop the campaign for the risk group injecting drug users as of 1-1-2012.

The number of health emergencies related to GHB use has strongly increased in the past years.

A roadside survey (2007-2009) showed that 1.67% of the drivers tested positive for THC (cannabis), followed by benzodiazepines (0.40%), cocaine (0.30%), multiple drugs (0.35%), alcohol and drugs (0.24%) and amphetamines (0.19%). The prevalence of drivers testing positive for alcohol was highest. GHB was detected in 3% of a sample of seriously injured car drivers who had been admitted to hospital, which is more frequently compared to other illegal drugs, such as cocaine or THC.

The number of acute drug-related deaths was lower in 2010 compared to 2009 (94 against 139) but similar fluctuations have been noticed over the past decade. The proportion of young drug users who died continues to decrease.

#### *Responses to health correlates and consequences (chapter 7)*

Since 2008, acute drug-related health problems are monitored in the "Monitor drug-related emergencies". The findings from the monitor are used for feedback to medical professionals in the field, to increase their expertise on current trends and pollutions of drugs and the associated medical risks, but findings may also attribute to evidence-based policy. The monitor works in close collaboration with the Drugs Information and Monitoring System (DIMS), which generates information on the chemical composition and toxicological risks of drugs on the market.

With regard to the prevention and treatment of infectious diseases and drug related deaths, no major changes have been observed. The number of exchanged needles and syringes in the two largest cities has continued to decrease, in line with the decreasing popularity of injecting drugs. A recent inventory showed that there are currently 37 drug consumption rooms throughout the country, and that they have specialized in certain consumption patterns. Some are still exclusive for injectors, but many drug consumption rooms focus on smokers and alcohol consumers.

Prevention and treatment of hepatitis C is still only available on a small scale. Data from an effectiveness study of the national hepatitis C information campaign (2009-2010), showed that the implementation of the campaign was limited, but that it significantly increased knowledge about the disease and treatment options.

#### *Social correlates and social integration (chapter 8)*

Compared to other European countries, the Netherlands is doing fairly well on social cohesion, which implies that the level of social exclusion is relatively low. Nonetheless, social exclusion has been observed among adolescent cannabis users, opiates addicts, and drug-using neighbourhood and hang-around problem youth, migrants, and prostitutes. To tackle the social exclusion of problem drug users and to support their social reintegration, the Dutch institutes for addiction treatment have consolidated their participation in the Strategy Plan for Social Relief. This Strategy Plan has now entered its second phase. The Dutch Master in Addiction Medicine (MiAM) also pays attention to the social reintegration of problem drug users.

*Drug-related crime, prevention of drug-related crime and prison (chapter 9)*

As in previous years, most of the police investigations in 2010 into more serious forms of organized crime concern drugs. The proportion of investigations into cases with soft drugs/cannabis is increasing, that of cases with hard drugs is decreasing, although hard drugs still form the majority. Cocaine is the hard drug that is most often involved. The absolute number of reported Opium Act cases in the criminal justice chain – police, Public Prosecutor, Courts – decreased. Between 2003 and 2010, the number of Opium Act reports by the police decreased from 18,877 to 15,772; the number of Opium Act cases registered by the Public Prosecutor decreased from 18,233 to 14,865; and the number of court sentences for Opium Act cases decreased from 12,708 to 9,391. The number of suspects classified by the police as drug users decreased in this period from 10,823 suspects in 2003 to 5,960 suspects in 2010. This is in line with a general decreasing trend in criminal justice cases in the Netherlands. Police reports and court cases involving hard drugs show a decreasing trend (in proportion), while the proportion of reports and cases with soft drugs is increasing. The Public Prosecutor, on the contrary, handled a higher percentage of hard drug cases and a lower percentage of soft drug cases in 2010. Most Opium Act cases are submitted to court and a substantial proportion is convicted to a community service order. In 2010 (30 September) 18% of the prison population was convicted for an Opium Act. This is a relatively large proportion, second in rank after violent offences.

The combat of professional cultivation of cannabis still is subject of intensified co-ordinated efforts of police, taxes, housing corporations and electricity companies. A Task Force with regards to organised crime in relation to cannabis cultivation was installed. The investigation and prosecution of organised drug related crime (cocaine, synthetic drugs, heroin and cannabis) is still a priority area for police and Prosecution for 2008-2012. A combination of administrative and preventive measures, judicial approaches and international co-operation is applied, with a strong focus in a combat on the local level. According to the recent policy plans, organised crime with regards to drugs will stay a priority area in the next years.

The number of arrestees registered by the police as a drug user is decreasing (5,960 in 2010). The proportion of addicts amongst very active prolific offenders is also decreasing. The number of very prolific offenders who get a measure of placement in an Institution for Prolific Offenders shows a slightly decreasing trend. There is a connection between drug (and alcohol) use and intimate partner violence amongst perpetrators in a forensic setting and in the criminal justice system.

Several services are available for problematic drug users in de criminal justice system, ranging from advice in the pre-trial phase to aftercare after imprisonment and diversion to forensic care. There is an increase in the number of clients of addiction

probation services (more than 18 thousand in 2010). There is a trend towards more diversions to forensic care outside the prison system by addiction probation services. The minister of Security and Justice has budget to buy forensic care outside prison. A new Act for forensic care for detainees with addiction or mental health problems will be in force in 2013. This Act promotes systematic screening, diagnosis and diversion to care.

#### *Drug markets (chapter 10)*

The number of coffee shops shows a steady decrease, but there are no indications that this has affected the availability of cannabis. With the new measures to be implemented (e.g. licence for residents; distance criterion to schools; ban of cannabis from coffee shops with more than 15% THC) it remains to be seen whether cannabis availability will change and/or whether there will be a shift from legal selling points to illegal sources.

In 2010, there were more seizures of MDMA than in 2009 and 2008, but the quantities do not compare to the large quantities in the years before 2008. There is a substantial decline of seizures of amphetamine in 2010 compared to 2009, and the amphetamine is more often in the form of paste instead of powder. New types of pre-precursors and precursors were detected by the police, amongst which GBL, PMK-glycidate and APAAN, of which some are not forbidden in the Netherlands. There are indications that there are new types of designer drugs on the market, according to the police.

In 2010 and the first half of 2011 the purity of ecstasy and amphetamine samples bought by consumers had returned to prior levels and exceeded purity levels in earlier years. For example, average MDMA concentration in ecstasy tablets was 114 mg in the first quarter of 2011 (against 66 mg in 2009). These trends might be related to drug producers switching to other precursors to synthesise these drugs and renewed availability of BMK. However, although both ecstasy and amphetamine samples tend to contain less adulterants or replacement substances, occasionally (potentially) dangerous substances are detected (e.g. PMMA/PMA, 4-MTA).

The majority of the cocaine samples from consumers still contain medicines, especially levamisole (64% of the samples in 2010). So far no cases of agranulocytosis, associated with the use of levamisole, have been reported.

Between 2000 and 2004, the percentage of THC in Dutch-grown weed increased significantly from 9% to 20%. Between 2005 and 2011 the average concentration stabilized and fluctuated on average between 15% and 18%. In 2011, 72% of the samples of most popular Dutch weed and 43% of the imported hashish contained more than 15% of THC, the limit proposed to classify cannabis as a hard drug (see chapter 1).

#### *Selected issue: drug-related health policies and services in prison (chapter 11)*

This chapter describes the Dutch prison system and the policies and services in relation to addiction care in the broader sense (including mental health care, somatic care and behavioural interventions). The prison system aims to ensure continuity of care before, during and after imprisonment. The size of the drug using population in the penitentiary institutions is only known from research. There are no central databases collecting information on drug use before or during imprisonment. The available studies suggest that 30-40% of the adult Dutch prison population suffer from addiction problems prior to their entry into the prison system. The majority of problematic substance users also suffers from psychiatric or somatic co-morbidity. In the Dutch prison system, there is a Policy of determent of drug use and the central aim is a drug-free detention situation, although

experience over the years has learned that it is virtually impossible to keep the penitentiary institutions actually drug-free. The leading principle in general health care for prisoners is that the Services of Penitentiary Institutions take care for an effective, efficient and client-oriented health care in the institutions, of which the quality is equivalent to the health care in the free society, taking into account the special situation of the imprisonment. In this chapter an overview is given of the interventions targeting prevention, treatment, rehabilitation and harm reduction of addicted prisoners, measures for quality assurance and it is discussed where the principle for equivalence of care is violated.

*Selected issue: drug users with children (addicted parent, parenting, child care and related issues) (chapter 12)*

In the Netherlands, special attention for the children of parents with problematic drug and alcohol use exists since decades. The induced harm is usually complex and requires action on multiple aspects. As children of addicted parents are an hidden population, only estimates on the size of the problem are available. Based on several sources, rough estimates indicate that it concerns more than 300,000 children in the Netherlands. The problems that children of addicted parents face resemble in many aspects those of children of parents with a psychiatric disorder. Many interventions therefore target this broader group. The central aim in all the activities is the optimalisation of the development of the child. An increase in health, wellbeing and pedagogical skills of the parents is pursued as well. Also the Dutch legal and policy framework focus on the wider population of children at risk instead of directly targeting drug using parents with children.

## **Part A: New developments and trends**

# 1 Drug policy: legislation, strategies and economic analysis

## 1.1 Legal framework

### *Introduction*

In the Netherlands many important policy and legislative changes can be discerned in the reporting year. The new government published its policy letter with new emphases in the existing drug policy: the coffee shop policy will be sharpened and the efforts to combat organised (cannabis cultivation) crime will be intensified and more integrated (see also chapter 9). Also, in the legislative field some of the following items are of importance and will be discussed in this chapter and chapter 9: Public Prosecution Service published new Opium Act Directives, the Administrative Jurisdiction Division of the Dutch Council of State did some remarkable binding judgments concerning the cannabis policy, the Opium Act was enriched with a new article 11a, the Supreme Court did a judgment leading to a change in the Opium Act Directives, and an advisory committee reported on the existing system of the Opium Act with two schedules of drugs.

Since 1995, the Dutch national drug policy has had 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.

Although in the new policy letter these four objectives were not explicitly denounced, it was stated that the Dutch drug policy has two cornerstones: to protect public health and to combat public nuisance and drug-related crime (TK 24007-259). In the new Opium Act Directive the objective of the drug policy is described as: '*The [new] Dutch drugs policy is aimed to discourage and reduce drug use, certainly in so far as it causes damage to health and to society, and to prevent and reduce the damage associated with drug use, drug production and the drugs trade*' (Stc 2001, 11134).

### *Laws*

In the Netherlands, only a few laws and regulations are primarily directed towards drugs, but many other laws with a broader scope are important in relation to illegal drugs:

#### *Drug laws and regulations*

- Opium Act (Opiumwet) – (criminal law)
- Opium Act Decision (Opiumwetbesluit) (Royal Decree)
- Opium Act Directives (Directive of Public Prosecution Service)
- Victor Act (Wet Victor) – (criminal law/administrative law)
- Regulation Heroin Treatment – (ministerial regulation)
- Regulation Opium Act Exemptions (ministerial regulation)

### *Laws and regulations indirectly important for illegal drugs*

- Prisons Act (Penitentiare Beginselenwet) - (criminal law)
- Conditional Release Act – (criminal law)
- Placement in an Institution for Prolific Offenders Act (Plaatsing in een inrichting voor stelselmatige daders – ISD) - (criminal 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) (health law)
- Medicines Act (Geneesmiddelenwet) (health law)
- Collective Prevention Public Health Act (Wet collectieve preventie volksgezondheid) (health law)
- Community Support Act (Wet Maatschappelijke Ondersteuning - WMO) (health law)
- Plan of approach for social relief (Plan van aanpak maatschappelijke opvang) (policy letter)
- Combatting organized crime (Bestrijding Georganiseerde Misdaad) (policy letters)
- Forensic Care Act (Wet Forensische Zorg) – (criminal law)
- Compulsory Mental Health Care Act (Wet Verplichte Geestelijke Gezondheidszorg) – health care
- Road Traffic Act (Wegenverkeerswet)

### *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, when a distinction was made between drugs presenting unacceptable risks (Schedule I) and drugs like cannabis (Schedule II), which were seen as less dangerous. Since then, the Opium Act has been amended on various occasions but its basic structure has been maintained.

### *New developments concerning the Opium Act*

In July 2011, a new article 11a of the Opium Act concerning the penalization of acts to prepare or to facilitate illegal large-scale cultivation of cannabis plants was published in the Government Gazette (Stc. 2011, nr. 13125; T.K. 32842-3). This new article was necessary to be able to penalize persons and companies preparing and promoting illegal cannabis cultivation. The so-called grow shops are an example of facilitators of illegal cannabis cultivation.. Grow shops may function as centres for large-scale and professional cannabis production and are often linked with organized crime. Until now it was difficult to prosecute preparatory acts aiming at illegal cannabis cultivation if a connection with criminal organization could not be proved. From the moment this article comes into force the municipalities are obliged to withdraw the licenses of the *grow shops*. It is not clear when this article will actually come into force. It was estimated that there were about 275 grow shops in the Netherlands in 2009 (Driessen, 2009), but their number may have decreased in the past years (see § 10.1).

On 6 September 2011, the Minister of Health announced that she will follow the advice of Coordination Centre for the Assessment and Monitoring of new drugs (CAM) to move GHB from Schedule II to Schedule I of the Opium Act. It was advised because of the



increasing use of GHB, the large risk of addiction and the risks for the health of the user (in particular losing consciousness) (TK 24077-262).

On 5 October 2011, the Minister of Health announced that 4-methylmethcathinon (mefedrone) and tapentadol will be placed on Schedule I of the Opium Act (<http://www.rijksoverheid.nl/onderwerpen/drugs/documenten-en-publicaties/besluiten/2011/10/05/ontwerp-besluit-wijziging-lijst-i-en-lijst-ii-opiumwet.html>)

The government intends to place qat on one of the two Schedules of the Opium Act.

#### *Other new legislative initiatives with consequences for substance use*

The main theme of the recent national preventive health care policy paper "Health Nearby" (TK 32793-2) on strategies to ameliorate the public health is that the citizens themselves are primarily responsible for their own health (see also chapter 3). Mass media campaigns for the general public (for instance on drug use) are seen as paternalistic and will no longer be supported by the national government. Everybody has to make its own decisions on their life style. However, the Minister of Health, Welfare and Sports observes that vulnerable young people run the risk of using drugs and become addicted. That is the reason for announcing a special interactive online program to develop the coping skills ('weerbaarheid') of young people (TK 32793-2).

The Ministers of Security and Justice and Transport are preparing an amendment to the Road Traffic Act in order to make driving under the influence of drugs punishable. Police investigators are given the authority to use an oral fluid screener as pre-selection method to detect drug use of traffic participants. The legal evidence will remain a blood test. The use of GHB is only detectable with a blood test. Just as certain blood concentrations of alcohol are forbidden when driving a vehicle, the Road Traffic Act will be adjusted to prohibit driving if blood concentrations exceed certain limits (e.g. 50 microgram per litre for amphetamine and cocaine and 3 microgram per litre for THC). A special commission has proposed limiting blood values per drug in accordance with international practices (T.K. 29398-236; T.K. 32859-3).

The Municipalities Act will be changed to strengthen the leading role of the municipalities in the implementation of the local comprehensive four-yearly safety strategy. All the authorities and agencies responsible for the social safety are involved in the process. One of the themes of the social security is drug-related nuisance (TK 32459-4).

For more information about the content and impact of these laws and regulations: see our previous National Reports. See also § 9.6.

#### *Medicinal cannabis*

On 6 October 2009, a private member's bill to make medicinal cannabis more accessible for patients was presented to the Lower House and the Minister of Health (TK 32159-2). In his bill, Member of Parliament (MP) Van der Ham analysed practical problems with the legal medicinal cannabis (for more details see our National Report 2010).

Data currently available shows that medicinal cannabis can help relieve<sup>1</sup>:

- pain and muscle spasms/cramps associated with (MS) or spinal cord damage;
- nausea, reduced appetite, weight loss and debilitation associated with cancer and AIDS;
- nausea and vomiting caused by medication or radiotherapy for cancer and HIV/AIDS;

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<sup>1</sup> <http://www.cannabisbureau.nl/en/MedicinalCannabis/Patientinformation/groundsforuse/>

- long-term neurogenic pain (i.e. originating in the nervous system) caused by, for example, nerve damage, phantom limb pain, facial neuralgia or chronic pain following an attack of shingles;
- tics associated with Tourette Syndrome.

In her answer to questions by MP Van der Ham, the Minister of Health wrote to the House of Commons on 21 April of 2011 that a new (the fourth) variant of medicinal cannabis (Bedica) was available for patients. The Bureau Medicinal Cannabis only delivers the raw material, there is still no official “cannabis medication” produced and registered by a pharmaceutical company. Also, the BMC could be exploited cost-effective in 2010. In 2010, 102 kilograms of medicinal cannabis were delivered to pharmacies and it is estimated that about 558 patients were using it with an average of 0.5 gram per day per each person. Some Dutch health insurance companies reimburse medicinal cannabis in certain circumstances (TK 2010-2011, Aanhangel 2461).

#### *Institution for Prolific Offenders (ISD)*

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) (see also § 9.3). This act refers to all prolific offenders, not only addicts. The primary objective of the ISD Order was to reduce the public nuisance caused by extremely persistent offenders. Another objective was to reduce recidivism by influencing behaviour. The initial expectation was that a large group of ISD subjects would end up in a basic regime through a lack of motivation. All ISD subjects have a history of addiction; more than half have a combination of psychiatric problems and a personality disorder, and possibly learning difficulties as well. Because the judicial decisions pointed to an interpretation by the judges of the ISD Order as a course for rehabilitation, the ISD became a “behavioural intervention, unless it is not possible” (Van Ooyen et al 2009). It is clear that the ISD Order is not just to keep people off the streets for a long time, but also to reintegrate them (Goderie et al 2008). For more detailed information on this subject: see §9.3.

#### *Medical heroin prescription*

In August 2011, there were 740 treatment places for medical heroin prescription operational at 18 units in 16 different municipalities (personal communication, Ministry of Health). Since 15 October 2009 heroin (diamorphine) can be prescribed by physicians working at municipal treatment units for treatment resistant heroin addicts to addicts who are registered at that units. For this reason the Opium Act Decision was complemented with Appendix 2 (Stb 2009-348). Medical heroin prescription is legal on the condition that strict requirements are met. A 4-year follow-up study concluded that the physical and psychological condition of the patients who received heroin treatment was far better and they caused much less public nuisance than the heroin users who withdrew from the treatment (Blanken et al., 2010).

#### *Implementation of Laws*

##### *Opium Act Directive*

In June 2011, the Opium Act Directive of the Public Prosecution Office was updated for the first time since 2000 (Stc. 2011, 11134). Although the formulation of the objective of the Dutch drug policy has been changed (see Introduction), the basic principle of a differentiation between drugs with unacceptable risks and other drugs is still the cornerstone

of the Opium Act. One important change is the definition of professional cultivation of cannabis. Until now, if people were caught with five or fewer plants, the former Directive described that one should not be prosecuted. The new Directive describes that if the police finds places where people are cultivating cannabis, the most important criterion to prosecute will be the degree of professionalism according to a checklist which is part of the Directive, and not the number of plants. This adaptation was a reaction to a judgment of the Supreme Court - of a case from 2006- in which it was confirmed that it was unlawful to prosecute a person who had cultivated five cannabis plants in a professional manner (LJN:BO4015, Hoge Raad, 09/01099).

Simultaneously with the Opium Act Directive, the new Guidelines for the Criminal Proceeding of Opium Act Offences were published (Stc. 2011, 11748 and 11749). The most important purpose of these new guidelines is to elaborate the political decision to increase and to unify the penal demands for professional cultivating and trading of cannabis if membership of a criminal organisation can't be proved. For all the four core offences concerning soft drugs (possessing, professional trading, producing and exporting) the maximum sanctions scores are set on 2,190 sanction points. (Letter of Public Prosecution Office, 27 June 2011). For more information: see chapter 9.

#### *Municipal bans on smoking cannabis*

The ban on smoking cannabis in outdoor public spaces in a specific quarter of Amsterdam, which is enforced since 2006, received much media attention. Such a ban is always a local measure based on a General Local Byelaw (Algemene Plaatselijke Verordening) and aims to combat nuisance in the public space. At the end of 2009, several municipalities (81 out of 441 in 2009) introduced 'blowing bans', which prohibit the use and possession of drugs (even if it concerns small amounts for own use) in certain areas or even whole municipalities (Chevalier, 2009). These bans are a relatively recent phenomenon. According to Chevalier (2009) the bans concern cannabis, but for instance in Rotterdam the bans also concern the use of all other illegal drugs. The bans aim at a reduction of public nuisance. This nuisance may be related to coffee shops, or to groups that cause public nuisance in general, or to drug use in itself which is considered objectional and a bad example for young children and youngsters.

On 13 July 2011, the Administrative Jurisdiction Division of the Dutch Council of State made a fundamental judgment on smoking cannabis bans (*Blowverboden*): because the possession of cannabis for personal use is punishable according to article 3 of the Opium Act, there is no room to duplicate this prohibition in byelaws. Thus, the mayor has no authority to ban the smoking of cannabis in certain quarters of a town (Raad van State, 2011; 201009884/1/H3). As the nuisance caused by smoking cannabis at certain outdoor places did not diminish after this judgment, the Association of Dutch Municipalities is going to urge the Public Prosecution Office to intensify the enforcement of the Opium Act, instead of using the ineligible smoking cannabis bans (Binnenlands Bestuur, 11-08-2011).

#### *Public Administration Probity Screening Act (Wet BIBOB)*

This Act gives local authorities the power to screen certain *new* applications for permits, operating licenses, tenders or subsidies, in order to prevent them from unwittingly facilitating organized crime. The scope of the BIBOB Act relates to: 1. The licensing system under the Licensing and Catering Act; 2. Environmental licenses and building permits; 3. Operating licenses for among others hotel and catering establishments, including coffee shops, sex establishments, smart shops and grow shops; 4. Licenses for persons and goods transports

by road, opium exemptions, and licenses for the sale of real estate by housing associations. The actual screening is conducted by a special central BIBOB-office. This office has access to secured sources such as the police files and the Tax and Customs Administration. The BIBOB office not only inspects the antecedents of the applicant, but also checks his or her immediate environment. This may result in a recommendation about the degree of risk. Dutch administrative authorities may refuse contracts, subsidies or permits for organisations and companies if they have serious doubts about the integrity of the applicant. In its most recent annual report, with data of the year 2010, the BIBOB-office writes that there was a special pilot project in which all the 40 *existing* coffee shops in the municipality of The Hague were screened. As a consequence of this screening the mayor ordered the closing down of four coffee shops. In total 18 per cent of the BIBOB requests were about coffee shops and 2 per cent about smart- or grow shops (Bureau BIBOB 2011; TK 31109-11). The Minister of Security and Justice is preparing a bill to enlarge the scope of the BIBOB Act to the real estate sector, and to the branches of games of chance and head shops (Bureau BIBOB 2011).

*Combating organised crime in the Netherlands* In line with the BIBOB Act is the Administrative Approach to Organized Crime program which started in 2007 as part of the comprehensive policy to combat organized crime. It is complementary to the criminal justice-based approach, and aims to prevent criminals being facilitated by the government, to prevent intermingling between the underworld and the normal society, and to break up the economic positions of power that are established with capital derived from criminal activities (Olsthoorn & Van Hees, 2011). The instruments applied by the administrative approach are monitoring and control, screening, information exchange, policy with regard to the granting and withdrawal of permits, registration mechanisms and measures aimed at guaranteeing government integrity. With the administrative approach the local authorities are supported by the 11 Regional Centres for Information and Expertise (RIEC's). The RIEC's actively cooperate in the prevention of organized crime by exchanging judicial and administrative information. At the end of 2010 75 per cent of the Dutch municipalities participated in a RIEC (Jaarverslag RIEC's 2010). In 2011 the Netherlands' National Centre for Information and Expertise (LIEC) was founded. One of the core targets of the RIEC's is aimed at organized cannabis cultivation.

The Public Prosecution Service of the region of Den Bosch started in 2010 a pilot in which more severe sentences were demanded for exploiting a *dangerous* illegal cannabis nursery. Many cannabis nurseries in private homes endanger the neighbours because the equipments are not set up in a safe way. Besides a sentence for cultivating cannabis, six to fifteen more years in prison are demanded (Dubbeld, 2011; Secondant, jul-aug 2011, p. 24). For more information on policies concerning combating organised crime: see our former National Reports and in this report chapter 9.

#### *Intensified actions against ecstasy*

Organised crime with regards to synthetic drugs remains a priority area for the police and the Public Prosecutor for 2008-2012 (T.K.29911-17). In the Annual Report 2010 of the Expert Centre of Synthetic Drugs and Precursors it is noticed that two new kinds of precursors for MDMA –PMK-glycidate and alphaphenylacetonitrile- appeared on the market. These substances are not forbidden by international law, but can be converted into PMK and BMK. The precursor GBL, which can be used to make GHB, is not regulated in the Netherlands. In the reporting year the trade in GBL increased substantially. The National Crime Squad

started 28 investigations to organized synthetic drug criminal activities (ESDP, 2011). See also chapter 9 and 10.

### *Combating cocaine trafficking at Schiphol Airport*

The investigation and enforcement of trafficking of cocaine remains a priority in combating organized crime from 2008 to 2012. An important target of the policy is to improve international collaboration within the European Union (T.K.29911-17). The 100%-controls of the passengers of all flights from the Netherlands Antilles, Aruba, Surinam, Peru, Venezuela, Ecuador and the Dominican Republic were continued in the reporting year. The number of cocaine pellet swallowers at Schiphol airport appears to be stabilizing. For more information see chapter 10.

## **1.2 National action plan, strategy, evaluation and coordination**

### *1.2.1 Drug strategies: a new chapter in Dutch drug policy*

In May 2011, the new government announced its objectives for the near future in a special drugs policy letter (TK 24077-259). The main advices of the *Advisory Committee on Drugs Policy* from 2009 are endorsed (Adviescommissie Drugsbeleid, 2009):

- Use of drugs and alcohol by minors must be tackled far more rigorously.
- Coffee shops need to return to their original purpose: small scale points of sale for local users
- Reinforcing the combat against organized crime

The agreements on a new drug policy of the Coalition Agreement are specified in the policy letter. Most of the measures are concerned with cannabis.

1. The government intends to make coffee shops closed clubs only accessible for adult Dutch residents with a special club card. Every coffee shop will have a maximum number of members which will be determined by the mayors.
2. The government intends to bar non-residents from the Dutch coffee shops. Whether this is juridical attainable was uncertain until the judgment of the Administrative Jurisdiction Division of the Dutch Council of State, the highest general administrative court in the Netherlands, on 29 June 2011. The judgment rules that the residence criterion does infringe European law on the freedom to provide services, but according to a judgment by the European Court of Justice on 16 December 2010, this infringement is permissible in the interest of combating drug tourism and the nuisance associated with it. The residence criterion is also compatible with the Dutch Constitution's ban on discrimination, because in this case there are objective and reasonable grounds for 'indirect discrimination based on nationality'. The mayor [of Maastricht] has demonstrated that public order in the city was being disrupted by the rising influx of drug tourists and that the residence criterion could offer a solution to this problem. On the other hand, the Council of State states that Maastricht's byelaw contravenes the Opium Act. Given the Act's absolute ban on the sale of soft drugs, the municipality may not regulate the sale of soft drugs by means of a municipal byelaw and decisions based on it without reference to the Opium Act. So, the closure of the coffee shop was unlawful. This judgment does

not mean the mayor has no further statutory scope for taking measure against coffee shops. Under the Opium Act itself, the mayor may impose enforcement orders against coffee shops selling narcotics (Raad van State, 2011; nr. 200803357/1/H3-A)

3. The distance criterion between coffee shops and secondary schools will be enlarged from 250 to 350 meters. The use of drugs will be discouraged on schools (TK 24077-259)
4. The government will propose a bill to compel schools to register safety incidents, including incidents with drugs.
5. The Public Administration Probity Screening Act (Wet BIBOB) will be used more intensely to screen owners of coffee shops in order to detect connections with criminal organizations.

In the Opium Act Directives the coffee shop policy is regulated by the so-called AHOJG criteria, which stand for: 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. In the policy letter the Ministers of Security & Justice and Health announces that the changes in the coffee shop policy will be realized by adding criteria –such as the distance criterion- to the existing AHOJG criteria. The enforcement of these criteria remains primarily the responsibility of the mayor (TK 24077-259).

6. The new Opium Act Directives and a new article 11a of the Opium Act are proclaimed (see § 1.1)
7. Combating organized crime will be intensified: the number of criminal organizations against which proceedings will start shall double from 20 per cent to 40 per cent in 2014. An integrated approach against organised cannabis cultivation is prioritized in Central-Brabant, Amsterdam and Maastricht. The government states that crime may not be rewarding. As drugs criminality is primarily profit-driven, the efforts to confiscate criminal wealth will be intensified: from 2012 onwards the target is to confiscate 65 million euro per year.
8. The prevention policy of this government will target early detection and treatment of problematic behaviour of young people, including substance use (see for more information chapter 3).
9. In the field of addiction care the new government will give more emphasis to e-health interventions, to more coherence in the approach of multi problem addicts and to the aftercare and reintegration of addicts finished with treatment (TK 24077-259)(see chapter 5 for more information).

In his letter to the House of Commons of 26 October 2011, the Minister of Security and Justice elaborates the announced accentuation of the cannabis policy and formulates his reaction to the judgement of the Council of States on the subject of barring non residents from Dutch coffee shops (T.K. 24077-265). The following subjects will be discussed in Parliament.

The coffee shop policy will be changed by adding three criteria to the existing five AHOJG-criteria in the Opium Act Directives, by which the sale of cannabis is regulated. From 1 January 2012 onwards the *Closed club criterion* and the *Resident criterion* will be added to the Directives and enforced in the three southern provinces Limburg, North Brabant and Zeeland. The Minister of Security and Justice will make agreements with the municipalities with coffee shops about the enforcement of these added criteria. From 1 January 2013 onwards these new criteria will be introduced in the other regions of the country. Coffee shops will become closed clubs only accessible for Dutch adult residents with at most 2000 members. The new rule in the directives will be evaluated in research ([www.wodc.nl](http://www.wodc.nl)). From 1 January 2014 the minimum distance of a coffee shop to a school for secondary education must be 350 metres. This *Distance criterion* will also be added to the existing AHOJG-criteria of the Opium Act Directives.

In 2009, the *Advisory Committee on Drugs Policy* had questioned the current system (with two drug schedules) of the Opium Act and had recommended further study. The *Expert Committee on the List System of the Opium Act* was installed by the former government to advise on this issue. The most important conclusions and recommendations of the report of the *Expert Committee on the List System of the Opium Act*, which was published on 24 June 2011, are:

- a. The existing system of the Opium Act with two schedules of drugs does not have to be changed.
- b. To change the formal procedure for bringing new substances under control of the Opium Act by always asking the CAM (Coordination Centre for the assessment and monitoring of new drugs) for advice on the scheduling (e.g. list I or II, or no Opium Act).
- c. To set up a centre for reporting and monitoring new drugs (e.g. designer drugs, 'legal highs'). From the perspective of prevention it is important to ensure that new substances are identified.
- d. The committee observed that cannabis produced in the Netherlands has a relatively high tetra-hydrocannabinol (THC) content in recent years, which increased the risks for public health<sup>2</sup>. Cannabis and hashish with a THC content in excess of 15 percent should, according to the committee, be placed on Schedule I of the Opium Act as a hard drug. Transferring heavy cannabis to Schedule I means that the punishments for trafficking heavy cannabis will be increased and that coffee shops can only sell less potent varieties of cannabis.
- e. Moreover, the content and balance between THC and cannabidiol (CBD) in cannabis should be monitored and their effects on health of the consumers should be investigated.
- f. To reassess the risks of qat, taking into account the social harms associated with this drug and, in particular, damage or harms related to the international context. The committee has established that recent developments concerning GHB are so worrisome, that a possible change of its current place on Schedule II of the Opium Act should be

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<sup>2</sup> The committee recognized that there was no scientific evidence supporting the precise limit of 15%. However, building such an evidence base would be a long lasting and complex effort. Based on the current indications of harms associated with using cannabis with high THC content, and based on a precautionary principle, it was justifiable, according to the committee, to recommend a limit that was expected to reduce public health risks. The choice of 15% was a pragmatic one, as it reflected the content of the majority of cannabis samples at the beginning of this era, when the health effects of cannabis seemed to be relatively limited.

reconsidered. The committee has taken note of the fact that the Minister of Health, Welfare and Sport has requested the CAM to perform a new risk assessment (see §1.1).

- g. As regards MDMA, better known as XTC, the committee concludes that investigations show that damage to the health of the individual in the long term is less serious than was initially assumed. But the extent of the illegal production and involvement of organized crime leads to damage to society, including damage to the image of the Netherlands abroad. This argues in favour of maintaining MDMA on Schedule I (Expertcommissie Lijstensystematiek Opiumwet, 2011).

In a letter to the Parliament on 10 October 2011 the Ministers of Security & Justice and Health, Welfare and Sports comment on these conclusions (T.K. 24007–260). Briefly, the Ministers indicate that the current system with two drug schedules will be maintained; the system for the reporting of new drugs will be linked to the DIMS project, which already has the task to monitor the drugs markets (see chapter 3 and 10); the procedure of assigning drugs to one of the two schedules of the Opium Act suffices and it is not deemed necessary to change it; cannabis with a THC content over 15% will be placed on Schedule I of the Opium Act; the Trimbos Institute has been asked to review the scientific literature on the effects of CBD and the ratio between CBD and THC; there will be no new risk assessment for qat, but there will be research into the problems of qat use and trade among the Somalian population, after which decisions will be made on possible measures.

#### *Local cannabis policy*

In order to encourage the local governments to find (innovative) solutions to combat the public nuisance caused by coffee shops, the Dutch central government reserved in 2010 € 3.3 million for municipal pilot projects. The municipalities themselves have to co-finance these projects. In these pilots projects all kinds of measures will be tested for their effectiveness in reducing public nuisance, e.g. by encouraging more small coffee shops and down scaling large coffee shops; by increasing the geographical spreading of the coffee shops; by experimenting with other kinds of surveillance and enforcement; by introducing a special identity card system for coffee shops or formulating more requirements for coffee shops owners, traffic measures, tackling illegal selling points; and by developing new means of communication with foreign drugs tourists. The applications of the following cities were rewarded: Amsterdam, Arnhem, Eindhoven, Heerlen, Kerkrade, Leeuwarden, Lelystad, Maastricht, and Roosendaal/Bergen op Zoom. Most of these cities have problems with foreign drug tourists (<http://www.rijksoverheid.nl/nieuws/2010/08/31/proefprojecten-voor-aanpak-overlast-coffeeshops.html>)

#### *Special task force to combat drug related crime in Central Brabant*

In 2010, a special investigation into the backgrounds of the high levels of feelings of insecurity in the four biggest municipalities in (Central) Brabant –Eindhoven, Den Bosch, Tilburg and Breda- was executed (Beke et al, 2010). An important conclusion is that there is a connection between the visible and the 'invisible' criminality. There are different kinds of criminal organizations who occupy themselves in one or another way with cannabis cultivation –and other criminal activities: 1. Traditional trailer park groups; 2. Dutch criminal family groups; 3. Turkish drug dealers; 4. Moroccan gangs of youth; 5. Antillean drug gangs. The criminal investigations of the police force are mainly directed to reported and visible criminality and the capacity is insufficient to investigate underlying criminal structures. The



main advice was to integrate the collection of criminal-related information, to strengthen the cooperation between the different regions and to develop a better municipal safety policy. In December 2010, the Minister of Security and Justice installed a special Taskforce Approach Organized Crime Brabant (Taskforce B5) as a direct result of some serious incidents which were labelled by the media as a drug war (TK 29911-43). It started when the mayor of Helmond –a town near Eindhoven- permitted the opening of a second coffee shop in his town. Before the coffee shop could open its doors it was attacked by two hand grenades. Also, the mayor was seriously threatened and had to be protected –and go into hiding for some time- by the police until now. There was also a liquidation, and in Eindhoven a house came under fire of a machine-gun, both incidents were connected with this case. The police have indications that some competing cannabis gangs are behind this violence. The license of the second coffee shop of Helmond was withdrawn by the town government. Criminologist Frank Bovenkerk said about this situation that the public authorities and the police were too afraid of the violence used by the trailer park residents, who run a great deal of the illegal cannabis cultivation in Brabant, and are indirectly co-responsible for the growing criminality (TK Handelingen 2010-2011-31). The Taskforce Brabant intensified the cooperation between the regional police forces, and will get support from the National Crime Squad and the military police. It is aimed to round up the criminal gangs and to confiscate the criminal profits. The Minister of Security and Justice declared that Central Brabant will be the first region where coffee shops will become closed clubs (TK 29911-43). In a press release of the Dutch government from 20 October 2011 it is reported that until now the Taskforce B5 has arrested 1200 suspects, cleared away 800 cannabis nurseries, raided 7 so-called “sanctuaries” (vrijplaatsen) and seized 4 million euro of criminal wealth ([www.rijksoverheid.nl](http://www.rijksoverheid.nl)).

#### *Combating public nuisance and drug tourism*

Research bureau Intraval has done much research on coffee shops in many Dutch municipalities. Table 1 summarises findings on the number of coffee shop visitors in the municipalities where they used the same estimation methodology in the past years.

*Table 1.2.1: Number of coffee shop visits and visitors in six Dutch municipalities*

	<b>Groningen 2011</b>	<b>Tilburg 2009</b>	<b>Terneuzen 2010</b>	<b>Venlo 2009</b>	<b>Nijmegen 2008</b>	<b>Maastricht 2008</b>
Number of inhabitants	187,000	205,000	55,000	100,000	163,000	119,000
Number of coffee shops	14	12	1	5	15	14
Number of coffee shop <b>visits</b> per day	6,700	6,650	600	5,900	5,700	10,600
Number of coffee shop <b>visitors</b> per day	5,100 - 6,050	n.m.	570-630	4,450-5,000	4,500-5,100	5,300-6,300

Source: Bureau Intraval

In the city of Groningen the number of residents of areas with coffee shops experiencing public nuisance has risen from about 20 per cent in 2001 to 48 per cent in 2011. However, most of the increase can be attributed to one particular area of the inner town with three coffee shops. Almost 80 per cent of the coffee shop visitors in Groningen are residents of that city. Only 4 per cent of the visitors come from abroad. So, in Groningen coffee shop tourism is very small (Bieleman et al, 2011).

Larger towns near the border such as Breda, Tilburg, Eindhoven, and Nijmegen do not report much public nuisance from coffee shops, in contrast to smaller or small towns such as Maastricht, Venlo, Roosendaal/Bergen op Zoom and Terneuzen. The possibility exist that there is an association between the size (and nature) of the infrastructure of a town and the *experienced* public nuisance from coffee shops. People living in the centre of big towns expect more traffic noise and noise and nuisance of outgoing people than people living in smaller towns.

The municipality of Maastricht (119,000 inhabitants) is the southernmost city of the Netherlands and borders on Belgium. It has 14 coffee shops attracting about two million, mostly foreign, customers per year (Rovers & Fijnaut, 2011). As in some other Dutch border towns, drug-related public nuisance caused by massive drug tourism (e.g. car parking problems, rubbish on the streets, cannabis use in public spaces, drugs runners) from Belgium and France is a major social problem. From all the available sources it is clear that the subjectively experienced drug-related nuisance in Maastricht is huge: more than 25 per cent of the population experience often and 28 per cent experience sometimes drug-related nuisance. In order to get a fundamental juridical judgment on the banning of non-residents ('non-citizen') from coffee shops, the mayor of Maastricht started in 2005 the procedure which ended in the positive judgment of the Dutch Council of State in June 2011 (see § 1.1). At the same time the municipality is trying to spread most of the coffee shops to the municipal borders in order to relieve the neighbourhoods in Central Maastricht. The neighbouring municipalities in South-Limburg and Belgium are against this spreading, because they fear a rise of drug-related nuisance on their soil.

During the past ten years, there were experiments in some Dutch (border) towns to diminish drug tourism: in Venlo coffee shops were relocated to the outskirts of the town; in Rotterdam, Roosendaal/Bergen-op-Zoom and Terneuzen all or some coffee shops were closed; in Roosendaal/Bergen-op-Zoom, Terneuzen and Rotterdam the opening hours of the coffee shops were reduced; in Rotterdam, Venlo and Heerlen some long term projects dealt with the illegal hard drug market of dealing in premises, drugs runners and street dealers.

On 1 June 2009 16 coffee shops were closed in Rotterdam, because they were located too close to secondary schools and schools for vocational training. Research showed that in areas where coffee shops were closed, there was a decrease both in the occurrence of nuisance (from 58 per cent to 42 per cent) and in the experienced public nuisance (*for example*: experienced traffic nuisance decreased in areas with closed coffee shops from 51% to 36 % and remained the same in areas where coffee shops had stayed). The respondents had the impression that the supply of cannabis from illegal selling points had also decreased since the closure of the 16 coffee shops. A possible explanation for this development is that more police force was brought on the street after the closures. After the closures, most of the young cannabis users still got their cannabis through friends who buy it at coffee shops, so the measures did not seem to have much effect on the availability of

cannabis. Vulnerable young people value the health risks and possible addictive effects of cannabis lower than their more 'healthier' peers (Bieleman et al, 2010)

After the closure of all the coffee shops in Roosendaal/Bergen-op-Zoom the number of foreign drug tourists diminished with 90 per cent. The reported coffee shop related public nuisance diminished with more than 20 per cent. However, part of the illegal drugs market remained and is still dealing with foreigners. Another possible side effect is the huge rise in housebreaking in Roosendaal en Bergen-op-Zoom since the closure of the coffee shops (Beke & Van de Torre, 2011). Where did the 1.3 million foreign drugs tourists, who used to buy cannabis in both towns, go to after the closures? Research showed that a small part of them is still visiting both towns and buys on the illegal market. About 30 per cent went to the eight coffee shops of the neighbouring city of Breda. An unknown part possibly goes to other Dutch towns with coffee shops. If that is the case, it apparently did not result in a rise of reported drug-related nuisance in Breda or those other towns. Also, part of the cannabis sales moved to Belgium (Van der Torre et al 2010; Gemeente Breda 2010).

After the closing down of the biggest coffee shop of the Netherlands in Terneuzen, the number of foreign drug tourists in that town decreased from 2,600 to 470 persons per day (Bieleman et al 2009). Rovers and Fijnaut (2011) concluded that a direct consequence of the closure of coffee shops is that a substantial part of the foreign drug tourists are no longer buying on the Dutch cannabis market. Because foreigners have an illegal drug market in their own country, they will not come in big numbers to the Dutch illegal drugs market if cannabis is no longer legally available for them. According to Rovers and Fijnaut, drug tourism can be influenced by policy measures (Rovers & Fijnaut, 2011).

This is partly confirmed by two investigations amongst foreign coffee shop visitors in Maastricht whom were asked what they should do if they were no longer allowed to the Dutch coffee shops (Engelhart, 2010; COT & DUFEC, 2011). About 50 per cent of the foreign interviewees answered that they will no longer come to Maastricht to buy cannabis if the coffee shops are closed or only accessible for Dutch residents. In August 2011, the coffee shop owners of Maastricht announced that from 1 October 2011 onwards they will sell only cannabis to Dutchmen, Belgians and Germans, excluding all other foreigners. They want to make clear to the citizens that they take their responsibility in combating drug-related nuisance (Maastricht Aktueel, 5 aug 2011). On 27 September 2011, the Council of Maastricht decided that in 2013 three coffee shops, which are now located in the centre of the town, will be relocated to a so-called Coffee Corner along an exit road on the southern outskirts of the town near the municipality of Eijsden-Margraten (DePers, 27 sept 2011)

#### *'Scientific experiments' with cannabis policy in Utrecht*

In 2011 the municipality of Utrecht announced plans on an experiment with a closed club model for adult recreational cannabis users, and a special medical cannabis treatment experiment for high risk groups, such as persons with schizophrenia (Gemeente Utrecht, 10 Mar 2011). The closed club model should give recreational cannabis users the possibility to grow their own cannabis plants in a controlled and small-scale setting. In this way cannabis can be consumed that is definitely from non-criminal origin and there are also possibilities for control of the quality of cannabis. These experiments are planned as part of a scientific research project. According to the municipal of Utrecht these scientific experiments are within the boundaries of international drug treaties. In his reaction to this plans the Minister of Security and Justice said that the experiments of Utrecht are in breach of the law, because the cultivation of cannabis is forbidden (TK 2010-2011 Handelingen 2128).

### *Coffee shop research in Amsterdam*

In order to be able to diminish coffee shop-related public nuisance and to stimulate scale reduction of coffee shops – and possibly the spreading of coffee shops-, the municipality of Amsterdam commissioned research into the push and pull factors related to the visiting of coffee shops (Korf et al 2011). In this investigation no tourists were interviewed and the coffee shops with most tourists were not included. Some results of these studies are as follows:

- Most of the 59 coffee shops which were observed are embedded in busy neighbourhoods. From the inside they are similar to small pubs and there was very little observable public nuisance (like hanging around or double parking of cars).
- On average coffee shops in Amsterdam have 9 customers per hour (867 persons per week), at least 25 per cent of them are tourists.
- Most of the 1189 respondents lived in or in the environment of Amsterdam. Most of the visitors prefer a small coffee shop.
- The most important motives for visiting that specific coffee shop are the quality of the cannabis, the kindness of the staff and the small distance to their homes.
- Four kinds of coffee shop customers were distinguished: the lazy ones (20%) are coffee shop customers who have few preferences in comparison with the other groups, the socializers (25%) are respondents for whom cosiness and meeting friends in coffee shops are very important, the minimalist (33%) are respondents who find most of the 18 criteria they were asked for in the questionnaire unimportant and for the car customers (33%) the accessibility of the coffee shop is the most important criterion.
- The coffee shop owners are expecting problems with their customers if registration should become compulsory (they think that customers will not give up their privacy), they think it is not correct to exclude (foreign) tourists and they foresee the return of the illegal street trading of cannabis.
- If registration becomes compulsory, only 32 per cent of the interviewed coffee shop visitors indicated to accept it. About 25 per cent of them will start growing cannabis themselves and another quarter of the respondents will buy cannabis through other dealers. Ten per cent of the respondents declared to quit with smoking weed if the club card will be introduced (Korf et al, 2011).

Core questions of an investigation of eight neighbourhoods in Amsterdam were whether the presence of coffee shops in the neighbourhood was associated with the level of public nuisance, and whether coffee shops generate more public nuisance compared to pubs and snack bars (Broekhuizen et al 2011). The eight neighbourhoods of the investigation were home-and-work areas outside the city centre. Four different types of neighbourhoods were selected: two neighbourhoods with coffee shops and pubs/snack bars; two neighbourhoods with only coffee shops; two neighbourhoods with only pubs/snack bars; and two neighbourhoods without both facilities. In total 793 persons were interviewed.

- Most of the respondents have a neutral attitude with respect to coffee shops in their surroundings; this is unlike how they think about pubs and snack bars to which a positive social function is imputed.
- Respondents living in areas without coffee shops or pubs, think that if these kinds of facilities are introduced in their neighbourhoods the public nuisance will increase: 64 per cent for coffee shops and 53 per cent for pubs.

- The contrast with the experienced public nuisance of respondents living themselves near coffee shops or pubs is large: 16 per cent of them think that coffee shops are causing public nuisance, and only 11 per cent think the same of pubs.
- There was a strong correlation between the opinion of the local residents about cannabis and coffee shops and the reported or expected public nuisance. In order to avoid the impact of this kind of negative associations the local residents of the four different kinds of neighbourhoods were also asked for the experienced public nuisance in general.
- The most important conclusion is that the presence of coffee shops in a neighbourhood does not lead to an increase of public nuisance in general. Coffee shops give comparatively much public nuisance for residents living within 50 metres of the coffee shop (Broekhuizen, 2011).

### 1.3 Economic analysis

#### *Introduction*

This paragraph reviews the information that is available for the Netherlands about drug-related expenditures. No integrated studies have been conducted recently into drug-related public expenditures. A study into the criminal justice costs estimated that in 2006 the prevention of drug offences by the police and justice was publicly financed by about 114 million euro (Moolenaar 2009). And preliminary figures reported by Nauta, Moolenaar & van Tulder (2011) show that in 2009 expenditures for Opium Act offences are estimated at € 692,2 x million, of which the majority goes to hard drugs (€ 524,3 x million) (see § 9.1).

Nonetheless, new (albeit fragmentary) information is available about the expenditures that are made by the regular institutes for addiction care, some private addiction clinics, and about some medical expenditures. The expenditures made by the regular and private institutes for addiction care refer to the annually self-reported expenditures. Note that these are not labeled beforehand and do not make a distinction between mental health problems and addiction problems, nor between the kinds of addiction problems. It will be shown that the increase in self-reported expenditures made by the regular institutes are larger than inflation and that the expenditures made by the private clinics are becoming substantial.

Some people with drug abuse or drug addiction problems also consult a general practitioner or a psychologist-practitioner, but their number remains unknown. Consequently also the expenditures associated with this kind of care remain unknown.

#### *Expenditures on addiction care*

In the Netherlands, an institute for addiction care and/or mental health care is financed in a complex way from several sources. As a rule, regular institutes receive their funding from the Ministry of Health, Welfare, and Sport; the Ministry of Social Affairs and Employment; the Ministry of Security and Justice; the provinces; the municipalities; the health insurance companies; additional temporary funds; and some private funding.

On the 5<sup>th</sup> of July 2011, the Dutch Healthcare Authority (NZa) allowed the institutes to spend their different resources in a more flexible way. It was now allowed to mutually interchange the expenditures that are financed from different resources like the Ministry and

the insurance companies ([www.nza.nl](http://www.nza.nl) 07-07-2011). Unfortunately, all these different kind of resources that flow to the care institutes are not labeled beforehand as to retrieve which amounts will actually be spent on addiction care, let alone treatment for drug addiction. Nonetheless, the actual expenditures by the main institutes for addiction care in the Netherlands are retrievable from their annual accounts.

Table 1.3.1 gives an overview of the expenditures of the institutes during the fiscal years 2009 and 2010. From this table it can be estimated that the annual expenditures of the main regular institutes for addiction care, together with the institutes for integrated addiction care and mental health care, in 2009 amounted to 1,466,851,235 euro, which increased with 3.2% to a total of 1,513,392,474 euro in 2010. Given a general inflation of 1.3% in 2010, this implies a real increase of the expenditures by 1.9%. Unfortunately, it is not directly clear which part of the amounts is spent on treating addiction, let alone drug addiction, and which amount is still missing from the non-merged mental health care.

*Table 1.3.1: Expenditures in the fiscal years 2009 and 2010 by institutes for addiction care and institutes for integrated mental health care and addiction care*

Institute, Place of business	Domain of care	Fiscal year	
		2009	2010
Arkin, Amsterdam	Addiction & mental health	209,981,000 EUR	213,664,000 EUR
Bouman GGZ, Rotterdam	Addiction*	71,041,670 EUR	76,452,601 EUR
Parnassia Bavo Groep, including Brijder Verslavingszorg, The Hague	Addiction & mental health	541,180,132 EUR	537,540,545 EUR
Centrum Maliebaan, Utrecht	Addiction	34,274,095 EUR	37,499,550 EUR
Verslavingszorg Noord Nederland, Groningen	Addiction	58,729,770 EUR	61,119,414 EUR
Stichting Tactus Groep, Deventer	Addiction	62,212,405 EUR	68,234,235 EUR
IrisZorg, Arnhem	Addiction & social relief	75,776,697 EUR	83,801,629 EUR
Emergis, Goes	Addiction & mental health	86,678,000 EUR	87,370,000 EUR
De Hoop ggz, Dordrecht	Addiction & mental health	26,394,937 EUR	30,640,413 EUR
Novadic-Kentron, Vught	Addiction	65,886,404 EUR	70,115,906 EUR
Vincent van Gogh voor geestelijke gezondheidszorg, Venray	Addiction & mental health	103,191,125 EUR	106,590,181 EUR
Mondriaan Zorggroep, Heerlen	Addiction & mental health	131,505,000 EUR	140,364,000 EUR
<b>Total</b>		<b>1,466,851,235 EUR</b>	<b>1,513,392,474 EUR</b>

\*Although *Bouman GGZ* offers mental health care as well as addiction care, its actual clients are still mainly addiction clients. Source: <http://www.jaarverslagenzorg.nl>.

#### *Private clinics*

Table 1.3.1 above does not yet include the expenditures made by *private* clinics for addiction care and/or mental health care. Some well-known private clinics, their place of business and their expenditures in 2010, as officially reported at the website

<http://www.jaarverslagenzorg.nl>, are as follows:

- Castle Craig, The Hague: € 1,106,511
- RoderSana, Oirschot: € 4,716,086
- SolutionS Center, Voorthuizen: € 14,889,292

For some private clinics, no expenditures have been reported separately at the official website. These are private clinics like Jellinek Retreat, CrisisCare Trubendorffer, U-center, Smith and Jones addiction consultants, ExpertCleanics, and the Home Clinic. Nonetheless, as far as the expenditures have become public, the figures show that, until now, the expenditures made by a private institute are still smaller than the expenditures made by a regular public institute. However, the share of the private clinics in the addiction care is becoming substantial.

#### *Expenditures on medical care*

Unfortunately, the expenditures on medical care for drug addiction are not systematically available for the Netherlands. Only fragmented information becomes available. The Consumer Safety Institute, for example, estimates that, averaged over the period from 2005 through 2009, the accident and emergency departments of the hospitals have spent 9.0 million euro per year on drug-related emergencies (Nijman 2011). For the period from 2004 through 2008 this amount was estimated at 7.3 million euro per year, which implies an increase of 23% that is clearly higher than inflation.

#### *Conclusion*

In the above it has been shown that, from 2009 to 2010, the expenditures made by the regular institutes for addiction care and mental health care have increased with 3.2% and still with 1.9% when correcting for inflation. It has also been shown that the share of the private clinics in the addiction care is becoming substantial.

## 2 Drug use in the population

### 2.1 Drug use in the general population

Since 1997, drug use in the general population is monitored every four years in the National Prevalence Surveys on substance use. New data are available for 2009 (see also Online Standard Table 01). However, due to methodological changes, prevalence data from the 2009 survey are not comparable to those of previous years and consequently recent trends in drug use cannot be determined.

In 2009 5,769 respondents aged 15-64 years were successfully interviewed about substance use as part of a broader general health survey (Van Rooij et al., 2011). The net response rate was 63%. The core of the questionnaire was administered by the Computerised Assisted Personal Interview (CAPI), but questions on drugs (and various other 'sensitive issues') were administered through Computer Assisted Self-Interviewing (CASI). In contrast, in previous surveys (1997, 2001 and 2005) data on drug use were (also) collected with the CAPI. A comparative analysis on data from 2006 in which both CAPI and CASI was used showed that CASI yields higher drug use prevalence rates than CAPI, especially in the younger age groups (Statistics Netherlands, per. communication K. Knoops). For example, last month prevalence of cannabis use among 15-24 year olds interviewed with the CAPI (n=490) was 6.5% against 12.0% for the CASI sample (n=660). Therefore, differences between 2005 and 2009 are more likely to reflect methodological differences rather than actual changes (mainly increases) in drug use.

- Table 2.1.1 gives the lifetime and last year prevalence rates of drug use. The results show that in general lifetime and last year prevalence rates are higher in 2009 compared to 2005, but this is – as explained - most likely due to a mode difference.
- The ranking of drugs in terms of prevalence remains the same, although the difference between last year use of cocaine and ecstasy is smaller.
- GHB was included in the 2009 survey for the first time after signals of an increased use. Questions were included during a restricted data collection period (9 months instead of 12 months). Hence the number of respondents was slightly lower (N=4,599). In 2009 0.4% of the population had recently used GHB, which is similar to the last year prevalence of amphetamine use.
- Incidence rate, defined as the percentage of first time users of all respondents in the past year, was highest for cannabis (1.2%), followed by ecstasy (0.5%), cocaine (0.4%), amphetamine (0.2%), LSD (0.1%) and heroin (0%). Incidence of cannabis use was highest among 15-24 year olds (5.7%). After age 24, the percentage of first time users sharply decreases (0.4% for age group 25-44 years and 0.2% for age group 45-64 years).
- The reported prevalence rates on cannabis exclude users of medical cannabis (estimated lifetime prevalence 3.5%).



Table 2.1.1: Prevalence of drug use (%) in the Dutch population of 15-64 years in 1997, 2001, 2005 and 2009\*

	Lifetime prevalence (%)					Last year prevalence (%)				
	1997	2001	2005	...**	2009	1997	2001	2005	...**	2009
Cannabis	19.1	19.5	22.6 <sup>b, c</sup>	...	25.7	5.5	5.5	5.4	...	7.0
Cocaine	2.6	2.1	3.4 <sup>b, c</sup>	...	5.2	0.7	0.7	0.6	...	1.2
Ecstasy	2.3	3.2 <sup>a</sup>	4.3 <sup>b, c</sup>	...	6.2	0.8	1.1	1.2 <sup>c</sup>	...	1.4
Amphetamine	2.2	2.0	2.1	...	3.1	0.4	0.4	0.3	...	0.4
GHB***	-	-	-	...	1.3	-	-	-	...	0.4
LSD	1.5	1.2	1.4	...	1.5	-	0.0	0.1	...	0.1
Heroin	0.3	0.2	0.6 <sup>b, c</sup>	...	0.5	0.0	0.0	0.0	...	0.1

\* N= 17,750 in 1997; N= 2,312 in 2001; N=4,516 in 2005, N=5,769 in 2009. \*\* Trend break due to a change in data collection method in 2009. \*\*\* Measured in a reduced sample (N=4,599) included in the survey from 1 April 2009-31 December 2009 instead of the whole year. a Significant change from 1997 to 2001. b Significant change from 2001 to 2005. c Significant change from 1997 to 2005. Differences between 2005 and 2009 were not tested for significance. Figures in italics = less than 50 cases. Source: National Prevalence Survey, IVO/Statistics Netherlands (Van Rooij et al., 2011).

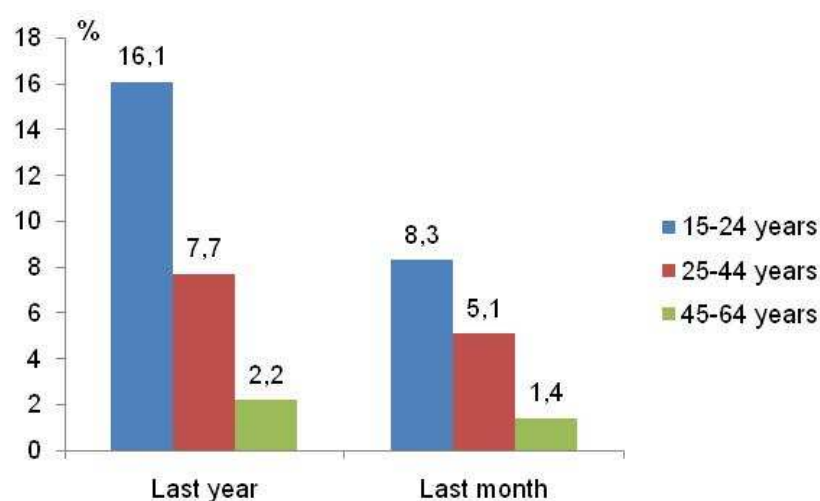
#### Frequency of use

- In 2009, last month prevalence of cannabis use was 4.7%; 30% of these last month users reported daily or almost daily use. This is some 1.3% of the total population aged 15 through 64 years, or 141.000 (almost) daily cannabis users in absolute numbers.
- One quarter (25%) of the current users consumed cannabis a few times per week, 21% at least once per week and 24% less than once per week.
- For other drugs the number of past month users is too small to allow a further breakdown in frequency category.

#### Age and gender

- The numbers of users are only sufficient for cannabis to make a breakdown by age and gender of recent users.
- Cannabis use was highest in age group 25-44 years. In 2009 last year prevalence was twice as high in this age group compared to age group 25-44 (figure 2.1.1).
- The prevalence of last year cannabis use was more than 2 times higher among men than women (9.8% as against 4.2%).

Figure 2.1.1: Last year and last month prevalence (%) of cannabis use by age group in 2009



Source: IVO/Statistics Netherlands (Van Rooij et al., 2011).

### Problem cannabis use and cannabis use disorders

From April 2009 until December 2009 the general population survey also included questions on problems related to cannabis use. These questions were derived from the DSM IV criteria for cannabis dependence and may be considered as a proxy measure of problem cannabis but they do not yield a clinical diagnosis of dependence. As these questions were introduced in the second quarter of 2009, the net sample was slightly lower (n=4,638 instead of 5,769), but prevalence rates of cannabis use were virtually the same (e.g. last year prevalence was 7.0% in the full sample and 7.1% in the reduced sample). Questions on problems related to cannabis use were only completed by respondents who had used cannabis at least five times in the past 12 months. Table 2.1.2 shows the percentages of cannabis users fulfilling the criteria. Almost one quarter (23%) responded positive to three or more 'symptoms', which can be indicative of problem use.

Table 2.1.2: Prevalence of symptoms of problem use of cannabis among recent users\*

In the past 12 months, did you	Percentage with positive response
...continue use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the drug?	23%
...spent a great deal of time in activities necessary to obtain the drug, using it, or to recover from its effects?	13%
...notice that you needed markedly increased amounts of the drug to achieve intoxication or desired effect, or diminished effect with continued use of the same amount of the substance?	31%
... often took the drug in larger amounts or over a longer period than was intended?	19%
...have a desire or unsuccessful efforts to cut down or control use of the drug?	46%

...give up, or reduce, important social, occupational, or recreational activities (e.g. sports, work, family, friends) because of the continued drug use?	5%
... feel bad (ill) when ceasing or reducing the drug or did you use another substance to relieve or avoid these symptoms?	6%

\* Recent users (n=188) who reported use of cannabis at least 5 times in the past 12 months. Source: Statistics Netherlands (personal communication K. Knoops).

**NNIA.** Between 2007 and 2009 a psychiatric epidemiological study was carried out on the prevalence and incidence of mental disorders, including DSM IV cannabis use disorders, in the general population from 18-64 years (NEMESIS-2, De Graaf et al., 2010). Baseline data were collected among 6,646 respondents (response rate of 65%). Face-to-face interviews were administered with the Composite International Diagnostic Interview (CIDI) 3.0.

- An estimated 0.1% to 0.5% of the population aged between 18 and 64 met the criteria for a last year diagnosis of cannabis dependence (DSM 4th revised edition). An estimated 0.2% to 0.6% of respondents met the criteria for a diagnosis of cannabis abuse. This means that about one in 9 last-year cannabis users has a cannabis use disorder (last year prevalence of cannabis use was 6.5%).
- Cannabis-related disorders were more frequent among males than females (see table 2.1.3) and highest among 15-30 year olds (0.9% for cannabis dependence and 1.0% for cannabis abuse).
- In population terms, there are an estimated 29,300 people with cannabis dependence and 40,200 with cannabis abuse. This population study did not survey juveniles aged under 18, people who were not sufficiently fluent in the Dutch language, and people who were homeless or were in a residential institution for a prolonged period. It is not known to what extent this may have influenced the results.

*Table 2.1.3 Annual prevalence and numbers of people with a cannabis-related disorder (m/f). Between brackets: 95% Confidence Intervals. Survey period 2007-2009*

Disorder	Males (%)	Females (%)	Total (%)	Total (Number)
Cannabis abuse	0.6 (0.2 – 1.0)	0.2 (0.0 – 0.4)	0.4 (0.2 – 0.6)	40,200
Cannabis dependence	0.4 (0.1 – 0.8)	0.1 (0.0 – 0.3)	0.3 (0.1 – 0.5)	29,300

Source: Nemesis 2007-2009 (De Graaf et al., 2010)

## 2.2 Drug use in the school and youth populations

Data on trends in drug use among pupils aged 12-18 years are available from the Dutch National School Surveys on Substance Use (DNSSSU) carried out every 3 or 4 years since 1988 (Online Standard Table 02). The most recent survey was conducted in 2007. In 2008 a survey was conducted as well among pupils of schools for special education. New data on

cannabis use is available from the 2009 Health Behaviour in School-aged Children (HBSC) study. The HBSC collected data from pupils in age group 12-16 year, who attended class 1-4 from secondary schools. Therefore, the data are not directly comparable with those of the Dutch National School Surveys on Substance use. For trend analyses data from both surveys have been used that cover comparable samples of pupils. For data on other illegal drugs, data from the Dutch National School Surveys is summarised (see also Online Standard Table 02).

### *2.2.1 Regular secondary schools*

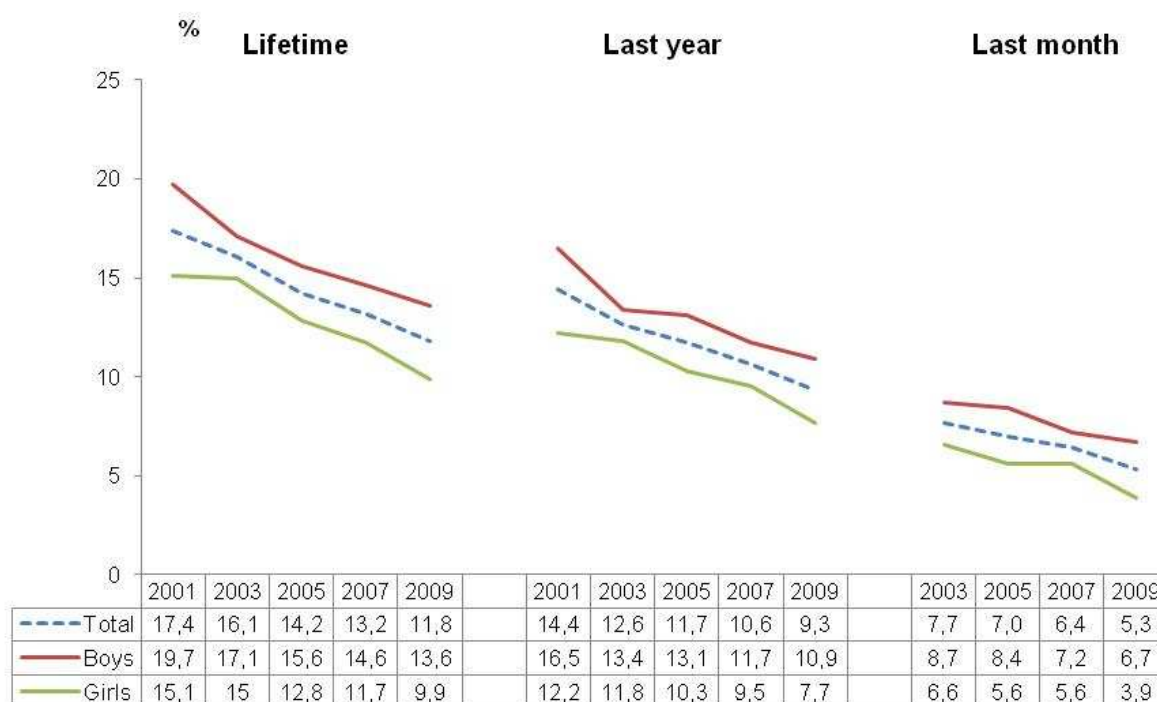
#### *Cannabis use*

The Netherlands participated three times in the HBSC study: in 2001, 2005 and 2009. In 2009, the pupils completed written questionnaires in the classroom and anonymity was assured (Van Dorsselaer et al., 2011). Random sampling occurred in two stages (first at the level of the school and second at class level) within four strata of urbanisation level. The final net sample of respondents consisted of 5,642 students. The data were weighted with respect to gender, level of urbanisation and school type and school class. In the statistical analyses corrections were made for clustering at the level of schools and classes. For trend analysis data from the Dutch National School Surveys on Substance use in 2003 and 2007 were also used. Differences between survey years were also tested in models correcting for differences in sample distribution

#### *Trends in cannabis use*

- Figure 2.1.2 shows that the lifetime, last year and last month prevalence rates of cannabis use decreased between 2001 and 2009. For each measure differences between 2001 and 2009 were significant.
- In 2009, 12% of the pupils had ever used cannabis and 5% was a current user.
- The decrease occurred both in boys and girls.

Figure 2.1.2: Trends in lifetime, last year and last month prevalence (%) of cannabis use among pupils (12-16 years)



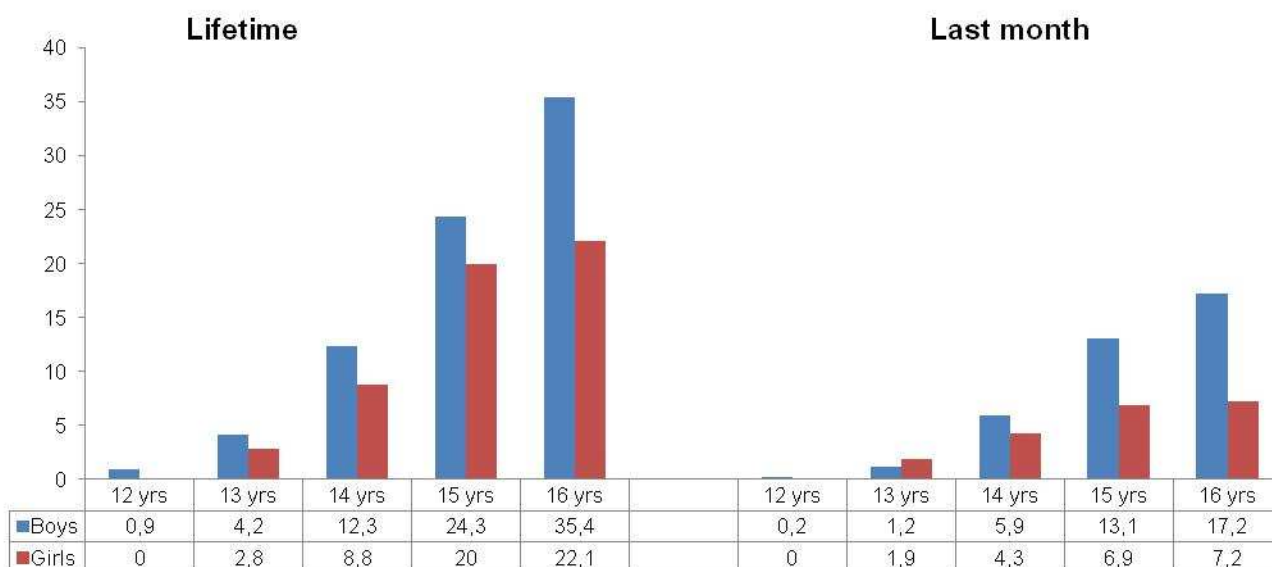
Sources: Dutch National School Survey on Substance Use and HBSC, Trimbos Institute (Monshouwer et al. 2008; Van Dorsselaer et al., 2011).

### Cannabis use: and age and gender

Figure 2.2.1 shows that cannabis use strongly increases with age.

- At age 12 only few pupils have ever used cannabis, less than 1%. At age 16, one in five girls and one in three boys had ever tried cannabis.
- While boys have overall more ever and current experience with cannabis, gender differences are only significant for current use and only at age 16.
- While the Dutch National School Surveys on Substance use have shown a strong increase in the age of first cannabis use between 1988 and 1996, the HBSC studies showed that lifetime prevalence among 14 year old pupils *decreased* from 20% in 2011 to 11% in 2009.

Figure 2.2.1: Lifetime and last month prevalence (%) of cannabis use among pupils by gender and age in 2009



Source: HBSC, Trimbos Institute (Van Dorsselaer et al., 2011)

#### *Frequency of cannabis use*

- Nine percent of the pupils of 12-16 years had used cannabis in the past year. Of this group, 42% had smoked cannabis only 1 time, 49% smoked between 2 and 39 times and 10% was a relatively heavy user (40 times or more in the past year).

#### *Cannabis use: school level and ethnicity*

- There were no significant differences between school types in the percentages of recent and current cannabis users.
- There were also no major differences in prevalence rates between Dutch and other ethnic groups, except for a lower rate of recent use among Moroccan pupils (4% against 10% among Dutch pupils). This difference remains significant after correcting for differences in school type and family situation between Dutch and Moroccan pupils.

#### Use of other drugs (NNIA)

- In general, the 2007 survey showed that prevalence rates of use of ecstasy, cocaine, amphetamine, hallucinogenic mushrooms and heroin among 12-18 year old pupils were much lower compared to cannabis, with lifetime rates around 2%, while only 0.8% of the pupils had ever tried heroin (Monshouwer et al. 2008 (see also Online Standard Table 02)). Last month prevalence rates are for all drugs below 1%.
- As for cannabis, the use of other drugs generally peaked in 1996 and decreased or stabilised since then. Ecstasy remains the most popular 'party' drug throughout the years, except for the last month prevalence in 2007, which was similar for ecstasy, cocaine and amphetamine (0.8%).

### 2.2.2 Special education

NNIA. In the National Report 2009 the results have been described of a survey among pupils of secondary special education (Kepper et al., 2009). Three school types for special education were included: Rec-4 (institutionalized pupils, for those who are who are uneducable or have specific problems, eg. psychiatric problems, chronic diseases), Pro (practical education, for those who are not expected to be able to successfully complete their lower vocational study), and Lwoo (providing additional support to those students who have special needs or other problems, but are capable of successfully completing their lower vocational education). The data were compared with those from regular secondary education. Drug use rates were overall highest among pupils from Rec-4 schools (which make up 1% of *all* pupils of secondary schools). There were no or only minor differences in drug use between pupils from Pro, Lwoo and regular schools, except for GHB (lowest rate among pupils from regular schools). In contrast, the prevalence of current alcohol use did not differ between school types, but the prevalence of binge drinking (consuming 5 or more glasses or more on one occasion in the past four weeks) was higher among pupils from all special school types compared to their peers from regular schools.

## 2.3 Drug use among targeted groups

The previous national reports have mentioned higher levels of drug use, especially more intensive patterns of drug use, among socially excluded groups like certain ethnic minorities, neighbourhood and problem youth, homeless people (see also § 8.1), and prolific offenders. Apart from these marginalised groups, drug use is usually also higher among subpopulations of young people and young adults in the nightlife scene. In this paragraph, new findings will be presented from several heterogeneous quantitative and qualitative studies among nightlifers and neighbourhood and problem youth in Amsterdam; nightlifers in The Hague; first-year students in Groningen; nightlifers and problem youth in the province of Gelderland; and men who have sex with men (MSM). As reported before, (trends in) illegal drug use may differ between geographic regions and the results of local studies cannot be interpreted as being representative for the Netherlands as a whole. It will be shown that some forms of drug use are higher in some of the aforementioned subgroups, but not in all of them.

### *Pubgoers, other nightlifers, and neighbourhood and problem youth in Amsterdam*

Since 1993, the Amsterdam Antenna combines qualitative and quantitative research methods to monitor substance use among nightlifers and neighborhood and problem youth in Amsterdam (Nabben and Korf 2011). For the observation year 2010, the Amsterdam Antenna for the third time devoted its *quantitative* survey to substance use among pubgoers. In this year the *qualitative* panel study from the Amsterdam Antenna targeted the nightlifers in general as well as the neighborhood and problem youth (Benschop, Nabben, and Korf 2011).

- With regard to the quantitative survey, a "total of 590 pubgoers completed the questionnaire. Their average age was 27, and they were almost evenly split between males and females. Three quarters were of Dutch ethnicity. More than half lived alone, and the average pubgoer had a high level of education".

- The lifetime, last year, and last month prevalences for the use of different substances are given in table 2.3.1. Clearly, cannabis, ecstasy, and cocaine were the most popular drugs among the Amsterdam pubgoers. Measured by the last-month prevalence, cocaine has become as popular as ecstasy.
- Prevalence rates of last year and last month use of ecstasy and cocaine were appreciably higher compared with those of the 2005 survey among pubgoers (LYP: 33% against 17% for ecstasy and 24% against 16% for cocaine; LMP: 13% against 7% for ecstasy and 12% against 8% for cocaine). When differences between survey years in the profile of visitors was taken into account (e.g. gender, type of pubs), the increases in last month prevalence were no longer significant. For example, in the 2005 survey there were relatively more pubs selected that could be typified as 'hip' and 'gay' while in the 2010 survey there were relatively more 'mainstream' pubs selected, although such differences probably reflect actual trends in the nightlife scene rather than selection biases.

Table 2.3.1: Lifetime, last year, and last month prevalences for the use of some substances among pubgoers in Amsterdam in 2010

Substance	LTP	LYP	LMP
Cannabis	79.7%	45.6%	22.7%
Ecstasy	46.0%	33.1%	13.1%
Cocaine	34.1%	23.9%	12.4%
Amphetamines	17.8%	7.5%	2.0%
GHB	11.2%	6.3%	1.9%
Mushrooms	24.8%	4.6%	0.7%
LSD	6.9%	1.5%	0.3%
Heroin	1.2%	0%	0%
Crack	2.9%	0.3%	0.3%
Mephedrone	2%	-	<1%

LTP = life-time prevalence, LYP = last-year prevalence, LMP = last-month prevalence. Source: Amsterdam Antenna, Bonger Institute of Criminology, University of Amsterdam (Benschop, Nabben, and Korf 2011).

With regard to the Amsterdam nightlifers in general it has been observed that the swift communication by means of the new social media "enables event planners to mobilise their clientele in no time". As a result, more and more not-entirely-legal "park raves now spring up with increasing frequency" (Benschop, Nabben, and Korf 2011). For specific substances, the following trends have been observed:

- *Cannabis*: "Partly as a consequence of the (tobacco) smoking ban, cannabis smoking in clubs is likewise less frequent." "Smokers who preferred hashish to marihuana were apparently on the increase".
- *Cocaine*: "a growing number of people are expressing an aversion to the one-time cool, successful image emanated by cocaine".
- *Ecstasy*: "there was a reported minor increase in ecstasy use in 2010 after the unstable period the previous year".
- *Amphetamine, GHB*: "there are some nightlife scenes where either amphetamines or GHB is the second most popular drug", and "amphetamine is apparently undergoing a 'rehabilitation' at present, especially amongst young, educated partygoers", and "this



'speed renaissance' is in line with the expanding alternative partying culture that welcomes pep pills as protest drugs".

- *Mephedrone*: ".. a stimulant that gained popularity in a few circles during the recent ecstasy market slump (see §10.3), is said to be no match for ecstasy. Despite some positive reports about mephedrone, the negative experiences, such as heart palpitations, nervousness, headache and stiff jaws, seem to predominate".

With regard to the neighbourhood and problem youth in Amsterdam, it has been observed that "a minority develop more problematic cannabis use in trying to escape from or neutralize personal problems". There also seems to be more experience with cocaine and ecstasy.

### *Young people in Amsterdam Southeast*

The suburb *Amsterdam Southeast* is an "urban village", which since 1975 became famous for housing more and more different groups of migrants. This urban village counts more than 80,000 inhabitants having about a hundred different nationalities. Nabben, Doekhie, and Korf (2011) have investigated the use of drugs among young people from 12 up to including 30 years living in Amsterdam Southeast. The research was conducted during the winter period from December 2010 up to February 2011. The investigation was mainly qualitative and consisted of (1) an ethnographic pilot study, (2) interviews with key informants, and (3) an ethnographic in-depth study by means of (a) participating observation and (b) informal talks.

From the youngsters in Amsterdam Southeast ageing 12 through 17 years, 6% had used *cannabis* during the past month, compared to 14% among the young adults ageing 18 through 27 years. According to the key informants, the youngsters from 15 up to including 17 years are especially vulnerable to develop future cannabis problems, especially when dropping out of school.

Although there are indications that Amsterdam Southeast has become a strategic node for the international *cocaine* trade, this substance did not find much connection with the young people. Nonetheless, a key informant knows about twenty young men (20-30 years) who are dealers of sniff cocaine and crack cocaine. Cocaine from Amsterdam Southeast has the reputation for being rather "pure", and attracts buyers from surrounding municipalities. Young users of cocaine are but a small group and keep it hidden, since cocaine, contrary to cannabis, is seen as a hard drug. From the young people (12-17 years) in Amsterdam Southeast only 1% has used hard drugs like ecstasy, amphetamines, cocaine, or heroin during the past month.

### *Nightlifers in The Hague*

The Commission MORE (Commissie MORE) monitors the use of substances among young and young adult nightlifers in the city of The Hague. The findings have now been reported for the observation years 2006 up to including 2009 (Dekkers et al. 2011). Previous reports focused on the age group 15 to 35 years, but due to worries about youngsters the age group has now been extended to the age group 12 to 35 years. Some nightlifers aging above 35 years were also included in the study.

For the observation year 2009 an internet survey was conducted from September 2008 up to February 2009. The respondents were sampled by means of automated Respondent Driven Sampling (RDS).

- From a total of 2,769 nightlifers who were invited to participate in the internet survey, a total of 676 nightlifers (24%) filled in the questionnaire completely. Of these respondents 50% was male, 41% aged 12-17 years, 43% aged 18-24 years, 12% aged 25-34 years, and 5% aged above 35 years.
- 12% of the nightlifers had used cannabis during the past month, 4% had used ecstasy, 3% had used cocaine, and 2% had used amphetamines during the past month.
- These prevalences among the nightlifers are higher than the prevalences in the general population.
- Compared to 2003, the prevalence of drug use among the nightlifers in The Hague has *decreased*. However, this trend was probably associated with changes in demographic and other characteristics of the samples (e.g. more females, less visitors of party's).

### *First-year students in Groningen*

During the academic year 2009/2010 a longitudinal research has been conducted among first-year students in the city of Groningen (Nieuwenhuis and Postmes 2011). Four kinds of problem behaviours were investigated: the use of alcohol, the use of drugs, unsafe sex, and aggression. There were three measurements: before the start of the study in July 2009 and during the first year of study in December 2009 and March 2010. A total of 4,452 first-year students were invited to participate in the research, of whom 1,041 students (23%) actually responded for the first measurement. From these participants in the first measurement, 63% participated in the second measurement, of whom 85% finally participated in the third measurement. The average age of the participating students was 19 years, and 66% of them were female.

With regard to drug use, it was found that, on average, the use of hard drugs among the students was rather low and that there was no relevant increase in the use of hard drugs or soft drugs during the first year of the study. These findings contradict the stereotype image which some people have about students. During the past month, 4.9% of the students had used cannabis, 0.6% had used ecstasy, and 0.4% had used cocaine. In the general population aged 15 to 25 years these prevalences were higher according to Statistics Netherlands (CBS), namely 12.4% for cannabis, 3.1% for ecstasy, and 1.7% for cocaine (Nieuwenhuis and Postmes 2011).

### *Nightlifers and hang-around youth in the province of Gelderland*

Since 2003, by means of a qualitative panel study, the *Tendens* monitors the use of alcohol and other drugs among young people in the nightlife and hang-around youth in the province of Gelderland. Recently, the findings have been published for the observation year 2010 (De Jong et al. 2011). The 2010 *Tendens* is based on the observations within their networks of more than thirty key informants. A total of 31 networks, including 20 networks of nightlifers and 11 networks of hang-arounders.

With regard to *cannabis*, there are no clear signals of a change in the number of users or the frequency of use. Only in some networks the trend continued to use cannabis earlier and earlier during the day. More often, the young people have been found to talk about using cannabis less frequently. Motives to use less are: money, problems at home,

worse condition, and paranoid thoughts. However, putting these intentions into practice appears rather difficult, especially when lacking appropriate daily activities.

Notwithstanding the 'contamination' of the market, *ecstasy* has consolidated its soft image of an "innocent pill" and it is used rather consciously and well-organized. Ecstasy is bought from dealers who are being trusted. Only the depressive hangover the day after is mentioned as a negative consequence of ecstasy.

*Amphetamines* have been signaled in a majority of 22 of the 21 networks, but in each network its use is restricted to only a few youngsters. The level of use has stabilized, which indicates that amphetamines have not become a popular alternative for 'contaminated ecstasy'.

In more than half of the networks, *cocaine* has been signaled. Given its image of a "junky drug", crack cocaine is not used at all in these networks. The change from ecstasy to cocaine has been temporary or only modest.

With regard to *GHB*, it is estimated that in 8 from the 20 networks of nightlifers and in 3 from the 11 networks of hang-arounders a maximum of 10% uses this drug. Only in a specific group of hang-arounders, about half uses GHB. In general, there appears less interest in the use of GHB and young people seem to have become more aware of its risks, but this putative trend has to be confirmed in the coming years.

#### *Men who have sex with men (MSM)*

Already for the reporting year 2008, the Schorer Monitor found a relation between drug use and unsafe sex among men who have sex with men (MSM). Therefore, the Foundation Mainline and the Schorer Foundation during 2009 have conducted further qualitative research into the relation between drug use and unsafe sex (Baas, Bakker, and Knoops 2010). A special aim of this qualitative inquiry was to answer the question why MSM have unsafe sex, notwithstanding the fact that they do have sufficient knowledge about the serious risks of unsafe sex.

After an initial pilot study among four MSM, a further 26 in-depth interviews were held among MSM, and two field studies were conducted at a popular international party in Amsterdam. During the field studies, additional questionnaires were distributed upon which 78 MSM responded. The respondents aged between 20 and 55 years, the mean age being 35.9 years. They came from Amsterdam (55%), the provinces outside Amsterdam (27%), or they came from abroad (18%).

It was found that ecstasy, cocaine, and GHB are the most popular drugs among MSM, who often use these substances in combination. Many respondents were found to have unsafe sex while under the influence of these drugs. With regard to the knowledge about these substances, it was found that MSM do have much knowledge, especially with regard to the short-term effects, but not with regard to the long-term health risks. Knowledge about hepatitis C was also insufficient or even totally lacking. The authors recommend creating discussion about substances, among the MSM as well as among the involved professionals.

It is not clear yet to what extent the Dutch MSM commit "boundary play", that is using drugs "intentionally to engage in unsafe sex, and then to justify this behavior after the fact" (O'Byrne and Holmes 2011).

#### *Conclusion*

In the studies reported above, higher levels of certain forms of drug use were found among pubgoers and nightlifers (cannabis, ecstasy, cocaine), neighbourhood and hang-around youth (cannabis, ecstasy, cocaine) and men who have sex with men (ecstasy, cocaine, GHB). However, no higher levels but even *lower* levels of drug use (cannabis, ecstasy, cocaine) were found among first-year students.

### 3 Prevention

#### *Introduction*

In the Netherlands, the prevention of drug use is formally coordinated by the Ministry of Health, Welfare, and Sport (VWS). Since 2005 it is considered part of the broader scope of public health prevention. Public health prevention is targeting risk factors for public health and supporting vulnerable groups or risk groups (see National Report, 2005). The Public Health Act from 2008 (T.K. 2008-460) requires that Dutch municipalities are responsible for carrying out health prevention programs, mostly in co-operation between the prevention departments of institutes for addiction care, municipal health services, schools, neighbourhood centres, the Dutch Centre for Crime Prevention & Safety (CCV), the Trimbos Institute and other health promoting institutes. The municipalities are funded for these activities by the ministry (see below). Due to the current economic crisis the annual budget for the municipalities will be cut substantially while in the recent past their responsibilities and tasks increased. The new developments in drug prevention are described below.

#### *New developments and trends regarding prevention policies and interventions*

Under the new government that started in 2010, the second Dutch policy paper on health prevention (*Preventie Nota*) from 2006 (see our former National Reports) is not the guiding principle for activities in health and drug prevention anymore. Two other policy papers have been published in May 2011 by the new government that specifically address drug prevention (drugs policy letter (*Drugsbrief*), T.K. 24077-259) or include it as part of a broader public health approach ("Health Nearby", TK 32793-2).

In "Health Nearby" three general health targets are prioritised, namely overweight, substance use and risky sexual behaviours. In the drugs policy letter, the impetus of drug policy for the coming years is shifted towards stricter legal measures against cannabis-related criminality and a stricter policy against nuisance associated with coffee shops. Although the health perspective remains an important aspect of Dutch drug policy, the current national policy measures and the accompanying amounts for funding, represent less national priority on the health perspective for drug users (see below and § 1.1). "Policies are stricter than in the past, and policies towards both legal and illegal substances may become yet stricter in the years to come. Public acceptance and prevailing societal norms are important factors in this development and seem to be more important than rational considerations." (Garretsen, 2010). Contrary to former decades and in line with the liberal principles of the new Minister of Health, Welfare and Sport, healthy behaviour is considered as the responsibility of individual persons, thus not a primary task for the national government. However, the 2011 drug policy letter does call for special attention for young high-risk groups, e.g. children of addicted parents or children of parents with psychiatric problems. It is pronounced that the school-based prevention programme "The Healthy School and Drugs" continues its activities, that cooperation between prevention and health care should be improved and online programmes for younger people should be supported (*ibid.*, p.26). The funding of new interventions and fundamental (non implementation-directed) research will have low priority in national drug policy in the next future (*ibid.*, p.36; see also 5.3.9). This new direction in health policy should also be understood as part of the new

national policy of a substantial reduction of costs (18 billion) over the total government period of four years. Consequently, from 2012, preventive life-style-directed health interventions (including mass media campaigns) are not funded by the Ministry anymore. In fact the budgets of the new government for lifestyle prevention policy (health policy in general) will be annually reduced from € 64 million in 2011 to €48 million in 2014 according to the national health care policy paper "Health Nearby" (TK 32793-2).

### *Quality assurance*

Several initiatives have been taken during the past decades to increase quality in addiction care including in the prevention departments of addiction care. We refer to our former national reports for more details. Here we want to recall that the first conference on quality of health care took place in 1989. More than five years later the first initiatives were taken in addiction care (e.g. a National Drug Monitor in 1999 and a first systematic review study on the state of the art in Dutch addiction care and effectiveness of interventions in 2004). Simultaneously, the principles of evidence-based medicine were slowly trickling down into addiction care and drug prevention. Many initiatives were started during the last decade. Of major importance was the ten-year policy programme (Scoring Results) that was funded by the Ministry of Health, Welfare and Sports. Several evaluation studies showed that this programme and its products (e.g. systematic review studies, vision papers, manuals, guidelines and protocols) had a major role in enhancing the quality of Dutch addiction care, though the impetus on average was more on the quality of treatment than on prevention.

Another important player in this field was The Netherlands Organisation of Health Research and Development (ZonMw) that funded two major research programmes on addiction and a state-of-the-art study on drug prevention. This increased the awareness among professionals in treatment and drug prevention that the principles of evidence-based medicine were to be taken seriously. The most recent development in quality care and assurance stems from 2009. In that year a national database of effective youth interventions was initiated in the Centre for Healthy Living (*Centrum Gezond Leven*) of the National Institute for Public Health and the Environment (RIVM). This database promotes the use of effective interventions in the field of (un)healthy behavior including drug use and is supposed to increase effective decision making in health care, including addiction care. It collects and evaluates with pre-defined quality criteria written reports about lifestyle interventions that are used in the Netherlands. A special committee, the Committee of Admission (*Erkenningscommissie*) evaluates whether a project is admitted to the database or rejected. This committee works with three pre-defined hierarchical methodological quality levels (from low to high): (1) sufficiently theory-based; (2) probably effective and (3) effective. The committee judgments are valid for five years (Zwikker & Kuunders, 2009). Project descriptions can also be situated in a pre-admission stage when these are judged as "well described", which means "transferable", because there is a protocol or manual. In this case the project receives the label "standardized" (i.e. clearly describing targets, methods and context, presenting a usable manual, and presenting a process evaluation report). These pre-admission activities are not done by the Committee but by a group of separate professionals. The judgment "well described" is valid for two years.

Furthermore, a report has been published on the state of the art in prevention in mental health and addiction care in 2010. Since 2000 these reports are annually published by the Trimbos Institute and these are based on electronic surveys among professionals and heads

of prevention departments in organizations of mental health and/or addiction. They present statistics on the capacity, coverage, organization and standardised interventions used in practice (Dijkstra & Ruiter, 2010). Due to governmental budget cuts this will be the last publication of this monitor (Marijke Ruiter, personal communication).

*Table 3.1 Standardized preventive interventions in addiction care in 2009 and 2010: target group or target, number of interventions used, and number of target group members reached (or numbers of visitors)*

<b>Type of target group or target of the standardized intervention</b>	<b>Number of interventions used in 2009 and 2010</b>		<b>Number of target group members reached<sup>3</sup> in 2009 and 2010</b>	
	2009	2010	2009	2010
Final target group (children, youth) <sup>4</sup>	7	7	5,994	1,485
Intermediary target group (professionals, teachers) <sup>5</sup>	11	11	18,596	8,511
Peer-educators <sup>6</sup>	3	3	10,323	134
Parents <sup>7</sup>	5	5	55,820	14,591
Harm reduction <sup>8</sup>	11	11	18,325 <sup>9</sup>	7,892 <sup>10</sup>
Online interventions <sup>11</sup>	15	12	Range: 100 – 2,200,000	Unknown

Source: Dijkstra & Ruiter, 2011, tables chapter 4.

Apart from information about for instance the organization, funding sources, domains of attention and expectations for future years, these reports show overviews of standardized and non-standardized interventions<sup>12</sup> in the Netherlands. Per intervention type information is presented about the frequency of implementation, the (estimated) total coverage of these interventions and funding sources. Table 3.1 shows a selection of data from the tables that specifically target drug prevention activities. A scientifically reliable comparison of these annual data remains difficult because measurement methods and responses changed over the years and because new interventions entered the tables (Goossens & Speetjens, 2011). For instance the coverage (number of target group members reached) is to be interpreted as

<sup>3</sup> Or the number of visitors for online preventive interventions

<sup>4</sup> e.g. prevention for children of addicted parents, strengthening families, psycho-education for families

<sup>5</sup> e.g. The Healthy School and Drugs, Barcode, Open & Alert (in youth work, in inpatient youth care, in judicial youth centres), good hosting for personnel in coffee shops

<sup>6</sup> e.g. drugsinfo team, Cannabis Intelligence Amsterdam

<sup>7</sup> e.g. homeparty, alcohol and education for parents with children in primary schools

<sup>8</sup> e.g. Pill test service, user rooms, condom supply, HBV vaccination campaign, safe sex education

<sup>9</sup> The number of visitors. This number is unreliable because these are not 'unique visitors' and it could not be corrected for the many revisits of clients.

<sup>10</sup> See note 7.

<sup>11</sup> Websites, chat service.

<sup>12</sup> Non-standardized interventions are categorized as "other" and remain non-specified. These are not included in the table above.

an indication, because in some cases the response given remained unclear, the response rate was low and/or the number of missing cases differed considerably.

One of the general conclusions of the most recent annual report is that in 2009 most organizations or departments for prevention in addiction care performed standardized interventions and interventions of relatively high quality (see the three categories of the Committee of Admission above).

#### *Main results of new national research*

The Netherlands Organisation for Health Research and Development (ZonMw) commissioned the Trimbos Institute and the Addiction Research Institute Rotterdam (IVO) to conduct two complementary 'knowledge synthesis studies', one about the state of knowledge on prevention of alcohol and drug use for younger people (Van Hasselt et al., 2010) and the other about the same subject for adults (Schrijvers et al., 2010). The objectives of both studies were:

- To describe alcohol use and drug use: prevalence, risk factors, consequences for the user, for its direct environment and for society;
- To describe the most important parties that are involved in prevention policy making, development and implementation of interventions and measures;
- To present a review of effective policy interventions and preventive interventions, based on national and international scientific literature;
- To identify gaps in knowledge (unanswered questions) about effective measures and interventions and about the implementation of these measures and interventions;
- To present a priority list of research questions and possibilities for implementation of measures and interventions.

The methods used for both studies are equal: a literature review of existing (international) research reviews, expert interviews and an expert meeting. The chapters of the two reports are also similar. Firstly, these chapters describe for alcohol and drugs separately the available information on use, the consequences of use, the risk factors involved and high-risk groups. Secondly, the prevention policy targets, the involved parties, effective and ineffective policy measures (according to the international literature) are described. Each publication ends with a summary of existing knowledge lags and implementation issues.

Some of the priorities for the coming years that were identified during the expert meeting included the need for preventive efforts targeting the risk factors in the environment of young people instead of actions targeting these young people themselves; a more systematic evaluation of preventive interventions with more attention to unintended consequences was also considered necessary, as well as studies on the societal costs of substance use by high-risk youth to enable cost-effectiveness studies. The last mentioned priorities of these experts were the implementation of motivational enhancement techniques for young people, and the improvement of training of professionals who work with vulnerable youth. The authors admit that there are still several gaps in the supply of preventive interventions for young people but that most health profits can be gained by improving existent drug preventive interventions instead of adding new ones to the existent repertory. Improvements are necessary in the coordination of the development and supply of preventive interventions and in an increase of cooperation of the different parties involved in drug prevention (Van Hasselt et al., 2010).



The authors of the second study on drug and alcohol prevention for adults conclude that:

- There are no review studies on the effectiveness of policy measures to prevent illicit drug use or to reduce harm related to drug use among adults;
- research outcomes, certainly the long-term ones, are only showing positive results for 'knowledge about drugs' or 'attitude towards drugs', not for 'drug use';
- the evidence for effectiveness of Dutch prevention policy when looking at (the onset of) drug use is still considered insufficient, but it has reduced the drug-related harms (for the individual user and for society) considerably;
- e-health interventions are promising but the effectiveness is still uncertain.

For the chapter on implementation problems, Schrijvers et al. (2010) conclude that on several levels tuning problems exist, that are detrimental for drug prevention. For instance the tuning of national policy priorities with those at the local level should be improved. The national government is delegating policy to the local authorities but on average the funds for an effective local implementation fall short. The same conclusion is drawn for the tuning of local policy levels and the organizations that implement prevention activities (organizations of addiction care, municipal health services, social services). Municipalities should take the lead in this. A third example is the relationship between primary health care and problems regarding drug prevention, e.g. some professionals, for instance homecare workers (*thuiszorg*), are not permitted to take the lead in the diagnosis of substance use problems, thus the cooperation between these workers and other primary care professionals should be improved.

Some priorities that were determined during the expert meeting for the next future are: (1) implementation of early identification skills and procedures in primary health care, preferably also directed at mental health problems; (2) more studies on the effects of preventive interventions for specific target groups, e.g. the elderly and the retired, mental disabled people, and (in general) vulnerable people (Schrijvers et al., 2010).

### 3.1 Universal prevention

The interactive school-based drug prevention programme "The Healthy School and Drugs" (see our former National Reports) is the main universal prevention program in the Netherlands. It is used by more than half of the Dutch secondary schools and in more than one-third of the primary schools. Modules are in progress to be used in lower vocational education.

Two new prevention instruments for primary schools were introduced in April 2011: booklets for lessons on smoking and alcohol and a new method of lecturing on these subjects ("Smoking and drinking: another story"), based on so-called 'narrative designing and learning'. In both cases an additional website may be used ([www.bao-rokendrinken.nl](http://www.bao-rokendrinken.nl)). An existing instrument, a module for teaching and non-teaching personnel of secondary schools for vocational training, has been expanded with a basic and an expanded course targeting the improvement of skills for early identification of drug use among students. Both courses are ended by a certificate procedure (Suzanne Lokman, personal communication).

Other school-based drug prevention programmes are applied less frequently. Examples are "Adequately prepared" (not evaluated yet) and guest lectures by ex-addicts (not evaluated

either). Other programmes do not target drug use specifically, but may influence determinants of drugs use, such as lifestyle and life skills (Van Hasselt et al., 2010, p.46).

A large-scale randomized clustered trial is currently running (3,784 adolescents in 23 secondary schools in the Netherlands) to evaluate the effectiveness of the Dutch Healthy School and Drugs (Malmberg et al., 2010). The first and less robust (quasi-experimental) evaluation was from 2002 (Cuijpers et al., 2002) and since then several programme changes have been made. The results of three conditions for students will be compared at 8, 20 and 32 months after baseline: the e-learning condition, the integral condition (combining participation in a parental meeting focusing on monitoring and regulation of students substance use with the e-learning condition) and a control condition (no intervention).

The originally Swedish program "Preventing heavy alcohol use in adolescents" (PAS) was also. The results of several review studies strongly suggested that the effectiveness of prevention programmes is high when parents as well as children are involved in preventive interventions (Smit et al., 2008; Spoth et al., 2008). However data about the longer term effects are sparse and mixed. Recently two publications on a Dutch cluster randomised trial have been published on prevention of alcohol use at school that also include parents (Koning et al., 2010; 2011).

Two interventions that were part of the Dutch programme Preventing Heavy Alcohol use in Adolescents (PAS) were compared using four conditions in students of the first class of high school with their parents. In this trial the long-term effects were determined (34 months after baseline). The parent intervention (postal questionnaires) was a renewed Dutch version of the Swedish Örebro Prevention Program (ÖPP), based on research showing that a lack of rule-setting by parents is a strong predictor for early onset of adolescent drinking. The student intervention (digital questionnaires) was the student part of the Healthy School and Drugs programme (Koning et al., 2010).

Eighty high schools were randomly selected. An independent statistician assigned nineteen schools randomly to four conditions: (1) parent intervention, (2) student intervention, (3) combined parent-student intervention, (4) control condition (school curriculum as usual). From the 3490 selected adolescents, 2937 (84%) were eligible for analysis with an average age of 12.6 (SD=0.49) at baseline. Half of these were boys and 40% were in lower secondary vocational education. A total of 2533 (86%) stayed in the programme during follow-up. The incidence of both weekly alcohol use and heavy weekly use at 34 months after baseline was significantly lower for the combined intervention group. This suggests that adolescents as well as their parents should be targeted in order to delay the onset of (heavy) drinking. Ten articles on this subject were published in a recent dissertation (Koning, 2011).

### **3.2 Selective and indicated prevention in at risk groups and settings**

According to some authors, early identification or early detection (*vroegsignalering*) of drug abuse or addiction is part of indicated prevention. Other types of indicated prevention that are not applied very often in the Netherlands are: a specialised medical office hour for drugs users and an internet drug test (Kleinjan & Engels, 2010). In the Netherlands, early identification of drug use or drug related problems is in many cases part of a more

comprehensive (or stepwise) intervention programme. Therefore the difference between these two prevention types is difficult to maintain.

Some selective alcohol and/or drug prevention activities among at risk groups or 'vulnerable groups' exist already for decades, for instance those targeting children of addicted parents (see chapter 12 for details). For other ones, the coverage over time is variable, e.g. youth and young adults in recreational settings, homeless youth or youth from low SES neighbourhoods, prevention among street corner youth. Problems such as homelessness, psychiatric problems and delinquency, and accumulation of these factors increase the risk for the onset of problems considerably (Snoek et al., 2010; Hosman et al., 2009). Below some available recent publications on this issue are reported.

In 2010 a pilot prevention programme was developed for youth with a slight mental retardation (*jongeren met een licht verstandelijke beperking*) (Hilderink & Bransen, 2010). This pilot resulted in a preliminary intervention programme that was implemented for parents and their mentally retarded children via the prevention units of four participant regions of addiction care. Some objectives of the foreseen evaluation of the programme (feasibility, client satisfaction and outcomes) were partly realised within the scheduled pilot period. The part focussing on "professional advancement" (*deskundigheidsbevordering*) was done by all units, but this part took too much time for satisfactory results. The "parent meetings" suffered from a low parent motivation and the part focussing on "information and education" for the young people themselves were realised in three regional units in two regions (as intended). The fourth part of the programme, "motivational enhancement training" could not be realised within the time span of the project. Recommendations included: there was a need for more detailed information about more drugs, especially for the somewhat older children; parent meetings should be more integrated in other parent-based interventions; and recruitment of young participants should use informal leaders and game-like elements. The results of this pilot imply that the programme should be adapted substantially before implementing it on a national level.

Street corner youth (*hangjongeren*) form another vulnerable group. Following rumours at local level about cannabis abuse, this group has been screened by an organisation of addiction care (Novadic-Kentron). It appeared that 29% of the boys and 16% of the girls (both younger than 16 years) was smoking cannabis more than once a week. Half of these groups smoked this drug daily. The use of other drugs did not differ from the national average. Several activities, e.g. early identification, information and education, and in some case also referral to addiction care have been suggested to reduce the individual problems of these young people and related societal problems (Akkaya et al., 2011). This suggestions were accepted by the municipality and in 2015 an evaluation will be realised of the effects of these measures (Gemeente Halderberg, 2011).

An e-learning programme for teachers has been introduced on October 3<sup>rd</sup> 2011 by the Minister of Education, Culture and Science that should facilitate the development of expertise for the early identification of alcohol- and drug use and related problems among pupils of secondary vocational schools (15-24 year). In schools, alcohol and drug use (predominantly cannabis use) is a risk factor for truancy and drop out. In an earlier study it was concluded that especially secondary vocational schools are in need of support for early detection of alcohol and drug use among students (Ter Bogt et al., 2009). The online

programme has two parts. One part is meant for all personnel, including the non-teaching staff of these schools and informs them about substance use and how to detect it. In the additional online course this is elaborated for teachers, a brief training is presented about: (1) how to talk about this habit with their students; (2) criteria for referral to addiction care; and (3) starting a 'drug office hour' at school.<sup>13</sup>

A group of young people in the Netherlands smokes cannabis without being aware of the risks of doing this at their age. Although there are nowadays special youth programmes in organisations of addiction care, special attention for young drug users who are (still) not in need of help is absent. Therefore a new initiative has been launched at the start of 2011 (*Wiet Check*) that is based on the Australian Adolescent Cannabis Check-up (ACCU). Young cannabis users (14-21 year) are visited actively to make an appointment for a brief meeting with a professional, for instance in shelters for homeless youth and other groups that were specifically organised. Three times a questionnaire has to be filled in. With one or two incentive-based individual talks (€ 10 per questionnaire) using a non-offending motivational enhancement technique, they are seduced to participate in this preventive intervention and to think about the pros and cons of their cannabis use. The experiment runs in nineteen locations of nine organisations of addiction care. It is funded by the Netherlands Organisation for Health Research and Development (ZonMw) and around 25 professionals are participating. At the same time (2011-2012) an evaluation on the effectiveness of this intervention is running that will be reported in 2013.

There appear to be more local initiatives on cannabis use among young people but they are not yet documented except for a proposal for a pilot study submitted to the Netherlands Organisation for Health Research and Development (ZonMw) named "Smoking cannabis is not normal".<sup>14</sup> This pilot aims to prevent cannabis use among young people from ethnic minorities (originally from Morocco and the Antilles) in two neighbourhoods of the city of Rotterdam by increasing skills of these younger people to resist group pressures to use drugs. When proven successful, this approach will be adapted in a broader municipal programme targeted at youth at risk, to reduce public nuisance and enhance talents and competences of young people.

A guideline has been published for professionals who are working with young people in general for the early identification of substance misuse or substance dependence (Snoek et al., 2010). It describes what early identification is and how it should be done. Primary is the collection of information on all persons and organisations that are involved with young people. Cooperation between organisations is considered crucial and subsequent steps of early detection are described, e.g. the choice of a target group, analysis of substance use, a valid norm for substance use (e.g. all substance use is problematic when younger than 16 years), determination of problems with a screening card, and motivational enhancement.

#### *The Drugs Information and Monitoring System (DIMS)*

During its nearly twenty years of existence, the Drugs Information and Monitoring System (DIMS) has monitored the chemical content of more than 100,000 samples of illicit drugs. These drugs are collected directly on the user's level and there is information exchange

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<sup>13</sup> [www.signalerenalcoholendrugs.nl](http://www.signalerenalcoholendrugs.nl)

<sup>14</sup> [www.zonmw.nl/nl/projecten/project-detail/blowen-is-niet-normaal/](http://www.zonmw.nl/nl/projecten/project-detail/blowen-is-niet-normaal/)

between the personnel at the testing facilities and the users. The anonymity of the drug user is guaranteed in order to keep DIMS trustworthy. This enables the collection of data on personal adverse effects and adverse effects experienced by friends, regional origin, date, source of purchase, price and reason for testing. The results of two studies suggest that testing drug users are broadly similar to non-testing users (Benschop, 2002; Korf, 2003). Thus, it is reasonable to assume that the DIMS target group is a reflection of all recreational drug users. While DIMS in a strict sense is only a market monitor, the data are fed back to the local organisations of its network to support their activities targeting the prevention of health threatening situations. In 2010, 8,898 drug samples were delivered to DIMS (DIMS, 2011; see § 10.3).

#### *The Monitor Drug-related Emergencies*

Since 2009 the Drugs Information and Monitoring System (DIMS) is supplemented by the 'Monitor drug-related emergencies' (*Monitor drugsincidenten*). Data about drug related emergencies or incidents are collected continuously and anonymously via a number of health-care organisations like hospitals, ambulance services, police medical-services, and first-aid services, in different regions of the country. These services have access to a special website (<https://www.drugsincidenten.nl>; see also § 6.2 and § 7.1), that enables the exchange of information and supports the professional level of health workers concerning interventions targeting these incidents. The data of the Monitor drug-related emergencies are for instance used for feedback to health professionals (e.g. ambulance personnel) and for increasing their drug-related expertise. There were 2,852 unique drug-related incidents registered in 2010 (Vogels & Croes, 2011). Almost half of these (46%) took place in the region of Amsterdam and more than one third came from First Aid posts on large-scale festivals and musical events. Some other results show that people from all ages are registered, from a five year old child (that ate by accident an ecstasy pill that was found at home) to an 83 year old man who showed slight intoxication effects from smoking cannabis.

#### *The Drugs Information Line*

The 15 year old Drugs Information Line (*Drugs InfoLijn*) is offering information about drugs to the general public by answering questions asked by phone, e-mail or by chat service. This service is now combining information on drugs and alcohol, but the Alcohol Information line (*Alcohol InfoLijn*) reports separately its annual statistics. The chat box deals with drugs and safe sex issues for 13 to 16 years old youngsters.

Compared to the past years there is a slight increase in contacts with the Drug Information Line. In total there were 4,121 contacts for drugs: 2,220 by phone, 1,125 by e-mail, and 176 otherwise. Both information lines have an important referral function. In most cases people were referred to websites (for more information, or e-help), to organisations of addiction care, self help groups or General Practitioners. During the next years a quick shift is foreseen from classical media towards new media, e.g. the internet (DIL/AIL, 2011). Especially young people are less inclined to use written documents, telephone or e-mail. Because the threshold for information should remain low, in November 2010 the Trimbos Institute and eleven of the fifteen Dutch organisations of addiction care started an open (free of charge) office hour for information about drugs and alcohol, the national chat service (Bransen & Van der Gouwe, 2011). This service is available from 1 to 5 pm via the well known websites [www.drugsinfo.nl](http://www.drugsinfo.nl) and [www.alcoholinfo.nl](http://www.alcoholinfo.nl), and via the websites of the organisations of addiction care. Information is given by professionals who are regularly

trained by the Trimbos Institute. Furthermore, a special LinkedIn group has been started to facilitate the exchange of the most recent information.

All participants of the chat service do their work in rotation (each organisation once per two weeks) in order to reduce the costs per organisation. Hosting and management costs are divided between the organisations. All in all this is a low budget service for informing people with high-quality information about drugs and alcohol (ibid.).

#### *Going Out: Alcohol and Drugs*

By ministerial order, the programme "Going Out: Alcohol and Drugs" was started in 1998 by the Trimbos Institute in cooperation with several parties in the field of addiction care. It deals predominantly with the prevention of harmful drug use in recreational settings, especially by young people (16-26 year). This project offers preventive instruments (e.g. a quick-scan for detecting drug problems, First Aid courses in case of these problems for personnel of recreational settings, factsheets and a help desk) for several stakeholders, for instance municipalities, municipal health services, coffee shops and addiction care (Croes & Van Gageldonk, 2009, see also several former national reports).

The Centre for Safe and Healthy Recreation (*Centrum Veilig en Gezond Uitgaan*) is also part of the programme Going Out: Alcohol and Drugs and was initiated by the Centre for Safety and Prevention of Criminality (*Centrum Criminaliteitspreventie*) and the Trimbos Institute. The aim of this centre is offering support to municipalities in constructing a local policy (a mix of measures) for increasing safety in recreational settings by reducing drug and alcohol use. It is also a knowledge centre for evidence-based interventions and practice- or experience-based activities in this domain. It disseminates newsletters, info sheets and it organises thematic meetings.<sup>[1]</sup>

#### *Interventions targeted at users of GHB*

Following signals of an increase in (problematic) use of GHB, the programme Going Out organized an expert meeting to obtain insight in the risks groups and preventive interventions, which were also published in a fact sheet (Horjus & Van Goor, 2011). Many organizations are also active now in disentangling the problems related to GHB use, the user groups and treatment of GHB dependence and detoxification (TK 2010-2011, nr. 2535; see § 5.3.7). On behalf of the Ministry of Health, Welfare and Sports, the Coordination Point Assessment and Monitoring of new drugs (CAM) reassessed the risks of GHB use (CAM, 1999; 2011). In its report from 2011, the CAM advised to place this drug on list 1 (hard drugs) of the Opium Act. The Minister wrote to the members of Parliament that she will follow this advice (see also 5.2.7).

An organisation of addiction care (Novadic-Kentron) published a practice-based protocol based on two years of experience with detoxification of GHB users. These experiences show substantial differences in the detoxification process among patients. Besides, there are different methods for detoxification in use across organisations of addiction care (Dijkstra et al., 2010b). Therefore, the Minister of Health, Welfare and Sport also funded an experiment within Novadic-Kentron for determining effective treatment options of GHB addiction. The final target is to publish and disseminate a practice-based guideline. It is funded by the programme Scoring Results (see *quality assurance*). A report is planned at the end of 2012 (Dijkstra et al., 2010b).

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<sup>[1]</sup> [www.veiligengezonduitgaan.nl](http://www.veiligengezonduitgaan.nl)

The city of Amsterdam has published an Action Plan GHB (GGD Amsterdam, 2010). The background of this action plan is the increase in ambulance services caused by GHB use and the addictive nature of GHB when used regularly. GHB users do not seem to be aware of the adverse and possibly also dangerous effects of GHB. The target is to reduce the negative consequences of GHB-use and to support GHB-users and GHB-dependents in relieving the acute problems related to GHB-use. The proposed programme of actions contains: (1) monitoring GHB use in the city to get informed about specific target groups (e.g. via existent and if necessary new monitor activities and via focus groups with representatives of risk groups within homosexual scenes and dance events); (2) a public campaign targeting these target groups that is also informing about a website with information on this drug and its effects; (3) improving support in case of incidents in recreational settings (e.g. a GHB information course for personnel in these settings, for the police and security personnel), and (4) offering low-threshold care for problematic users (based on the results of the current experiments in several organisations of addiction care). A protocol or standard of care is needed for effective help in different situations in case of GHB problems.

Moreover, an exploratory study (telephone interviews and a secondary analysis of national registration data on clients of addiction care, combined with focus groups) is running to analyse characteristics and motives of GHB users, their patterns of use, and related psychosocial or other problems (IVO, 2011). Targets are to discover user groups, and to give suggestions for prevention of (problematic) use of GHB.

### **3.3 National and local media campaigns**

Until the end of 2011 two mass media campaigns are running that target smoking, drinking and cannabis use. One is targeting students (14-18 years) and the second tries to involve the parents of students (12-16 years). Both campaigns are realised by the Trimbos Institute and STIVORO (a national organisation that is active in promoting non-smoking). The funding of the Ministry of Health, Welfare and Sport for these campaigns and other mass media health campaigns will be stopped at the end of 2011, because national health policy aims to cut 220 million euro of subsidies (see the health care policy paper "Health Nearby", TK 32793-2).

The main target of the parent-directed campaign is that parents are helping their children to say no against smoking, drinking and cannabis use at a critical moment (summer holidays). On the site [www.hoepakijdataan.nl](http://www.hoepakijdataan.nl), tips are given on how to talk with children about these subjects in an effective way. Also drug-related information is presented. The campaign runs before and during three crucial moments of the year, the Summer holidays (start on June 8<sup>th</sup>), the time of change from primary to secondary school (early September), and national holidays (November-December). It uses several materials and methods, e.g. posters and leaflets, parent meetings at school, and for professionals a manual for a parent course and a digital toolkit with a draft press message, an advertorial, a radio spot, a banner and a short movie.

On regional and local level similar campaigns are still running or initiated. These campaigns are not mass media campaigns in the old sense of the word. Instead, these may deal with

extra activities of for instance preventions workers in schools and youth units and by peers in recreational settings. Two examples are presented below.

One local campaign is initiated by a regional organisation of addiction care in the Eastern part of our country (Tactus) and funded by the city of Enschede.<sup>15</sup> The main principle is frequently bringing the message on different places where the target group (young people) is present and during a prolonged period. Activities are also directed towards parents, schools and youth workers. They also disseminate information about self help websites presenting information on the subject, on possibilities for help in case of problems and on lowering the threshold for seeking help. These websites deal with alcohol use, cannabis use, gambling, eating disorders and benzodiazepine use.<sup>16</sup>

Another one focused on alcohol is regional, in one province in the north of the Netherlands (Drenthe). In abbreviated popular speech this campaign is called *Maklukzat* which means something like "In fact this is very easy." All twelve provincial municipalities signed a contract of commitment for participation in this campaign and the Ministry of Home Affairs and Kingdom relations (BZK) funded € 150,000 of the costs and amongst the other financial supporters are a national bank and a regional newspaper. The main pillars are: early identification, legal arrangements, enforcement and public support. The targets are set for people younger than 16 years: a reduction in alcohol use (not further specified) in 2016 and a reduction of the percentage of heavy drinkers in 2016. Target groups are students of secondary schools, teachers and other professionals that are related to these schools, but for instance also supermarkets, canteens of sport clubs, and organisers of recreational events. Teachers and professionals are trained by the regional organisation of addiction care (VNN) and the regional Bureau of Youth Care.<sup>17</sup>

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<sup>15</sup> [www.cannabisdebaas.nl](http://www.cannabisdebaas.nl)

<sup>16</sup> [www.alcoholdebaas.nl](http://www.alcoholdebaas.nl); [www.cannabisdebaas.nl](http://www.cannabisdebaas.nl); [www.gokkendebaas.nl](http://www.gokkendebaas.nl); [www.eetprobleemdebaas.nl](http://www.eetprobleemdebaas.nl); [www.benzodebaas.nl](http://www.benzodebaas.nl).

<sup>17</sup> [www.ggddrenthe.nl](http://www.ggddrenthe.nl)



## **4. Problem Drug use**

### **4.1 Prevalence estimates of problem drug users**

Compared to the previous national report (Van Laar et al. 2010), no new national or local estimates have become available about the number of problem drug users in the Netherlands. According to the most recent estimate for 2008 there were about 17,700 more or less problematic opiate users within a 95%-confidence interval running from 17,300 up to 18,100 opiate users.

The majority of the opiate users also consume crack, but treatment registration and field studies also point at the existence of a group of (problem) crack users who do not consume opiates. The size of this population is not known. In the near future, estimates will become available on the total population of crack users (both with and without users of opiates) for the cities of Amsterdam, The Hague and Rotterdam. Preliminary results on characteristics of crack users in Amsterdam have been published (see also next paragraph).

### **4.2 Other data on drug users from non-treatment sources**

#### *Users of crack cocaine in Amsterdam*

The researchers Houwing, Oteo Pérez, and Korf (2011) argue that data about crack-cocaine users who receive addiction treatment may give a distorted view about the whole group of crack cocaine users. The crack-cocaine users outside treatment may differ from their counterparts within treatment. Therefore, these researchers in Amsterdam interviewed a sample of 439 users of crack cocaine. About 200 of these respondents were field sampled by means of respondent-driven sampling (RDS). The remaining respondents were sampled from two captive samples given by a low-threshold service and a user room. For the respondent-driven sampling, the first respondents, the "seeds", were sampled as much as possible outside treatment settings, resulting in four RDS-chains. The interviews were conducted in different areas of Amsterdam during the period March-August 2009. This research has resulted in a more well-balanced view on the total group of crack-cocaine users.

The 200 RDS-respondents aged between 27 and 67 years, the mean age being 46.2 years. A quarter was female, and with regard to ethnicity almost half was Western. More than half used crack cocaine almost daily. Compared to the respondents from the low-threshold service, the RDS-respondents were more often female (26% versus 15%), more often were higher educated (31% versus 17%), more often had never used heroin (14% versus 0%), less often had own housing (40% versus 61%), and less often had a regular job (5% versus 10%). Compared to the respondents from the user room, the RDS-respondents were somewhat younger (mean age 46 versus 50 years), were less often non-Western (50% versus 88%), used crack cocaine less frequently (5.4 versus 5.9 days a week), and less often had used heroin during the past month (70% versus 85%).

### 4.3 Intensive, frequent, long-term and other problematic forms of use

#### *Cannabis*

Data on the frequency and intensity of cannabis use and cannabis use disorders in the general population has been reported in § 2.1 and § 2.2. In this paragraph the results will be described from two studies in targeted samples: the first (CANDEP) gives an indication of characteristics of frequent (dependent) cannabis users (CANDEP) and/or the second provides data on the prevalence of intensive use among pubgoers (Antenna monitor).

Baseline data from a three year follow up cohort study (CANDEP) give an indication of the demographics and characteristics of frequent (3 or more times per week) dependent (n=252) and non dependent (n=348) cannabis users (Van der Pol et al., 2011). Respondents aged between 18 and 30 years were recruited in coffee shops and through chain referrals (snowballing) in five Dutch cities. Foreign tourists were excluded from the study. Nondependent users were slightly more employed and had a lower duration of cannabis use compared to dependent cannabis users. Groups were not significantly different on other characteristics listed in table 4.3.1, but preliminary findings revealed distinct profiles with regard to psychiatric comorbidity (see § 6.2). A more detailed comparison of demographic, cannabis and other substance use variables, vulnerability indicators and comorbidity between these groups and the general population will be reported in the next National Report.

*Table 4.3.1. Baseline demographic and (cannabis) use characteristics for dependent and nondependent frequent cannabis users*

		<b>Cohort I Nondependent (%)</b>	<b>Cohort II Dependent (%)</b>
Sample size	N	348	252
Gender	Male	79.3	79.4
Age	(mean, sd)	22.0 (3.1)	22.1 (3.0)
Ethnicity	Western (vs. non-Western)	69.8	74.6
Education	Primary education	8.9	9.5
	Lower secondary	23.0	17.1
	Higher secondary	37.4	37.7
	Higher professional, university	30.7	35.7
Employment status	Employed	46.3	34.9
	Student	40.5	48.0
	Unemployed, homemaker	11.8	14.3
	Unable to work	1.4	2.8
Cannabis use disorders	Lifetime dependence	22.4	100
	12 month dependence	0	100
	Lifetime abuse	43.4	n/a
	12 month abuse	21.0	n/a
Cannabis use	Years of use (mean, sd)	6.9 (3.3)	7.4 (3.1)
Past year average	Daily	31.9	31.0
	Near daily	34.2	40.5

Source: CANDEP, Trimbos Institute/University of Amsterdam (Van der Pol et al., 2011)

Liebregts, Benschop, Van der Pol, et al. (2011) have raised the question "whether cannabis dependent users become socially isolated (exclusion), or tend to congregate in social networks of dependent users (differential inclusion)". Metaphorically spoken, it was investigated which "feather" makes these birds (cannabis users) flock together. In the framework of the CanDep study it was found that there is "some level of differential inclusion of cannabis dependent users: they are not fully socially excluded from/by other cannabis users, but tend to flock together as subgroups within social networks of frequent but nondependent users". Therefore, it is concluded that "cannabis dependence versus nondependence does not appear to be the "feather," the major binding factor in cannabis-use-related social networks of frequent cannabis users". The authors finally notice that their finding has its consequences for attempting targeted prevention. Since, in the Netherlands, there are no specific networks of cannabis addicts, there are no such networks either that can function as a specific target for preventing cannabis addiction.

In 2010 the Amsterdam Antenna monitor carried out a survey among pubgoers (Benschop et al., 2011; see also § 2.3).

- The data showed that 23% had used cannabis in the last month; of this group 7% uses cannabis (almost) daily, 17% uses cannabis weekly or only during the weekend and the majority (74% uses cannabis only occasionally); 2% stopped cannabis use altogether.
- Over half of the last month users smoked 1 joint (54%) per typical use day; 20% smoked less than 1 joint; 17% smoked 2 joints and a minority (9%) smoked 3 or more joints on a typical use day.
- One in ten (10%) of the current cannabis users was categorized as a *risky user*, which was defined as daily use, or consuming more than one joint on several days or more per week. Seventeen percent now and then thought they smoked cannabis '*too much and/or too often*'.
- These rates of intensive and risky cannabis use are much lower compared to those reported for a samples of (frequent) visitors of coffee shops (see § 4.3 of the National report 2010)

#### *Cocaine, ecstasy and amphetamine*

NNIA. In a survey among visitors of clubs and large-scale parties (see National report 2009), indicators of problem use of ecstasy, amphetamine and cocaine were included, which were based on the seven criteria for DSM IV substance dependence (Van der Poel et al., 2010).

Individual symptoms of problem drug use were reported by 10% to 30% year of the last year users of ecstasy, cocaine and amphetamine. If the criterion of 3 or more symptoms was taken to define problem use, the data showed that for party attendants the prevalence rate of problem use among last year users was 11.3% for ecstasy, 13.0% for cocaine and 19.4% for amphetamine. The respective rates among last year users in the sample of club visitors were quite similar: 12.8%, 12.8% and 21.4%.

Note, however, that the data were self-reported and not based on a clinical interview. Moreover, given the selective recruitment of respondents in specific locations of the nightlife scene, the reported prevalence rates of problem use of ecstasy, cocaine and amphetamine cannot be extrapolated to the larger population of users of these drugs.

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

### 5.1 General description, quality assurance and availability

The addiction care in the Netherlands consists of a nationwide network of some 200 locations that are part of twelve large regional organizations (see also § 2.3). Addiction care is also organised by judicial institutions and to a lesser extent by some religion-based and private institutions. It is also practiced in general and psychiatric hospitals and by a subgroup of General Practitioners (mostly in the bigger cities). During the past decade there is an increased cooperation between mental health care and addiction care (comorbidity, dual diagnosis patients) and to a somewhat lesser extent also between social work, relief centres and other organisations (e.g. for realising case management, Intensive Community-based Treatment or Assertive Community Treatment).

In the past years, treatment interventions have been extended with treatment via the internet (e-treatment), with treatment programmes for specific target groups (e.g. young people, people with double diagnosis, people with mild or borderline intellectual disabilities, the elderly, and other vulnerable groups) and with treatment interventions for other types of addictions (e.g. gambling and internet addiction).

During the past decade, the addiction care in the Netherlands consolidated its quality assurance by means of the quality management program Scoring Results (Resultaten Scoren, <http://www.ggznederland.nl/index.php?p=157153>). This programme is still running. During the same period the funding policy and consequently also the funding system has changed substantially for health care in general. From a more demand-driven funding system that was paid by the government it was reconstructed towards a more market economy model of competition between health insurance companies and based on quality and efficiency of care. The main guiding principles for funding health care and also addiction care are: a transparent treatment process, demand-driven care, and Routine Outcome Monitoring (ROM). Health care is also increasingly guided by a small number of large companies and corporations that have developed from mergers between the more numerous older organizations for health insurance and for addiction care (cf. Van Hoof et al., 2010). Today, the Ministry of Health, Welfare and Sports only funds special projects. One example is the medical prescription of heroin for a specific user group (annually € 17 million) and each one of the 16 municipalities where heroin prescription units are situated additionally funds some 200,000-300,000 euro annually. Other examples are the update of a substitution treatment guideline (RIOB, see National Report 2010) and the development of a treatment protocol for GHB addiction.

Another development was the shift of responsibilities in addiction care and drug prevention from the government towards municipal level (T.K. 2008-460, see also 3). The municipalities are funded for these activities by the ministry. Due to the current economic crisis the annual budget for the municipalities will be cut substantially while in the recent past their responsibilities and tasks increased. Therefore the Association for Dutch Municipalities (VNG) complained to the government about this indirect municipal budget cut down. Several institutes of addiction care have already announced a serious number of forced discharges due to the budget cuts.

Moreover, apart from the capacity cuts implemented by the insurance companies, by January 2012, patients will have to pay a higher financial contribution to cover the costs of addiction care. This has a negative effect on the accessibility of care.

## 5.2 Strategy/policy

During the past year addiction care in the Netherlands has continued and consolidated several initiatives for quality improvement that were taken during previous decades. New initiatives more specifically target at increasing the cost-effectiveness and efficiency of the addiction care. Moreover, improvements have been made in the care arrangements for chronically drug-dependent persons with complex problems. Pilots are now running for (pharmacological) treatment of cocaine- and GHB-related problems. There are more initiatives for online therapy and there is more attention for vulnerable groups, especially (but not exclusively) for younger people (see also the National Report 2010). Below some of these developments will be briefly elaborated, based on recent publications.

On the 15<sup>th</sup> of December 2010, the Minister of Health, Welfare and Sports installed an Advisory Committee Vulnerable Youth and Addiction consisting of experts from youth care, the forensic youth psychiatry, and youth addiction care. In April 2011 this committee reported that substance (ab)use by young people is a relative easily changeable determinant of psychiatric and social problems at an older age. The group between 12 and 24 years old has not been (but should be) a common target group in drug prevention, addiction care, youth care, and youth mental health care. Available interventions for early detection are still rarely applied, and the capacity (personnel) to implement these interventions in the organisations is in many cases insufficient. The common accumulation of risk factors among the aforementioned target groups increases the risk of escalation as well as the risk of the problems becoming chronic (see also chapter 3). Early detection, prevention, and early (integrated) intervention strategies are therefore essential for reducing problems. It is important that the expertise of the addiction care is disseminated towards the organisations for youth care. This can be realised by means of outreach work (Adviescommissie Kwetsbare Jeugd & Verslaving, 2011).

Young people are more vulnerable for the risks of alcohol and cannabis use than adults and they are on average unaware of the risks of it. Because the use of these drugs have increased among these young people, the advice of the former Advisory Committee on Drug Policy (Adviescommissie Drugsbeleid, 2009) suggested to sharpen the drug policy measures in order to prevent this (see 1.1). Although the Minister of Health, Welfare and Sports agreed on this advice in her recent drug policy letter, the proposed policy measures do not support specific funding for drug prevention among this group. Instead it calls for more intensive use of existent intervention programmes targeting the early identification (*vroegsignalering*) of drug use or problems (TK 24007-259).

In daily practice, Dutch addiction care mainly focuses on treatment (cure) and drug prevention. Based on professional experience from the past decades, abstinence was and is not the most important target in addiction care. In general it is admitted that not only treatment or detoxification is important for a longer lasting recovery of the client, but also after care, rehabilitation or reintegration.

Several initiatives have been taken during the past decade to ameliorate the most important problems of the drug users. An example is the start of hostels where drug users can live on

their own without the daily hassles of living and scoring in the streets (see national report 2008, 9.1).

A second initiative has been the national Strategy Plan for Social Relief (*Plan van Aanpak Maatschappelijke Opvang*) for homeless drug users that took these people from the streets in social relief centres. These are examples of taking care of the basic living conditions of homeless drug users. At the same time these measures reduced public nuisance in the streets considerably (National Report 2010, § 8.2). Initiatives from client organisations and supported by several legal arrangements, e.g. the Client Participation Act for Organisations of Health Care from 1996 (*Wet Medezeggenschap Clienten Zorginstellingen*) and the Social Support Act (*Wet Maatschappelijke Ondersteuning*) from 2006, recently resulted in a declaration of intent: the national Charter of Maastricht (*Handvest Maastricht*). This Charter stresses both the importance and the willingness of all organisations of addiction care and client organisations (*clienraden*) to engage in cooperation toward a more *recovery-driven* addiction care. Here 'recovery' stands for more than abstinence alone. The target of the intended cooperation between the addiction care and the client organisations is to increase the perspectives and the possibilities for social recovery, rehabilitation, and reintegration, although these last two words are not used in this context (Oude Bos & Rutten, 2010; De Haan & Oude Bos, 2011). It implies also a change in focus from cure to cure plus after care and to increase the quality of life of clients. Partly influenced by client organisations, many institutes for addiction care have already developed activities and interventions for housing, work and daily activities. The Charter represents the common opinion that these initiatives should be extended and strengthened to become successful. To make social recovery a real possibility, knowledge from clients, professionals, and science should be integrated somehow. The addiction care must change from being supply-directed towards being demand-directed, and thus the addiction care should be more individualised and client-directed. The key terms for this change are: empowerment, self management, expertise by experience (*ervaringskennis*), and resilience. The perspective and the responsibility of the individual client should be broadened. The cooperative road to go has to be designed and constructed during the next two years (see also National Report 2010, § 8.2).

### *Training and education*

Since 2005, a Council for enhancing professionalism in addiction care (*Raad voor Bekwaamheidsontwikkeling*) is in operation (see National Report 2008). In 2010, the Council has initiated university education on addiction for the medical sciences and psychology. For instance, the Faculty of Medicine of Utrecht University has introduced a curriculum on addiction science for 2<sup>nd</sup> year students. In this 5-week module 35 students participated. The Faculty of Psychology at the Erasmus University of Rotterdam introduced a similar curriculum for 3<sup>rd</sup> year students, which has been evaluated. The evaluation has resulted in the advice to include practical skills (e.g. a training in motivational enhancement techniques), and to include more information on treatments. The curriculum will be continued in 2011. In 2010, the Council has furthermore disseminated a manual on studying addiction science for higher vocational education (Buisman, 2011). Moreover, the Radboud University Nijmegen (RUN) offers a post-master training in addiction medicine and addiction psychology. Diverse universities of applied sciences offer a minor training in addiction, for example the Fontys University of Applied Sciences, the HAN University of Applied Sciences, the Windesheim University of Applied Sciences, and the Inholland University of Applied Sciences.

## 5.3 Treatment systems

### 5.3.1 Organisation and quality assurance

Major changes in the Dutch addiction care during the past decade were described in our former National Report. The number of addiction care centers changed from a patchwork of some sixty mainly local institutions to twelve large-scale regional organisations that often also include mental health care. Another important development during those years was the quality improvement of the addiction care (see § 5.2). The program Scoring Results (Resultaten Scoren) that played an important role in this process has now been continued as a Knowledge Institute (*kennisinstituut*) that is hosted by the National Branch Organization for Mental Health Care and Addiction Services (GGZ Nederland). More recent changes of perspective in addiction care are pilots with 'shared decision making' targeting the involvement of individual clients with treatment decisions, the introduction of Routine Outcome Monitoring, and the introduction of a new instrument for intake, diagnosis and treatment.

#### *Shared decision making*

A change in perspective on the content of addiction care is given by the experimental initiatives and studies on shared decision making (SDM), which increases the autonomy of clients (Joosten et al., 2008; 2009; 2011). Health care studies have put more emphasis on the advantages of better communication between clinician and patient, and SDM is a way of improving this communication. "Shared decision making is seen as a mechanism to decrease the informational and power asymmetry between doctors and patients by increasing patients' information, sense of autonomy and/or control over treatment decisions that affect their well being" (Charles et al., 1997).

The ultimate reason for defending SDM is that it has been shown that improved interaction between clinicians and clients in the form of SDM reduces drug use and psychiatric problems among clients, thus SDM is useful for addiction care (Joosten et al., 2009). However, research on how exactly SDM influences clinicians' and clients' behaviour is scarce. Therefore a small-scale randomised clinical trial has been conducted that showed that SDM has an influence on patients' and clinicians' self-perceived interpersonal behaviour. The trial also explored whether and how interpersonal behaviour at baseline influences the clients change in interpersonal behaviour (Joosten et al., 2011). In this trial, thirty four addiction care professionals were randomised (31 participated in the follow-up three months after treatment) covering 212 clients (with 76 in follow-up), professionals were allocated to either five sessions of SDM or decision making as usual. At follow-up, the goals and expectations were evaluated that were agreed upon during post-test. It was found that the clients allocated to SDM perceived more change regarding autonomy, control, and extravert behaviour compared to the clients of the control group. Baseline differences also influenced changes in clients' perceptions during treatment, but these changes occurred in both treatment groups. The results further show that the more dominant the clinician, the greater the clients' increase in control behaviour. The friendlier the clinician was at baseline, the greater the clients' friendly interpersonal behaviour was at follow-up. Finally, it was found that the greater the difference was between the clinicians' and the clients' baseline interpersonal behaviour, the greater the change was in the interpersonal behaviour as perceived by the clients during treatment. Interpersonal behaviour was assessed by an instrument that measures ten behavioural

styles (e.g. hypernormal-responsible, narcissistic-competitive, rebellious-distrustful). Unfortunately, due to the small sample size and due to the large dropout during the trial, the results are still difficult to generalize to the studied treatment population.

### *Benchmarking and Routine Outcome Monitoring pilots*

Benchmarking is increasingly considered as an important tool for creating transparency and for improving the quality management of health care in general. For the mental health care and the addiction care sector, "statistical thermometers" are planned to be annually published by the Netherlands Association for Mental Health Care (*GGZ Nederland*). One of these thermometers is based on the answers to questions about client satisfaction in nine treatment modalities. Four regional organisations and one private organisation for addiction care (*GGZ CrisisCare Trubendorffer*) participated. Examples of these treatment groups are: short- and longer term outpatient care; individualised care; part time care. The total scores of the government-funded institutes are compared with those of the private one in easy accessible histograms. Comparisons will be made for nine treatment modalities: outpatient short- and long-term; inpatient short- and long-term; tailored care (*zorg op maat*); part-time care (no bed, 4-8 hours on working days); protected living; supported living on one's own; and combinations of care types. Benchmarking is a long-term development and the operations will be adapted according to the difficulties met. The first measured client satisfaction scores for the private organisation appeared to be very positive (Stratus/GGZ Nederland, 2011).

Benchmarking also includes Routine Outcome Monitoring (ROM). The main parts of ROM are patient-professional agreements about treatment targets, measurement of the problems of the client at baseline, an intermediary measurement and one at the end, and sometimes also at one or more follow-ups. Treatment targets should be discussed and made explicit for both client and professional at the beginning of treatment, including an eventual change in targets during treatment. This is the effectiveness part of benchmarking between organisations. Applying ROM in treatment and care can be helpful with the formulation of answers to the national performance indicators that have been introduced earlier (see our former National reports). In fact ROM may be useful for a more thorough specification of these indicators. Both operations should be interpreted as long-term development projects that are now in the phase of exploration and drawing up a quantified statement of affairs in the addiction care.

After a review of experiences with ROM in the Anglo-Saxon world, an advisory paper of the Council for Public Health and Health Care (*Raad voor Volksgezondheid en Zorg*) suggested to introduce ROM in the mental health care, including the addiction care (RVZ, 2011). According to the Council, ROM should be a standard part of the treatment and evaluation process in the Dutch mental health care. In order to increase the comparability of ROM measurement instruments and outcomes in separate institutes of care, a standard has been decided upon. The importance of ROM is felt on several levels, e.g. for the individual client level, the middle level (buying care from the health assurance companies, organisational learning), and in the future also at macro level (systematic insight in relevance and effectiveness of mental health care and effectiveness research) (*ibid.*, p.28).

The Ministry of Health, Welfare and Sport asked the Trimbos Institute to conduct an inventory of ROM practices in the Dutch mental health care, in order to be informed about the variations of these practices, and for an independent indication of national criteria for ROM



for the future (Van der Feltz-Comelis et al., 2010). Besides conducting a literature review, several experts from organisations that work with ROM were interviewed. The relative participation of experts from addiction care was not reported. The inventory showed that ROM is in use in all organisations, but that the ROM-outcomes are not easily comparable yet. This is for instance due to the fact that the ROM data collection between different institutions occurs on different times, for different client groups with different age groups, and different quantitative outcomes (for instance Cohen's *d* as a simple effect size measurement is recommended). The software for ROM should be adapted accordingly, and for separate disorders, decision aids (algorithms) should be developed and implemented.

ROM is tried out in addiction care in three monitors that are also meant to support benchmarking (see § 5.3.1): (1) a monitor of cognitive-behavioural lifestyle trainings, run by the Amsterdam Institute for Addiction Research, AIAR; (2) a monitor on inpatient motivation centres (see National Report 2007, par. 5.1); and (3) a monitor on dual diagnosis treatment. These monitors present data on substance and other disorders (at time of admittance and release), and other data during admittance and release, e.g. quality of life, duration of treatment, client satisfaction (cf. De Weert-van Oene et al., 2010).

In March 2011 the implementation of ROM also started in Intensive Community-based Treatment (*bemoeizorg*) for people with complex problems (psychiatric, addiction). This project should result in a manual for this working field, and it is funded by ZonMw, the Netherlands Organisation for Health Research and Development (Pallast & Roeg, 2011). For the ROM operation in addiction care, data collection and analysis will be the next phase. An advisory report of a ROM-directed expert group for addiction care concluded that treatment evaluation should target drug use, daily performance, and quality of life, and that measurement instruments should be selected according to existing quality instruments (e.g. EuropASI and/or MATE, see below) (GGZ-Nederland, Expertgroep Verslavingszorg, 2011). The implementation of ROM was further supported by an introduction day on this subject on the 9<sup>th</sup> of May 2011, and an electronic aid has been developed for facilitating the choice of measurement instruments for separate disorders (WikiROM).

ROM serves the increase in transparency and quality of care. Based on these criteria and on the costs of specific interventions, Dutch health assurance companies may in the future select health interventions (cure and care) as adequate or inadequate to reimburse (Van Hoof et al., 2010). During a conference on mental health care on the 3<sup>rd</sup> of March 2011, some possible disadvantages of the ROM-operation in connection with the functions of ROM for health assurance companies were discussed. Fears were expressed that when these companies would interpret ROM data prematurely, or as the sole indicators for success of specific treatments and organisations, this would stimulate the faking of ROM data. In that case, the desired learning and improvement effects of professional and organisational performances could become corrupt (Theunissen, 2011). These and comparable worries were also expressed in the literature on ROM and 'payment by results' based on analyses and experiences in the United Kingdom and the United States (Maynard et al., 2011; MacDonald & Elphick, 2011). Nonetheless, it has been decided that, by 2011, the institutes for mental health care and addiction care will have to deliver monitoring data from at least 20 percent of their clients to the Stichting Benchmark GGz ([www.sbggz.nl](http://www.sbggz.nl)), which is to increase to 40 percent in the coming years. A special taskforce targets the implementation and co-ordination of the instruments that are applied in the treatment processes.

### *Measurements in the Addictions for Triage and Evaluation*

In 2010, a Dutch instrument was presented for assessing characteristics of people with drug and/or alcohol problems. It is meant for triage and evaluation of treatment. The name of this instrument is MATE, which is the abbreviation of Measurements in the Addictions for Triage and Evaluation (Schippers et al., 2010). The initiatives for constructing this tool stem from a growing concern about the inability of existent tools to advise clients about treatment options and allocating them to specific treatment programs and levels of care (cf. Merx et al., 2007). The basic idea behind MATE is that an assessment tool at intake should be focused primarily on treatment allocation, case finding, and on a baseline measurement for evaluating the treatment afterwards (cf. Carey, 2002; Carroll & Rounsaville, 2002). Detailed diagnostics are useful to fine-tune the treatment process and may in many cases be conducted after the initial intake procedure.

The MATE consists of ten modules, including eight interview schedules and two self-report questionnaires. In routine practice the administration time was reasonable (45 minutes to one hour), and the results appeared to be useful for allocation decisions. The application of the MATE was well accepted by clients in the addiction care and resulted in few missing data. Manuals are available for training professionals in the MATE (Schippers et al., 2007 and 2009), and for assessments based on the MATE (Buchholz et al., 2008). The instrument is available free of charge in Dutch, English, German, and Spanish (Schippers et al., 2007 and 2009).

On the 23<sup>rd</sup> of June 2011, a MATE forum was organised at the Amsterdam Medical Centre (AMC) of the University of Amsterdam to exchange information about new developments and materials concerning the MATE.<sup>18</sup>

#### *5.3.2 Availability and diversification of treatment*

Dutch drug policy regarding the treatment of people with drug problems was based on easy accessible treatment options for different drug-related problems in a broad spectrum of treatment arrangements. Due to changes, e.g. developments in the size and seriousness of drug-related problems, changes in drug user populations, and the introduction of new drugs, several revisions and adaptations were made over the years but the principles remained the same (Van Laar & Van Ooyen-Houben, 2009, chapter 4). Some recent and mainly local experimental changes in the options for treatment are for instance methadone distribution at home for stabilised clients who can be trusted (see 5.3.5), and e-treatment during evening hours for working people on an anonymous basis (see below).

In August 2011, the Jellinek in Amsterdam gave a new impulse to the treatment of alcohol and drug addiction during the evening hours. This is specifically meant to enable patients to continue their work during treatment and as an additional option for addiction care via the internet. Both types of treatment are meant to increase the accessibility and enlarge the coverage of addiction care.<sup>19</sup> In this variant of treatment a short-stay in a treatment clinic during the evening hours is combined with an outpatient group treatment during twelve weeks.

#### *5.3.3 Treatment for young people*

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<sup>18</sup> [www.mateinfo.nl](http://www.mateinfo.nl)

<sup>19</sup> [www.jellinek.nl](http://www.jellinek.nl) > hulp & voorlichting > Behandeling > Behandelaanbod > avondprogramma

During the past years increased emphasis is put on young drug users and vulnerable groups, not only in drug prevention (see 3) but also in drug treatment (e.g. young cannabis users).

The importance of treatment options for the younger group of substance abusers (with and without comorbid psychiatric problems) has been recognized for several years now, partly due to the increase in treatment need among this target group. Systematic research reviews were published on this subject (e.g. Smit et al., 2007), and almost every institute for addiction care has now implemented some out- and/or inpatient treatment options for this target group. The experience with treatment of young people with addiction problems is still scattered. Exchange of experiences and scientific evidence is needed and almost all organizations of addiction care cooperated in an advice for a monitor for youth addiction care. This advice was funded by the programme Scoring Results and is currently being implemented as a means for quality improvement, development of working methods, transparency and accountability (De Weert et al., 2010). The advice is based on an inventory of the available drug prevention activities, treatment interventions or programmes and care within each participating organization of addiction care. A draft monitor was piloted and evaluated in several organizations. This resulted in a list of concerted conclusions and recommendations. Because the existing youth treatment programs are still rather new, there is more room to actually change and improve the daily practice in a more evidence-based direction. A systematic review of the effectiveness of interventions, but also more insight in the applicable measurement instruments are currently needed (De Weert et al., 2010).

Specifically for adolescents, some institutes for addiction care are currently implementing the Adolescent Community Reinforcement Approach (A-CRA). There is open access to the guidelines for A-CRA at [www.communityreinforcement.nl](http://www.communityreinforcement.nl).

Examples of groups that are vulnerable for the risks of drug use and addiction are not only young people, but also low-SES people, homeless people, and people with mild mental retardation. These groups of people often show complex clusters of risk factors that predispose for substance disorders and other disorders. The attention of prevention and treatment should therefore not lie on addiction or drug use as such, but (if possible and useful) also on the underlying causes (Hosman et al., 2009). However, interventions and other methods that focus on a reduction of underlying risk factors for behavioral problems and substance use at an early age are difficult to cluster or structure in useful categories. For several reasons the results of structuring these factors and interventions remain ambiguous, because the relationships between the risk factors and the problems are unequivocal for three reasons: (1) one risk factor may lead to more disorders; (2) one disorder may be the result of several risk factors; and (3) one disorder may be a risk factor for another disorder. However, it is assumed that a younger age is related to less outspoken problems, thus the possibilities for favorable outcomes are the highest at a younger age (Snoek et al., 2010a).

Shortcomings in patient compliance are a major causal factor for a lack of treatment success. The effects of interventions to improve patient compliance are often disappointing. For instance, the drop-out percentage among young clients (<25 years) of an outpatient addiction care organization (Centrum Maliebaan) was 37 percent (Goveia et al., 2011). In order to evaluate an innovative approach to improve patient compliance, a small-scale randomised controlled trial was carried out among young clients with substance disorders. The approach was based on the Community Reinforcement Approach (CRA) that has been evaluated elsewhere in the Netherlands before (DeFuentes-Merillas et al., 2008; see also our national report 2008, par. 5.2). This study was initiated by one health care insurance company (AGIS)

and a regional organisation of addiction care. Lifestyle training sessions were offered in the experimental group combined with seductive incentives. When attending lifestyle training sessions, incentives were given that related to a well-known local football club (*FC Utrecht*). Besides, meetings between clients and club players were organised for discussions about the similarities between top sport and getting rid of drug use and addiction. The number of participants of the second post test (the time point was not reported) were 6 (of the originally 21) participants in the control group and 12 (of the 21) participants in the intervention group.

The post-test results showed a significant reduction of drop outs from 44% to 6%. Treatment satisfaction was 7.1 (the 16 clients in the control group) versus 7.9 (for the 16 clients in the experimental group). The additional costs per client for the intervention amounted to 500 Euro. Although the authors suggest that the results are valid for the local situation, this conclusion is doubtful due to the large drop-out rates (in the control group?).

### *5.3.4 Drug-free treatment*

In the Netherlands, drug-free treatment is still uncommon as an isolated treatment option for opiate addicts but common for treating the dependence of other drugs. This is in part due to the absence of effective pharmacological treatments. Cannabis and stimulants problems are usually "pre-treated" with motivational enhancement techniques and are then tackled with cognitive behavioural types of treatment. In this paragraph we focus on new information on (or new developments in) the International Cannabis Need of Treatment study (INCANT), parents of addicted children, Intensive Community-based Treatment, and treatment according to the Minnesota Model.

#### *The International Cannabis Need of Treatment study (INCANT)*

In 2010, the first analysis of data of the European INCANT study on the effectiveness of Multi-Dimensional Family Therapy (MDFT) was published (see our National Report 2010), showing the methods used and several baseline data (Rigter et al., 2010). This baseline study did not trace differences between treatment conditions of any site. Instead, as shown in a second publication, differences were found between sites on many variables and these differences disappeared when controlled for treatment culture as reflected in referral policy, i.e. participants' referral source. Referral source was operationalised in two categories: 'self-referred' (?) versus 'externally coerced'. Therefore, referral source was introduced as a covariate in the analysis of the results (Phan et al., 2011). Meanwhile, many other MDFT-activities have also taken place. On the 17th of November 2010, a congress was organised by the Belgian chairmanship of the EU. It targeted the subject 'drug research and drug policy', and INCANT was invited to present some preliminary results. These showed that, when looking at the EU member states that participated in this project, MDFT scored favorable on treatment compliance (90%) compared to the control condition (30-50%). Data on the effectiveness of MDFT in reducing alcohol and cannabis drug use, criminality and other outcomes, will probably be published early 2012.

In the Netherlands, MDFT training for professionals is running and supervised by the American institute that was the originator of this treatment. During 2010, 28 therapists and 8 supervisors were trained. The implementation of MDFT is now spreading over more than 20 youth and addiction care organisations in the Netherlands, and also in three judicial institutions for younger persons (*Justitiële Jeugd Inrichtingen*). Finally, a Dutch project started

on the cost-effectiveness of MDFT in the youth care that will be extended to youth care in general (Rigter & Rijswijk, 2010; 2011).

Recently, INCANT results for the Netherlands have been published (Hendriks et al., 2011). From the 166 young people with cannabis abuse or cannabis dependence and their parents who were assessed for eligibility, 109 were allocated at random to either multidimensional family therapy (MDFT) or cognitive behavioural therapy (CBT). The duration of both treatments was 5-6 months. Main outcome measures were: cannabis use, delinquent behaviour, treatment response, and recovery at 12-months follow-up, and retention. Measurements were scheduled at baseline, and at 3, 6, 9, and 12 months after baseline. Three adolescents were lost at the 12-month follow-up. The more intense variant (MDFT) appeared not superior to the less intense CBT on any of the main outcomes. Twelve months after baseline the adolescents were showing significant and clinically meaningful reductions in cannabis use and delinquency (moderate effect sizes), 40-60% percent in both groups met the criteria for treatment response during this period. Both treatment retention and intensity were significantly higher in the MDFT group. Finally, subgroup analysis (post hoc) revealed that groups with many serious problems; (e.g. criminality, family problems and psychiatric comorbidity) benefit more from MDFT than from CBT. This indicates that the intense MDFT is probably more beneficial than CBT for groups of cannabis dependent youth with multiple problems. CBT on the other hand is equally effective compared to MDFT for younger cannabis dependent people having less serious problems.

#### *Parents of addicted children*

The number of young people in the Netherlands with addiction problems applying for treatment, especially for problems with gambling and internet gaming, is increasing. In many cases there are also other (psychological or psychiatric) problems. Parents experience difficulties in confessing the possibilities of drug dependence of their children. This psychological barrier hampers a timely call for help. Experiences within a regional organization of addiction care (Arkin/Jellinek) show that parents in most cases come for help with (what is showing up later on) secondary problems of the child (e.g. ADHD or other mental health problems). When these secondary problems are taken seriously when parents are visiting the Jellinek with questions about their child, the threshold is assumed to be lower for asking professional help. Substance use problems and non-substance addiction problems (game addiction) can be tackled later. In order to lower the threshold for parents in approaching the Jellinek Clinic, this old name has been changed in Jellinek Youth. Actually Jellinek Youth is the first clinic for young people with (possibly) dual diagnosis and to date it has 200 clients.

#### *Intensive Community-based Treatment (Bemoeizorg)*

Intensive Community-based Treatment (ICT) for people with multiple (psychiatric and addiction) problems already exists for many years in the Netherlands (see former National Reports). Though quality assurance instruments (e.g. guidelines) have been introduced in mental health and addiction care, these instruments are still absent for Intensive Community-based Treatment (ICT). Due to the lack of systematic descriptions of ICT it is still impossible to determine the principle (general) components of this type of care. To support the development of a guideline, components of this type of treatment have been determined with the concept mapping method, semi-structured interviews, and a questionnaire survey among

professionals and managers (of organisations) working with ICT (Roeg et al., 2009). The resulting list of components was divided in four main categories: professionals, organisation, health care process, and objectives.

The results of the survey suggest that, on average, ICTs exist in the Netherlands for eight years, and that 97% of the ICTs concern a collaboration of twelve different organisations, e.g. mental health care, addiction care, the police, social work, and housing corporations. Most Dutch ICTs do not describe their 'product' (vision, targets, package of care, outcomes) clearly. Referrals to specific organisations seem to be more important than long-term targets or contacts. A guideline that uses these components and that is supported by professionals and managers in the field, is a necessary condition for implementation. The implementation of ROM in Intensive Community-based Treatment has started recently and a manual is currently being constructed (see § 5.3.1).

### *Treatment according to the Minnesota Model*

The Minnesota Model of treatment of drug dependence is applied in some treatment units of institutes of addiction care. Examples are JellinekMinnesota (part of a regional organisation of addiction care) and Solutions (a treatment organisation on a private basis). Both are acknowledged organisations. Although the effectiveness of the Minnesota Model has often been questioned in the scientific literature (see former National Report), there are two publications that present arguments for a more favourable (or less rigid) attitude towards this form of treatment (Snoek et al., 2008; 2011). It should be noticed however that in the Netherlands the Minnesota Model has been extended with techniques from behavioral therapy and is not a strictly faith-based approach.

Some results have been published by JellinekMinnesota as part of their Routine Outcome Management (ROM). Inpatient (clinical) treatment runs for 8-12 weeks and the outpatient variant for 12 weeks (both five days a week). Between September 2007 and September 2010, 509 clients called for help at this unit and 336 clients started the inpatient or the outpatient variant. On the 1<sup>st</sup> of September 2010, 62 clients were still in treatment and 274 clients had finished their treatment. A call centre evaluated the outcomes of this treatment nine months after the intake. Treatment compliance among the 140 clinical clients was low: the average treatment time was 6.5 weeks, 34% stayed between 7 and 8 weeks in treatment and 24% stayed longer than 8 weeks. The response rate for treatment outcomes was 16% (22/140). Sixty percent of the outpatient group was present for at least .54 days. The average time of stay in outpatient treatment was 15 weeks. The response rate for outcomes of this type of treatment was 27% (36/134). Outcomes were mixed and invalid due to the low response rates (Former & Da Lima, 2010). There are no data to compare these outcomes with those of 'care as usual'.

### *Online Therapy*

Similar to mental health care, addiction care treatments are more and more offered via the internet, especially by four regional organizations.<sup>20</sup> Publications on the effectiveness of internet-based therapies mostly target alcohol problems (cf. Blankers et al., 2009; 2011). The

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<sup>20</sup> The available e-health interventions per organisation of addiction care are presented on [www.kiesbeter.nl/algemeen](http://www.kiesbeter.nl/algemeen). Examples are: [www.cannabisenik.nl](http://www.cannabisenik.nl); [www.benzodebaas.nl](http://www.benzodebaas.nl); [www.cannabisondercontrole.nl](http://www.cannabisondercontrole.nl); [www.watwilijijmetwiet.nl](http://www.watwilijijmetwiet.nl); [www.drugsondercontrole.nl](http://www.drugsondercontrole.nl); [www.JellinekLive.nl](http://www.JellinekLive.nl); [www.webzorg.nl](http://www.webzorg.nl); [www.gelukiseenwerkwoord.nl](http://www.gelukiseenwerkwoord.nl).

anonymity of this treatment option and the possibility (if one wishes to do so) to have contact with a professional are considered to be advantages of participating in it. One recent RCT with 205 participants shows that the coverage and the effects of a specific alcohol programme ([www.alcoholdebaas.nl](http://www.alcoholdebaas.nl)) are favorable for alcohol use, treatment response and quality of life outcomes at 6 months after randomisation (Blankers et al., 2011). The effectiveness of online treatment programmes for drug users are currently evaluated. In collaboration with other organisations, the Trimbos Institute is constructing an instrument for the quality assessment of e-mental health interventions. This instrument will be published in Spring 2012.<sup>21</sup>

However, the costs of anonymous participation in care is generally not covered by the health insurance companies. This may become a major draw-back for the future of this form of treatment.<sup>22</sup> To tackle this problem, the minister of Health, Welfare, and Sport in October 2011 announced a policy framework for subsidizing anonymous e-mental health (Stc 2011-18936). In 2012 and 2013, the minister will subsidize anonymous e-health for mental health problems and addiction problems to the amount of 2 million euros a year. This is just a temporary solution. In the mean time, the minister will look for a structural solution for the problem that anonymous care is not yet covered by the Health Insurance Act (Zorverzekeringswet). The temporary 2 million grant a year will only be spend on clients for whom anonymity is a psychological precondition to receive treatment at all. This counts especially for young people aging up to 23 years. The grant will not be spend on clients who are already known to the mental health care or the addiction care. Moreover, during the anonymous treatment, the health care workers will have to persuade their clients to accept regular treatment in which they can no longer hide in anonymity.

### *5.3.5 Medically assisted treatment*

Under this heading new developments are reported on heroin assisted treatment, ultra-rapid detoxification, new treatment options for cocaine dependence and experimental ones for GHB.

#### *Heroin-assisted treatment (HAT)*

In 2010, after ten years of being in operation, the Central Committee on the Treatment of Heroin Addicts (CCBH) has ended its work. Heroin-assisted treatment (HAT) is now practiced in most of the larger cities in the Netherlands. In August 2011, 740 treatment places for HAT were operational at 18 units in 16 different municipalities (see §1.1). In recognition of the 10-years work of the CCBH, the Minister of Health, Welfare and Sport presented to the members of the CCBH a historical report of HAT in the Netherlands. This report included a comparison with other countries that introduced HAT as well (Van der Stel, 2010).

Another publication on HAT, also covering an historical overview, is a dissertation written by one of the evaluators of HAT (Blanken, 2011). In this doctoral dissertation it is defended that HAT is effective and suggestions are given about how it can be improved in the Dutch situation, such as additional psychosocial interventions (contingency management), the possibility of other routes of heroin administration (e.g. oral or intranasal) or alternative opiate agonists (e.g. hydromorphone).

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<sup>21</sup> [www.ggznieuws.nl](http://www.ggznieuws.nl)

<sup>22</sup> [www.psy.nl](http://www.psy.nl). Psy, October 2011: "Overheidsbeleid bedreigt succesvolle aanpak probleemdrinkers".

### *Ultra rapid detoxification*

The effectiveness of rapid detoxification of opioid dependent patients (EDOCRA project) has been described in several previous National Reports. The implementation of rapid detoxification (without anaesthesia) in clinical addiction centers started in 2003. The results of a naturalistic implementation study in everyday practice were compared with the treatment outcomes (efficacy) of the former trial (RCT) to obtain some idea of the effectiveness in practice. Comparisons were made on the following outcomes: patient characteristics, patient enrolment and completion rates, validity of self-reported opioid use, and abstinence rates at one-month follow-up (Dijkstra et al., 2010). The results show that rapid detoxification in everyday practice (the implementation study) differs from the former trial with regard to patient characteristics (older clients, less severe problems and impairment), enrolment (strikingly lower), and completion rates (lower, 87% versus 100%). The opioid abstinence rates however, were comparable with those from the earlier RCT. The authors suggest that these differences resulted from divergent assessment and referral procedures, and resulted from a different after-care delivery. The authors conclude that it is feasible to implement ultra-rapid detoxification in the Dutch addiction care, but that special attention should be paid to the continuity of treatment supply and patient compliance.

### *Treating cocaine problems*

From the international scientific literature it is known that the available treatment options for cocaine dependence are limited and insufficiently tested. A substantial part of cocaine addicts are not reached by the treatment system. The research protocol of the first study on new treatment options for crack-cocaine dependence in the Netherlands has been published (Nuijten et al., 2011; see also Evenblij, 2009 in the National Report 2010). The study ultimately focuses on both abstinence and harm minimisation, but in this phase it investigates possibilities and problems associated with new pharmacological treatments for crack dependent patients. It describes three pharmacological treatments combined with cognitive-behavioural therapy (in three separate organisations of addiction care) versus a control condition (cognitive behavioural therapy only). The experimental treatments were: cognitive-behavioural therapy combined with (1) oral topiramate, (2) oral modafinil, or (3) oral dexamphetamine sustained-release. All treatments last 12 weeks. A total of 216 eligible outpatients were pre-randomised following a double consent design ('Zelen design') to the three conditions. The advantage of this design is that non-compliance and loss to follow-up among patients in the control condition is supposed to be lower, because these participants are unaware of the experimental condition with active medication. Each organisation delivered 72 patients in two groups of 36 patients for the experimental and control conditions in each organisation. Outcomes are: treatment safety, retention in the concomitant psychosocial treatment (CBT), acceptance and compliance with the study medication, changes in crack-cocaine use and in the use of other drugs, physical and mental health, social functioning, and patient satisfaction. Assessments are done at baseline, and at 4, 8 and 12 weeks after baseline. It is expected that this study will contribute to the development of new treatments for crack-cocaine users.



### *Treatment of GHB addiction*

The treatment for GHB dependence has increased in the past years. According to the National Alcohol and Drugs Information System (LADIS), the number of clients that received treatment for a primary problem with GHB increased from 145 clients in 2008 to 279 clients in 2009 and to 524 clients in 2010 (Ouwehand et al. 2011). It is generally acknowledged that detoxification of GHB needs a careful approach due to the danger of serious side effects. A careful and individualised reduction in GHB use or a similar administration of some substitution treatment (benzodiazepines), combined with intensive clinical support and medical care are reported to be important ingredients. The Ministry of Health, Welfare and Sport funds the development of a treatment protocol for GHB addiction. The results will be available by the end of 2012 (VWS, 2011).

One institute for addiction care (Bouman GGZ) has published a protocol for treating GHB dependence by means of benzodiazepines (diazepam or lorazepam). A second institute for addiction care (Novadic-Kentron) treats GHB addiction by means of a 1 to 2 weeks administration of gradually reduced dosages of benzodiazepines. This institute is also developing a protocol for GHB detoxification by means of medical GHB. Both types of medication to treat GHB addiction have their own risk profiles ([www.monitorprojecten-nispa.nl/GHB](http://www.monitorprojecten-nispa.nl/GHB)).

Frequent use of GHB results in dependence and sudden withdrawal from GHB use may be dangerous when not adequately treated, as can happen when a dependent GHB user is arrested and incarcerated. A case study conducted by an organisation of addiction care (Tactus Verslavingszorg) shows successful results of a pilot that engages a professional from the addiction care in the treatment of an imprisoned and addicted GHB dealer of 39 years old *within* prison. Without this approach the dealer would have been released from prison because of the heavy withdrawal and other symptoms that may have been the result of abruptly stopping GHB use. Instead, the prisoner was monitored frequently and was treated with small quantities of GHB (<http://www.tactus.nl/nieuws/index/details/id/1475>).

#### *5.3.6 Substitution treatment*

There are no major changes in the substitution treatment in the Netherlands. Methadone substitution treatment is still the standard option. From 2001 to 2010, the number of methadone clients decreased with 13% from 11,597 to 10,085 clients (Ouwehand et al. 2011). However, the proportion of opiates clients receiving methadone treatment increased in this period from 69% to 82%. Buprenorphine is used in one organization of addiction care and elsewhere incidentally. Heroin assisted treatment has been reported under 5.3.5. Parallel to the National Alcohol and Drugs Information System (LADIS), there is the National Board for Substance Registration (LCMR) which is ready in operation to register at a national level all substitution treatments (<http://www.sivz.eu/ivz-addiction-care>).

From 2003, methadone treatment in the Netherlands has been criticised in the national scientific and professional literature (see former national reports). This resulted in a first national guideline on methadone treatment (*Richtlijn Onderhoudsbehandeling Opiaat verslaafden*, abbreviated as RIOB) and the first initiatives for the implementation of this guideline (Wits et al., 2008). During the years after the publication of this guideline (2007-2008) many treatment centers began to improve their methadone programmes. This came to an end because of a lack of governmental funding. Consequently, national implementation of this guideline was supported by government funds in a later phase (2009-2010). These

additional funds were € 7.5 million in 2008 and € 15 million annually for 2009-2010. The final implementation report of this second phase has been published (Loth et al., 2010). Ten of the twelve institutes for addiction care participated in this operation.

Serious changes had to be made in the daily practice of the addiction care, e.g. re-intakes of clients, rearrangements of tasks for the involved professionals, and the introduction and tryout of performance indicators. During the second phase, teams were extended and differentiated (an increase in the diversity of professional disciplines), and comorbid health problems (infectious diseases, serious alcohol use and smoking) were more often treated compared to former years. An electronic patient record was introduced that facilitates communication and cooperation between the different disciplines, but there are still several gaps that should be filled. Professional knowledge about psychiatric disorders is reported to be insufficient, and frequent evaluation measurements are still not part of daily practice. The active role of the client in treatment (client-directed work, client-involved work, recovery-driven activities) has been acknowledged on paper, but currently this intention is rarely put into practice. Finally, the application of performance indicators is still largely lacking in the Dutch methadone treatment.

A second (multidisciplinary) guideline on substitution treatment for opiate users is currently in development. This guideline will have to comply more with evidence-based principles than the former one.

Although the improvement of substitution treatment has been stimulated, in daily practice the professional activities towards this group of drug users show many differences between institutes for addiction care. For instance, one Dutch treatment centre is experimenting with the distribution of methadone at the clients' home, in hostels where some of the clients live, and in a care centre. If the client's situation is stabilised, and if he/she is judged competent enough, there is also the possibility of distributing take-away methadone for a longer period to their own home. For a minority of non-stabilised clients the classical way of distributing methadone at the centre itself is maintained. Furthermore, the medical and nursery services in methadone treatment in this centre are improved.

Admission criteria for 'at home distribution' are in development. Until now the admissions are decided upon by the clinicians during multidisciplinary meetings. In general, the more vulnerable clients who need much structure in their way of living or clients with serious comorbidity are excluded from this service. An evaluation of a local methadone programme (in the city of Utrecht) that included home delivery of methadone for a subgroup of the clients, described some client characteristics and client satisfaction (Van Vliet et al., 2010). From the total of 443 sampled clients, 180 clients who received their methadone at home, and 124 other clients who still received it in the methadone distribution centre (47%) could be interviewed (around 20 minutes) with a structured questionnaire. On average the time in methadone treatment was 11.8 years (SD=9.3) and the mean age was 43.6 years (SD=7.1). Between 2004 and 2008 the perceived satisfaction scores with at home delivery of methadone (N=34) increased significantly and to a somewhat lesser extent also the scores for clients in hostels (N=46). For 'old-fashioned' methadone distribution in the methadone centre (N=38) and for clients in centers of care (N=6) these scores did not change significantly. Amsterdam has the oldest methadone treatment programme and the coverage is high but in some subgroups of opiate users the coverage is probably decreasing. Some professionals suppose that opiate users who do not participate in methadone treatment are also for some reasons resistant against this treatment. A qualitative interview study (open questions) tried to find out what kind of obstructive factors may hinder problematic opiate users in the South-Eastern part of Amsterdam to join these programmes (Witteveen & Van Santen, 2011, see

also par. 8.1). Fourteen of the 20 participants were of other cultural origin, e.g. Surinamese, Caribbean, Moroccan. The target of this study is to find options to increase the coverage among these subgroups. Quantitative information from this exploratory study shows that 80% of these non-participants stopped methadone treatment and 60% buys methadone on the streets. Factors that reduce participation in these programmes are related to the effects of methadone itself, to characteristics of the individual drug user, and to the organisation of the distribution program. To stop with methadone (a substitute addiction) is difficult and (former) users anticipate on this by not participating in a methadone program. Friction is also felt between the free but risky lifestyle of users and the rather strict rules of these programs. Possible side effects of methadone are another type of impeding factor, e.g. pain in the joints of the body, fatigue, concentration problems, constipation, and loss of libido. Furthermore, the ultimate craving for a sharp 'kick' as a result of heroin use cannot be reached by methadone. Most heroin users that are out of substitution treatment seem to use primarily crack and they often use heroin as a downer.

This subgroup of heroin users who do not participate in methadone programs cannot participate in heroin-assisted treatment either (because one of the admittance criteria is participation in a methadone program) so they have to purchase their drugs outside the addiction care.

### *5.3.7 Hostels for drug users*

Since 2000, the city of Utrecht has created two temporary and eight permanent hostels for a total of 183 drug-dependent homeless persons. In these hostels clients are supported on a continual basis (7 days of 24 hours). The two main targets of this 11 -year old initiative were a release of the degrading life in the streets for these homeless drug users, and a reduction of public nuisance. Both targets were to be reached by keeping the homeless drug users as permanent inhabitants in a hostel. In 2000, this was a unique initiative in the Netherlands. From 2006 onwards these kind of facilities became common all over the country due to the new Strategy Plan for Social Relief (*Plan van Aanpak Maatschappelijke Opvang*). A well-known hostel for the addicts coming of age is "Woodstock", which is located in The Hague ([www.parnassia.nl](http://www.parnassia.nl)). The function which the Strategy Plan for Social Relief serves for the social reintegration of addicts is described and evaluated separately in paragraph 8.2.

The frontiers between recovery-driven care (see § 5.2) and hostels may be vague in some respects. The subject 'recovery' encompasses both addiction and psychiatric care and in both sectors the discussion has started about the importance and need of recovery-driven care (cf. Wolf et al., 2010; see also § 8.2).

### *5.3.8 Research programmes for addiction care*

Dutch addiction research is for an important part dependent on the funding of the Netherlands Organisation of Health Research and Development (ZonMw). During the past decades this organization has funded two five-year lasting research programmes on addiction. Several projects that were part of the last programme are still running. Together with the programme Scoring Results, these two ZonMw-programmes gave a substantial impetus on different types of addiction research in our country, according to evaluation studies on these programmes (for further details of the research activities in our country, see National Report 2007, chapter 13). Based on the evaluation of the second ZonMw-programme, the programme committee has started a call for tender on four state of the art

studies on the consequences of drug addiction (i.e. not abuse or problematic use). The subjects of these studies should be the state of the art in science and practice of: (1) the societal consequences (e.g. public nuisance, aggression, traffic accidents, violence, absenteeism); (2) the psychosocial consequences (e.g. loss of paid work, personal relations, homelessness, domestic violence); (3) the neuro-physical consequences and (4) the neuro-psychological consequences (e.g. cognitive disorders, somatic disorders) (Programmacommissie Risicogedrag en Afhankelijkheid, 2011). These studies are meant as a knowledge basis for further programming of addiction research. However, a funding of the continuation of these research programmes has not been confirmed yet by the ministry of Health, Welfare and Sports, and funding seems unlikely due to the budget cuts that have to be realized under the new government.

## **5.4 Characteristics of treated clients**

### *5.4.1 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 (Ouwehand et al. 2011). The LADIS contains data from the regular drug treatment services, including probation services, and has national 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, the majority of clients are now registered at a central intake location. Some private clinics, those institutes for mental health care that have not yet merged with an organisation for addiction treatment, and the addiction units in general psychiatric hospitals are not yet represented in the LADIS.

The data in this paragraph are based on the protocol for the Treatment Demand Indicator (TDI) as established by the EMCDDA (Standard Table TDI\_2011\_NL\_01). This means that only those clients who have had at least a second face-to-face contact with an addiction counselor are included. Moreover, the main part of the TDI only includes clients who subscribed in the year of registration. This main part of 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 re-subscribed 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 Foundation for the Provision of Care Information (IVZ), to assess the annual LADIS Key Figures (Ouwehand et al. 2011). The figures presented here will therefore deviate from the figures reported elsewhere. The LADIS Key Figures are also reported in the EMCDDA Standard Table 24 (ST24\_2011\_NL\_01).

Some further observations should be made:

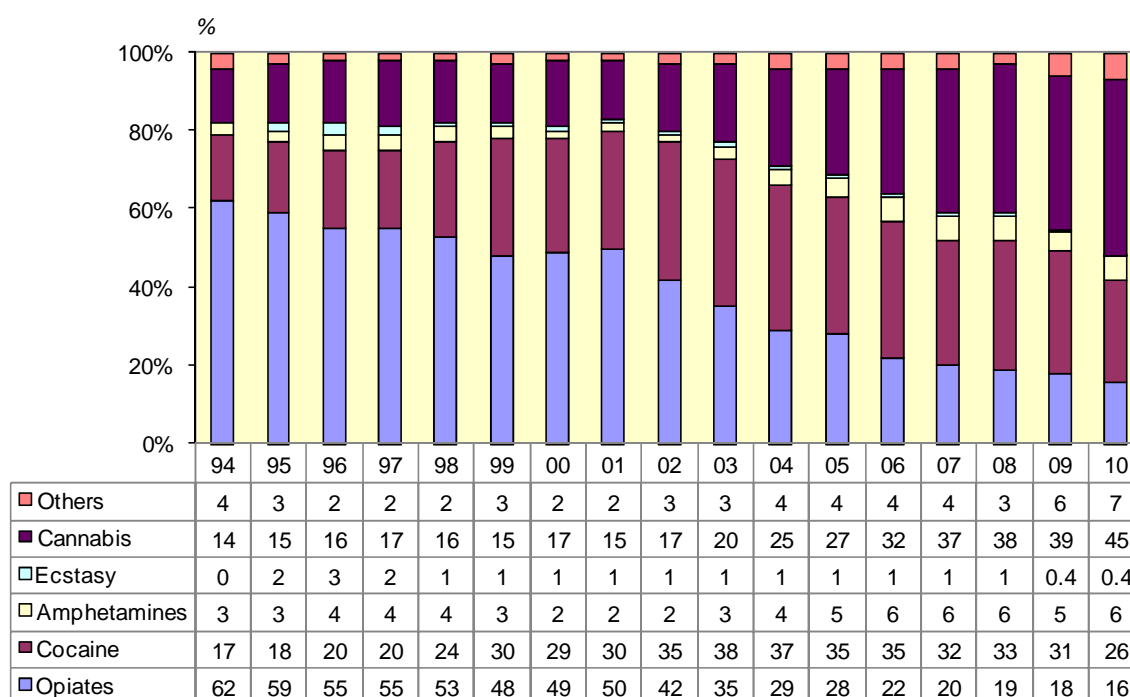
- Data will be reported from 1994 onwards, since this is the first year for which IVZ is able to control for double counting.
- The coverage of the system in terms of participating institutes for addiction care has improved over the years. The small relative increase in opiate clients from 2000 to 2001 is mainly due to the participation since 2001 of the Public Health Service of Amsterdam (GGD Amsterdam) in the LADIS.

- "Cocaine" refers to both "cocaine HCL" and "crack cocaine".
- For 2008, the data have been extrapolated for four missing institutes that were not able yet to deliver data to the LADIS.
- For 2010, the probation data have not yet been delivered completely to the LADIS (Ouweland et al. 2011).

### Trends

Between 1994 and 2010, the annual number of new clients applying for help at the drug treatment services varied between eight and eleven thousand, with no clear trend over the past years. Figure 5.4.1 shows the distribution of the new clients from 1994 to 2010 for the drug that was the primary problem for these clients.

Figure 5.4.1: Distribution of new clients (%) recorded from 1994 to 2010 at institutes for addiction treatment by primary drug\*



\*Selection of clients based on the EMCDDA TDI protocol. Source: LADIS, IVZ (Ouweland et al. 2011).

Figure 5.4.1 shows the following:

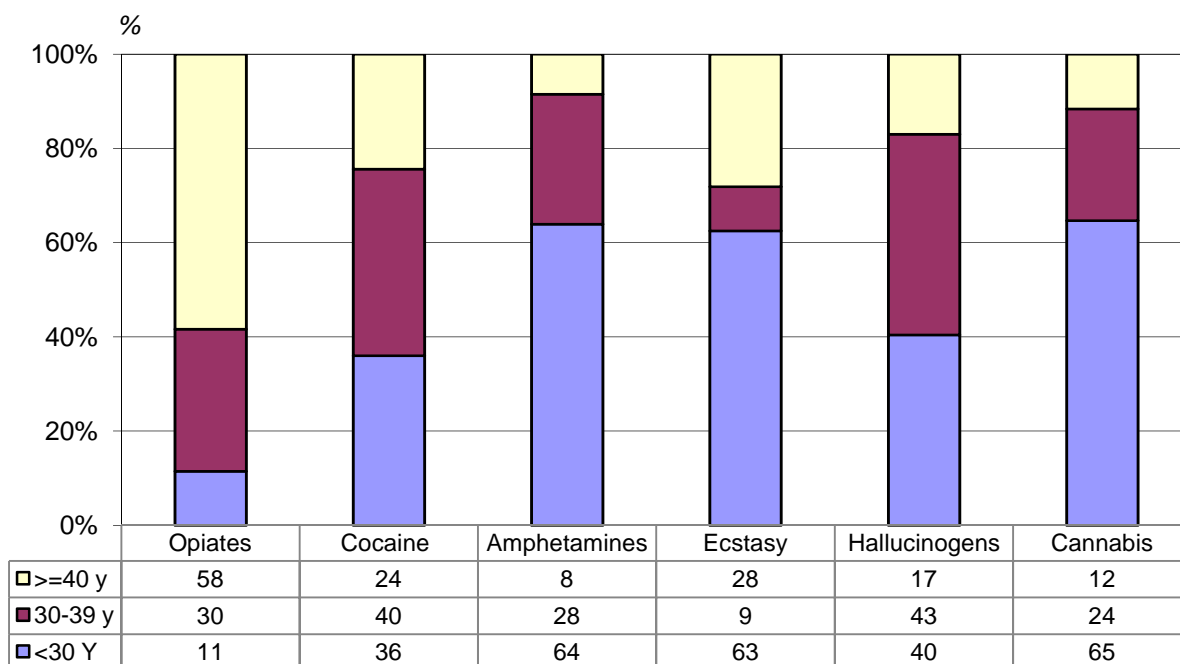
- The percentage of opiates clients among the new drug clients decreased from 62% in 1994 to only 16% in 2010. The percentage of cocaine clients increased from 17% in 1994 to 38% in 2003, and steadily declined thereafter to 26% in 2010.
- Since 2003, the proportion of cocaine clients exceeds the proportion of opiates clients. Note, however, that these percentages may be different for the overall number of clients, if also clients are counted who were already registered in the year before the reporting year. If *all* opiate clients would have been included, they would make up 34% of all drug clients (non-TDI definition).
- The proportion of cannabis clients increased from 14% in 1994 to 45% in 2010.
- When taken separately, the ecstasy and amphetamines clients never accounted for more than 6% of the new drug clients. However, the proportion of amphetamines clients increased over the past years, from 2% in 2001 to 6% in 2010.

The shift in ratios among the primary drugs is even more visible in clients who have entered treatment for the first time. These first treatments even more reflect the incidence of drug users seeking help, and therefore may be a better indicator of recent developments in problem use. Among the first treatments in 2010, the proportion of opiates clients was only 7% compared to 21% for cocaine clients and 58% for cannabis clients. The proportion of first treatments for amphetamines was 6%.

### Age

For the different drugs, figure 5.4.2 shows the distribution over the age groups of the clients in 2010. Clients seeking treatment for problem use of opiates, most often fall in the older age groups. On the contrary, clients who have a primary problem with amphetamines, ecstasy, or cannabis, most often fall in the youngest age groups.

Figure 5.4.2: Clients recorded in 2010 at addiction treatment centers by primary drug and age group\*

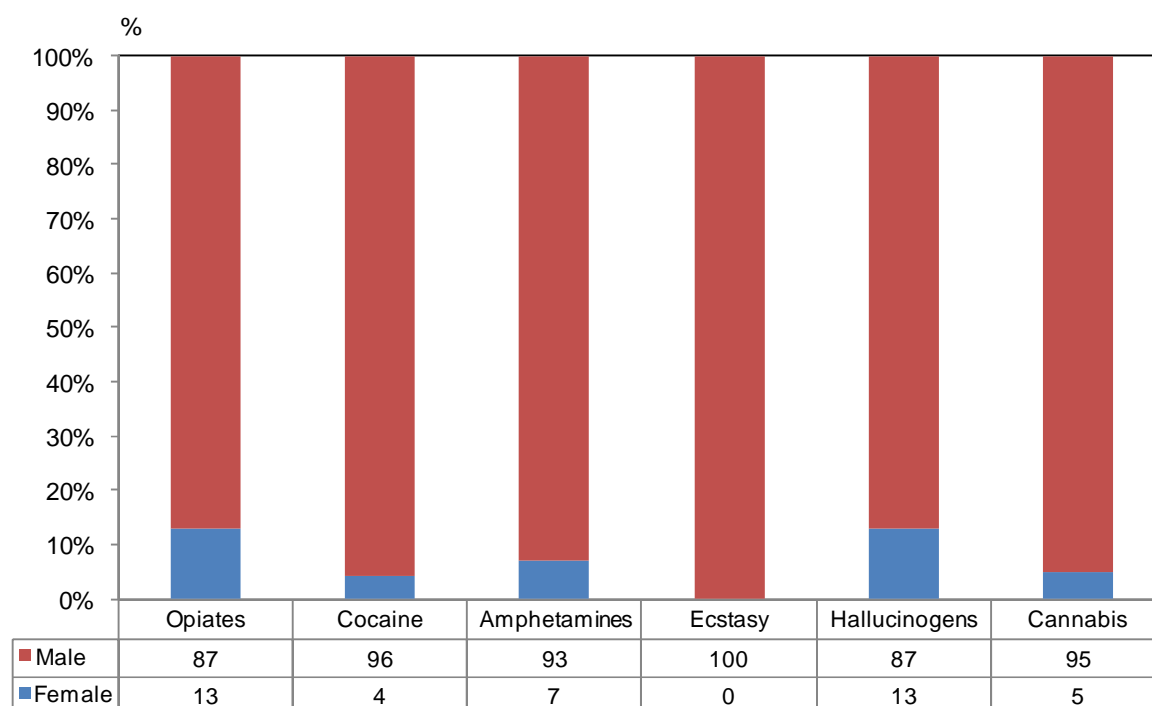


\*Selection of clients based on the EMCDDA TDI protocol. Source: LADIS, IVZ (Ouweland et al. 2011).

### Gender

The percentage of females among all the new drug clients has varied over the years between 16% and 20%. Figure 5.5.3 shows the gender distribution by primary drug in 2010. The proportion of females was the highest among the opiates and hallucinogen clients (13%), and was the lowest among the ecstasy clients (0%). The proportion of females was more or less similar for amphetamines clients (7%), cannabis clients (5%), and cocaine (4%) clients.

Figure 5.4.3: Gender distribution by primary drug of clients recorded in 2010 at centres for addiction treatment\*



\*Selection of clients based on the TDI protocol. Source: LADIS, IVZ (Ouweland et al. 2011).

#### Route of administration

According to the TDI (LADIS, IVZ), injecting drug use among all the new primary drug clients strongly declined from 12% in 1994 to 2% in 2010. Among opiate clients a decrease was found from 16% in 1994 to 6% in 2010. The main route of administration for opiates in 2009 was smoking or inhaling (79%). From the cocaine clients, 56% smoked or inhaled and 43% sniffed the drug. Cannabis is mainly smoked (99%), while amphetamines are sniffed (74%) as well as swallowed (21%).

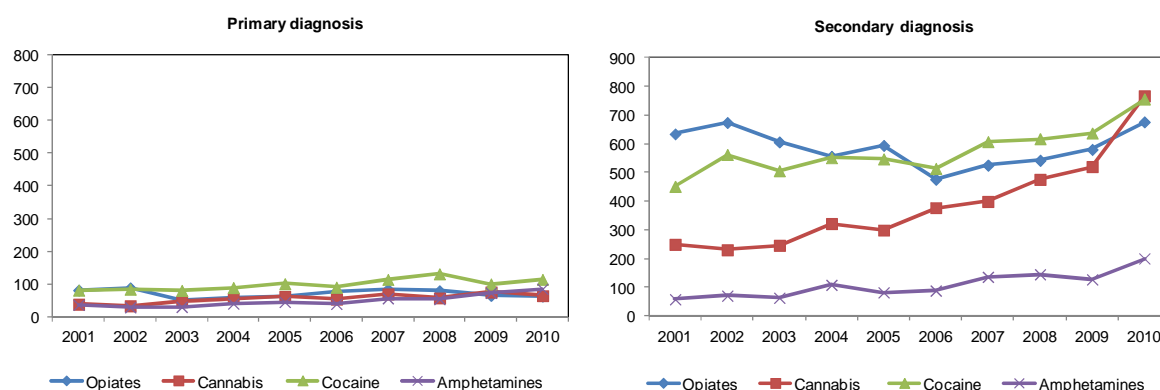
#### 5.4.2 General hospital admissions

Admissions to a general hospital in the Netherlands are recorded via the Dutch Hospital Registration (LMR) held by the foundation Dutch Hospital Data (DHD). Figure 5.4.4 shows the number of clinical admissions to a general hospital because of drug dependence or abuse as a primary or a secondary diagnosis for opiates, cannabis, cocaine, and amphetamines.

- In 2009, the Dutch Hospital Registration (LMR) recorded a total of 1,914,849 clinical hospital admissions. In 2010, drug dependence and drug abuse were recorded only 680 times as a primary diagnosis and 2,800 times as a secondary diagnosis (ICD-9 codes 304 and 305.2-9).
- Within the category of admissions related to drug abuse and dependence, opiates made up 9% of the primary and 24% of the secondary diagnoses. Cocaine made up 17% of the primary and 27% of the secondary diagnoses. Cannabis made up 9% of the primary and 27% of the secondary diagnoses. Amphetamines made up 13% of the primary and

7% of the secondary diagnoses. Finally, medicines made up 20% of the primary diagnoses.

Figure 5.4.4: Number of admissions to general hospitals related to dependence or abuse for opiates, cannabis, cocaine, and amphetamines, as primary diagnosis (left panel) or secondary diagnosis (right panel), from 2001 to 2010



Source: Dutch Hospital Registration (LMR), Dutch Hospital Data (DHD).

### Trends

The number of admissions related to drug abuse or dependence as a primary diagnosis remained rather low over the past years and there were only some minor increases. Stronger increases have been observed for the number of admissions with drugs as a secondary diagnosis. Between 2006 and 2010 the number of admissions increased from 514 to 756 for cocaine, from 476 to 676 for opiates, from 377 to 767 for cannabis, and from 88 to 200 admissions for amphetamines.

Table 5.4.1 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.
- For the primary diagnoses, the average number of days for staying in the hospital was the highest for cannabis, followed by opiates, and cocaine and amphetamines. For the secondary diagnoses, cannabis was clearly in the lead for the average number of days in the hospital, followed by opiates, amphetamines, and cocaine. No explanation has been found yet for this pattern that has re-occurred over the past years. All in all, most days in hospital have been spent on cannabis patients (14,846 days), followed by the opiates patients (6,829 days), cocaine patients (5,279 days), and amphetamines patients (1,709 days).



Table 5.4.1: *Clinical admissions to general hospitals in 2010 related to abuse and dependence for cannabis, cocaine, opiates, and amphetamines\**

	<b>Cannabis</b>	<b>Cocaine</b>	<b>Opiates</b>	<b>Amphetamines</b>
Primary diagnoses				
Number of diagnoses	64	114	63	85
Average number of days	6.9	2.6	5.7	2.6
Secondary diagnoses				
Number	767	756	676	200
Average number of days	18.8	6.6	9.6	7.5
Total number of persons**	778	783	613	267
Average age (years)	31 years	37 years	45 years	31 years
Percentage male	77%	77%	72%	75%

\*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. \*\*After correction for double counting: number of unique persons who were clinically admitted at least once because of a drug-related disorder assigned as a primary or secondary diagnosis. Source: Dutch Hospital Registration (LMR), Dutch Hospital Data (DHD).

## 6. Health correlates and consequences

### 6.1 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 previous report we concluded that the incidence, i.e., the number of new diagnoses, of HIV, hepatitis B and C among injecting drug users is low since many years. The data of the current reporting year point into the same direction. However, there are still indications that the number of chronically infected drug users (i.e., prevalence), and thereby the burden of these diseases, is higher, especially for hepatitis C.

In this paragraph we present prevalence and incidence data on HIV, hepatitis C and B among (injecting) drug users based on the results from the national HIV/ AIDS registry, the Amsterdam Cohort Studies among drug users, regular screening data from drug treatment centres, notification data on hepatitis B and C, and the hepatitis B vaccination campaign. As described in last year's report, the (HIV) sentinel surveillance system among (ever) injecting drug users (IDUs) of the National Institute of Public Health and the Environment (RIVM) has been discontinued and no new data from this source have become available.

#### 6.1.1 HIV

*a. The national HIV/ AIDS registration of the HIV Monitoring Foundation (SHM) was appointed by the Dutch Ministry of Health Welfare and Sport 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 25 collaborative HIV treatment centres throughout the country. It also includes data from a prior project on HIV positive patients treated between 1998 and 2001 (the AIDS Therapy Evaluation Netherlands, or ATHENA, cohort). The longitudinal, anonymous data are used to monitor changes in the HIV epidemic, the natural history of HIV and the effects of treatment ([www.hiv-monitoring.nl](http://www.hiv-monitoring.nl)).*

- In 2010, 826 new HIV diagnoses were reported in the treatment centres. In 5 men and 0 women (0.6%) injecting drug use was the most likely route of transmission (table 6.1) (Vriend et al., 2011).
- Up to December 2010 a cumulative total of 17,864 HIV-infected individuals were registered by the treatment centres and the HIV Monitoring Foundation (Vriend et al., 2011). The percentage of patients infected with HIV through injecting drug use is 4% (695 patients). The main route of HIV-transmission in the Netherlands is sexual: through MSM contact in 56% of cases and through heterosexual contact in 32%.
- 41% of all injecting drug users were diagnosed with HIV at an age between 30 and 39 years. IDUs were on average younger than MSM and heterosexuals at diagnosis (Vriend et al., 2011) (Figure 6.1).

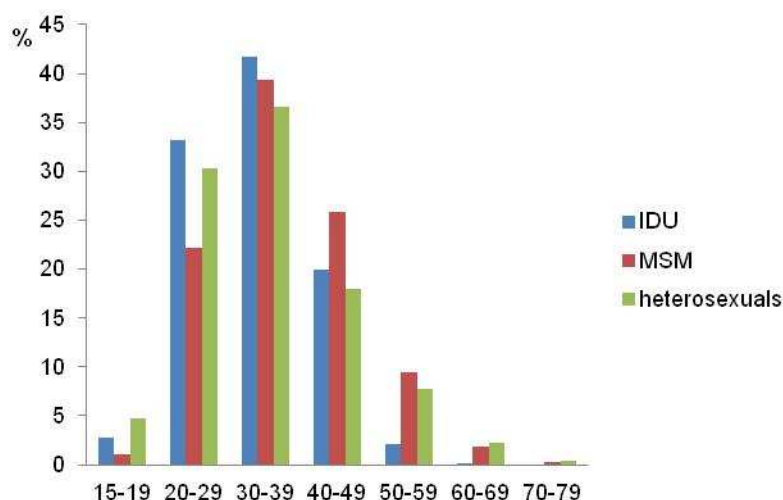
- Of the registered HIV positive injecting drug users, almost three quarters originated from the Netherlands and 22% from other Western European countries. This is in sharp contrast to HIV-positives infected through heterosexual contact, of whom only one third had a Dutch origin and almost half originated from Sub-Saharan Africa (table 6.1) (Vriend et al., 2011).

Table 6.1.1: Number and characteristics of recorded HIV infections by route of transmission

Transmission group	Number and percentage of HIV cases diagnosed in 2010	Cumulative number and percentage of HIV cases	Gender: percentage males (of cumulative number in transmission group)	Region of origin: percentage from the Netherlands (of cumulative number)
MSM	541 (66%)	10,005 (56%)	100%	83%
Heterosexual contact	229 (28%)	5,667 (32%)	44%	35%
Injecting drug use	5 (0.6%)	695 (4%)	74%	71%
Blood (products)*	0 (0%)	205 (1%)	63%	55%
Mother to child	9 (1.1%)	198 (1%)	52%	56%
Other/ unknown	41 (5%)	1,049 (6%)	82%	53%
Total	825 (100%)	17,864 (100%)	79%	65%

\* Including needle stick injuries. Figures are adjusted constantly because of reporting delays. Source: RIVM (Vriend et al., 2011).

Figure 6.1.1 Age distribution at HIV diagnosis in IDUs compared to MSM and heterosexuals, up to 2010

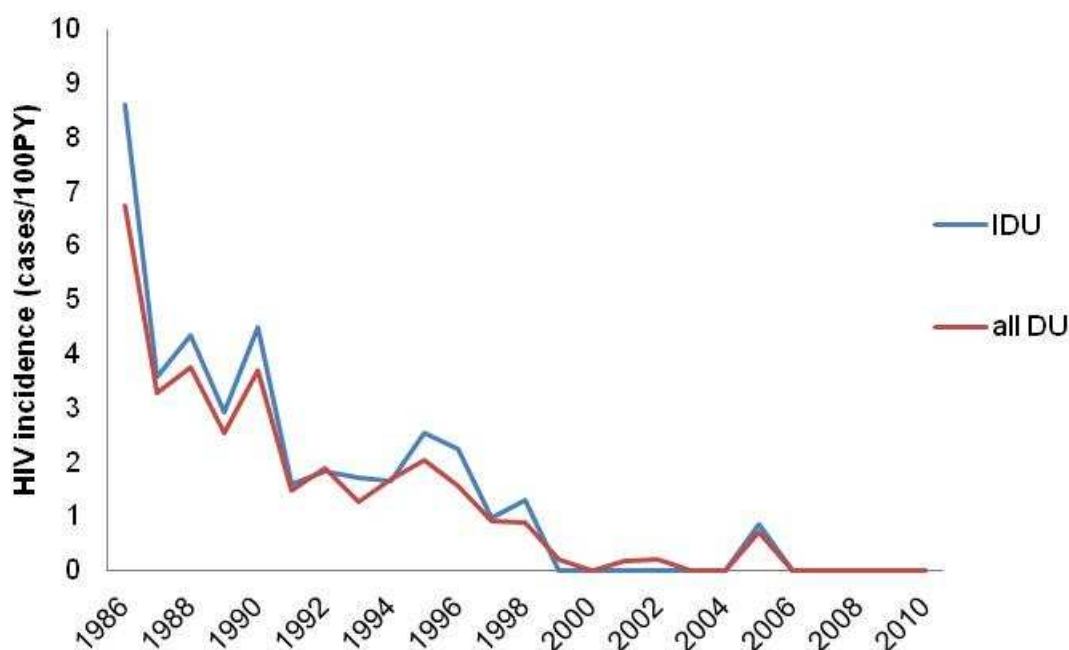


Source: RIVM (Vriend et al., 2011).

b. *The prospective Amsterdam Cohort Studies (ACS)* is part of the HIV Monitoring Foundation and a collaboration between the Amsterdam Health Service, the Academic Medical Centre of Amsterdam, the Sanquin Blood Supply Foundation and the University Medical Centre Utrecht ([www.amsterdamcohortstudies.org](http://www.amsterdamcohortstudies.org)). The 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). From July 2009 on, also recent injecting drug users (irrespective of their age) are invited to participate. Drug users are recruited at methadone posts, the STD-clinic for drug-using prostitutes and by word of mouth. The enrolment and follow-up (every four to six months) are facilitated by the well organised health care system for drug users in Amsterdam. Research in the ACS ranges from epidemiology and social science to virology, immunology and clinical medicine.

- HIV incidence rates among ever-injectors dropped from 8.6/ 100 person-years in 1986 to virtually 0 since 2000, with a slight increase to 0.85/ 100 person-years in 2005, when 2 HIV-cases were found (Figure 6.1.2). In 2006-2010, no new HIV infections were diagnosed in drugs users (injecting and non-injecting) (Vriend et al, 2011).
- The reduction in HIV transmission in IDUs can be partly explained by the decline in injecting and needle sharing (see also § 7.2), although sexual risk behaviour is still occurring.

Figure 6.1.2 Yearly HIV-incidence of injecting drug users (IDU) and all drug users (DU) included in the Amsterdam Cohort Studies, 1985-2010



Source: Amsterdam Cohort Studies (Vriend et al 2011)

c. *Regular screening of infectious diseases* among drug users in treatment settings and collecting these data for surveillance practices is not common practice in the Netherlands.

- In Amsterdam, the Municipal Health Services (GGD) runs most of the methadone treatment locations. As part of the treatment, patients are tested regularly for drug related infectious diseases. For the methodology used, see Standard Table 09 (ST09). In 2010, 25 IDUs were tested for HIV antibodies; none had a positive test result. Out of the total group of drug users tested in methadone maintenance treatment (including non-IDU

on DU with an unknown IV-use status), 1/272 (0.4%) was found to be HIV-positive (source: GGD Amsterdam).

- In Rotterdam the project “Active Testing” is running since 2007. The project aims to offer and actively support the whole chain from counselling and testing to treatment completion for problematic drug users and homeless people. In 2010, 42 of the total 51 IDUs were tested for HIV antibodies and none had a positive test result (see also ST09) (source: GGD Rotterdam). From the start of the project until mid-2011 274 injecting and non-injecting drug users were screened and anti-HIV was found in 7 cases (3%) (source: presentation D.M. Hotho d.d. 16-6-2011).

### 6.1.2 AIDS

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 Disease Control).

- Up to December 2010, the cumulative total of reported AIDS diagnoses was 8,345 and 5,115 HIV infected individuals had died (Vriend et al., 2011). The annual number of new AIDS diagnoses peaked in the first half of the nineties (around 500 cases per year) and then gradually dropped, to 189 cases in 2010 (Vriend et al., 2011). The observed decrease since 1996 is related to the availability of HAART, which slowed progression from HIV to AIDS.
- Of the 189 new AIDS diagnoses in 2010, 4 (2.1%) were among injecting drug users (table 6.2). In the same year, 106 AIDS patients died, among who were 13 (12%) injecting drug users. Note that the data for 2010 are incomplete due to reporting delay (Vriend et al., 2011).
- Up until December 2010, 700 registered AIDS patients (8.4% of the total AIDS diagnoses) belonged to the transmission risk group of injecting drug users. The number of AIDS cases related to injecting drug use peaked in 1995 (74), but remained below 20 cases per year since 1999 (see table 6.1.2).
- Note that the percentage of IDUs among the total population of AIDS patients (8.4% over all years) is higher than the percentage of IDUs in the total population of HIV patients (4%), but that the percentage of IDUs among the AIDS deaths is even higher: 10% or over since 2005. This indicates that the disease course in injecting drug users is less favourable than in other risk groups.

*Table 6.1.2: Number and percentage of recorded AIDS patients, by year of diagnosis and by route of transmission*

Transmission group	<=2006	2007	2008	2009	2010
MSM	4,477 61%	131 47%	127 49%	121 50%	91 48%
Heterosexual contact	1,670 23%	105 38%	92 35%	89 37%	78 42%
Injecting drug use	671 9%	11 4%	6 2%	8 3%	4 2%
Blood (contacts)	165 2%	3 1%	6 1%	1 0.4%	1 0.5%
Mother to child	63 0.8%	1 0.4%	0 0%	0 0%	0 0%
Other/unknown	329 4%	29 10%	29 11%	22 9%	14 7%
Total	7,375	280	260	241	188

AIDS cases were registered by the Health Inspectorate before 1999 and from 1999-2007 by the HIV Monitoring Foundation. Figures are adjusted constantly because of reporting delays. Source: RIVM (Vriend et al., 2011).

### 6.1.3 Hepatitis B and C

#### *Notification data*

Notification data are reported by the municipal health services to the National Institute of Public Health and the Environment (RIVM). It is of note that estimating the incidence of hepatitis B and C based on notification data of acute cases will give an underestimation, as a large percentage of new infections remain asymptomatic. However, they may (in the long run) give indications of trends on the incidence of these infectious diseases.

Since 1976 acute hepatitis B infections have to be notified to the Health Care Inspectorate (IGZ). In April 1999, newly diagnosed chronic and subclinical HBV infections also became notifiable diseases. The data show that from 1976 to 1981 the incidence of hepatitis B in the population increased (probably due to the introduction of the obligation to notify the disease, the large-scale availability of serological tests and the screening programs among blood donors). Since 1981 the incidence has decreased again, which can be attributed to the availability of a vaccine and the decrease in sexual risk behaviour as a reaction to the aids-epidemic (Rijlaarsdam 1999). In 1995, the number of acute hepatitis B cases among people with injecting drug use peaked with 24 cases, but a sharp decrease has taken place since then. In recent years, injecting drug use plays only a marginal role in newly diagnosed acute and chronic hepatitis B infections.

- In 2010, 191 acute cases of hepatitis B infection were notified (see also [ST09 part 4](#)). In the 153 cases with known route of infection, unprotected sexual contact was found to be still the most important risk factor. There was only 1 notification of acute hepatitis B in injecting drug users in 2010. Also in the preceding years notifications of acute hepatitis B among injecting drug users were rare: 2 cases in 2007, 1 case in 2006, and 0 cases in 2005, 2008 and 2009 (source: RIVM).
- Chronic infections with hepatitis B were reported in 1,559 cases in 2010. In 13 of the 1,112 (1.2%) chronic infections with known route of infection, injecting drug use was regarded as the vector, which is only slightly more than the 6 out of 1,251 chronic

hepatitis B infections with known route of infection in 2009 and the 3 out of 1,108 cases in 2008 (source: RIVM).

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 diagnosing and underreporting is possible.

- Relatively, the contribution of IDUs in the total number of notified cases of acute hepatitis C is increasing, although absolute numbers remain low. The relative increase can be partially explained by the decrease in notified cases of acute HCV among MSM, although they remain the largest transmission group.
- In 2010, 29 cases of acute hepatitis C infection were notified. The transmission route of 25 of these 29 cases was reported; in 4 cases (16%) injecting drug use was the most likely route of transmission (see [ST09](#)). In 2009, there were 3 IDUs among the 38 cases of acute hepatitis C (8%), and in 2008 there was 1 IDU in 39 cases (3%) (source: RIVM).

#### *Treatment data and other sources*

Screening of drug users in drug treatment on infectious diseases is no routine procedure and data are only available for a few treatment centres. There are however quite some data available on hepatitis infections in the (former) IDUs in the database of the national HIV/AIDS registration of the HIV Monitoring Foundation (SHM). In total 15,734 HIV-infected patients aged 18 years or over (96% of the total), were tested for HBV or HCV (Gras et al., 2010).

- In total 640 IDUs were screened, of whom 50 (8%) were positive for only HIV. For comparison: in MSM, 84% of 9014 tested were only infected with HIV, and 89% of 4951 heterosexuals.
- Co-infection with HCV was most prevalent in IDUs: 582 of 640 (91%) HIV-positive IDUs were HCV-infected, of whom 64 (10% of total IDUs tested) were also co-infected with HBV. In MSM, 9% were infected with HCV (with or without HBV); in heterosexuals 5% had also an infection with HCV (with or without an HBV infection).
- 8 IDUs (1%) were co-infected with HBV and HIV.
- Multivariate analyses showed that injecting drug use was by far the largest risk factor for hepatitis C co-infection (multivariate odds ratio 97.9, 95% CI 70.5-136.0; the reference group is MSM) (Gras et al., 2010).

The Municipal Health Service (GGD) of Amsterdam collects information on hepatitis B and C infections in methadone clients participating in low threshold services. Patients are tested exhaustive, but not every year. A selection bias in those being tested is certainly the case, e.g., because testing is voluntary and only patients are tested with unknown test result. The data presented for 2010 are limited and have to be interpreted with caution. No substantial changes were observed with previous years (see also [ST09](#)) (source: GGD Amsterdam).

- In 2010, HBsAg was not found in any of the 12 IDUs tested. Out of the total group of drug users tested in methadone maintenance treatment (including non-IDUs and drug users with an unknown injecting drug use status) 1 of 161 (0,6%) was found to be positive for HBSag.

- In 11 IDUs tested, 3 (27%) were positive for antiHBc. In the total group of tested drug users in 2010 (including non-IDU and drug users with an unknown injecting drug use status) 39 of 143 (27%) had a positive antiHBc test-result.
- AntiHBs was found in 1 of 13 tested (8%). In the total group 15 of 134 (11%) drug users tested in methadone maintenance treatment was antiHBs-positive (>100 mIU/ml).
- HCV antibodies were detected in 10 of 21 (48%) tested ever injecting drug users; they were all older than 34 years.

Also the Municipal Health Service (GGD) of Rotterdam-Rijnmond collects treatment data, as part of the project “Active Testing”. In Rotterdam, it is estimated 1 in every 10 problem drug users is currently injecting and a quarter of the ever IDUs is still a current IDU. Also here, the numbers are small and data have to be interpreted with caution (see also [ST09](#)) (source: GGD Rotterdam-Rijnmond).

- In 2010, HBsAg was found in 2 of the 16 (13%) IDUs tested.
- HCV antibodies were present in 29 of 43 (67%) IDUs tested in 2010.
- From the start of the project to mid-2011 293 drug users were screened of whom 111 (38%) had HCV antibodies. 73% of the drug users with antibodies (n=81) had HCV-RNA and were referred for treatment. The majority was infected with HCV genotype 1 (51%) and 3 (35%). Until mid-2011 45 HCV-infected drug users started treatment, that was completed by 21 patients of whom 18 had a sustained viral response while the other 3 were either in follow-up or lost to follow up (source: presentation D.M. Hotho d.d. 16-6-2011).

The open and ongoing Amsterdam Cohort Studies (ACS) among drug users (see above) focuses among others on hepatitis C. The study generates a wealth of information, which is also described in the previous National Reports. The DUTCH-C project is part of the ACS among drug users (Lindenburg et al, 2011). DUTCH-C is the abbreviation for Drug Users Treatment for Chronic Hepatitis C. The DUTCH-C project aims to evaluate the feasibility of HCV testing and treatment in drug users and has a multidisciplinary treatment unit located near a major clinic providing methadone and heroin substitution treatment.

- From January 2005 to July 2009, 497 drug users participating in the ACS were offered HCV testing of whom 90% accepted. Two thirds of the participants ever injected drugs and more than a quarter had also injected in the last 6 months.
- HCV antibodies were found in 267 of 449 (60%) tested cases. 69% of the drug users with HCV antibodies were also positive for HCV-RNA.
- A quarter of the HCV-viremic drug users were co-infected with HIV. The results showed that HIV positive drug users were more often infected with hepatitis C than non-HIV patients: in the HIV positive participants 49 of 66 (74%) also had a chronic HCV infection, while in the HIV-negative participants chronic HCV infection was present in 35% (134 of the 383).
- Of the 134 HCV-mono-infected patients 44 started treatment. Treatment was also offered to 62 drug users from methadone clinics not participating in the ACS, of whom 14 started treatment before July 1 2009. In total 58 persons were treated. The majority was infected with HCV genotype 2 or 3 (72%). Despite substantial co-morbidity in the group, it was shown that treatment was feasible and 65% achieved a sustained virological response (Lindenburg et al, 2011).
- Data of the ACS were also used to study the long-term outcomes and mortality related to an HCV infection (Grady et al, 2011). For this, 106 documented HCV seroconverters



were studied, of whom 71 developed a chronic HCV infection. Thirty-three drug users died during follow-up (medium follow-up time 14.8 years), but only 1 HCV-related death was observed, 23 years after seroconversion. Most deaths were non-natural (n=12) or AIDS-related (n=8). It was concluded that a chronic HCV infection does not affect overall mortality in the first decade after seroconversion, but in the second decade after seroconversion, drug users infected with chronic HCV have an increased risk for all-cause mortality (Grady et al, 2011).

- With data from the ACS also previous observations were confirmed that the risk of HCV infection is highest in the first years of injecting drug use (Castro-Sánchez et al, 2011). In the analyses, data of 165 injecting drug users who were HCV negative upon entry in the ACS were used. The study further showed that frequency of injecting and type of drug injected were highly significant predictors, while sharing of syringes was not. These findings are important in the prevention of HCV infection in new injectors (Castro-Sánchez et al, 2011).
- It has also been estimated what the size of the HCV burden in Amsterdam will be in the coming years (Matser et al, 2011). For this study, a Markov model was developed using data from the ACS, surveillance studies and the literature. It was concluded that the HCV burden in Amsterdam has been reduced by a high competing mortality rate, especially from HIV infection (the burden of HCV would have been 33% *higher* in the absence of HIV) and to a smaller extent by HCV treatment (25% of HIV negative drug users are successfully treated for HCV infection) (Matser et al, 2011).

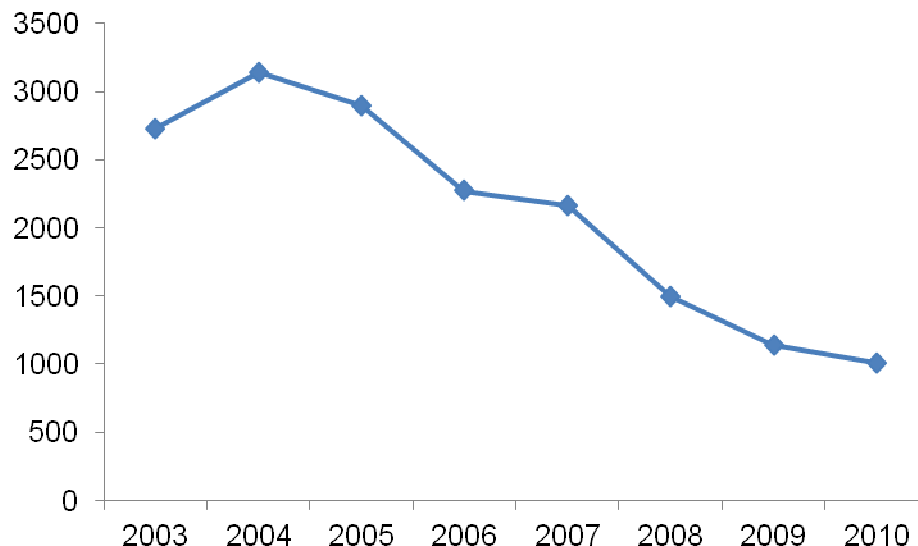
In November 2002, the national hepatitis B vaccination campaign started, after a pilot period in Amsterdam since 1998. It targeted behavioural risk groups (MSM, drug users, prostitutes, and until 2007 heterosexuals with multiple sex contacts) (see also §7.2). In 2010, the 100.000<sup>th</sup> person has been included in the program. As of January 1, 2012, drug users can no longer take part in this free vaccination campaign as it has been decided that the risk in this group has been substantially reduced. Among others, the declined popularity of injecting has been used as one of the arguments. See also the previous National Reports for the organisation of the campaign.

- Until September 1, 2011, a total of 18,633 drug users received a first vaccination (including the 1,125 participants in the pilot phase). The absolute number of first vaccinations in drug users has shown a decrease over the years (Figure 6.1.3 shows the trend from 2003-2010).
- Of the 18,633 drug users included up until September 2011, 11.2% were found to be immune: 28.7 % of the participants in the pilot project and 10.4% in the national campaign, which is high compared to the general population. The percentage of participants that are immune is decreasing, from 11-12% between 2003 and 2006, to 8.8% in 2007, 7.8% in 2008, 2.7% in 2009 to 4.0% in 2010. An explanation for this decrease may be that in previous years already the highest risk individuals were included in the campaign. On the other hand, drug users who state that they were previously infected with hepatitis B are not tested or vaccinated and therefore not included in these figures.
- Chronic carriage was found in 0.6% of individuals (1.2 % in the pilot and 0.6% in the national campaign). This is also higher than in the general population (0.2% carriage) (Hahné 2010).
- In total 9,268 drug users received three (or more) vaccinations. Sixty percent of the people who entered the database because they have received a first vaccination are

thus no longer susceptible (defined as having had 3 vaccinations, already immune after a previous infection, or chronic carrier).

- The vaccination campaign is also implemented in prison. From those detainees vaccinated in prison, a substantial part belongs to the risk group drug users. From June 2010 to June 2011 273 first vaccinations were given in prison; 45% to drug users, 26% to heterosexuals, 18% to sex workers and 11% to MSM. (data provided by Marlies van Dam, National Institute for Public Health and the Environment).

Figure 6.1.3 Number of first hepatitis B vaccinations among drug users, 2003-2010



The years 2002 and 2011 are not included in the figure as the campaign did not (yet) take place in the full year.  
Source: RIVM

## 6.2 Other drug-related health correlates and consequences

In this paragraph new data will be presented on drug-related emergencies (§ 6.2.1), psychiatric comorbidity (§ 6.2.2) and driving under the influence of drugs (§ 6.2.3). Moreover, some results will be presented of secondary analysis of data of the drugs markets monitor DIMS, which link changes in the composition and quality of drugs to subjective experiences of adverse effects and health concerns.

### 6.2.1 Drug-related emergencies

Data on drug-related emergencies based on various sources: i) the Monitor drug-related emergencies, which covers several regions of the country, ii) emergency department data (national estimates, based on sample data); iii) ambulance transportation data in Amsterdam (trends), and finally, iv) requests for information on drug intoxications at the National Poisons Information Centre. In general, cannabis remains the most important drug associated with health related emergencies, which may be partly related to its relatively high prevalence of use. Depending on the type of reporting source, cocaine, ecstasy or GHB feature as the second most reported drug associated with emergencies.

### Monitor drug-related emergencies

Since 2009, data from some regions and emergency departments on dance events are collected by the *Monitor drug-related emergencies* (Monitor Drugs Incidenten, MDI). The number of participating regions increased from four in 2009 to six in 2010. Cases are reported by the police, ambulance transportation services, hospitals and two organizations on first aid at dance parties. In 2009 a total of 2,525 incidents and in 2010 a total of 2,852 incidents were reported (Vogels and Croes 2011). Table 6.2.1 gives the incidents for 2010 broken down by the drug of abuse.

*Table 6.2.1.: Number of incidents registered by the Monitor drug-related emergencies (MDI) in 2010 broken down by drug*

Drug	2010
Cannabis as only drug	831 (29%)
Ecstasy as only drug	580 (20%)
GHB as only drug	380 (13%)
Cocaine as only drug	188 (7%)
Opiates as only drug	81 (3%)
Amphetamines as only drug	72 (3%)
Other drug or combination of drugs	720 (25%)
<b>Total</b>	<b>2,852 (100%)</b>

Source: Monitor drug-related emergencies, Trimbos Institute, Netherlands Institute of Mental Health and Addiction (Vogels and Croes 2011).

Most incidents were due to cannabis, followed by ecstasy, GHB, cocaine, opiates, and amphetamines. Most of the cannabis incidents were reported in Amsterdam. Table 6.2.2 compares the different drugs of abuse with regard to gender, age, level of intoxication, admission to hospital, and combination with alcohol.

*Table 6.2.2: Characteristics of incidents in 2010 related to cannabis, ecstasy, GHB, cocaine, opiates, and amphetamines registered by the Monitor drug-related emergencies (MDI)*

Characteristic	Ca	Ec	GHB	Co	Op	Am
Number of incidents	831	580	380	188	81	72
%Male	71%	59%	77%	79%	70%	74%
Median age	26 y	22 y	27 y	31 y	42 y	23 y
Level of intoxication						
light	70%	85%	23%	43%	32%	72%
mild	24%	11%	46%	44%	35%	23%
severe	6%	4%	31%	13%	33%	6%
%Hospital admission	25%	7%	46%	36%	58%	18%
%Combination alcohol	41%	50%	50%	67%	37%	49%

Ca = Cannabis, Ec = Ecstasy, Co = Cocaine, Op = Opiates, Am = Amphetamines. Source: Monitor drug-related emergencies (MDI), Trimbos Institute, Netherlands Institute of Mental Health and Addiction (Vogels and Croes 2011).

Table 6.2.2 shows that the percentage of males is highest among the cocaine incidents (79%) and the lowest among the ecstasy incidents (59%). The median age is the highest among the opiates incidents (42 years) and the lowest among the ecstasy incidents (22 years). Severe intoxications occur the most among the opiates incidents (33%) and the least among the ecstasy incidents (4%). Hospital admissions take place most often after an opiates incidence (58%) and the least often after an ecstasy incident (7%). A combination with alcohol most often occurs with a cocaine incidence (67%) and the least with an opiates incident (37%).

#### *Changes in drug markets and experiences of users*

It is not known from these data whether the absolute and relative increase in ecstasy-related emergencies in the MDI is associated with changes in the markets (see § 10.3), e.g. an increase in MDMA content in samples sold as ecstasy in 2010. Brunt et al. (2011) analysed data on subjective experiences collected between 2000 and 2010 from users handing in their samples to prevention units of addiction care centers participating in the DIMS project. It was shown that higher doses of MDMA (higher than 100 mg) and the presence of PMMA or mCPP in ecstasy pills were associated with a decreased likelihood in desirable effects and increased risk of adverse effects compared to medium dose MDMA tablets or tablets containing only MDMA, respectively. For example, mCPP was associated especially with nausea and PMMA led to several reported cases of hyperthermic seizures. Also BZP and MDA were not appreciated as replacements for MDMA. Concerning the instability in the ecstasy market in 2008 and 2009 (e.g. reduced purity, increased likelihood of adulterants), Brunt et al (2011) suggested that there was increased health concern among users, as evidenced by the high number of drug samples delivered for testing. There were no indications that users rigorously changed their drug use (e.g. shift to other substances, stop, increase/decrease their use) as a result from the temporary shortage of MDMA and associated reduced quality of ecstasy tablets. About three quarters maintained their 'normal' ecstasy consumption patterns.

#### *Drug-related non-fatal emergencies in Amsterdam*

The Public Health Service of Amsterdam (GGD Amsterdam) provides trend data of non-fatal emergencies brought to its attention by the *Central Post for Ambulance Transports (CPA)*. Since 2009 these data are also part of the MDI (see before). 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 6.2.3 gives the annual number of emergencies per drug from 2001 to 2010.

- From 2001 up to including 2010, the total number of drug-related requests for emergency assistance almost doubled from 703 to 1,306.
- In 2010, most drug-related emergencies were related to the use of cannabis (47%), followed by GHB (15%) and heroin/cocaine (13%). Emergencies related to LSD and amphetamine were relatively rare.
- The proportion of cases requiring transportation to a hospital (a proxy measure for the seriousness of the emergency) were 39% for cannabis, 39% for hallucinogenic mushrooms, 67% for cocaine, 76% for opiates, 84% for amphetamines, 69% for ecstasy, and 85% for GHB. This latter substance is difficult to dose because of the small safety margin, which may result in loss of consciousness. This risk is increased with the concomitant use of alcohol.

- The most important trends in 2010 were the increases in emergencies related to cannabis and GHB. Possibly, the increase in cannabis-related emergencies is associated with an increase in drug tourism in Amsterdam, but this explanation is only hypothetical. The increase in GHB-related emergencies is consistent with signals of the growing popularity of GHB in some subpopulations.

*Table 6.2.3: Number of non-fatal emergencies due to hard drugs and recreational drugs in Amsterdam*

Drug	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Opiates/cocaine	208	216	257	239	230	238	220	221	215	171
Cocaine									144	130
Opiates									71	41
Cannabis	289	285	257	320	242	464	444	381	480	617
Mushrooms	49	50	60	55	70	124	149	125	53	69
Ecstasy	42	39	39	59	63	53	67	43	54	64
Amphetamines	6	5	7	8	3	13	17	14	8	19
LSD	3	1	1	4	1	1	4	4	4	3
GHB	69	67	74	98	76	110	110	128	169	194
Unknown/other	37	38	29	54	89	46	54	115	112	169
Total	703	701	724	837	774	1,049	1,065	1,031	1,095	1,306

Source: Central Post for Ambulance Transports (CPA), Public Health Service of Amsterdam (GGD Amsterdam).

#### *Emergency departments in hospitals*

The *Injury Information System* (Letsel Informatie Systeem, LIS) of the Consumer Safety Institute (Stichting Consument en Veiligheid) offers 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. Because of the estimation method and associated error margin data are averaged over a five-years period from 2005 up to including 2009 (Nijman 2011). Trend data up to including 2009 are only available for GHB (Stolte 2010).

According to the LIS it is estimated that, averaged from 2005 to 2009, about 4,270 people were treated annually at a hospital emergency department following an accident, violent incident or self-mutilation related to drug use. About 16,000 people were treated annually on account of alcohol (Nijman 2011).

- From the people treated for drugs, 46% aged between 20 and 29 years and 73% were male.
- Poisoning was the most frequent cause of emergency (75%) and 36% of the cases required hospital admission.
- From the cases in which the drug is known (63%), cocaine was the most frequently cited drug (45%), and cannabis was involved in 25% of the cases with a known substance. Lower ratios were found for ecstasy (15%), hallucinogenic mushrooms (6%), amphetamines (5%), and heroin (4%).
- Due to underreporting, these figures are likely to be an underestimate of the true number of emergencies related to drugs.

With regard to the trend data for GHB, a significant increase has been observed between 2004 and 2009 (Stolte 2010). In this period, the number of GHB-related emergencies became four times as great, amounting to about 1,200 victims in 2009. This comes down to about 23 cases a week.

#### *Information requests on acute intoxications*

Another source of information on trends in emergencies is given by the number of intoxications about which physicians, health authorities, and others have requested information at the National Poisons Information Centre (NVIC) from the University Medical Centre Utrecht (UMC, Van Velzen et al. 2011; Van Velzen personal communication). Note, however, that these data are just indicative and do not reliably represent the actual number of acute intoxications. Since 2008, apart from the information requests made by telephone, the numbers also include the intoxications about which information requests were made by the internet.

- Table 6.2.4 shows that the total number of drug-related information requests sharply increased between 2001 and 2005, slightly dropped in 2006, and stabilized thereafter. A possible explanation for the reduction is that physicians have become more familiar with recognising and treating problems related to (specific) drugs, especially if they have been on the market for some time (e.g. ecstasy). This will reduce the need for physicians to consult the NVIC for information.
- In 2010, most intoxications were related to cocaine and GHB/GBL, followed by ecstasy and cannabis.
- After the ban on hallucinogenic mushrooms, it was questioned whether there would be a shift towards other hallucinogens. This expected 'waterbed effect' was not observed in the data, except for an increase in the number of information requests for intoxications with nutmeg. These intoxications increased from 1 in 2007 to 2 in 2008, 10 in 2009, and 31 in 2010. Nutmeg has hallucinogenic effects.

*Table 6.2.4: Drug-related intoxications at the National Poisons Information Centre (NVIC)*

	2001	2002	2003	2004	2005	2006	2007	2008**	2009	2010
Cocaine	184	217	247	227	254	211	231	255	238	243
GHB/GBL	174	194	212	190	241	203	202	218	273	234
Ecstasy	194	184	208	246	217	183	171	185	140	183
Cannabis	129	141	144	191	202	186	178	168	204	164
(Meth)amphetamines	39	39	47	51	128	106	94	125	106	144
Opiates*	42	95	112	112	129	32	47	74	52	75
Hall.mushrooms	58	49	65	52	62	67	68	62	19	37
Ephedra/stacker	28	61	110	127	67	55	26	28	24	31
Nutmeg							1	2	10	31
Other (smart shop) products	56	43	65	89	83	103	102	95	92	101
Total drugs	904	1023	1210	1285	1383	1146	1120	1212	1158	1243

\*Due to a change in registration: since 2006 methadone is not counted anymore in the group of illicit drugs but in the group of medicines. \*\*Since 2008, intoxications reported by the internet are included. Source: NVIC, UMC (Van Velzen et al. 2011; Van Velzen personal communication).

### 6.2.2 *Psychiatric comorbidity*

As described in previous National reports drug use disorders are commonly associated with other mental health disorders. Research in the past years focused on comorbidity related to cannabis and ecstasy use.

Preliminary findings from the CANDEP study among frequent cannabis users (see § 4.3) indicate that compared to the general population, frequent non-dependent cannabis users have similar levels of DSM IV internalising disorders (mood, anxiety) but display higher levels of conduct disorder and ADHD (Van der Pol, 2011a, 2011b). Interestingly, prevalence rates of both internalising and externalising disorders were higher among dependent users, also compared to non-dependent users, while their cannabis exposure was similar. These associations remained significant after controlling for a range of confounders (e.g. sociodemographic, substance use, childhood trauma). More detailed data will be reported in the 2012 National Report.

Substance use disorders and other psychiatric disorders also go hand in hand in marginalised populations of the homeless and otherwise 'socially vulnerable' populations (see also §8.2). Using data from several different registrations, the municipality of Utrecht estimated that almost one in three of the multi-problem clients had a substance use problem (31%), with alcohol abuse ranking highest (14%), following by cannabis (9%), cocaine (6%) and heroin (5%). Almost half of them had a psychiatric disorder (47%), with psychotic disorders being most prevalent (16%) (Van Bergen et al., 2010).

### 6.2.3 *Driving under the influence of drugs*

The Netherlands participated in the European DRUID study (Driving under the influence of drugs, alcohol and medicines). Part of this study concerned a project into the prevalence of the use of illicit drugs, alcohol and psychoactive medicines in drivers by conducting roadside surveys (SWOV, 2011). In the Netherlands, 76 roadside survey sessions in six police regions were conducted between January 2007 and August 2009 (Houwing et al., 2011). Participation by drivers was voluntary. After they were stopped by the police a blood sample was collected or, if not willing, a saliva sample. The data were weighed for traffic density during each of eight sampling periods (four time periods during weekdays and four time periods during weekend days). Response rate was high (95%).

Table 6.2.5 shows the prevalence of positive blood tests by substance categories. Overall, 94% of the drivers tested negative for any of the tested substances. Alcohol was by far the most commonly detected substance followed by THC, and at distance the benzodiazepines, multiple drugs and cocaine. THC in combination with other substances was detected in 0.43% of the drivers, amounting to a total THC prevalence of 2.10%. Alcohol in combination with other substances was found in 0.28% of the tested drivers, amounting to a total alcohol prevalence (alone and in combination) of 2.38%. About one quarter of these drivers (0.61%) had a blood alcohol level over 0.5 g/L.

Prevalence rates of amphetamine and THC were somewhat higher in the Netherlands compared with the weighted European average of 13 countries (0.08% and 1.32%,

respectively), while the prevalence of benzodiazepines, medicinal opioids and alcohol was below the European average (0.9%, 0.35% and 3.48%, respectively).

Note, however, that these percentages concern the number of positive tests using certain analytical detection limits (lowest limit of quantification), which are probably lower than those associated with actually being under the influence of a drug.

*Table 6.2.5: Prevalence of categories of illegal drugs, alcohol and psychoactive substances*

<b>Substance category</b>	<b>Prevalence (%)</b>	<b>95% confidence interval</b>
Amphetamine	0.19%	0.10 – 0.36
Cocaine	0.30%	0.18 - 0.50
THC	1.67%	1.34 - 2.07
Illicit opiates	0.01%	0.00 - 0.09
Benzodiazepines	0.40%	0.25 – 0.62
Z-drugs*	0.04%	0.01 – 0.15
Medicinal opioids	0.16%	0.08 – 0.32
Alcohol	2.15%	1.78 – 2.60
Alcohol-drugs	0.24%	0.13 – 0.42
Multiple drugs	0.35%	0.22 – 0.56

\* non-benzodiazepine hypnotics. Source: Houwing et al., 2011

Using blood samples collected in the framework of the DRUID project, the Institute for Road Safety Research (SWOV) showed that 2.8% (n=5) of the 180 seriously injured car drivers who had been admitted to hospitals in three cities tested positive for GHB (Houwing, 2011). Serum concentrations ranged between 42 and 424 ng/ml (note that the legal cut off will be 10 ng/ml). This was fairly high compared with the prevalence of other illegal drugs, e.g. cocaine 1.1% and THC 1.1%. Alcohol (without other substances) was present in 26% of the cases. Although these data suggest that GHB may have an adverse effect on traffic safety, it was not possible to demonstrate that GHB is overrepresented in car drivers involved in accidents due to a lack of prevalence data on the use of GHB in car drivers.

As reported in chapter 1, the Road Traffic Act will be amended in order to prohibit driving under the influence of drugs by defining legal limits of blood concentrations for each substance.

The Amsterdam Antenna monitor (see § 2.3) asked a sample of pubgoers whether they operated a motor vehicle (or bike) after going out during the night (Benschop et al, 2011). Assuming that blood alcohol levels are above legal limits after two drinks, an estimated 3% of the pubgoers drove cars or motors under the influence of alcohol after their night out. Cannabis was used by 6% of the pubgoers during the night out, but none of them went home by car (driving themselves). Driving after the use of the other investigate substances was reported for 3% of the pubgoer, but the time between use and driving (and whether respondents were still under the influence) is not known.



## 6.3 Drug-related deaths and mortality of drug users

### *National level*

In the Netherlands, statistics on drug-related deaths at national level come available from the General Mortality Register (GMR), or Causes of Death Statistics, held by Statistics Netherlands (CBS). In this register the causes of death are classified according to the International Classification of Diseases, Injuries and Causes of Death (ICD). The 10th edition of the ICD has been in use since 1996. The register has national coverage, but in standard form 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 (GMR) specifically 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 standard definition of acute drug-related death, as reported for the Netherlands in the Standard Tables ST5\_2011\_NL\_01 and ST6\_2011\_NL\_01.

### *Overall trend*

Figure 6.3.1 shows the number of cases recorded from 1996 up to including 2010. These cases are selected according to the EMCDDA standard selection of ICD-codes. The figure only includes cases from residents that were registered at a municipal register. Among non-residents, an additional 20 cases were registered in 2010 in a separate archive (Kim de Bruin, Statistics Netherlands (CBS), personal communication, 29-08-2011). Between 1996 and 2010, the total number of recorded drug-related deaths among residents fluctuated between a minimum of only 94 cases in 2010 and a maximum of 144 cases in 2001. After temporary increases in 2008 and 2009 the number of deaths decreased again in 2010 to the level of 2007.

Of the 94 cases in 2010, a total of 45 cases were coded to unspecified substances, compared to 51 cases in the 2009 registration year. Although the specific substances are not known in these cases, a previous inquiry at Statistics Netherlands (CBS) revealed that these cases are mostly related to hard drugs and to polydrug use, and are therefore rightly included in the group of drug-related deaths. From 1996 up to including 2010, the number of unspecified cases ranged from 18 in 1996 to 58 in 2008.

Despite some fluctuations over the years, the total number of drug-related deaths in the Netherlands has remained relatively low. This might be explained by a low number of socially marginalized problem drug users, successful prevention measures among the problem drug users, and protective factors, such as the nationwide availability of methadone-maintenance treatment, heroin-assisted treatment, and a low rate of injecting drug use.

### *Opiates and cocaine*

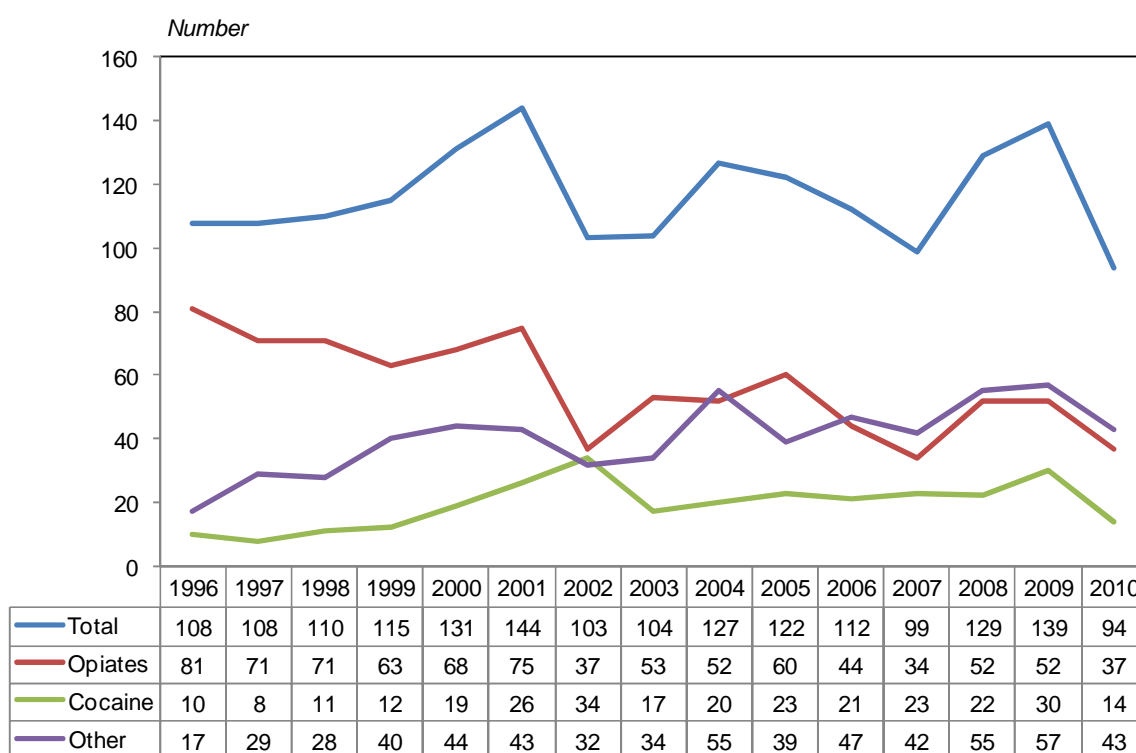
Cases of "opiates" and "cocaine" refer to cases in which these substances were explicitly stated as the primary cause of death on the death certificate. Between 1996 and 2001,

opiate intoxications were the most common causes of drug-related death recorded among Dutch residents. In this period, the casualty rate fluctuated between 81 and 75 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 trends have diverged again.

### Psychostimulants

In 2010, there was only one case that was coded to poisoning by psychostimulants (other than cocaine), compared to just four cases in 2009, two cases in 2008, and only one case in 2007. Whether these fatal intoxications concerned amphetamines, MDMA, or other psychostimulants is not known.

Figure 6.3.1: Number of acute drug-related deaths in the Netherlands according to the EMCDDA selection of ICD-10 codes from 1996 up to including 2010\*



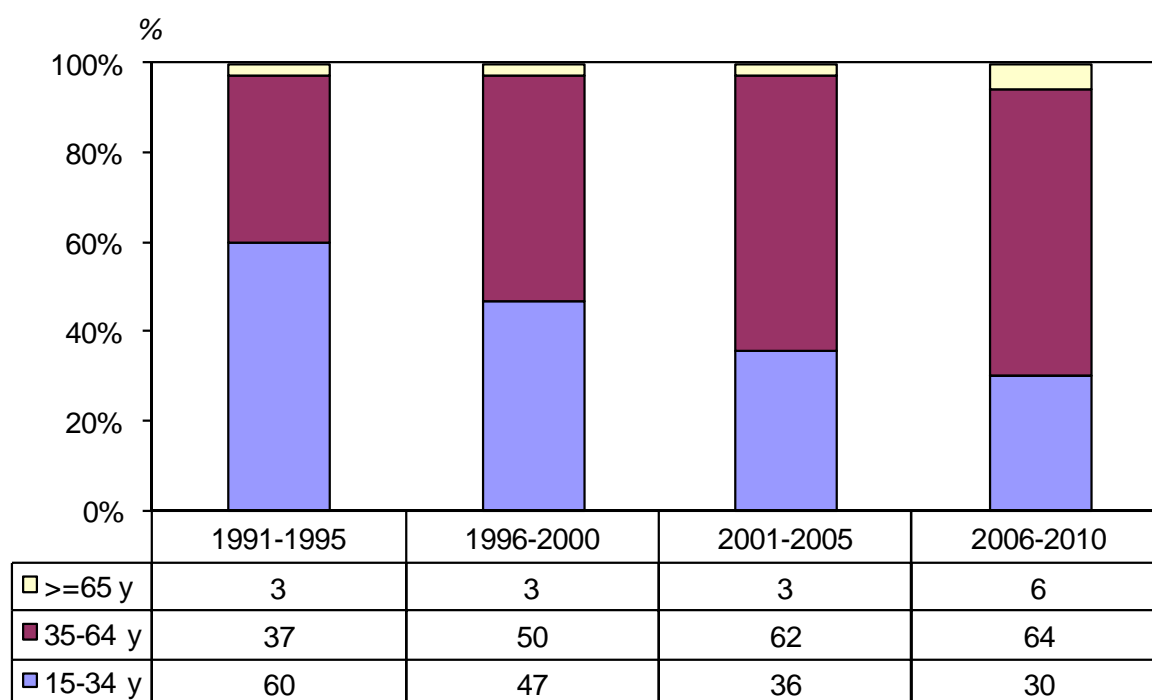
\*Only residents that were registered at a municipal register in the Netherlands are included. Among non-residents, an additional 20 cases of acute drug-related deaths were registered in 2010. EMCDDA selection of ICD-10 codes: F11-F12, F14, F16, F19; and X42, X41, X62, X61, Y12, Y11 (selected in combination with T40.0-9 or T43.6). Source: Causes of Death Statistics, Statistics Netherlands (CBS).

### Age and gender

The population of problem drug users is ageing, and this trend is reflected in the increasing age of drug users that have died from drugs. Figure 6.3.2 shows that the percentage of deceased aged 35 years and above increased from 40% during the period 1991 up to including 1995 to 70% during the period 2006 up to including 2010.

Between 1996 and 2010, the percentage of female cases varied from 15 to 28% per year, without showing a clear trend. In 2010, the proportion of female cases was 26%.

Figure 6.3.2: Trends in age distribution of cases of acute drug-related deaths in the Netherlands, according to the EMCDDA definition



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

#### GHB and PMMA

Some specific information is available about deaths related to GHB and PMMA. With regard to GHB, the Netherlands Forensic Institute (NFI) has investigated the cases from 2003 up to including 2011 (Lusthof and Bosman, NFI, personal communication 25-08-2011). From 2003 up to including April 2011, a GHB analysis was performed in 819 forensic autopsy cases at the NFI. Of these cases, 51 (6,2%) were found positive for GHB. However, other drugs were also commonly detected; it was not specified for all cases to what extent GHB contributed to death. In 2010, GHB was positive in 17 out of 258 autopsy cases; GHB was the primary cause of death in one case, was fatal in combination with other drugs or alcohol in 7 cases, and did not contribute to death in the other 10 cases. These data suggest that GHB may have become a relevant factor in the drug-related deaths.

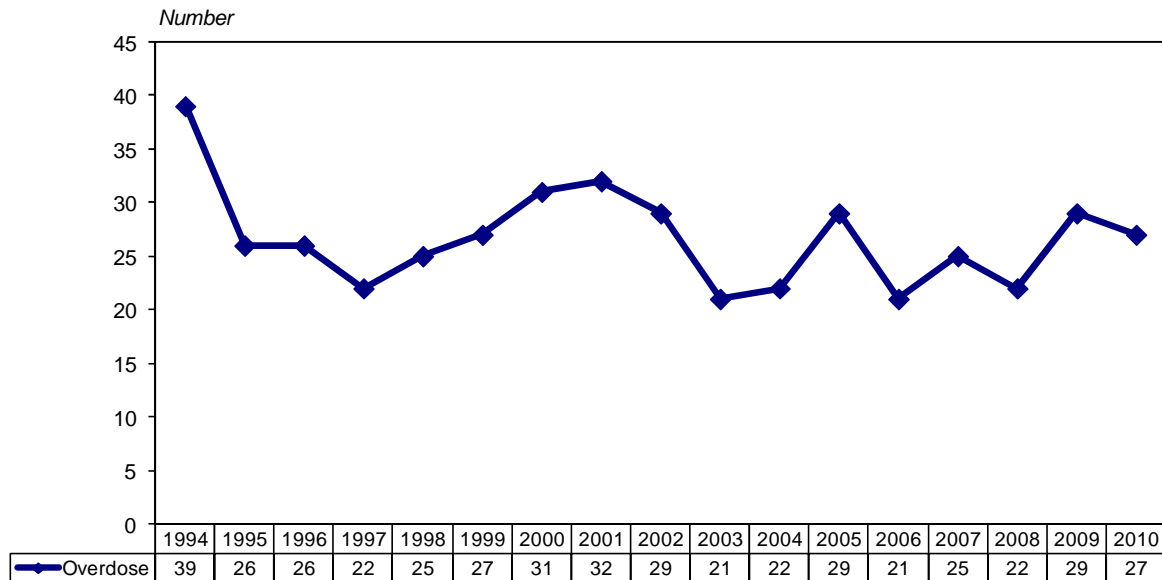
With regard to PMMA, this substance was identified in one case in November 2010, in 4 cases in March 2011, and in one case in August 2011 (Vogels, Monitor drug-related emergencies, personal communication 27-10-2011). The exact role of PMMA in these deaths was not clear.

#### Regional level: Amsterdam

The Public Health Service of 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. This regional monitor of drug-related deaths is part of the Public Mental Health Care monitor (OGGZ monitor) of Amsterdam (Buster and Van Brussel 2011). The data on the 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. Figure 6.3.3 gives the

number of acute deaths (overdoses) that were found according to this procedure among the drug users in Amsterdam.

Figure 6.3.3: Number of acute deaths (overdoses) among drug users in Amsterdam from 1994 to 2010

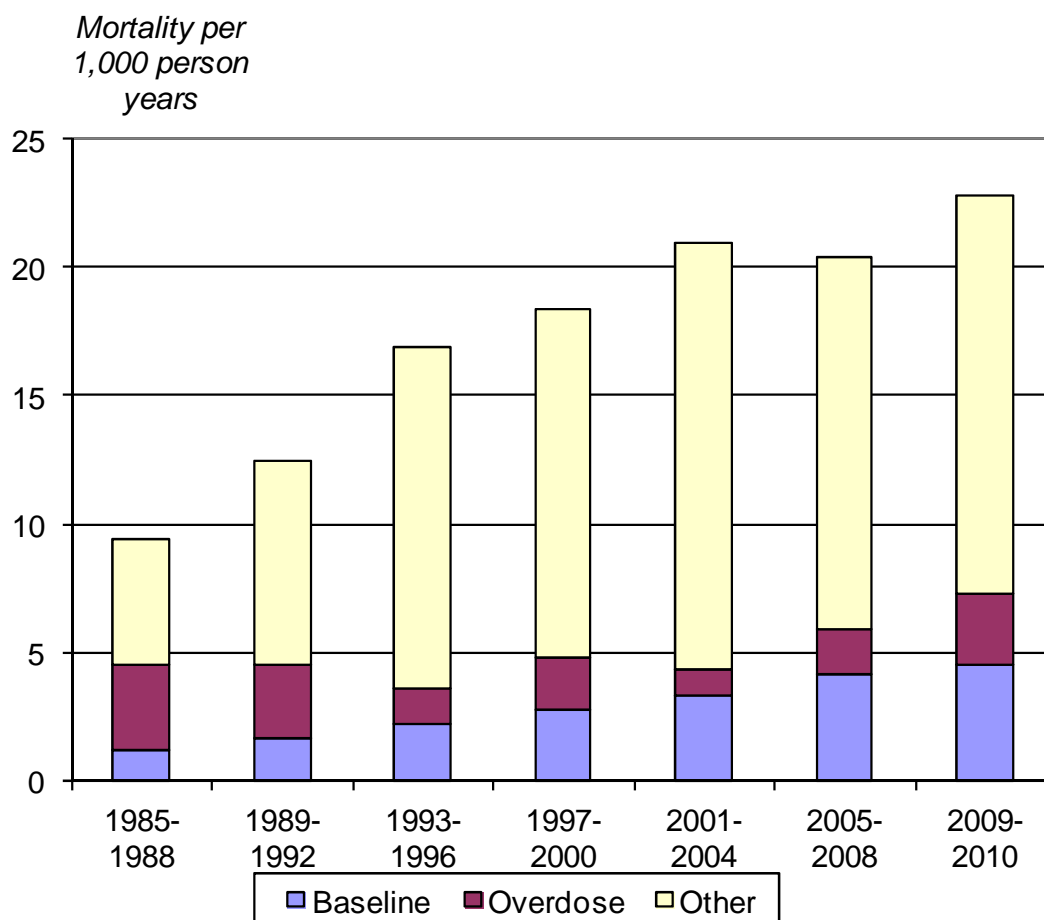


Source: Public Health Service of Amsterdam (GGD Amsterdam).

Apart from the absolute number of deaths per year, the Public Health Service of Amsterdam (GGD Amsterdam) also monitors 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 monitoring system. Moreover, 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 6.3.4 gives the mortality per 1,000 person years of observation from the period 1985-1988 to the period 2009-2010. Between these periods, the mortality per 1,000 person years increased from 9.4 to 22.8. However, it should be accounted for that the methadone patients are an ageing population. The baseline mortality, that is the mortality not related to drugs, increased in this ageing population from 1.2 to 4.5, and the standardized mortality ratio (SMR) actually decreased from 7.9 to 5.1 (Buster and Van Brussel 2011).

Figure 6.3.4: Mortality per 1,000 person years among Amsterdam methadone patients from 1985-1988 to 2009-2010



The baseline mortality indicates the mortality among the Amsterdam population of the same age as the methadone patients. Source: Public Health Service of Amsterdam (GGD Amsterdam).

#### Validation research

The Forensic Medicine Department of the Municipal Public Health Service of Amsterdam has investigated whether urine screening "provided new insights into the circumstances of death" (Ceelen et al. 2011). For this validation research, "post-mortem urine screening was performed in adult decedents that were examined in Amsterdam by the forensic physicians between April 2008 and April 2009". To collect the data, a "rapid on-site multidrug test was used to screen the urine samples for the presence of the following commonly used drugs classes: amphetamine, barbiturates, benzodiazepines, cannabis, cocaine, 3,4-Methylenedioxymethamphetamine (MDMA), methadone, methamphetamine, morphine and tricyclic antidepressants (TCA)". A total of 200 death cases were included in the study and in 113 cases attempts were successful to collect the post-mortem urine samples. The most frequently detected drugs were benzodiazepines (37 times), cannabis (18 times), morphine (16 times), cocaine (13 times), and methadone (12 times). The researchers conclude that the "majority of the cases with indications for recent use or abuse of drugs were strengthened by toxicology screening". On the other hand, the researchers also found that "urine of 7 out of 89 cases without indications in scene of death or heteroanamnesis for use of high-risk drugs of abuse were found positive for this type of drugs". However, the authors

note that for being sure a urine test "should be followed by quantitative, confirmatory blood tests in order to determine whether the detected substance did cause or contributed to death". Moreover, the "findings cannot be directly generalized to all deaths occurring in Amsterdam". Therefore, it still remains unclear what these results may imply for the possible under registration of drug-related deaths in Amsterdam and the rest of the country.

## **7. Responses to Health Correlates and Consequences**

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

#### *Drug-related emergencies*

In 2008, the "Monitor drug-related emergencies" (Monitor drugsincidenten) was developed, and data for 2009 and 2010 have been reported (Vogels & Croes, 2011). The monitor aims to identify, on an actual basis, trends in drug-related health incidents (via a basic registration), and simultaneously intends to pick up acute life-threatening situations (via case reports). The findings will be used as direct input for preventive measures, both directed at drug users and health care workers, as well as to policy makers. Healthcare workers can report drug-related emergencies online at the website [www.drugsincidenten.nl](http://www.drugsincidenten.nl). The emergencies are registered as light, moderate, and severe intoxications.

The number of participating regions increased from four in 2009 to six in 2010 (Amsterdam, Eindhoven, Enschede, Groningen, Nijmegen, Purmerend), and in 2011 another region joined the monitor (Rotterdam). Cases in these regions are reported by the police, ambulance transportation services and hospitals and, at a national level, by two organizations delivering first aid at dance parties.

The 'Monitor drug-related emergencies' works closely together with the DIMS project, which besides having a monitoring function also aims to prevent drug-related health problems (for more information: see § 6.2 and § 3.3).

#### *Drug-related deaths*

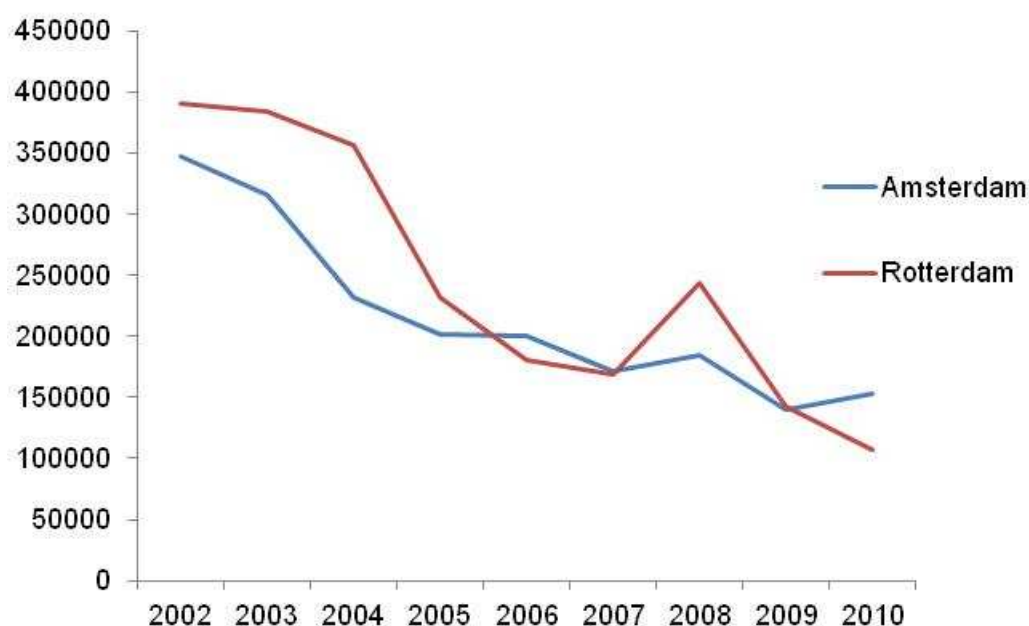
Within the framework of its harm reduction policy, the Netherlands has consolidated in 2010 the prevailing practices to prevent drug-related deaths. There is no specific new information available in addition to the prevention measures that have been reported already in the previous national reports.

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

#### *7.2.1 Needle/syringe exchange*

Estimates from Mainline (a grassroots organisation for drug users in Amsterdam) and the Trimbos Institute suggest that there are approximately 150 needle/syringe exchange programs in the Netherlands. This is a rough estimate because for some cities it has been reported that pharmacists are also exchanging syringes. In Amsterdam and Rotterdam trend data on the numbers of syringes that were exchanged are available. In both cities, a decreasing trend in the number of exchanged syringes is observed since many years (see figure 7.2.1). The small and unexplained increase observed in 2008 was not continued in 2009 and 2010.

Figure 7.2.1 Number of syringes exchanged in Amsterdam and Rotterdam 2002-2010



Source: GGD Amsterdam and GGD Rotterdam.

- In Amsterdam, figures are available since 1990. After a steady increase until 1993 (1,082,880 syringes were exchanged in that year), the number of exchanged syringes declined to 153,600 in 2010 (source: GGD Amsterdam).
- In Rotterdam, figures are available since 2000. The number of syringes ordered by the local distribution centres was reduced between 2000 and 2010 from 422,000 to 107,000 (source: GGD Rotterdam). It is noteworthy that in Rotterdam during evening and nightly hours drug users can exchange needles and syringes at several police stations.
- The decline during many years in the number of syringes exchanged can be explained by several factors: a reduction of injecting heroin users in general; a reduction of drug users, often injectors, from neighbouring countries; a reduced popularity of injecting resulting from experienced health problems, in combination with an increase in the use of crack; and mortality among injectors.

### 7.2.2 Drug consumption rooms

A recent inventory (mid 2010) among a network of infectious disease experts in all addiction care institutions in the Netherlands identified 37 drug consumption rooms operating in the Netherlands (Havinga and van der Poel, 2011). Though being present in smaller cities as well, most of these harm reduction facilities are concentrated in bigger cities. Not all drug consumption rooms are for injecting. Some are targeted at 'smokers', others are established exclusively for using alcohol and some are mixed and not dedicated to any special route of consumption or drug.

### 7.2.3 National hepatitis B vaccination campaign

See also § 6.1. The Netherlands is a low hepatitis B endemic country (estimated HBsAG prevalence 0.3-0.5%) with higher prevalence in specific risk groups. The Netherlands has



been one of the last countries that used a risk group vaccination strategy. However, last year it was decided to start with universal vaccination, to begin with children born after August 1, 2011. Despite the start of universal hepatitis B vaccination, the risk group vaccination strategy will have to be continued for many years as the universal vaccination will target children.. From 1-1-2012 onwards, drug users are no longer considered as a risk group in the free hepatitis B vaccination campaign targeted at behavioural risk groups. This decision is among others based on the decrease in number of vaccinations in this group, which is already going on for years, and the decrease in immunity found among drug users (see § 6.1). Also the low number of injecting drug users in the hepatitis B notifications plays a role. The addiction care institutes have planned a large final call for hepatitis B vaccination in their population in November and December 2011.

#### *7.2.4 Hepatitis C information campaign*

From September 2009 to February 2010, the national information campaign for risk groups was executed. The campaign aimed to increase knowledge on HCV among the general public, and to raise awareness and increase information seeking behaviour among risk groups. The second aim was to enhance awareness among professionals in the field. Secondary objectives were to increase the number of diagnosed HCV cases and to structurally embed the attention for HCV in protocols and daily practice. As risk groups in this campaign were considered recipients of blood products before 1992, drug users and migrants from high endemic countries. For the three risk groups different campaign strategies were developed, which were first tested in a pilot phase. Among others, the campaign used mass-media activities, an online hepatitis C risk assessment test ([www.hebikhepatitis.nl](http://www.hebikhepatitis.nl)), and flyers.

All eleven addiction care institutions in the Netherlands participated in the sub-campaign for drug users. Professionals (nurses, doctors) received training for hepatitis C counselling; counselling talks were actively offered to the target group; the drug users also received information materials; grass root organisation Mainline supported the addiction care institutions with field work, among others by using a game named "Russian Roulette".

All participating institutions drafted an implementation plan during the preparation phase. However, at the start of the campaign, in September 2009, only four were ready to start; some institutions started only in summer 2010 (officially after the campaign had ended). All but one have the intention to continue with counselling and testing for HCV. The campaign was executed in a limited number of locations, some restricted the campaign to methadone posts, others also executed the campaign in drug consumption rooms, medical heroin units, prostitute zones, reception centres, or in labour-yards. In total 173 professionals were trained in counselling; they had a counselling talk with 1424 drug users, of whom just over half were tested for HCV; 25% was found positive and of these, one third (62 persons) started treatment (Singels, 2010).

- It is of note that the reach of the campaign was very limited as the number of registered opiate clients is over 12,000. Although the level of implementation of the campaign differed substantially between institutions, on average the implementation has not been optimal. A study on the promoting and impeding factors in the implementation of the hepatitis C information campaign targeted at drug users has been performed and identified impediments on several levels, which were for a large part on organisational (Croes and Van der Veen, 2011a).

- Also a study on the effectiveness of the hepatitis C information campaign has been performed. It concluded that in those drug users who were reached with the campaign there was a small but statistically significant increase in knowledge on hepatitis C. However, increasing knowledge was associated with a decrease in willingness for HCV testing. The study also found indications for an increase in number of counselling talks and HCV tests. Finally, motives were identified that influence the decision for testing or treatment (Croes and van der Veen, 2011b).
- A cost-effectiveness study on the campaign concluded that the sub-campaign aimed at drug users was a cost-effective intervention for identification of HCV carriers, with an ICER (incremental cost-effectiveness ratio) for the drug users campaign of € 7,321, where the cut-off in the Netherlands is usually set at € 20,000 per QALY (Helsper et al, 2011).

### 7.2.5 Other prevention activities

The Ministry of Health, Welfare, and Sport (VWS) finances the program Infectious Diseases and Drug Use, a collaborative project of the grassroots organization Mainline Foundation and the National Support Function Prevention in Mental health and addiction care (Dutch abbreviation: LSP) of the Trimbos Institute. The focus of the program is on education and implementation of harm reduction measures. The program is in close contact with the functionaries at the addiction care institutions whose task is dedicated to infectious diseases. These functionaries, usually nurses, assemble every two months in a network to exchange information. The program developed several websites (e.g., sickofit.nl, hepikhepatitis.nl, both for drugs users with hepatitis C) and yearly writes comprehensive guidelines on infectious disease and related topics (e.g., last year an update and inventory on drug consumption rooms; Havinga and Van der Poel, 2011).

With regard to harm reduction, it is worth mentioning a study based on data from the Amsterdam Cohort Studies (ACS) (for the ACS, see also § 6.1) (Lambers et al, 2011). In this study it was assessed whether the intensity of harm reduction influences HAART adherence. The authors concluded that still-injecting drug users who are exposed to systematic and integrated care, but do not use a complete harm reduction package (including substitution therapy and needle exchange programmes), can be just as adherent to HAART as drug users who make use of the complete harm reduction measures and also as non-injecting drug users with no dependence of harm reduction (Lambers et al, 2011). The authors advocate a systematic and comprehensive support system including supervised housing and social and medical support to increase HAART adherence rates amongst all HIV-infected drug users.

Finally, there are also many activities ongoing which focus on a wider risk group. In these activities, drug users can participate but are not exclusively targeted. An example is a project on web based information supply, a risk assessment questionnaire and testing possibilities for hepatitis C (Zuure et al, 2010). It was concluded that a web based questionnaire can be successful in selecting at risk individuals (such as (former) IDUs) and can be used in the general population.

### 7.3 Responses to other health correlates among drug users

#### *Psychiatric and somatic co-morbidity*

As described in our previous National report, several studies show that drug use disorders are frequently associated with other mental health disorders (see also § 6.2). The treatment of comorbid psychiatric and substance use disorders has attracted professional attention for many years as shown by an increase in treatment units for dual diagnosis patients as well as research at annual conferences on comorbidity (e.g. De Gee, 2011; Muuse, 2010).

During 2011, the Guideline Anxiety and Addiction (*Angst en Verslaving*) will be published that will target the treatment of co-morbid anxiety and addiction (Buisman 2011). This new guideline is considered an addendum to the already published Multidisciplinary Guideline Anxiety Disorders and it will target integrated care for this type of co-morbidity. The guideline will be realised in cooperation between the Trimbos Institute, the Addiction Research Institute Rotterdam (IVO), and the Mondriaan Zorggroep, a large regional institute for addiction care and mental health care.<sup>23</sup>

In 2010, nine double diagnosis units participated in the Monitor Double Diagnosis (DD). From three organisations almost no data were received. A reference book was published with many data of the patients that were released from the double diagnosis units. The monitor started as a benchmark project to compare organisations on specific indicators. Gradually it changed into a monitor with broader targets. It is meant as a reference guide, a guideline for future studies, and as a management information system. Seventeen measurement instruments are used in this monitor. The patients fill in these questionnaires when possible and useful. There are minimum and maximum variants, depending upon the ability of the patient. Short-stay patients of the DD units should answer on questions from a minimum set of five measurement instruments.

The instruments are regularly discussed and critically examined in a key group of professionals. When considered appropriate, the instruments are changed. The EuropASI, for instance, is going to be replaced by the MATE instrument (Schippers et al. 2010). Separate key data sets are used for the admission and release of patients. For the admission phase it was found that the Global Assessment of Functioning (GAF) scores of the patients slightly but continually decreased between 2007 and 2010. This indicates that in this period the psychological and social functioning of this group of patients became 'less normal'. For the release phase it was found that the mean duration of stay in a DD unit was 80 days. Between institutes a large difference was found in the mean duration of stay, namely from 39 to 216 days. Although institutes differed in scores, on average the scores on psychiatric problems, addiction problems and social problems were becoming more favorable during treatment (De Weert-van Oene et al. 2011).

The data sets from the double-diagnosis patients contain a comprehensive mix of patient problems. For 2011 the analysis as reported in an Addendum was restricted to a selective diagnosis group, namely patients with psychotic disorder at admission who were released in 2010. This enabled an analysis of a more homogeneous patient group. This group is also the largest group in DD units. During the next years other diagnosis groups will follow.

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<sup>23</sup> [www.ivo.nl/?id=625&parent=516&current=516](http://www.ivo.nl/?id=625&parent=516&current=516)

Drug use is also associated with a range of somatic disorders. It is often unclear whether the treatment of these somatic problems are the responsibility of the addiction care, the general practitioner or whether they should take place in hospital. In general, the attention for somatic co-morbidity in problematic drug users in the Netherlands is rather low. The recent "Drugs letter" of the Ministry of Health, Welfare and Sports (dd May 27, 2011) however stresses the importance of permanent attention for infectious diseases and measures to reduce overdose mortality.

Most of the somatic problems associated with drug use are not unique for drug users but are common in other risk groups as well or are associated with the aging population in general. Therefore, most interventions are not exclusive for drug users. E.g., recommendations have been recently developed for the treatment of acute hepatitis C infection in HIV positive patients (Arends et al, 2011) which are applicable to a range of patients, among whom MSM and drug users.

## 8. Social correlates and social reintegration

### 8.1 Social exclusion

#### *The general picture in the Netherlands*

For the Netherlands in general, the level of social cohesion in society is monitored by The Netherlands Institute for Social Research (SCP). In previous national reports it was reported that, compared to other European countries, the Netherlands is doing fairly well on social cohesion, and that only a minority of the population suffers from social exclusion. For the reporting year 2010, the SCP has focused on three issues: poverty, the integration of non-Western migrants, and discrimination.

During 2008, the level of poverty remained stable but increased during 2009 (SCP 2010a). This was due to the economic recession which resulted from the global financial crisis. The percentage of poor households increased from 6.4% in 2008 to 7.0% in 2009. Single-parent families, families living from a social assistance benefit, and non-Western ethnic minorities were touched the most by poverty.

With regard to the integration of non-Western migrants, it has been reported that the "overall picture" is "a mixed one": "The position of non-Western groups has improved substantially in some domains (e.g. the numbers entering higher education, command of the Dutch language and its use within the family, development of a non-Western middle class); in other areas, the disadvantage is proving stubborn and few positive developments can be identified (e.g. the high crime rate in certain non-Western groups, substantial geographical and social segregation, which has increased rather than decreased in recent years)" (SCP 2010b).

With regard to discrimination, it has been reported that "even where candidates were equally suitable, employers still more often selected a native Dutch candidate than a non-Western migrant" (SCP 2010c). It is further concluded that "greater inequality in the risk of being unemployed is probably related both to the state of the Dutch labor market and to the social acceptability of using stereotypes and expressing prejudices towards migrants". Open interviews with recruitment officers revealed that "in the view of recruitment officers, candidates of non-Western origin are deficient in areas such as Dutch language proficiency and the way they present themselves during job interviews, they do not get through the job application procedure".

#### *Social exclusion among drug users*

Given the correlation between social exclusion and drug use, the question is whether drug use causes social exclusion or social exclusion causes drug use. By means of a qualitative study, Allen (2005) found that "the onset of participation in petty crimes, such as shoplifting, tends to precede induction into drug use". This indicates that first there is social exclusion, and that drug use comes next. Recently, this order of causality has been confirmed in the Netherlands by means of quantitative research conducted on data "from participants in the Tracking Adolescents' Individual Lives Survey (TRAILS), a prospective cohort study among adolescents in the general Dutch population" (Griffith-Lendering et al. 2011). A total of "1,449 respondents were followed from the age of 11 to 16 to assess the relationship

between both internalizing and externalizing problems and cannabis use". It was found that "cannabis use is strongly related to externalizing behavior problems in early adolescence, including aggressive and delinquent behavior". With regard to the order of causality, it was found that the "data supported the self-medication hypothesis, indicating that externalizing problems precede cannabis use during adolescence and not the other way around". These findings suggest that social exclusion may cause or trigger drug use, although this does not mean that a reverse relationship (cannabis use resulting in social problems and exclusion) can be excluded". Nonetheless, Seddon (2010) gives arguments for an even stronger relation between addictive behaviours and social exclusion: addictive behaviours, "within late modern societies", are those behaviours that *by definition* indicate social exclusion. Of course, the research finding that, in a certain group, social exclusion has preceded drug use, still leaves open the possibility that, in other groups, the drug use comes first and next the social exclusion.

Not having access to proper medical treatment counts as a form of social exclusion. This implies that, as far as opiates addicts do not have access to methadone treatment, this will count as a form of social exclusion among this group of drug users. Witteveen and Van Santen (2011) have investigated the obstacles for receiving methadone treatment in Amsterdam. Although in general the Amsterdam methadone treatment has consolidated its level of reaching opiates users, certain groups have been identified that are being under reached. These are opiate users in Amsterdam South East and certain female opiates users who cause public nuisance. Amsterdam South East is a neighbourhood that is well-known for housing many different ethnic minorities.

In the period from May up to October 2009 opiate users who used opiates at least two years four days a week and who did not receive methadone from an official program were asked to participate in the research. A sample of 20 respondents was obtained from low-threshold facilities and from field research, 80% was male, and the mean age was 47 years. It was found that 60% of the respondents used street methadone.

A total of eleven obstacles were found that were grouped into obstacles with regard to the substance methadone, characteristics of the opiate using person, and the methadone program. With regard to the substance methadone, obstacles were mentioned due to methadone being addictive and leading to heavy withdrawal effects when stopping with it (95%), side-effects (60%), methadone being an experiment (15%), and not liking pills (15%). Some report that withdrawing from heroin is easier than withdrawing from methadone. With regard to the person, obstacles were given by the need for a quick high (45%), and heroin being a good downer after having used crack cocaine (40%). Finally, with regard to the methadone program, there were obstacles with regard to the required daily use of methadone (50%), there being too many rules (35%), methadone being pushed (30%), not wanting to meet other drug users (25%), and not wanting to wait in a queue (10%). The researchers recommend giving the opiates users more control about their own methadone program.

The social exclusion of drug users starts with stigmatizing them. To investigate stigmatization, research was started at Tilburg University in March 2011 to map the public images around alcohol and drug addiction (Van Boekel et al. 2011). It will be investigated how the general population views addiction, what the attitudes are of addiction workers towards addicts, and which negative images addicts have experienced themselves.

### *Drug use among socially excluded groups*

In paragraph 2.3 above, drug use among socially excluded groups was already reported with regard to groups like neighbourhood and problem youth in Amsterdam, young people in Amsterdam Southeast, and hang-around youth in the province of Gelderland. In the following, attention will be paid to migrants from the new Member States of the European Union, migrants from Somalia, and prostitutes.

#### *Migrants from new Member States*

Especially in the city of The Hague, the third city of the Netherlands, a new group of migrants is given by workers coming from the new Member States of the European Union, located in Middle- and Eastern Europe (Starrenburg and Baraya 2011; Baraya and Starrenburg 2010). Since 2004, about 30,000 Middle- and Eastern Europeans migrated to The Hague, which made them rather visible in certain neighbourhoods. Annually, about 600 of the new migrants (2%) made use of the Salvation Army's day care. In case there was a problem with substance use, alcohol was much more involved than drugs, especially in the form of driving under the influence of alcohol. Nonetheless, the police have reported signals of increased heroin use among these migrants in certain neighbourhoods of The Hague ([www.ad.nl](http://www.ad.nl) 21-07-2011).

Signals about drug use among migrants from Eastern Europe have also been studied at national level (De Gee and Van der Poel 2010). In 2009, the Trimbos Institute, Netherlands Institute of Mental Health and Addiction in co-operation with the Foundation Mainline and the Foundation Rainbow Group (Stichting Regenboog Groep) organized an expert meeting about this subject, followed by an on-line investigation in March 2010 on which 143 experts responded. The experts mentioned alcohol as the most important health risk for these migrants.

#### *Migrants from Somalia*

Within the Netherlands, the trade in qat (as a plant) is freely permitted. However, transporting qat from the Netherlands to a country in which qat is prohibited comes down to smuggling an illegal substance. Smuggling qat raises problems, especially with regard to the image of Dutch transport firms and logistics companies (Valk, Elissen, and Best 2010). The population of qat users is mainly restricted to migrants from Somalia. In 2009, the Trimbos Institute investigated the use of qat in the Somali community in the Netherlands. The investigation was done by means of a literature research and two focus group meetings held with key informants (De Jonge and Van der Veen 2011). Within the context of their rather low social-economic position, the use of qat among Somali migrants was found to be associated with problems with regard to addiction, health, disturbed family relations, neglect of children, financial resources, and unemployment. All in all, the authors conclude that qat use implies a significant social problem that should receive more attention. On the 22<sup>nd</sup> of November 2011, the House of Representatives (Tweede Kamer) decided that qat should become a controlled substance according to the Opium Act.

## *Prostitutes*

In October 2000, a new law on prostitution came into force in the Netherlands. The new law made a stronger distinction between legal and illegal prostitution, and increased the penalties on illegal prostitution. On the 29<sup>th</sup> of March 2011, the Lower House agreed with a proposal for a stricter law on prostitution. During April and August 2010 the effects of the 2000 law were evaluated for the city of Nijmegen (Biesma et al. 2010). By January 2010, a total of 42 prostitutes were officially registered and allowed to work as a street prostitute in the assigned area of Nijmegen. They aged between 26 and 61 years, the mean age being 39 years. About 75% were of Dutch origin. Between 50 and 75% appeared to use hard drugs. The addicted prostitutes and the prostitutes who were not addicted occupied their own part of the street. The addicted ones financed their addiction by means of prostitution.

## **8.2 Social reintegration**

Shinebourne and Smith (2011) remind us about the fact that "recovery from addiction is more than not using drugs or alcohol in an otherwise unchanged life". Recovery in a broader sense is also about "developing new skills and values and forming new identities and new life projects, with or without support from treatment or self-help organizations". Recently, Blok (2011) has reviewed the history of the Dutch addiction care. Her historical review clearly confirms that the Dutch addiction care has a strong tradition in keeping addicts, as much as possible, socially integrated. However, Blok (2011) concludes that during its century of history the Dutch addiction care has played a double role: on the one hand adapting society to addicts, but on the other hand adapting addicts to society. The history of a century of Bouman GGZ, the regular institute for addiction care in the area of Rotterdam, has been described separately by Van der Stel (2010).

In February 2006, the national government and the municipalities of the four largest cities of the Netherlands signed and funded the "Strategy Plan for Social Relief" for the group of homeless people with complex and persistent problems (Plan van Aanpak Maatschappelijke Opvang). Problem alcohol and/or drug use counts as one of the major persistent problems among the homeless, but no recent updates are available about the proportion of homeless people abusing alcohol and/or drugs. By the end of 2010, a total of 12,436 homeless people were targeted in the four largest cities, of whom 7,476 people reached a "stable mix". A stable mix requires a stable living situation, a secure legal income, and a stable contact with treatment (Tuynman, Planije, and Place 2011). Apart from the four largest cities, the Strategy Plan for Social Relief has also been implemented since 2008 in the other 39 Dutch centre municipalities (centrumgemeenten) that capture the rest of the country. In total, the Netherlands is covered by 43 centre municipalities. Quantitative results from the 39 cities are expected in the near future (Planije and Tuynman 2011).

In April 2011, the national government and the four largest cities launched the second phase of the Strategy Plan (Rijk, Vier grote steden 2011). The government concluded that the Plan was a success. Whereas the first phase of the Plan targeted the actual homeless, the second phase of the Plan will now prevent homelessness among people who are at risk to become homeless. Drug abuse has been identified as specific risk



factor. The second phase of the Plan also includes relapse prevention among people who have been homeless in the past. The second phase of the Plan has adopted a community approach. However, people who stay illegally in the Netherlands and people who come from other Member States of the European Union are not subject to the Plan. It is estimated that in 2009 there were 97,145 illegal immigrants in the Netherlands (Van der Heijden, Cruyff, and Van Gils 2011). Just as the first phase of the Strategy Plan, the results of its second phase will be monitored by the Strategy Plan for Social Relief Monitor. This monitor is conducted by the Trimbos Institute, Netherlands Institute of Mental Health and Addiction.

*Programs advertised in annual reports*

As a reflection of the national social relief strategy, institutes for addiction care can be found to advertise in their annual social reports special programs that aim at the social reintegration of drug users. Table 8.2.1 reviews the social-reintegration programs as published in the annual reports. All care institutions in the Netherlands are legally obliged to prepare a social report each year, on behalf of the Admittance of Care Institutions Act (in Dutch: Wet Toelating Zorginstellingen, WTZi). In case an institute for addiction care does not pay special attention to a certain rehabilitation program in its annual social report, this does not mean that the institute has no such program at all. An institute does mention a program in its social annual report in case it has made special efforts to set up or to expand such a program.

*Table 8.2.1: Programs for social reintegration as published in the annual social reports of the main regular institutes for addiction care in the Netherlands*

Institute, residence, year reported	Program for social reintegration
Arkin, Amsterdam, 2010	<ul style="list-style-type: none"> <li>• A separate committee for the participation of the social environment of clients (Naastbetrokkenenraad)</li> <li>• Participation in the national project "Family in Triad" (Familie in Triade), a project which involves the social environment in treatment</li> <li>• Broader involvement of experts by experience</li> <li>• Extension of supported living to 7 locations</li> <li>• Supporting clients who seek work by means of Individual Placement and Support (Individuele Plaatsing en Steun)</li> <li>• Start of 45 special places for supported living in a Housing Training Centre (Woontrainingscentrum, WTC) for living without using substances</li> <li>• A total of 20 experts by experience</li> </ul>
Bouman GGZ, Rotterdam, 2010	<ul style="list-style-type: none"> <li>• An increase with 33 units to a total of 184 units for (extensive) supported living for chronic addicts</li> <li>• Integration of treatment with housing and work</li> <li>• Development of the Bouman Treatment Model (Bouman Behandelmodel, BBM) as a result of ten years of innovation</li> <li>• Integration of social reintegration within the Bouman Treatment Model (BBM)</li> <li>• Training programs offered to all new counsellors conducted by experts by experience</li> <li>• Function Assertive Community Treatment (FACT)</li> </ul>

<p>Parnassia Bavo Groep, including Brijder Verslavingszorg, The Hague, 2010</p>	<ul style="list-style-type: none"> <li>• A separate foundation (Stichting Actief Talent) and special services to support social activities, labour rehabilitation, and daily activities</li> <li>• A separate foundation to attack stigma by means of public campaigns</li> <li>• A separate trademark (Indigo) to offer community approach</li> <li>• A separate business unit (i-psy) for cross-cultural treatment for ethnic minorities</li> <li>• A total of 47 places for supported living (MiCasa)</li> </ul>
<p>Centrum Maliebaan, Utrecht, 2010</p>	<ul style="list-style-type: none"> <li>• All treatment targets at recovery and social participation of all patients</li> <li>• Social rehabilitation programs</li> <li>• Community approach</li> <li>• Two experts by experience at two locations in the institute</li> </ul>
<p>Verslavingszorg Noord Nederland, Groningen, 2010</p>	<ul style="list-style-type: none"> <li>• All care targets social rehabilitation at all the life areas that have been infected by substance abuse</li> <li>• Start of 4 teams for Function Assertive Community Treatment (FACT)</li> </ul>
<p>Stichting Tactus Groep, Deventer, 2010</p>	<ul style="list-style-type: none"> <li>• In case the addiction problem becomes chronic, the care targets social rehabilitation, including community approach</li> <li>• A future total of 134 places for small-scale living</li> <li>• Places for supported living</li> <li>• Daily activities aimed at labour rehabilitation</li> <li>• Labour rehabilitation by means of the project Tactory</li> <li>• A special project for social rehabilitation</li> <li>• Participation of clients in projects by means of expertise by experience</li> </ul>
<p>IrisZorg, Arnhem, 2010</p>	<ul style="list-style-type: none"> <li>• Structural integration of addiction care and social relief</li> <li>• Community Reinforcement Approach (CRA) will be the methodological guideline for all counsellors</li> <li>• Supported living</li> <li>• Rehabilitation trajectories</li> <li>• Recovery work (Herstelwerk) in combination with Critical Time Intervention</li> <li>• Social rehabilitation programs for former prostitutes to offer them a sustainable alternative</li> <li>• More investment in experts by experience</li> <li>• Financial support of charity projects in which clients can participate</li> </ul>
<p>Emergis, Goes, 2010</p>	<ul style="list-style-type: none"> <li>• Reintegration of clients in a special working place (Demontage Werkplaats Zeeland B.V., DWZ)</li> <li>• A total of 212 places for supported living</li> <li>• Appointment of four experts by experience and participation in the project National Enforcement of Expertise by Experience (LIVE) which is co-ordinated by the Trimbos Institute and the Pharos Foundation</li> </ul>
<p>De Hoop ggz, Dordrecht, 2010</p>	<ul style="list-style-type: none"> <li>• A total of 32 places for small-scale supported living</li> <li>• A total of 80 places in the living community "Horeb"</li> <li>• A new building for labour projects</li> <li>• A separate foundation for labour reintegration</li> </ul>

Novadic-Kentron, Vught, 2010	<ul style="list-style-type: none"> <li>• From start to finish, treatment targets social rehabilitation and this will be monitored in the near future</li> <li>• A total of 10 places for small-scale living</li> <li>• Participation in offering interventional care (bemoeizorg) in seven centre municipalities (centrumgemeenten)</li> <li>• Further development of innovative Community Reinforcement Approach</li> <li>• Supported living by means of hostels for chronic addicts</li> <li>• Creation of social acceptance of the social rehabilitation of addicts by means of hostels</li> <li>• Recognition of expertise by experience as the third source of knowledge besides scientific knowledge and expert knowledge</li> <li>• Taskforce for trying out new projects for social rehabilitation</li> <li>• Introduction of Community Reinforcement Approach (CRA) in more regions</li> </ul>
Vincent van Gogh voor geestelijke gezondheidszorg, Venray, 2010	<ul style="list-style-type: none"> <li>• A total of 96 places for Supported Living (Huis op proef)</li> <li>• Special centres for daily activities in co-operation with clients</li> <li>• A special internal activity centre (Intern Activiteiten Centrum, IAC)</li> <li>• A special department for prevention, information, activities and labour rehabilitation (Preventie en Informatie, Activiteitencentra en Arbeidsrehabilitatie, PIAA)</li> </ul>
Stichting Mondriaan, Heerlen, 2010	<ul style="list-style-type: none"> <li>• Integrated care by means of Functional Assertive Community Treatment (FACT)</li> <li>• A total of ten places for social rehabilitation</li> <li>• A total of 257 places for supported living (Akkerweide), especially for very difficult clients at the department</li> <li>• Co-operation with Relim, an institute for work rehabilitation</li> <li>• Participation of experts by experience in, for example, film projects</li> </ul>

Source: <http://www.jaarverslagenzorg.nl>.

From the twelve main institutes in table 8.2.1, ten institutes mention to have given special attention to supported living. Eight institutes especially mention the participation of experts by experience. With regard to working as an expert by experience, Shinebourne and Smith (2011) notice that "[h]elping others has been described as a particularly significant element in recovery, as it is at the core of AA practices of sponsorship, volunteering for service at meetings and outreach activities". Assertive Community Treatment (ACT) or Functional Assertive Community Treatment (FACT) is mentioned by eight institutes. Finally, two institutes explicitly mention the involvement of the direct social environment of the client.

On the 21<sup>st</sup> of June 2011, the ACT-teams and the FACT-teams united themselves into "F-ACT the Netherlands" (in Dutch: F-ACT Nederland). Inter alia, this new association will grant certifications to qualified (F)ACT-teams ([www.f-actnederland.nl](http://www.f-actnederland.nl)).

### *Evaluation research*

#### *Social relief Omnizorg in Apeldoorn*

The foundation *Omnizorg* is in operation since September 2008 and offers social relief in the city of Apeldoorn in the province of Gelderland. Omnizorg offers daycare as well as nightcare, and is supported by two institutes for addiction care: Stichting Tactus Groep and

IrisZorg. The results of Omnizorg have been evaluated in 2011 (Biesma and Bieleman 2011). From September 2008 up to including December 2010, Omnizorg has offered social relief to a total of 449 clients, 89% male and 11% female. From these 449 clients, 104 clients visited a safe user room, 90 clients received methadone, and 22 clients received heroin-assisted treatment. With regard to addiction problems, 19% had a problem with heroin, 16% with alcohol, 14% with cocaine, 9% with cannabis, 6% with other substances, and the remaining 36% was not known to have an addiction problem.

It was found that Omnizorg had certain positive results on the target group. From the 190 clients who had used the nightcare, 47 clients (25%) were promoted to supported living within Omnizorg. The percentage of clients having a health insurance increased from 93% to 97%, and the percentage receiving supported living increased from 5% to 43%. The average Global Assessment of Functioning score (GAF) increased from 32.4 to 36.3. Six out of 35 respondents reported a decrease in the use of alcohol and drugs, and drug use in public places has become rare. De percentage having been in contact with the police decreased from 39% to 20%.

### *Hostels in the city of Utrecht*

The Strategy Plan for Social Relief was developed first in the city of Utrecht and was implemented next in the other cities. During the period since 2006, many studies were set up in order to monitor and evaluate the hostels (see National report 2010 for the results of these studies). In June 2010 a last hostel was opened and this was the reason for an overall evaluation. It was concluded that the hostels are successful in getting most chronic drug dependent people from the street, and in reducing public nuisance. Besides, there were no unintended consequences of this measure during the past decade. Nevertheless, the hostels were often realised under frequent and in many cases also fierce protests from the adjacent neighbourhoods. The protests could in most cases be reduced by a combination of decisive administration, a careful choice of locations, and (most important) by frequent and intense communication between neighbourhood inhabitants and other parties. The result is that there are hardly any chronic drug-using homeless people anymore in the streets of Utrecht, besides a residue group of some 100 multi-problem people who remain difficult to place for different reasons. For some of them other solutions will have to be found, e.g. a more recovery-driven approach when receiving addiction treatment (see § 5.2), or a special program of care targeting their many chronic problems (Reinking et al., 2010).

To evaluate the supported living of chronic homeless addicts by means of a hostel, Muusse (2011) has investigated whether a hostel can restrict itself to only offering basic living conditions, the so-called "bed, bath, and bread" (bed, bad en brood). Perhaps a hostel should also offer support on issues like a meaningful life (zingeving) and recovery? To answer this question, Muusse (2011) organized a pilot for a low-threshold support group in *Hostel Wittevrouten*. This is a hostel for 31 chronic homeless poly-drug users, located in the city of Utrecht. The aim of the support group was to create discussion on the use of substances and to stimulate awareness about the motives to use them. The pilot consisted of ten meetings during which twelve inhabitants participated at least once.

It was found that the quality of life and being socially accepted had increased in the hostel and that the hostel gave a new perspective on the future. However, there were serious limitations on making this perspective concrete. The inhabitants of the hostel experienced obstacles like work not bringing up enough money, contact with family being difficult because of a lack of space to receive children, building up contact with "normal people" outside the drug scene being difficult, and continued stigma and social exclusion

from society and institutes. From the pilot, Muusse (2011) all in all concludes that a support group can indeed be part of extending the function of a hostel by offering daily activities, meaningfulness, and a social network.

### *Program "Remise" in The Hague*

The program "Remise" started in 2004 at the Parnassia Bavo Groep, the regular institute for mental health care and addiction care in the region of The Hague. Remise offers the second extramural phase within a two-year Placement in an Institution for Prolific Offenders (ISD). In this second phase of the ISD, a period of six months, a former prolific offender is being prepared for supported or self-reliant living. Remise combines the Continuing Care model with the Housing First model.

Geschiere and Jansen (2011) have evaluated the Remise program on two outcome measures. The first outcome measure was "duration of staying in treatment", and the second outcome measure was "passing through successfully to supported or self-reliant living". From 2004 up to including 2008, a total of 139 clients enrolled in Remise. Their mean age was 39 years, 95.7% were male, and 50% were ethnic. With regard to the first outcome measure, it was found that, on average, the clients stayed 147 days at Remise. With regard to the second outcome measure, it was found that 45% of the clients, after one or more admissions, passed through successfully to supported or self-reliant living. From the clients who were successful, 86.5% obtained self-reliant living and 11.5% obtained supported living.

### *Care farms*

A special way to promote the social reintegration of former addicts is offered by the care farms (in Dutch: zorgboerderijen). Currently, more than a thousand care farms are in operation in the Netherlands. They have developed their own quality management system which includes the measurement of client satisfaction. Recently, the scientific evidence for the positive effects of the care farms has been reviewed (Elings 2011; Elings, Haubenhöfer, Hassink et al. 2011). It is concluded that a care farm has the following therapeutic factors: "meaningful work and distraction", "structure and rhythm", "other environment", "social community", "small-scale groups", and "acceptance by 'normal' people". Although a care farm does not show more positive effects than regular care, the authors nonetheless conclude that a care farm does have the following positive effects for a client: "a better condition", "a better appetite", "being more productive", "finding rest", "increased self-confidence and self-esteem", "increased social behavior", and "increased commitment and taking responsibility". All in all, a care farm offers a specific choice for clients who seek work and daily activities.

### *Addiction medicine*

By applying appropriate communication skills, addiction doctors can contribute to the social reintegration of addicts. The Dutch Master in Addiction Medicine (MiAM) is a competency-based professional training of which "communicating adequately" counts as one of the seven qualifications. It is a full-time 2-year professional training, in operation in the Netherlands since 2007. As a goal of the training, the trainee professionally "[d]iscusses treatment options with a patient, performs shared decision making on these options, and records the option that was agreed on in the formal treatment agreement" (De Jong et al. 2011). Taking addicts seriously as empowered patients, not excluding them from proper care but respecting them as equal interlocutors within the doctor-patient relation, counts as the addiction doctor's contribution to social reintegration. De Jong, Luyckx, and Delicat (2011)

have evaluated the present status of the MiAm. The evaluators "conclude that the MiAM is answering the needs of the mental health and addiction treatment field". The next step is "to become the starting point for a shared European initiative to train certified medical specialists in addiction medicine".

## 9 Drug related crime, prevention of drug related crime and prison

### 9.1 Drug related crime

#### 9.1.1 Drug law offences

The most important law with regards to drug law offences is the Opium Act, in which trafficking, production, cultivation, dealing and possession of drugs are explicitly defined as criminal acts. According to a verdict of the Council of State of July 13, 2011, the use of drugs is also a criminal act, because it implies the possession of drugs (201009884/1/H3).

Other laws like the Abuse of Chemical Substances Prevention Act are also of importance for the combat of drug-related crimes, for instance for the combat of supply of precursors for synthetic drugs. See Chapter 1 for an overview of the national legislative framework of drug law offences.

Not all Opium Act offences that are traced by the police result in custody or prosecution. The Opium Act Directives of the Public Prosecutor state that, if the offence concerns possession of small amounts for own use or use of a hard drug, the drugs will be seized, but normally there will be no custody or prosecution, and in the event of prosecution, this should only aim at diversion to care. Small amounts of a hard drug are defined as one tablet, ample, wrapple or ball of the drug and in any case an amount of no more than 0,5 grams (Openbaar Ministerie, 2011). If the offence concerns small amounts of cannabis (no more than 5 grams, no professional cultivation of cannabis plants), the drugs will be seized, but a dismissal by the police is the normal reaction; there will be no custody and no prosecution (Opium Act Directives, 2011; LJN:BO4015, Hoge Raad, 09/01099). See also Chapter 1.

This paragraph will report about Opium Act offences, including organised crime in relation to drugs. The figures cover offences that are registered by police and law enforcement agencies or that have been reported in recent scientific research.

In the next paragraphs, registration data are presented from (National) Police Forces and the Public Prosecutor. It should be noted that these data always depend for a certain part on the activities, priorities and skills of law enforcement agencies. The figures cannot be interpreted as an indication of the size of drug markets or supply. Also, databases are often adapted and improved in the course of time and figures are cleaned and adapted every year. As a consequence, later versions may differ from former ones. We have to deal with 'living systems'. The current updates are presented in this chapter.

In 2008, major changes in information systems and underlying databases of the police and the Public Prosecutor were introduced. The National Audit Office conducted an investigation into the new information systems of the police, in which it concluded that the new registration system of crime reports (*BVH, Basisvoorziening Handhaving*) is not implemented in a consistent way and that there are a lot of problems with the system (T.K. 29 350, nr. 10, 2011). According to the National Audit Office, figures might be incomplete. Whether this is really the case, and if so, to what extent figures are incomplete, however, is not known. The problem could affect the figures of the Public Prosecutor as well (T.K. 29 350, nr. 10, 2011). In September 2011, the minister of Security and Justice announced improvements of the ICT-systems of the police forces in a programme that will be implemented in 2011-2017

(T.K. 29 628, nr. 269, attachment, Aanvalsprogramma Informatievoorziening Politie 2011-2014).

As a consequence, the figures of the police and the Public Prosecutor for the years 2009 and 2010 should be interpreted with caution.

The Opium Act distinguishes between soft drugs (like cannabis or hallucinogenic mushrooms – dried as well as fresh ones) and hard drugs (like heroin, cocaine, ecstasy, amphetamines). The figures include this general distinction whenever possible. The registration systems do not contain information about specific types of drugs.

Several intensified law enforcement activities were running in 2010 and 2011:

- The intensification of law enforcement on cannabis cultivation, which was launched in April 2004, is still under action. These efforts consist of an integrated approach with administrative and criminal law approaches and co-operation between public and private partners.
- A pilot was carried out in which a 'programmatic approach' against organised crime in cannabis cultivation was implemented (Flight et al., 2010).
- The organised crime in relation to heroin, cocaine and synthetic drugs and the organised large scale cultivation of cannabis are priority areas for police and prosecution in the period 2008-2012 (T.K.29911/10; Boerman et al., 2008; T.K.29911/17, 2008, Bestrijding georganiseerde criminaliteit). The approaches contain a combination of administrative and preventive measures, criminal justice approaches and international co-operation. There is a close link with activities against money laundering and other financial-economic crime. The local level plays a significant role in the combat of organised crime. .

These developments in law enforcement policies and priorities are relevant for the interpretation of trends in registered drug law offences.

#### *Criminal investigations into organised drug related crime (table 9.1.1)*

Figures on investigations into organised crime come from the Information Services of the National Police Forces. They make an inventory for Europol, in the framework of European Organised Crime Threat Assessment ('OCTA'). It should be noted that the absolute 2010-numbers are not comparable to the numbers of the earlier years, because they only include about half of the total number in 2010. Due to changes in the information system, the missing cases will be processed later. Amongst these are probably the investigations into the heaviest kinds of organised crime. The percentages in table 9.1.1 can probably be considered as an adequate indication. Numbers of 2010 are, however, preliminary. In general, there is a trend towards a decreasing proportion of cases with hard drugs and an increasing proportion of cases with soft drugs.



- Most of the police investigations into more serious forms of organized crime concern drugs.
- The proportion of investigations into drug cases shows a slight increase in 2010 compared to 2009.
- Most drug cases involve hard drugs. The proportion is about the same as in 2009, but the proportion shows a decreasing trend over the reviewed period.
- The percentage of cases with soft drugs did not change substantially between 2009 and 2010, but in general there is an increasing trend.
- The biggest changes did occur within the category of hard drug cases. The proportion of cases with cocaine decreased (from 78% to 70%), cases with synthetic drugs increased (from 41% to 51%) and cases with heroin decreased (from 25% to 20%).

*Table 9.1.1: Investigations into more serious forms of organised crime, percentage of drug cases and type of drug involved, 2003-2010<sup>I</sup>*

	2003	2004	(II)	2005	(III)	2006	2007	2008	2009	(IV)	2010
<i>Total number of investigations (N)</i>	221	289	...	176	...	333	328	352	272	...	123
<i>- % targeting drugs</i>	66%	69%	...	72%	...	75%	72%	70%	75%	...	77%
<b><i>N targeting drugs</i></b>	146	200	...	127	...	250	235	247	203	...	95
<i>- % cases with hard drugs</i>	83%	84%	...	85%	...	79%	83%	76%	72%	...	73%
<i>- % cases with soft drugs</i>	39%	27%	...	41%	...	60%	67%	65%	67%	...	68%
<i>- % only hard drugs</i>	61%	69%	...	59%	...	40%	36%	35%	33%	...	32%
<i>- % only soft drugs</i>	17%	11%	...	15%	...	21%	20%	24%	28%	...	27%
<i>- % hard and soft drugs</i>	22%	16%	...	26%	...	39%	47%	41%	40%	...	41%
<b><i>N targeting hard drugs</i></b>	121	168	...	108	...	198	194	188	147	...	69
<i>- % cocaine</i>	60%	57%	...	54%	...	68%	77%	76%	78%	...	70%
<i>- % synthetic drugs</i>	54%	39%	...	44%	...	43%	40%	46%	41%	...	51%
<i>- % heroin</i>	17%	18%	...	29%	...	29%	20%	22%	25%	...	20%

I. Investigations may involve trafficking or production of several drug types, therefore the numbers in the table categories cannot be added up and percentages do not add up to 100. II. Data 2005 concern only the period January-November. III. 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 cannot be compared to the data of the years before. IV. Data 2010 are incomplete and preliminary. Source: KLPD-DNRI, 2011.

In the inner city of Amsterdam a project called 'Emergo' was carried out (Projectgroep Emergo, 2011; T.K. 29 911-55; see also 10.1). Emergo was part of the governmental policy programme for a more effective approach to combating organised crime (Naar een veiliger

samenleving, 2007). The 74 coffee shops in the inner city of Amsterdam were subjected to close screening and analysis. Findings show the following picture of organised crime in general and organised crime in relation to coffee shops more specific:

- The criminal groups in the city centre of Amsterdam are no criminal groups with a Mafia-style grip on social life or groups that control certain tolerated or legal economic sectors, in the form of a cartel or otherwise (Projectgroep Emergo, 2011). It is more a picture of individuals and groups who play a key operational or infrastructural role, possibly in a professional or commercial connection, or who assume key positions in serious organised crime.
- There are no direct signs of remarkable financial or organisational constructions around possession or exploitation of the coffee shops. But there are signs that the shops are regularly financed out of underhand cash loans and remissions of debts, which poses the question whether these are cases of money laundering. This is, however, not known.
- 43% of the employees of the coffee shops in 2010 have no registered criminal antecedents over the last 25 years. 172 employees do have criminal antecedents, but these were only of minor character. The other 145 have a record of relevant criminal convictions. In total, they committed 1,036 offences, of which 221 were drug related (21%; both hard and soft drugs and also production of cannabis), 17,2% concerned driving offences and 10,3% violent offences. Other offences concerned illegal firearms, participation in a criminal organization or money laundering.
- A number of owners and managers of coffee shops (number is not specified) are part of criminal networks – also outside Amsterdam - and a lot of these persons also exploit other kinds of businesses (like travel agencies, real estate etc.).
- In general, the coffee shop sector is not in the hands of a few groups of criminals. The criminals that are involved know little envy or competition, notwithstanding the fact that they will defend their position of power with (threats of) violence.

#### *Opium Act reports by the Police Forces (table 9.1.2)*

In general, there appears to be a decreasing trend in reports of Opium Act offences. Furthermore, there is a decreasing trend in the proportion of reports with hard drug offences and consequently an increasing trend in the proportion of soft drugs. As noted above, the recent figures might contain some unknown registration artefacts, however.

- The absolute number of Opium Act reports by the Police Forces decreased substantially in 2010 to less than 16 thousand.
- The decrease in 2010 concerns especially offences in which hard drugs as well as soft drugs are involved. This type of cases is a minority (8%).
- The majority of the reports (47%) concern a soft drug.
- 6.7% of all the reports concern Opium Act offences in 2010. This proportion did not change much compared to 2009. This means that Opium Act reports are more or less in line with the general trend in reports in the Netherlands.
- Most arrestees for Opium Act offences are male. Most of the arrestees have more than one criminal report. For 43%, the 2010 offence is the first registered offence (of all possible offences, not only Opium Act offences; not in table).

Table 9.1.2: *Opium Act reports by the Police Forces by drug type (hard-soft), 2003-2010*<sup>1</sup>

	2003	2004	2005	2006	2007	2008	2009	2010
Hard drugs	10,843	12,035	11,084	10,978	10,682	9,524	7,746	7,134
Soft drugs	5,912	7,433	8,273	7,973	7,859	7,554	8,163	7,393
Hard and soft	1,389	2,105	2,158	2,708	2,801	2,718	1,901	1,236
Other/unknown	733	696	380	349	93	56	1	9
Total	18,877	22,269	21,895	22,008	21,435	19,852	17,811	15,772
Hard drugs	57%	54%	51%	50%	50%	48%	43%	45%
Soft drugs	31%	33%	38%	36%	37%	38%	46%	47%
Hard and soft	7%	9%	10%	12%	13%	14%	11%	8%
Other/unknown	4%	3%	2%	2%	0%	0%	0%	0%
Total <sup>1</sup>	100%	100%	100%	100%	99%	100%	100%	100%
% drug related of total number of offences	6.8%	7.5%	7.3%	7.3%	6.9%	6.8%	6.6%	6.7%

1. More than one offence may be reported per suspect; percentages do not always add up to 100. Source: HKS, KLPD, 2011.

#### *Opium Act cases registered by the Public Prosecutor (table 9.1.3)*

The next phase in the criminal justice chain is the Public Prosecutor. The general trend here appears to be one of decreasing absolute numbers of drug law cases in general. The percentage of hard drug cases increased in 2010 while that of soft drug cases decreased.

- The Public Prosecutor reports less than 15 thousand Opium Act cases in 2010, which is a decrease compared to 2009.
- The decrease in absolute numbers appears to be especially true for soft drug cases.
- Hard drug cases or combined cases - with hard and soft drugs – also decreased but to a lesser extent.
- The majority of cases (49%) concerns soft drugs.
- The majority of the Opium Act offences involved (60%) concerns production, trafficking or dealing of drugs. Forty percent concerns possession of drugs (not in table). It is not known from the figures what the quantity of drugs was in the cases of ‘possession of drugs’. The general guideline for prosecution states that, if possession concerns ‘small amounts for own use’ police dismissal or prosecution aimed at diversion to care can follow. The drugs will always be seized. But if someone possesses more of a drug than the small amount that is considered ‘for own use’ – and which might be meant for dealing - or if there is also another, more serious offence involved, arrest and prosecution are the rule. The available data do not allow a distinction between quantities.
- In 2010, 71% of the soft drug cases concern production or trafficking and 29% possession (not in table).
- In cases of hard drugs, the fractions are different: 49% concerns production or trafficking and almost the same fraction (51%) concerns possession of hard drugs (not in table).
- The percentage of Opium Act cases of all cases in 2010 is 7%. This fraction did not change much in the last years, which means that trends in Opium Act cases follow the general trends in cases at the Public Prosecutor in the Netherlands.

Table 9.1.3: *Opium Act cases registered by the Public Prosecutor by drug type (hard-soft), 2003-2010<sup>l</sup>*

	2003	2004	2005	2006	2007	2008	2009	2010
Hard drugs	10,307	11,972	9,923	9,910	9,471	9,083	7,423	6,880
Soft drugs	7,283	9,248	9,499	9,544	9,199	9,054	8,956	7,338
Hard and soft	612	695	716	822	677	671	647	578
Other/unknown	31	32	60	34	53	54	40	69
Total	18,233	21,947	20,198	20,310	19,400	18,862	17,066	14,865
Hard drugs	57%	55%	49%	49%	49%	48%	43%	46%
Soft drugs	40%	42%	47%	47%	47%	48%	52%	49%
Hard and soft	3%	3%	4%	4%	3%	4%	4%	4%
Other/unknown	0%	0%	0%	0%	0%	0%	0%	0%
Total <sup>l</sup>	100%	100%	100%	100%	100%	100%	100%	100%
% drug related of total number of cases	6.6%	8.0%	7.5%	7.5%	7.1%	7.1%	7.3%	7.0%

l. More than one case may be recorded per suspect; percentages do not always add up to 100. Source: OMDATA, WODC, 2011.

#### *Decisions made by Public Prosecutor in Opium Act cases (table 9.1.4)*

The majority of Opium Act cases are submitted to court.

- In 2010 the proportion of cases submitted to court increased. This increase is most visible for cases which involve soft drugs: 58% in 2009 to 65% in 2010 (not in table).
- The proportion of cases which involve hard drugs and which are submitted to court is still higher than that of soft drugs cases (68%; not in table). This means that relatively more soft drug cases are completed without coming to court, for instance by a transaction by the Public Prosecutor.
- If both hard and soft drugs are involved, the chance of being submitted to court is highest (84%; not in table).
- Transactions by the Public Prosecutor include community service orders and financial transactions. The median amount of money in financial transactions of the Public Prosecutor fluctuates between €230 and €280; 2010 shows the highest median value in years (€280; not in table).
- Relatively small fractions are dismissed for policy or technical reasons. The percentage of dismissals for policy reasons was high in 2004 because many cases were dismissed as a policy 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. Since 2007, all of these types of cases are prosecuted again.
- The other cases ended with joinder of charges, were dismissed for administrative reasons or transferred to another court (last two types not in table).

Table 9.1.4: Decisions by the Public Prosecution in Opium Act cases (2003-2010)

	2003	2004	2005	2006	2007	2008	2009	2010
Submitted to court	72%	61%	65%	66%	66%	62%	62%	67%
Transaction	18%	20%	19%	21%	22%	24%	23%	21%
Case dismissal for policy reasons	3%	10%	8%	6%	5%	6%	6%	5%
Case dismissal for technical reasons	5%	7%	6%	5%	5%	6%	7%	7%
Joinder of charges	3%	2%	2%	2%	2%	2%	2%	1%

Source: OMDATA, WODC, 2011.

#### Court sentences in Opium Act cases (table 9.1.5)

The general trend in court sentences in Opium Act cases is one of a declining number of cases, a decrease in the proportion of hard drug cases and an increase in that of soft drug cases.

- In 2010, the court handled more than 9 thousand Opium Act cases, less than in previous years.
- In 2010, the majority of the court cases concerns soft drugs (49%). The fraction of hard drugs decreased (46%).
- The percentage of Opium Act cases of the total number of cases handled by the court does not show substantial changes compared to 2009.

Table 9.1.5: Number of court sentences for Opium Act cases by drug type, 2003-2010<sup>I</sup>

	2003	2004	2005	2006	2007	2008	2009	2010
No of Opium Act cases	12,708	12,141	12,186	13,003	11,800	11,395	10,537	9,391
Type of drug:								
- Hard drugs	65%	58%	52%	50%	51%	51%	49%	46%
- Soft drugs	31%	38%	44%	45%	45%	45%	47%	49%
- Hard- and softdrugs	3%	4%	4%	4%	4%	4%	4%	5%
- Other/unknown	0%	0%	0%	0%	0%	0%	0%	0%
% drug related on total number of cases	8.6%	8.3%	8.4%	8.9%	8.5%	8.2%	7.6%	7.8%

I. There can be more than one case per person. Source: OMDATA, WODC, 2011.

#### Sanctions by the Court in first instance

Opium Act cases that are submitted to Court usually result in a conviction with a community service order, (unconditional) prison sentence or a fine.

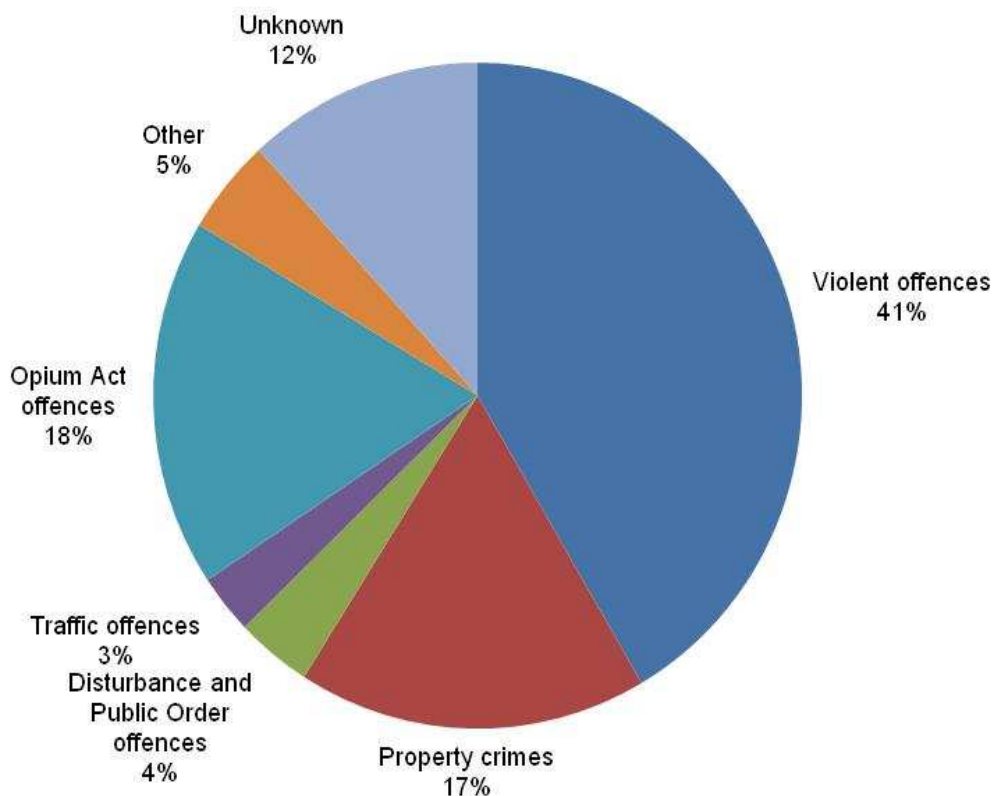
- The sanction most often applied by the Court in Opium Act cases in 2010 is the community service order (3,033 times). There is a decrease compared to 2009. This decrease is going on since 2006.

- The mean number of days of community service orders is 97 days in 2010, like in 2009. Since 2003 the number of days has decreased with about one month.
- There were 3,086 (partly) unconditional prison sentences in 2010, less than in 2009 (3,676). This number of sentences has halved since 2003 (6,406).
- The mean number of days of (partly) unconditional prison sentences is 303 in 2010, which is more or less the same as in 2009 (306 days). Since 2003 the mean number of days has decreased with almost three months (2003: 389 days).
- The median amount of money of fines is €420 in 2010, an increase with €50 compared to 2009, but still about €80 lower than in the years 2003 - 2006 (+/-€500).

*Opium Act offenders in prisons (figure 9.1.1)*

Of the 11,736 detainees in the prison system on September 30, 2010, 18% (N=2,107) was convicted for an Opium Act offence. This proportion did not change very much in the last years (it ranges between 17% and 20% in the period 2005-2009). Most detainees are convicted for violent offences.

*Figure 9.1.1: Percentage of detainees for Opium Act offences, compared to five other categories of offences, September 30, 2010*



I. Includes violent offences (22%), property offences with violence (16%) and sexual offences (3%). Source: Kalidien, S.N., & Zuiderwijk-van Eijk, A.M.G. (2011)

*Other information: expenditures for Opium Act offences*

Nauta, Moolenaar & van Tulder (2011) report about expenditures for security issues in 2009. Figures are preliminary. Calculations are made per offence type. Expenditures for Opium Act

offences are estimated at € 692,2 x million, of which the majority goes to hard drugs (€ 524,3 x million). Calculated are costs for prevention, investigation, prosecution, sentencing, executing the sentences, support of offenders and other kinds of support and activities. Of six types of offences, Opium Act offences rank fifth in amount of expenditures.

#### *New developments in Opium Act offences and the Opium Act*

Drug use, drug possession (also of small amounts of drugs) and drug dealing are increasingly subject to local by-laws and rules, in the framework of local security strategies:

- Some cities apply a zero-tolerance policy with regards to drugs (dealing, possession and use) at certain risky dance-events and night clubs (Nabben, 2010; Van Aalst & Van Liempt, 2011).
- Several municipalities (81 out of 441 in 2009) introduced 'bans on cannabis use in public space', which prohibit the use and possession of drugs (even if it concerns small amounts for own use) in certain areas or even whole municipalities (Chevalier, 2009).

For more information see chapter 1.

Moreover, the Opium Act and the Opium Act Guidelines are subject to specifications and extensions. These changes have been described in chapter 1.

#### *Conclusion*

- Most of the police investigations into more serious forms of organised crime concern drugs. The proportion of investigations into cases with soft drugs/cannabis is increasing, that of cases with hard drugs is decreasing, although hard drugs still form the majority. Cocaine is the hard drug that is most often involved.
- The number of Opium Act cases in the criminal justice chain – police, Public Prosecutor, Courts – decreased. This is in line with a general decreasing trend in criminal justice cases in the Netherlands.
- Police reports and court cases involving hard drugs show a decreasing trend (in proportion), while the proportion of reports and cases with soft drugs is increasing.
- The Public Prosecutor, on the contrary, handled a higher percentage of hard drug cases and a lower percentage of soft drug cases.
- Most Opium Act cases are submitted to court and a substantial proportion is convicted to a community service order.
- 18% of the detainees in the criminal justice prison system are convicted for an Opium Act offence.

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

##### *Offences committed by drug users*

The Police Records System includes a classification 'drug user'. The designation 'drug user' is accorded by the Police to a suspect 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 because drug use is not assessed systematically, its validity is disputable. An unknown proportion of drug using offenders is missing in the classification.

The category of drug users who are registered as such by the Police has the following profile in 2010 (not in table; preliminary data):

- Ninety-three percent is male. They are a ageing population: mean age increased from 37 years in 2003 to 41 in 2010. Ninety-six percent was over 24 years old.
- Many of them are prolific offenders: 80% was arrested more than ten times before and 24% more than 50 times.

With regards to the type of crime, we can see the following pattern in the registered crime (table 9.1.6):

- Most of the drug using suspects committed property crimes. This fraction has been decreasing substantially, especially the property crimes with violence. In 2010 a small increase was found in property crimes without violence.
- Violent crimes (against persons) remain more or less constant since 2007.
- Other offences (Opium Act offences, vandalism/disturbance of public order, traffic offences) show a (slightly) decreasing trend in the last years.

*Table 9.1.6: Types of crime of suspects classified by the Police as drug users, 2003-2010<sup>1</sup>*

	2003 N= 10,823	2004 N= 10,504	2005 N=9,646	2006 N=8,878	2007 N=8,307	2008 N=7,757	2009 N=6,892	2010 N=5,960
Property crimes without violence	58%	56%	53%	50%	49%	51%	50%	52%
Property crimes with violence	11%	10%	8%	8%	8%	7%	7%	7%
Other violence (against persons)	23%	24%	24%	26%	29%	28%	29%	28%
Opium Act offence	22%	23%	24%	25%	21%	21%	19%	16%
Vandalism, disturbance of public order	23%	23%	22%	23%	24%	22%	20%	20%
Traffic offence	10%	11%	11%	11%	12%	13%	13%	11%
Sexual offence	1%	1%	1%	1%	1%	1%	1%	1%
Other	11%	11%	11%	10%	11%	10%	11%	10%

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

Some new findings came available with regards to drug offences committed by youngsters of 10-17 years old (Van der Laan & Blom, 2011):

- 2.3% of the 12-17 years old youngsters report a drug offence in 2010 (last year prevalence, N=2,262, selfreport).
- The drug offence concerns mainly dealing of soft drugs (2.3%) and sometimes dealing of party-drugs (0.3%). Dealing of hard drugs was not reported.
- Amongst 10-11 years old youngsters (N= 769), no drug offences were reported.
- Of all reported offences, the drug offences rank lowest.
- There is no significant difference in the prevalence of drug offences between 2010 and 2005, when 2.5% of the 12-17 years old and none of the 10-11 years old reported a drug offence in the last year.



### *Prolific offending by drug users*

Since 2005 the Research and Documentation Centre of the Ministry of Security and Justice is monitoring data on prolific offenders from several sources. Every year an annual report is published. In the Monitor Prolific Offenders 2011 trend analyses of the population of Very Active Adult Prolific Offenders (VAPO's) are presented. The core question is: are there shifts in the number of prolific offenders, in their delinquent behaviour, their background characteristics, their recidivism and their incarceration rates. Tollenaar and Van der Laan (2011) report about the period 2003-2008. A very active prolific offender is a person of 18 years and older who was arrested ten times or more in the last five years. The statistics show that the absolute number as well as the proportion (of the total number of suspects) of very active prolific offenders is decreasing continuously.

- In 2008, there were 5,152 VAPO's. Between 2003 and 2008, the number decreased (from 5,883 to 5,152; minus 12.4%). However, the VAPO's in the age group from 18 to 24 year increased.
- 66,6% of the VAPO's is recorded by rehabilitation services as having addiction problems. As table 9.1.7 shows, this proportion is decreasing.
- Mental health problems and relational and financial problems are increasing (table 9.1.7).
- The VAPO's commit less property crimes, while vandalism, disturbance of public order and violent crimes occur more often.
- It seems that a group of VAPO's is entering the criminal justice system who have a less severe criminal history and who are detained for shorter periods of time. The mean age of VAPO's stayed between 33 and 34 years (33.6 years in 2003 and 33.3 in 2008).

*Table 9.1.7: Problem categories amongst very active prolific offenders, according to rehabilitation services, 2003-2008<sup>I,II</sup>*

	2003	2004	2005	2006	2007	2008
Number of very prolific offenders	5,708	5,934	5,790	5,519	5,375	5,046
% of total number of suspects	3.1%	3.0%	2.9%	2.7%	2.6%	2.6%
<b>Addiction problems</b>	<b>72.2%</b>	<b>72.7%</b>	<b>69.4%</b>	<b>70.7%</b>	<b>67.3%</b>	<b>66.6%</b>
Mental health problems	38.5%	40.6%	41.1%	40.1%	40.2%	42.8%
Housing problems	43.4%	45.4%	44.3%	46.7%	45.8%	41.4%
Financial problems	43.7%	43.5%	44.8%	48.7%	46.8%	48.4%
Problems with physical health	18,9%	18,1%	20,4%	23,2%	20,1%	22,1%
Relational problems	36,3%	39,4%	40,2%	43,0%	42,0%	42,9%

I. Based on information in intervention plans as registered in the Client Monitoring System of rehabilitation services. II. Incomplete data, corrected by multivariate imputation sampling. Source: Tollenaar & Van der Laan, 2011.

### *Violent offences by drug users*

Van Dijk et al. (2010) conducted a survey amongst victims of domestic violence. The survey was conducted in two stages. The first stage involved a preliminary survey amongst members – as representative as possible - of an existing online respondents panel (of the Bureau Intomart GfK). The second stage involved in-depth face-to-face interviews of victims of domestic violence from the first stage. This is a selective sample which allows no generalisation as regards the entire population. 1,660 respondents were selected for the

second stage, of whom 931 agreed in participation in a face-to-face interview and which resulted in a net response of n=816.

- According to victims in the panel survey of the first stage, alcohol use plays a role in the domestic violence in 16% of the cases and drug use in 10% of the cases. Jealousy (40%), character of the perpetrator (40%), conflicts (37%) or psychological problems (35%) play the most important role.
- According to the victims in the face-to-face interviews of the second stage, alcohol or drug use was a significant reason for the violence in about one third of the cases. After psychological problems, the substance use is perceived as the most important reason.
- About 40% of the perpetrators had an alcohol problem, according to the victims in the interviews, and about 13% suffers from drug problems.
- 4% (female) to 13% (male) of the victims in the interviews developed an alcohol problem as a consequence of the violence, 2% (both) developed a drug problem. These percentages are relatively low. Psychological problems are a more significant consequence than substance use problems.

Van der Knaap et al. (2010) studied an additional sample of offenders who had been in contact with the police and the law for domestic violence, which consisted of offenders who had been submitted to a RISC (Recidivism Risk Assessment Scales: the diagnostic instrument used by the probation and after-care organisations to identify criminogenic factors in offenders and to assess their risk of recidivism) by the probation services following criminal proceedings for domestic violence. They studied 9,504 RISC outcomes and 200 randomly selected files of perpetrators of domestic violence.

- 42.8% of the perpetrators that were prosecuted suffers from an alcohol problem, 28.3% has drug problems. In 27.8 resp. 5.9% of them these problems are severe.
- Perpetrators of domestic violence suffer more often from alcohol problems than other offenders, but their alcohol problems correspond to those of violent offenders. They suffer less often from drug problems than other violent offenders and non-violent offenders.

Kraanen et al. (2010) studied 150 perpetrators of intimate partner violence in a forensic setting between July 27, 2006 and August 31, 2007 and assessed the point prevalence of substance use disorders. 26.5% was awaiting a trial, 50% was there on court-order and 23.3% entered treatment voluntarily.

- 50% of the sample meets diagnostic criteria for at least one substance-related diagnosis (according to DSM IV).
- 28% qualified for alcohol abuse, 11.3% for alcohol dependence, 16.7% for any drug abuse diagnosis, and 11.3% for any drug dependence diagnosis.
- A nonsignificant trend was observed that perpetrators with substance use disorder had used a weapon, or threatened to use a weapon, more often than perpetrators without such a disorder.
- Perpetrators with substance use disorder had less often children living at home than perpetrators without such a disorder. This was the only significant difference between the two groups.
- 61.3% of the perpetrators with substance use disorders are found to be under the influence of substances at the time of the offence, more than those without such a disorder. Mostly the substance is alcohol (45.3%). A combination of alcohol and cocaine

is involved in 8% of the cases, alcohol and cannabis in 2.8%, alcohol and benzodiazepines in 1.3%, cannabis in 1.3% and other drugs in 2.7%.

- According to Kraanen et al., there might be an underestimation of substance use and substance use disorders, because part of the sample was awaiting trial and might have minimised substance use problems and not every file contained information about intoxication at the time of the offence.
- The proportion of substance use problems is higher in samples of perpetrators of domestic violence in the criminal justice system, suggesting that substance use, particularly alcohol, plays a role in the severity of the violence and the occurrence of injuries amongst victims (Van der Knaap et al., 2010).

In the future, the use of alcohol and drugs by violent offenders should become a reason for aggravation of the sentence (T.K. 28684-311, 2011). As a first step, the police must start to register the use of alcohol and drugs and threshold values should be determined. Also, the liability of tests of (alcohol and) drugs use in cases of violent offences should be made possible by law. These measures are under action.

#### *Driving offences by drug users*

- Data on the prevalence of driving under the influence of drugs have been reported in § 6.2.
- In a region in the province of Zeeland (Zeeuws Vlaanderen, near Belgium in the south-west of the Netherlands) a project was set up in 2009 with partners in Belgium and the Dutch ministry of Infrastructure and the Environment, in which cannabis users were informed about the dangers of driving under the influence of cannabis in a special campaign. The reason was that many drivers drove home after having bought and used cannabis (and alcohol), for instance in the city of Terneuzen, where there were a lot of drug tourists from Belgium and France. This caused dangerous situations. The campaign increased the notion of risky driving, but the driving behaviour of the users changed hardly (Bieleman, Nijkamp & Bloemendal, 2011).
- Since June 2011 there is a penalty-points system in which every offender who has been convicted for drunken driving gets a 'penalty point' for his next alcohol-related traffic offence. A second penalty point is given when the offender is convicted for a traffic offence with an alcohol promillage is at least 1.3‰. Two points lead automatically to an invalidation of the driving license (T.K. 29398-277, 2011). In the future, this penalty system will apply for drivers under the influence of drugs as well.
- The Road Traffic Act will be amended in order to make driving under the influence of drugs a punishable act and to define limiting values for the amount of a single drug that leads to a driving offence (Advies grenswaarden voor drugs, 2010; Stc 2011 nr. 16916). This proposal (an amendment under article 8.5) was send to the Lower House of the Parliament in August 2011. See also Chapter 1.

#### *Drug-related nuisance*

With regards to drug-related nuisance there is information from the annual National Security Monitor (Centraal Bureau voor de Statistiek, 2011; [www.cbs.nl](http://www.cbs.nl)). This is a victimization survey based on self report. The 2011-survey reports a.o. about victimization and feelings of security in the last 12 months of 39,220 Dutch inhabitants of 15 years and older who live in a private household situation. The monitor in its actual form was carried out in 2008, 2009 and 2010. Respondents filled out questionnaires – via internet, on paper, by telephone or face-

to-face. Overall response rate is 38,7%. One of the issues is the ('threatening') nuisance they experience in their own neighbourhood.

- Around 6,5% experienced nuisance from drunk persons on the streets.
- Around 4.8% reports experiences of drug-related nuisance.
- 2.9% rate drug-related nuisance as the most urgent problem in their neighbourhood. Drug nuisance ranks relatively low in this respect (16th in a list of 25 problems). Public drunkenness ranks 18th in this list). Both problems seem of minor importance. The most important problems in the neighbourhood in 2010 are: fast driving (24.2%), dog dirt (16.6%) and nuisance from traffic (14.7%). The least important problems are: being threatened (0.9%), nuisance from homeless persons (0.6%) and street robbery (0.5%).
- The drug and alcohol related nuisance is more relevant in certain areas. In the south-east of the country (*Limburg-Zuid*) reports of drug-related nuisance are highest (14.5%). Second in rank is the region of Rotterdam (7.7%) and third is the region of Amsterdam (7.5%). Public drunkenness is mainly a problem in the regions of Amsterdam (11.0%), Rotterdam (9.9%) and The Hague (9.4%).

As can be seen in table 9.1.7, there are only minor changes compared to 2008 and 2009.

*Table 9.1.8: Percentage of citizens that experience drug-related nuisance and public drunkenness as a problem in the neighbourhood, 2008-2010*

	2008	2009	2010
Drug-related nuisance is a problem	4.8% ( $\pm$ 0.4%)	4.9% ( $\pm$ 0.2%)	4.8% ( $\pm$ 0.3%)
Drug-related nuisance is the most important problem	2.7% ( $\pm$ 0.3%)	2.7% ( $\pm$ 0.2%)	2.9% ( $\pm$ 0.2%)
Public drunkenness is a problem	6.2% ( $\pm$ 0.4%)	6.8% ( $\pm$ 0.2%)	6.5% ( $\pm$ 0.4%)
Public drunkenness is the most important problem	1.5% ( $\pm$ 0.2%)	1.4% ( $\pm$ 0.1%)	1.3% ( $\pm$ 0.2%)

Source: Centraal Bureau voor de Statistiek, 2011 ([www.cbs.nl](http://www.cbs.nl))

With regards to nuisance in relation to coffee shops and their customers, there is local research by different research institutes, which use different designs and methods.

### *Conclusion*

- Fewer arrestees are registered by the police as a drug user. The mean age of these drug using arrestees is increasing. Most of them commit property crimes.
- The proportion of addicts amongst very active prolific offenders is decreasing.
- There is an association between drug (and alcohol) use and intimate partner violence amongst perpetrators in a forensic setting and in the criminal justice system.
- Drug related nuisance seems to be a minor problem in the experience of Dutch citizens in general. This problem is more relevant in certain regions and certain city areas.

## 9.2 Prevention of drug related crime

### 9.2.1 Prevention of drug-law offences

*Prevention and combat of organised crime (see also chapter 1 for recent measures)*

- The combat of organised drug production and trafficking will stay a priority area for police and Public Prosecutor and will be intensified (see chapter 1).
- A new article to the Opium Act is in preparation, which penalizes preparative and facilitating activities for illegal large-scale cultivation of cannabis (T.K. 32842-1 and 2, 2011; see also Chapter 1 and 9.1).
- Local and regional institutions also have an important role in the combat of drug-related organised crime and cannabis cultivation. Co-operation between administrative, private en judicial partners is enhanced and supported.
- Regional Information and Expertise Centres (*RIECs*) are set up since 2008 in order to support municipalities in their fight against organised crime. They should ensure the connection between administrative en judicial measures (Jaarverslag RIEC's, 2011; T.K. 29911/42, Bestrijding georganiseerde criminaliteit, 2010). Public administration, police, Public Prosecutor, special investigation forces and Tax Authorities co-operate in these Centres. In 2010, 75% of the municipalities participate in a RIEC. In 2009, this was 64%. There are regional differences in ways of working and capacity and it takes time to involve municipalities, but RIEC's are continued and the minister of Security and Justice aims at a total of 80% participation of municipalities (T.K. 29 911-54). A National Centre of Information and Expertise supports the RIEC's. Both RIEC's and the National Centre will become structural facilities after the end of the pilot phase per January 1 2012.
- A Task Force for the combat of organised cannabis cultivation priority was installed in a southern region (Brabant) after some severe violent incidents related to cannabis cultivation (Secondant, 2011, nr. 3-4, 38-41). See also Chapter 1.
- In the city of Delft (region *Haaglanden*) a so-called 'experimental garden' was run to combat organised crime in cannabis cultivation in a learning environment (Flight et al., 2010). It aimed at intelligence gathering and it was a co-operation of the police, Public Prosecutor, local government, tax authorities and the Regional Centre for Information and Expertise. First findings of a parallel research project show that mutual trust of partners in the co-operation, a personal approach amongst partners in a small-scale well-motivated team and information-exchange, are relevant factors in the co-operation. In the beginning of the co-operation, time must be invested in improvement of the information and in streamlining the information-exchange. The linking of information is crucial to achieve connections between individual incidents and cases. This forms the basis for more structured and more efficient investigation, prosecution, administrative actions, taxation and dispossession of criminal profits. During the period of the report (2009-2010), results were achieved in terms of improved processes of information gathering, streamlining and co-operation.
- The crucial role of exchange of information is also highlighted in a pilot project in Amsterdam, which aimed at finding more effective approaches for the combat of organised crime (Projectgroep Emergo, 2011; see § 10.2). The first objective was to bring together existing knowledge about organised crime, in order to get an up-to-date picture of the situation. It needed time to accomplish this and several legal, organizational and technical complications had to be solved.

### *Prevention and combat of crimes and nuisance related to coffee shops*

- Chapter 1 describes recent developments in interventions, measures and legislation to prevent and combat coffee shop related nuisance and crime. For example, the *Public Administration Probity Screening Act (Wet BIBOB)*, which enables local administrators to screen new licence requests of a.o. coffee shops, smart shops and grow shops; the coffee shop pilots in ten municipalities; the new rules for coffee shops (e.g. license for Dutch residents, distance criterion to schools); closure of coffee shops near the Belgian border (Bergen op Zoom, Roosendaal, Terneuzen) and other cities (Rotterdam).

### *9.2.2 Prevention of offences committed by drug users*

N.N.I.A.

## **9.3 Interventions in the criminal justice system**

Relevant developments with regards to drug users in the criminal justice system are:

- There are new approaches (safety houses, redesign of supervision of addiction probation services, new ways of referring to forensic care, the introduction of Psychiatric Penitentiary Centers in the prison system) which are in a process of change and development. Intensification of co-operation of agencies that are involved in the trajectory of an offender is an important element, as well as more systematic screening, diagnosing and indicating for care.
- For offenders with addictions, mental health problems or limited intellectual abilities a new law is in preparation: the *Forensic Care Act* (foreseen for January 2014 (T.K. 32500 VI/2, 2010)). This act aims at diversion to care outside prison when possible. If this is not possible, the offender is placed in a Penitentiary Psychiatric Centre, where basic care is provided.
- The *Compulsory Mental Health Care Act (Wet verplichte GGZ)* is in preparation, which facilitates compulsory admission of persons with psychiatric problems in treatment centres, under certain strict conditions. Articles in both laws should facilitate the compulsory placement of offenders in psychiatric hospitals directly from the criminal justice system by the criminal judge.

Most interventions are not exclusively focused on drug users or addicts. Some are applicable for all offenders in the criminal justice system, others are applicable for offenders with problems that can affect their rehabilitation and their criminal recidivism. Addicts are a relevant target group for the last category of interventions. We will describe the interventions for offenders with criminogenic problems.

The following interventions are available:

- “Safety houses”: these are networks of local organisations working together to reduce crime. Offenders and adequate trajectories are discussed in case meetings. This is an approach for all offenders, but prolific offenders (amongst whom there are a lot of addicts) and offenders with addiction problems are a relevant target group (see § 9.3.1).
- Forensic care as an alternative to prison and Penitentiary Psychiatric Centres (see § 9.3.2).
- Addiction probation services (see § 9.3.3).

- Behavioural interventions inside and outside prison (see § 9.3.4)
- The measure of Placement in an Institution for prolific offenders (see § 9.3.5).
- Aftercare after release from prison (see § 9.3.6).

### 9.3.1 *Safety houses*

In the Safety houses, criminal justice organisations co-operate with municipalities, social sector and care organisations like addiction care, to better combine and integrate penal and rehabilitative interventions for offenders. Most of the time, the Safety house is also a physical office location. The operational goal is to create more alignment and unity in the approach towards different groups of offenders. Safety houses organize regular case meetings around individual offenders (or specific local safety themes). In each case meeting professionals from various organisations discuss the interventions for offenders. The first Safety houses started in 2005. Since 2009 there is a nationwide network of regionally operating Safety houses in The Netherlands. Rovers (2011) conducted a research synthesis of 18 reports of empirical research into the Safety houses. Most relevant findings are:

- The involved professionals agree about the fact that Safety houses contribute to the quality of interventions, because interventions are more aligned and integrated. The quality of the enactment of the interventions as well as societal benefits improved.
- Moreover, there are (less strong) indications that the co-operation contributes to earlier and better diagnoses of safety problems and more rapid reactions to these problems.
- Realising sufficient input, throughput and output turns out to be difficult in the initial phase, but there are indications that in most cases the production gets going after some time. Safety houses need time to realize results.
- The research indicates that Safety houses contribute to social improvements in the lives of clients and (as a consequence) to lower recidivism rates in this group. Some studies report that Safety houses realise cost-benefit advantages. These studies state that the additional cost of cooperation is lower than the benefits that are gained from the lower rates of recidivism. However, these studies invoke various theoretical and methodological questions. Research into possible scale of efficiency effects is still absent. Other possible societal effects/benefits of Safety houses have not been researched.
- Safety houses face a great number of problems: the (internal) information about individual cases and the communication between parties is insufficient; the functioning of and the co-operation with the donating mother organisations is insufficient; the control and organisation of the Safety house is insufficient; relevant partners are missing in the co-operation; specialized local care facilities for repeat offenders and former prisoners are insufficient, and Safety houses sometimes have vague goals.

### 9.3.2 *Forensic Care outside prison and Penitentiary Psychiatric Centres*

In the case of drug users, the general principle is that their crime can only be reduced by offering treatment or care. This viewpoint was confirmed again in 2008 (T.K.24587/299; T.K. 31110/5) and it is also the basic principle of the planned Forensic Care Act (*Wet forensische zorg*, T.K. 32 398/1, 3, 2010, Vaststelling van een Wet forensische zorg). The care should preferably be given by mental health and addiction centres outside the prison system, by diversion to care.

This new Act aims at improvement of forensic care for offenders with addiction problems, mental health and psychological problems and/or mild learning disabilities and which follows the principle that they should be diverted to care outside the prison system (*“mental health care, unless”*). Only those problematic delinquents who are not motivated or who are not

suitable for placement in a clinic outside prison will stay in the prison system. These delinquents will be placed in Penitentiary Psychiatric Centers ( *Penitentiaire Psychiatrische Centra, PPC's*).

The planned Forensic Care Act is currently under consideration in the Parliament (Agenda, 2011). The intended date of coming into force is January 1 2013 (T.K. 32 398, nr. 6).

The Act implies:

- Improvement of screening, diagnosis and advice to detect delinquents with the above mentioned problems, in order to start care in an early phase of detention.
- An increase of care capacity for forensic patients, inside the prison system as well as outside the system - in regular mental health care/addiction care as an alternative for imprisonment. The ministry of Security and Justice has its own budget for buying forensic care outside the prison system. The ministry 'contracts' care institutes. In 2010 a total of 88 institutions were contracted. Amongst these are forensic psychiatric clinics, institutes for persons with mild learning disabilities, addiction care institutes, institutions for supervised living and outpatient care facilities (T.K. 32 398, nr. 3). The care facilities should adhere to certain criteria for quality of care. The Minister of Security and Justice will be responsible for placements and referrals under the new law.
- For those detainees who need special care or security or who are not motivated for care outside the prison system, special care places are available within the prison system, in five locations of penitentiary institutes, so-called Penitentiary Psychiatric Centers (*Penitentiaire Psychiatrische Centra, PPC's*). In 2011, all five planned PPC's are operational.
- If necessary and possible, delinquents can be referred further after their judicial sanction or measure is finished. This must, however, be on a voluntary basis. Continuity of care is an important part of the new system.
- The planned Forensic Care Act in combination with the planned Compulsory Mental Health Care Act contains articles to broaden the possibilities for compulsory care directly after detention. The Public Prosecutor can consider asking for an authorization for compulsory mental health care instead of, or directly after, criminal prosecution, and the criminal judge can apply such an authorization. These Acts are to be implemented by January 1 2013 (T.K. 32 398/2,3,6).

The number of diversions of clients of addiction rehabilitation services to care facilities outside prison did increase in 2010: 5,046 times there were activities in the framework of a diversion to care. There is an increasing trend since 2002 (table 9.3.1). Almost 4,000 times the diversion took place within the framework of judicial supervision and 1,091 times this was not the case ([www.svg.nl](http://www.svg.nl), 2011).

- Most diversions concern non-residential addiction care (outpatient or part-time care): 1,158 times (23%);
- Second is non-residential psychiatric care: 794 times (16%);
- Third is residential addiction care: 603 times (12%).
- Most diversions concern specialized addiction care, but second in rank are referrals to psychiatric care. This trend was observed in 2008 and 2009, too.



Table 9.3.1: Number of diversion activities (diversion to care outside detention) by Addiction Probation Services, 2010<sup>l</sup>

Year	Number of diversion activities
2002	1,568
2003	2,115
2004	2,254
2005	2,081
2006	3,226
2007	3,684
2008	4,005
2009	4,514
2010	5,046

### 9.3.2 Addiction Probation Services

Addiction Probation Services registered 20,233 clients in 2010, more than in 2009 (18,878). The activities of Addiction Probation Services in 2010 are shown in table 9.3.2. Due to changes in definitions and criteria for registration, the figures are incomparable to the years before. In the table, activities based on old and new definitions are added.

- Supervision of clients and the writing of advisory reports for judicial authorities were carried out most often in 2010.
- Diagnoses are carried out (partly) by using the standard instrument RISC (Risk Assessment Scales, *Risico Inschattings Schalen*). A RISC-assessment was carried out more than 5,482 times in 2010. In addition, more detailed and deeper screening can be carried out, in order to come to an adequate indication for care or cure.

Table 9.3.2: Types of assistance offered by addiction probation services and number of times the service was provided, 2010<sup>l</sup>

Type of assistance	2010
First visit to arrestee/prisoner in remand	2,122
Advisory reports (by order of Public Prosecutor, Judge, prison authorities, etc; including reports about the social environment)	10,522
Referral to care programs (excluding referrals under a judicial measure)	5,046
Supervision of clients in the framework of a judicial decision	10,954
Behavioural interventions	686
Supervision of working sentences	4,888
Supervision of learning sentences <sup>II</sup>	123

I. No figures on case level, no specification for type of drug/alcohol/gambling II. Learning sentences are in a process of discontinuance as a separate category. Source: Foundation of Addiction Probation Services, 2011. ([www.svg.nl](http://www.svg.nl)).

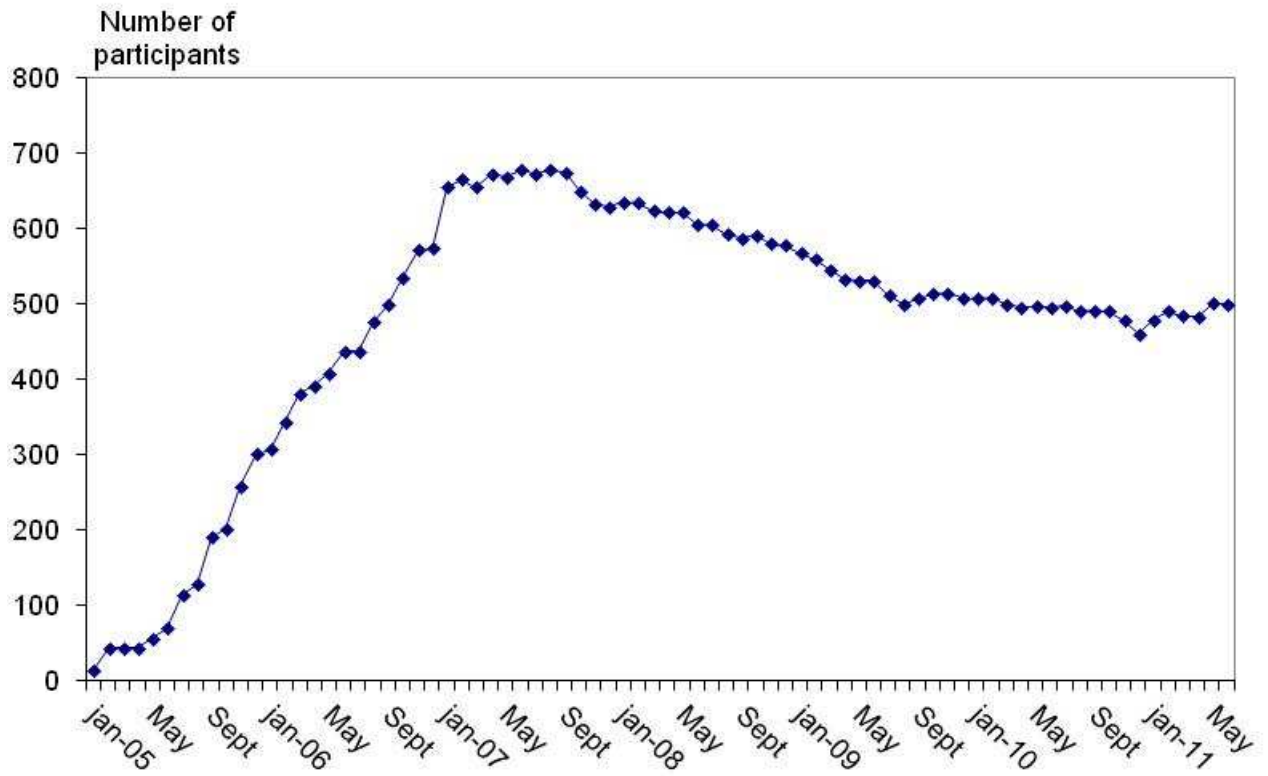
### 9.3.3 Behavioural interventions for substance users

- Behavioural interventions are available for those detainees who have a sanction of at least four months. The interventions have to be accredited by a special Commission for Behavioural Interventions which was installed (in 2005) by the ministry of Security and Justice. Accreditation is given if the intervention is evidence-based.
- A behavioural intervention for delinquents who committed violent crimes under the influence of alcohol got a preliminary approval in December 2010 (Jaarverslag Erkenningscommissie, 2011). In 2009 two interventions for addicted offenders were approved already: the short lifestyle training and the lifestyle training.
- The interventions are not always applied according to the guidelines (Van Ooyen, Nas & Mulder, 2011).

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

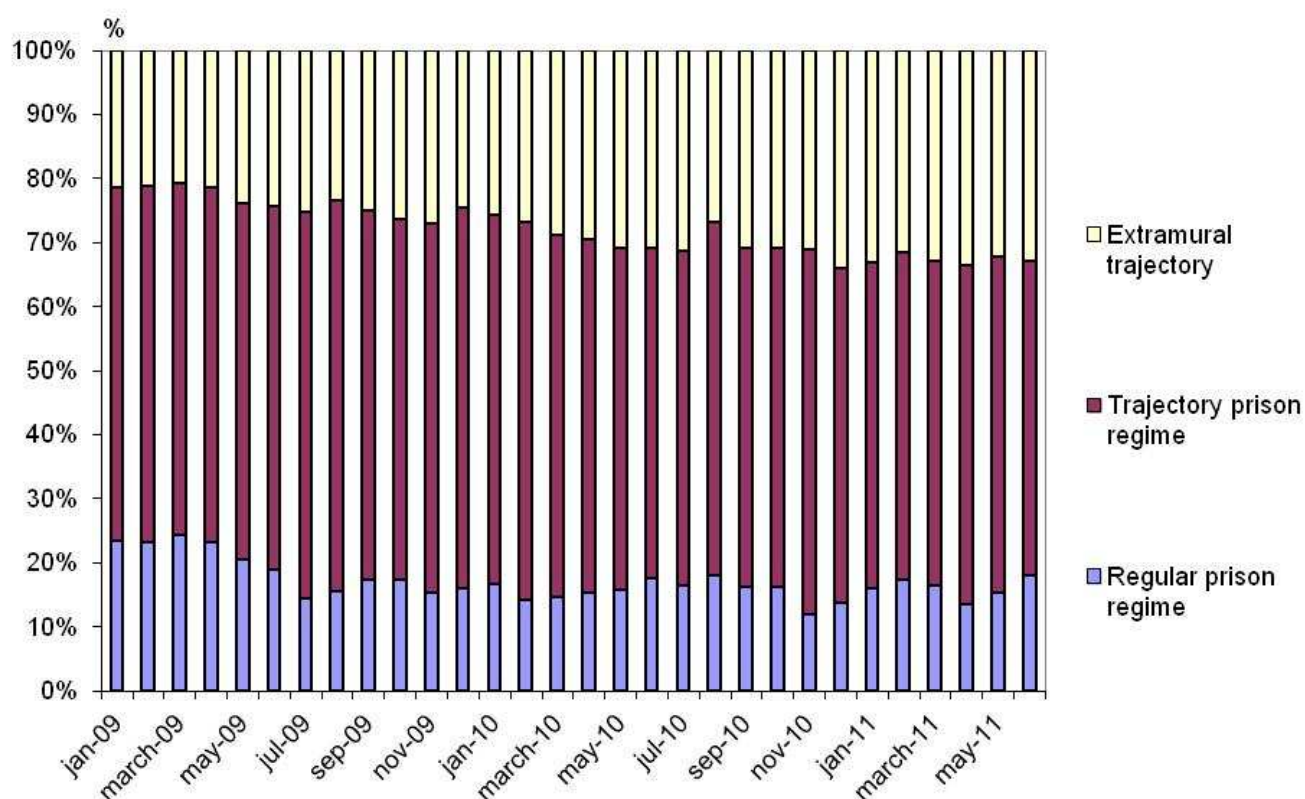
- Since 2004, the measure of Placement in an Institution for Prolific Offenders (ISD) is in force (Stb 2004/471). This is a judicial measure for prolific offenders of over 18 years old. ISD can be applied for a maximum of two years. The aim of the measure is twofold: to safeguard society from the frequent offences committed by prolific offenders by incapacitation of the offenders and to improve the individual situation of offenders, in order to reduce their recidivism.
- 80.1% of all prolific offenders with a measure ISD in the period 2003-2008 have (registered) addiction problems (Tollenaar & Van der Laan, 2010 report a percentage of 82.2% over 2003-2007). Other research also shows that a large majority of the prolific offenders under an ISD is a drug addict.
- ISD is executed in eight penitentiary institutions which are especially equipped for ISD-detainees. The capacity is 1,000 places.
- In 2010, there were 461 to 509 participants per month (mean: 493). In 2011 there were 479 to 500 participants per month (period January-June 2011; mean: 490). This is less than in 2009 (mean: 528) and in 2008 (mean: 607) (figure 9.3.1).
- In 2010, a mean of 22% of all participants stayed in regular prison regime (figure 9.3.2). In 2011, this is 24% (period January-June). There is a decreasing tendency.
- The majority participates in a trajectory with some kind of behavioural interventions: 78% in 2010, 76% in 2011 (figure 9.3.2). Most of these trajectories take place inside prison, but the proportion of extramural trajectories (=outside prison) shows an increasing trend.

Figure 9.3.1: Number of offenders under the Measure of Placement in an Institution for Prolific Offenders, January 2005-June 2011



Source: Service for Judicial Facilities, 2011.

Figure 9.3.2: Percentage of offenders with a measure of Placement in an Institution for Prolific Offenders in trajectories/forensic care interventions outside prison, trajectories/care interventions inside prison and in regular prison regime, January 2007-June 2011, per month



Source: Service for Judicial Facilities, 2011

### Conclusion

- The number of diversions to care as an alternative for or as an addition to detention is rising. Care for delinquents in institutions outside the prison system is bought by the ministry of Security and Justice. New policy strategies give priority to care as an alternative for or following imprisonment.
- Addiction probation services have an increasing number of clients.
- A large majority of the offenders under the measure for Placement in an Institution for Prolific Offenders is addicted. The majority of them participates in behavioural interventions or care programs in- or outside prison.

## 9.4 Drug use and problem drug use in prison

A study amongst detainees (Bulten & Nijman, 2010) shows that:

- 77% of the detainees feel that there is a discrepancy between their actual and their desired functioning in certain areas of their psychosocial functioning, especially with regards to their emotional functioning (45% reports a discrepancy), substance use (36%), social relations (34%) and aggression regulation (29%).

- Most detainees see these discrepancies as a critical problem, for which they report that they would like to get assistance.
- According to almost one third (31%) of the detainees, their substance use is a problem. 81% of the detainees with an addiction links this abuse to the reasons of detention.
- 75% of these detainees reports that they need assistance to cope with this problem.
- Only a minority of the detainees with any problem really gets assistance (45%); 55% does not receive any assistance. This is attributed to fear of treatment, inclination to avoid treatment, motivation, the process of indication, limits in the offer of treatment and care, and possibly the unfavorable detention climate.

Wouters, Doekhie, Korf & Benschop (2011) conducted a face-to-face interview survey amongst a sample of detainees (weighted for representativity) in 16 penitentiary institutions who were convicted to an imprisonment of more than four months and who had been detained at least three months. The aim of the survey was to get insight in risky behaviour for infectious diseases.

- Only two out of 378 detainees reported to have injected drugs in prison ever. Only one detainee reported to have injected drugs (heroin) during the current imprisonment. No detainee reported to have shared needles with other detainees during the current imprisonment. These results indicate that injecting of drugs hardly occurs in Dutch prisons.

## 9.5 Responses to drug related health issues

See chapter 11.

## 9.6 Reintegration of drug users after release from prison

Aftercare – in terms of having an identity card, housing, income and care (if necessary) and settlement of debts - is primarily a responsibility of municipalities. It should be available for all (ex-) delinquents. The municipality should know in a timely manner when a detainee will be released and what kind of problems he/she has. The Ministry of Security and Justice started a special aftercare programme in 2009 (Van Duijvenbooden & Plattje, 2010). This programme runs under the direction of the Ministry, and penitentiary institutions, municipalities, probation services, mental health/addiction care organisations, housing corporations and organisations that help people to solve their debts, work together. In the prisons, special personnel is appointed to prepare aftercare when a detainee is being released (*Medewerkers Maatschappelijke Dienstverlening*). They check the detainees' situation with regards to identity cards, housing, income, debts and care, so that municipalities can prepare adequate conditions at the time of release. Municipalities get finances for co-ordination of aftercare. Most of them appointed a special co-ordinator for the aftercare. The programme is still running.

The aim is that 80% of the ex-detainees have an identity card, housing (at least in a welfare centre), an income from work or social welfare (at least an advance, a plan to settle one's debts or insight in existing debts) and the necessary mental health care or addiction care at release.

The 2011 report of the monitor of this programme describes the situation at the beginning of the detention of 10,838 adult delinquents who were released between July and December 2009 from regular penitentiary institutions, and it shows the situation after release of 11% of

them (More & Weijters, 2011). It concerns mainly male detainees (92%) in the age group under 34 years. The monitor shows that there are improvements in the situation of the total group of detainees with regards to income and housing at release: there is less deterioration of the situation of detainees. There is, however, a worsening in the situation during detention: less detainees who entered without identity card, income, housing, had one at release. The report contains only very limited information about the specific category of addicted offenders: 15% of all detainees had contact with an addiction care institution before detention. There is no information available about addiction care after release.

## 10 Drug Markets

### 10.1 Availability and supply

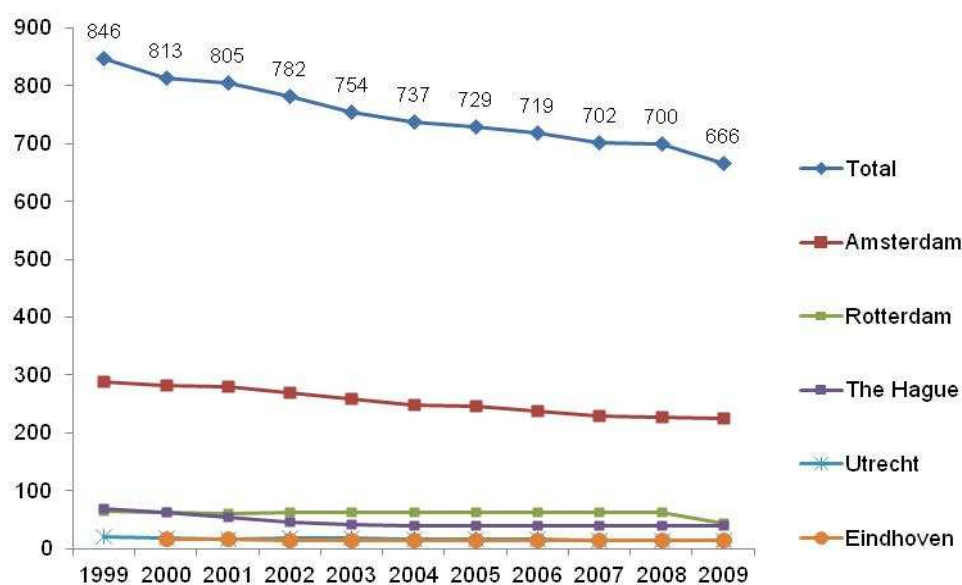
It is difficult to get a valid overview of the availability and supply of drugs. The data in § 10.1 and § 10.2 are mainly drawn from reports published by the National Police Forces, research and monitors.

#### 10.1.1 Availability

##### *Access to cannabis/availability of cannabis*

- In the Netherlands, the sale of cannabis is largely regulated through coffee shops, which have to adhere to certain criteria (see later). In the population survey of 2009, 90% of the recent cannabis users of 15-64 years reported having obtained their cannabis (also) in coffee shops in the past 12 months, followed by 12% mentioning 'at someone else's house' (note that more than one answer was allowed and percentages summed up to 118%). Other categories were mentioned with frequencies of 3% or lower, except for the category 'others' (6%). However, school surveys show that for minors coffee shops are a less likely source for obtaining cannabis (see National Report 2009).
- Figure 10.1.1 shows that the number of coffee shops gradually decreased in the past decade. In 2009, there were 666 coffee shops in 101 municipalities, which cover 23% of all 441 municipalities (Bieleman & Nijkamp, 2010). Data from Statistics Netherlands reported a slightly lower number in 2010 (659) and 2011 (640) (CBS, 2011).
- Over half (53%) of the coffee shops is located in the six big cities with over 200 thousand inhabitants.
- The reduction from 2008 to 2009 can be explained in part by the closure of 16 coffee shops in Rotterdam, which did not comply with the minimal distance criterion to schools, and the closure of (all) 8 coffee shops in Bergen op Zoom and Roosendaal. Moreover, coffee shops were closed because the municipality applies an 'extinction policy' or because they have violated the regulations (see later).
- In 2010, 91% of the coffee shops were situated at a distance of 350 metres or more from a secondary school; 3.5% has a distance of 300 to 350 metres and 5.3% a distance of less than 300 metres ([www.cbs.nl](http://www.cbs.nl)). The planned closure of coffee shops (to be effectuated) within 350 metres will affect 58 coffee shops (9%).

Figure 10.1.1 Trend in the number of coffee shops in the Netherlands



Source: Bieleman & Nijkamp, 2010

- Coffee shops have to comply to certain rules (AHOJ-G criteria). They are not allowed to advertise, to have hard drugs or youth under 18 in their shops, to cause nuisance, to sell more than 5 grams to a customer or to have a stock of 500 grams of cannabis or more. Compliance with the rules has been evaluated in 2010 (Bieleman & Nijkamp, 2010; see National Report 2010).
- Several municipalities reacted in 2010 on a call by the Minister of Interior Affairs to experiment with pilots for (regulation of) coffee shops (Ministerie van Binnenlandse Zaken 2010; Vereniging Nederlandse Gemeenten, 2010). Ten pilots started in September 2010 and are running now in municipalities all over the country (see § 1.2).
- 35 of the 74 coffee shops in the inner city of Amsterdam were subject to close screening and analysis in a project called 'Emergo' (Projectgroep Emergo, 2011; T.K. 29 911-55). 31 of the 35 were selected on the basis of criminal antecedents of their owners and direct or indirect connections with professional criminals in Amsterdam. Four were not selected on this basis. According to the authors, the 31 selected shops form a reasonably good representation of the 74 shops in the area. Emergo was part of the governmental policy programme for a more effective approach to combating organized crime (Naar een veiliger samenleving, 2007). Emergo was initiated by the city's mayor and it ran from July 2007 to July 2011. It was a combined effort of the municipality of Amsterdam, de City Centre district, the Amsterdam-Amstelland police, the Public Prosecutor, the Tax and Customs Administration, under project management of the ministry of Security and Justice and with involvement of the Research Centre of this ministry. Coffee shops were one of the subjects of the project. Main results are:
  - Insight in the volume of trade and the profits of coffee shops is only fragmentary, a.o. due to the anonymity of suppliers of cannabis and the lack of bank statements. The Tax Administration discovered recently that figures about volume of trade were manipulated. Control of the figures is difficult. There is little insight in the supply of cannabis towards the coffee shops. This is not a priority area of police and Public Prosecutor, which makes the chance of being caught very low.



- Estimates indicate that the 74 coffee shops in the inner city traded cannabis for about 38,121,130 euro in total (in 2007), a mean of about 515,150 Euro per coffee shop. About 25% concerns hashish and 75% weed. It is estimated that 52,221 kilos might have been traded, which could mean that 2,861 customers per day visited a coffee shop. This is a mean of 39 customers per coffee shop.
- To supply cannabis for this amount of trade a total of 138,884 plants are needed, a 9,259 square meters, and an estimated 380 cannabis production sites (with a mean of 24 square meters).

#### *Illegal selling points for cannabis*

- Cannabis is also available through other illegal selling points, e.g. dealers operating by means of mobile-phone; home dealers, who sell drugs from their own home, partly from own cultivation; self-growers, who give cannabis away or sell it; street dealers; and under-the-counter dealers, who sell cannabis in a 'normal' catering place.
- There are also grow shops (or head shops) in the Netherlands, i.e. outlets for all the necessary objects for growing and reaping cannabis plants. As grow shops may function as centres for large scale and professional cannabis production and are linked with organized crime, measures have been taken to close them (see §1.1). According to Statistics Netherlands there were some 120 grow shops in 2011 ([www.cbs.nl](http://www.cbs.nl), 2011). These numbers concern shops that are visible from the outside/from the street. Another study conducted in 2009 revealed that there were some 275 grow shops (Driessen, 2009). Although different estimation methods have been used, there are indications that the number of grow shops has actually decreased in the past years. Especially in South-Netherlands, municipalities have closed grow shops due to criminal antecedents of grow shop owners (see chapter 1, Public Administration Probity Screening Act or BIBOB) or drug seizures (mainly cannabis) in grow shops.

#### *Other sources*

- Until the first of December 2008, fresh magic mushrooms and other non-traditional psychoactive substances not controlled by the Opium Act were legally available in so-called smart shops (see also § 6.2). Since this date all mushrooms containing psilocin or psilocybin have been placed on Schedule II of the Opium Act. Reliable figures on the number of smart shops are not available. In 2003 the number of smart shops has been estimated at 165 (Centrum voor Criminaliteitspreventie en Veiligheid 2010). The number of smart shops and their sales has probably decreased after the ban on magic mushrooms. Statistics Netherlands ([www.cbs.nl](http://www.cbs.nl), 2011) counted the number of smart shops in 2011. They are counted by 'professional shoppers' who actually count all shops in the Netherlands periodically. They reported that there are 115 smart shops in the Netherlands. This number concerns shops that are visible from the outside/from the street.
- Some of the smart shops seemed to have 'survived' financially by switching to the sale of the hallucinogenic root sclerotia which was not included in the Opium Act. These sclerotia can also be bought on the internet, as can many other drugs, but a good overview on drug supply through internet is not available.
- Drug runners are active in some municipalities. Research into characteristics and crime patterns of drug runners started in Maastricht, Roosendaal and Bergen op Zoom, which

are cities where drug runners cause a lot of nuisance and crime, and Rotterdam and Utrecht, which are considered cities where a lot of drug runners come from (Bremmers, 2010).

### 10.1.2 Supply

#### *Cannabis production*

- The above mentioned project 'Emergo', which focussed on the inner city of Amsterdam, gives an overview of the number of dismantled cannabis cultivation sites in the region of Amsterdam-Amstelland. In 2009, 310 sites were dismantled with a total of 98,914 plants, a mean of 361 per dismantlement. There were 90 sites with less than 100 plants, 127 with 100 to 500 plants and 57 with more than 500 plants. Most of the (smaller) sites were situated in private houses, regularly rented from housing corporations. 479 Suspects were involved. The sites were spread over the city, but some quarters - socially weaker ones - were overrepresented. The organizers of the cultivation stayed mostly invisible in the police reports, because the enforcement focusses on the persons that grow the cannabis, not on the persons in the background (Projectgroep Emergo, 2011).

#### *Synthetic drugs*

- Several new designer drugs seem to be on the market. According to Customs Netherlands, 180 kilos of designer drugs are imported into the Netherlands in 2010, amongst which mephedrone, flephedrone, ethcathinone etc. (Jaarverslag Synthetische Drugs en Precursoren 2010, 2011).

## 10.2 Seizures

There are no national figures about seizures of all drugs available for 2010. The development and implementation of a uniform national protocol by the regional police forces and the National Police stagnated (T.K. 29 628-258, 2011). Improvements will be implemented.

Table 10.2.1 shows figures from the Centre of Expertise on Synthetic Drugs and Precursors of the National Investigation Unit of the National Police (Jaarverslag synthetische drugs en precursoren 2010, 2011). Figures from this Centre might be incomplete – there is no obligation for enforcement agencies to report figures to the Centre – but whereas this Centre provides support to regional parties and is active in the gathering of data, it can be assumed that they give the best possible picture about synthetic drugs and their precursors.

- Precursors (BMK, ephedrine) as well as pre-precursors (PMK-glycidate, safrol) for amphetamine and MDMA were seized (table 10.2.1). Remarkable is that new types of both are used, some of which are not forbidden by law and can be trafficked without a permit, while for others it is not clear yet whether they are forbidden or not. Some cases are under prosecution.
- There were no seizures of PMK, but a slight increase in litres of BMK.
- There were seven reports about GBL in 2010, which is a precursor for GHB. In 2009, there were two reports. There is no duty to report, but GBL is on the EU Voluntary Monitoring list and companies can report on a voluntary basis.

Table 10.2.1: Seizures of (pre)precursors for synthetic drug production 2004-2010, in litres

	2004	2005	2006	2007	2008	2009	2010
BMK	6,280	340	171	-	231	258	334
PMK	4,400	1,762	55	20	-	40	-
PMK-glycidate	-	-	-	-	-	-	1,200 (kilos)
Safrol	-	-	-	-	-	20	85
(Pseudo-)ephedrine	-	-	-	-	317 (kilos)	587 (kilos)	508 (kilos)

Source: Jaarverslag synthetische drugs en precursoren 2010, 2011.

- In 2010 there is an increase of seizures of ecstasy (MDMA) compared to 2009 and 2008, but the quantities do not compare to those of the years before 2008 (table 10.2.2 and ST13).
- There is a substantial decrease of seizures of amphetamines (544 kilos in total in 2010). The type of amphetamine differs from the years before: more paste and less powder. According to the Centre of Expertise synthetic drugs and precursors, this might be caused by the fact that more semimanufactured amphetamine is smuggled.
- Other types of synthetic drugs were seized in 2010:
  - 44,6 kilos of methamphetamine
  - 109 kilos of mephedrone
  - 5,200 tablets with mCCP
  - 6,430 units of LSD
  - 4,000 tablets of 2-PEA
  - 5 kilos of ketamine.
- Seizures of mephedrone are new for the Netherlands. According to the Centre of Expertise, the emergence of this synthetic drug is due to instability on the ecstasy market, but data from the DIMS monitor seems to point at a 'recovery' of the market in 2011 (see §10.3).

Table 10.2.2: Seizures of amphetamine and ecstasy/MDMA in the Netherlands, 2006-2010

	2006	2007	2008	2009	2010
<i>Amphetamine:</i>					
- Powder (kilos)	633	2,805	1,106	1,946	66
- Tablets	38,077	1,391	0	0	0
- Paste (kilos)	3	40	121	466	546
- Oil (litres)	5	241	65	0	57
<i>MDMA:</i>					
- Tablets	4,118,252	8,430,043	249,761	172,845	555,401
- Powder (kilos)	664	1,319	84	3.4	66
- Oil (litres)	120	1.74	300	0	0

Source: Jaarverslag synthetische drugs en precursoren 2010, 2011

- 19 dismantlements of production locations are reported in 2010, less than in 2009 (table 10.2.3). This number does not deviate much from the years before.
- At these production locations, 26 different production processes were discovered:
  - At nine locations, amphetamine was synthesized
  - At two locations, ecstasy was synthesized
  - Two were synthesizing methamphetamine and six other or designer drugs
  - At two locations safrol was converted into PMK.
  - At the other five locations, crystallization or tableting took place.
- An emerging trend is the production of methamphetamine, but data from the DIMS monitor suggest that methamphetamine reaches the Dutch consumer market only to a limited extent.
- An emerging trend is also reported for conversion laboratories and for production of synthetic drugs by Dutch producers in Belgium, just across the border (Jaarverslag synthetische drugs en precursorsen 2010, 2011).
  - Most production locations were situated in the South and West of the Netherlands.
  - 41 warehouses of hardware, chemicals or both are discovered by the police, four more than in 2008.
  - The police reported a trend towards the use of more advanced and large-scale hardware for production of synthetic drugs.
- The number of dumpings stayed more or less stable in 2010.
- The Act for Prevention of Misuse of Chemicals (*Wet voorkoming misbruik chemicaliën, WVMC*) obliges companies to report suspicious transactions with regards to registered chemicals. In 2010, 82 suspicious transactions are reported, more than in the years before (not in table).

Table 10.2.3: Number of dismantlements of production locations for synthetic drugs 2002-2010

	2003	2004	2005	2006	2007	2008	2009	2010
Production locations	37	29	18	23	15	21	24	19
Warehouses	n.n.	14	19	43	44	35	37	41
Waste dumpings	97	81	51	42	50	36	34	35

Source: Jaarverslag synthetische drugs en precursorsen 2010, 2011.

## 10.3 Price/purity

### 10.3.1 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 with previously analysed tablets. All other samples (non-recognised tablets and all powders and liquids) are sent to the laboratory for chemical analysis.

The strong increase in the number of drug samples delivered to DIMS from 6,200 in 2009 to 11,862 in 2010 (including 8,746 tablets) reflected changes in the ecstasy market (reduced availability MDMA, see National report 2010) and associated health concerns of consumers. In 2010 the number of delivered drug samples decreased again to 8,898 (including 5,547 tablets; See also Standard Table 15), of which 64% were analysed in the laboratory (44% of the tablets). In general, the strong reduction in purity (in terms of concentration of active component and presence of adulterants) seen for ecstasy and amphetamine samples in 2009, was completely reversed in 2010 with indicators even pointing at higher above average purity for both substances.

In the text below, a distinction will be made between tablets or other samples as they were sold to the consumer, e.g. tablets sold as ecstasy, amphetamines and cocaine. Data on powders (mainly cocaine and amphetamine) are also included in this paragraph. We will first briefly describe the (assumed) composition of consumer samples (tablets) that were identified in 2010 on the basis of the identification lists (without laboratory analysis). Thereafter we will continue with the findings based on laboratory analyses.

#### Tablets identified without lab tests

In 2010 2,752 tablets were recognised (or classified) on the basis of a visual analysis, Marquis test and identification lists. This is 50% of all tablets delivered by consumers to the DIMS (DIMS, 2011). The majority was sold as ecstasy or ecstasy-like substance (91%). While in 2009 about one-third of these ecstasy tablets did not contain MDMA (or MDEA/MDA), this was the case for only 6% in 2010. The proportion of tablets containing mCPP dropped from 22% in 2009 to 3% in 2010. The proportion of tablets containing mephedrone dropped from 6% to 1%.

#### Laboratory analyses

##### *Ecstasy: increasing proportion of tablets with MDMA in 2010*

In 2010, a total of 2,357 tablets sold as ecstasy were delivered to DIMS and analysed in the laboratory. Table 10.3.1 shows the percentage of analysed tablets containing certain substance(s), or a combination of substances. These categories are mutually exclusive.

- The total percentage of ecstasy tablets containing MDMA (and/or an MDMA-like substance, such as MDEA, MDA) as the only scheduled drugs has decreased in 2008 and 2009 and increased again in 2010 and the first half of 2011.
- At the same time the percentage of analysed tablets containing miscellaneous substances has clearly increased in 2008 and 2009. This was mainly due to an increase

of tablets containing mCPP (12% in 2009) and mephedrone (7% in 2009). In 2010 and the first half of 2011, both mCPP and mephedrone are detected less frequently (5% and 4%, respectively for mCPP; 1% and 0.3% for mephedrone). This low rate of mephedrone (and other substances) in ecstasy tablets point at a recovery of the market, which may be a positive development given its possible abuse liability (Brunt et al., 2010).

- In spite of this trend, DIMS detected the potentially harmful substance PMMA in a number of ecstasy pills: 29 times (1.2%) in 2010 and 23 times (0.9%) in 2011. Most samples contained only traces of the substance. In 2011 eight pills contained higher levels of PMMA (40 mg on average). The use of PMMA has been associated with several fatal emergencies in 2010 and 2011 (4 with use of PMMA verified, one non-verified), although other substances might also have contributed to death. The number of nonfatal emergencies is not known.
- Subjective ratings of users handing in their ecstasy sample show that tablets containing only MDMA are rates as having the most desirable effects, while tablets (also) containing PMMA and or mCPP have comparatively lower desirable and much more adverse effects (Brunt et al., 2011).

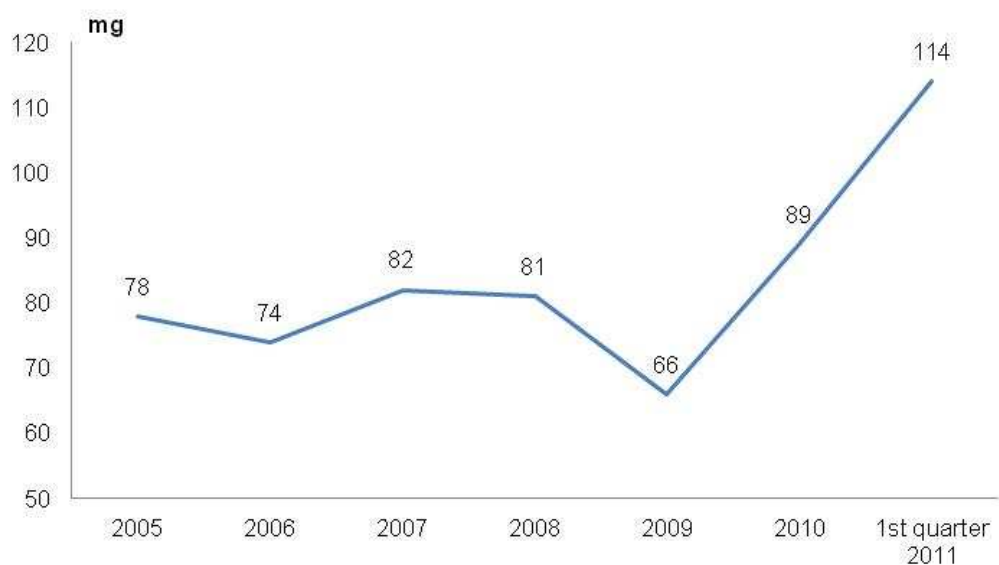
*Table 10.3.1: Content of tablets sold as 'ecstasy' based on laboratory analyses*

	2004	2005	2006	2007	2008	2009	2010	2011*
Number of tablets analysed	1985	2140	2523	2319	2183	2181	2357	1168
- Only MDMA-like substances	91.90%	88.60%	83.20%	84.60%	70.50%	70.75%	81.88%	85.36%
- (Meth)amphetamine	0.80%	4.00%	1.80%	0.70%	1.10%	4.91%	2.93%	1.71%
- MDMA-like substances and (meth)amphetamine	0.30%	1.40%	2.20%	1.30%	1.40%	1.28%	2.16%	3.08%
- Others **	4.50%	0.30%	4.50%	3.80%	7.40%	1.40%	1.81%	1.09%
- Miscellaneous***	2.50%	5.70%	8.30%	9.60%	17.70%	21.66%	11.23%	9.30%

\* Data for 2011 are from January-June. \*\* Category 'others' may include samples with MDMA and for example caffeine and other pharmacologically active non-scheduled substances. \*\*\*In 2009: The category miscellaneous consisted mainly of mCPP (11.60%) and mephedrone (7.4%). In 2010 and 2011 this category consisted mainly of mCPP and caffeine. Source: DIMS, Trimbos Institute.

- The concentration of MDMA in tablets has always shown a wide variation. Excluding ecstasy tablets without any trace of MDMA, in 2010 5% of the ecstasy tablets contained between 1 and 35 mg MDMA, 24% contained between 36 and 70 mg and, 40% between 71 and 105 mg, 22% between 106 and 140 mg and 8% contained a high dose of over 140 mg.
- In general, users subjectively rate doses between 81 and 100 mg as most positive or desirable, while for higher doses the likelihood of desirable effects decrease and the risk of adverse effects increase (Brunt et al., 2011).
- The *average* amount of MDMA in tablets (containing at least 1 mg MDMA) strongly decreased from 81 mg in 2008 to 66 mg in 2009. In 2010, the averaged dose increased again and this trend continued in the first half of 2011 (see figure 10.3.1).
- These changes in the proportion of ecstasy tablets containing MDMA like substance and average concentration of MDMA point at a temporarily reduced availability of MDMA in 2009, with clear indications of a restoration of the ecstasy market in 2010 and 2011.

Figure 10.3.1: Average concentration of MDMA in tablets sold as ecstasy\*



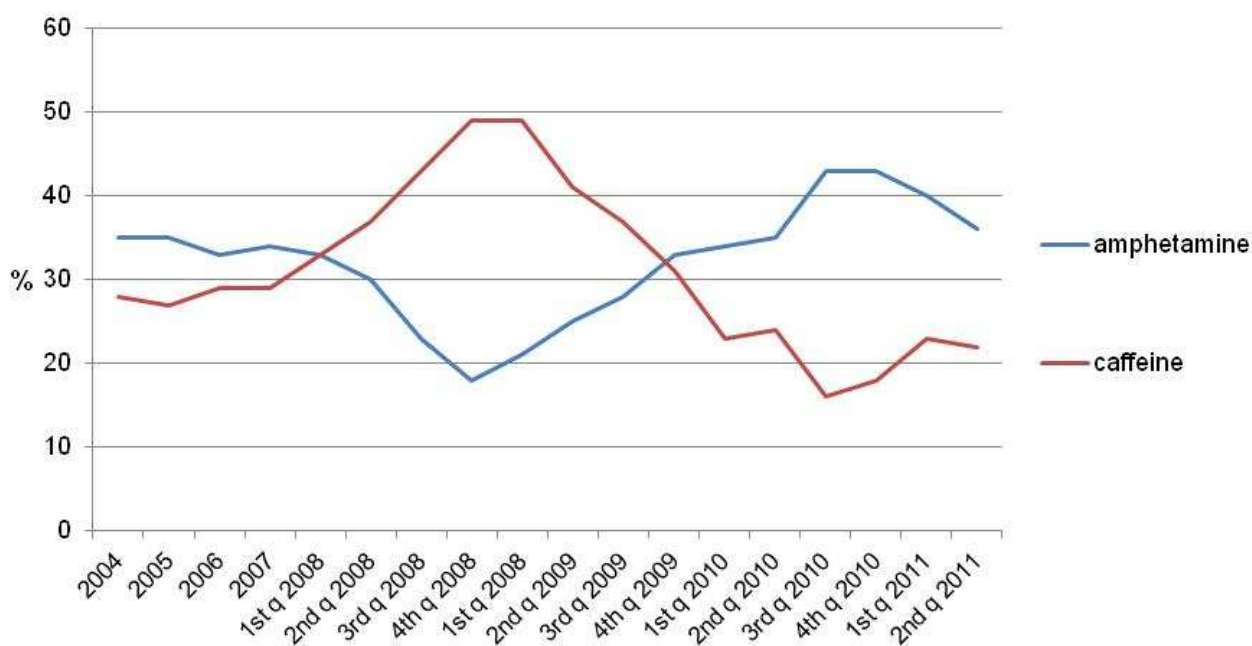
\* Tablets analysed in the laboratory containing at least 1 mg MDMA. Source: DIMS

#### *Amphetamine:*

In 2010 purity of amphetamine also showed a clear increase after the dip in 2008/2009, which was probably related to a shortage in precursors. In this period the proportion of speed samples containing caffeine increased as well as the average concentration of caffeine in speed samples, but this trend reversed in 2010. In this year DIMS received 1,011 powders sold as speed.

- The majority of these powders (96%) contained amphetamine, with an average concentration of 39%. Seven samples contained methamphetamine.
- Over half (52%) of all speed samples (also) contained caffeine. This was 80% in previous years.

Figure 10.3.2: Average concentration amphetamine en caffeine in speed samples\*



\* Data based on a selection of samples containing at least a trace amphetamine (with or without caffeine).  
Source: DIMS

- Trends in purity of amphetamine were mirrored by trends in the concentration of caffeine. Figure 10.3.2 shows the percentage of caffeine in all samples containing amphetamine (thus also including samples without caffeine). If only samples are included with caffeine the average concentration in 2009 was 56% and in 2010 38%.
- In 2009, 6% of the speed samples contained the non-controlled substance 4-fluoramphetamine, which is lower than in 2008 (10%). In 2010 only 3% of the samples contained this substance.
- In 2010, 4-methylamphetamine (4-MA) was detected for the first time in 10% of the samples, and in the first half of 2011 in 12% of the samples. It has been suggested that 4-MA is less potent than amphetamine (Wee et al., 2005). Nonetheless, the Netherlands Forensic Institute has associated the use of this substance with several fatal emergencies in the Netherlands in 2010 and 2011, although the precise role of 4-MA as a cause of death is not yet known. There are indications that this drug may cause adverse effects only in particular persons (idiosyncratic reaction).

*Cocaine: continuing large proportion of powders with medicines, especially levamisole*

In 2010, 1,026 powders sold as cocaine were analysed.

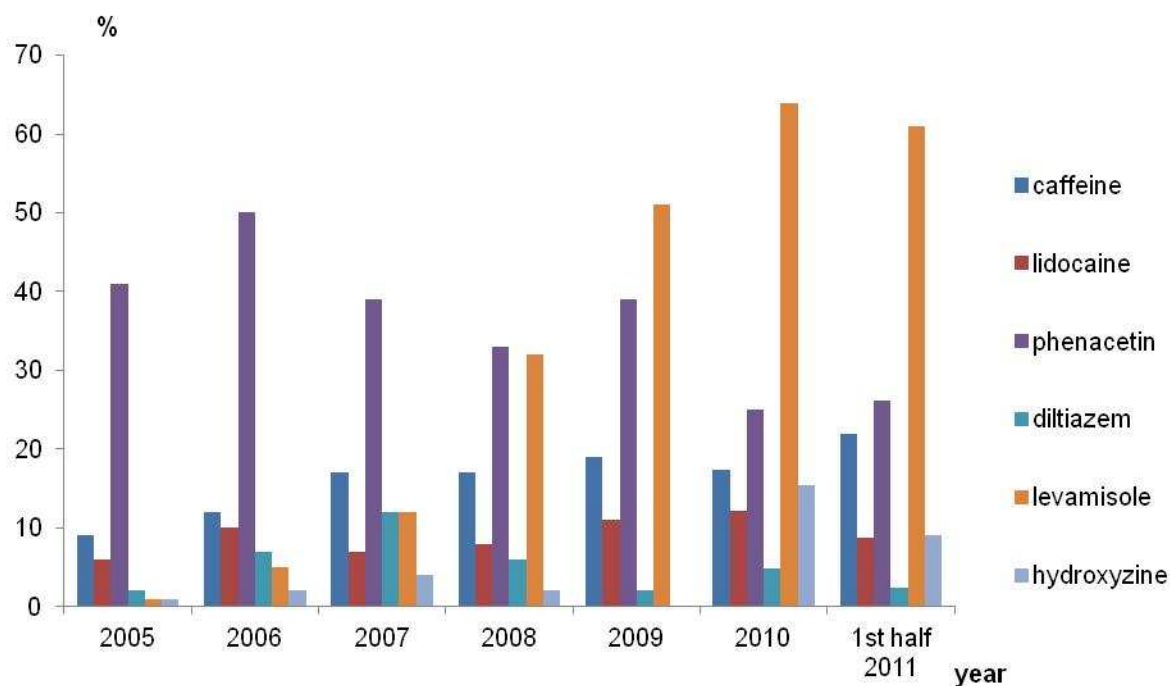
- Almost all (95%) of samples did indeed contain cocaine (among other substances), with an average concentration of 52%. Over the past decade, average purity slightly decreased (e.g. 69% in 2002).
- In 2010 4% of the cocaine samples solely contained another psychoactive substance(s) and 1% contained no psychoactive substance at all.
- Since 2002, the percentage of cocaine samples containing pharmacologically active adulterants or diluents has strongly increased. Figure 10.3.3 shows that the proportion of powders sold as cocaine with phenacetin is high but has slightly decreased (39% in 2009, 25% in 2010). Yet, the proportion of cocaine powders containing levamisole has strongly increased (51% in 2009, 64% in 2010, with a slight decrease over the months in



the first half of 2011). Levamisole is an anthelminticum used mainly for veterinary purposes. It is also used as an anti-cancer drug, but is not officially registered for human use in the Netherlands. The average dose of levamisole was 7.7% in 2010, but analysed per month there was a slight increasing trend (6.4% in January, 9.2% in December).

- In North-America, the use of cocaine adulterated with levamisole has been associated with serious blood diseases. In the Netherlands no such cases are known (CAM, 2010).

Figure 10.3.3: Percentage of powders sold as cocaine containing medicines



\* Source: DIMS, Trimbos Institute.

#### Other substances

- In 2010, some (other) substances found relatively often in the *total number of analyzed drug samples* (powders, tablets, liquids, n=5,735) were ketamine (n=66), GHB/GBL (n=139), 4-Fluor-amphetamine (n=50), mephedrone (n=62), 2-CB (n=79) and PMA/PMMA (n=40).

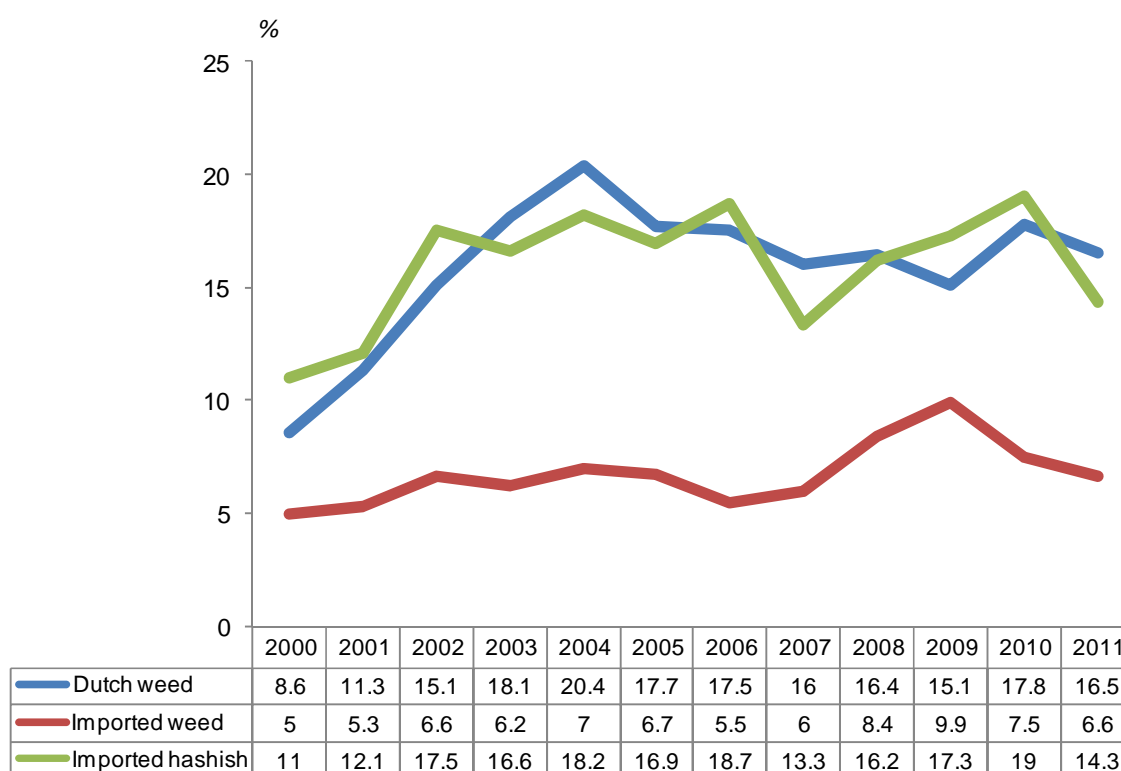
#### Cannabis

Since 1999, a special department of the DIMS™ also monitors the THC content and prices of cannabis. This department of the DIMS™ is called the *THC-monitor*. Samples of different cannabis products (about 1 gram each) are regularly procured from a random sample of 50 coffee shops and are chemically analysed (Rigter and Niesink 2011). Figure 10.3.4 shows the average concentration of THC in Dutch-grown weed ('nederwiet'), imported weed and imported hashish (see also Standard Table 14). Two types of samples of Dutch marihuana were bought: the most "favourite" variety (normally reported here, unless mentioned otherwise) and the most "potent" variety, according to the perception of owners of coffee

shops. In 2010 there was a change in the laboratory assessing the THC concentration, which may have had some impact on the trend data.

- Dutch weed contains almost three times more THC than imported weed.
- Between 2000 and 2004, the percentage of THC in Dutch-grown weed increased significantly from 9% to 20%. Between 2005 and 2011 the average concentration stabilized and fluctuated between 15% and 18%.
- The THC concentration in imported weed increased between 2007 and 2009 and dropped again afterwards.
- The percentage of THC in imported hashish dropped from 18.7% in 2006 to 13.3% in 2007, increased thereafter, but dropped again in 2011. These changes are hard to explain.

Figure 10.3.4: Average THC percentage in cannabis products



Source: THC-monitor, DIMS™, Trimbos Institute (Rigter and Niesink 2011).

- The relatively high THC content in Dutch weed compared to imported weed is probably due to highly professional cultivation methods, which have been refined more and more during the past years.
- A committee of experts has advised the minister of Security and Justice and the minister of Health, Welfare, and Sport to reschedule weed containing more than 15% THC from Schedule II to Schedule I of the Opium Act (Expertcommissie Lijstensystematiek Opiumwet 2011) (see also chapter 1). In 2011, 72% of the samples of most popular Dutch weed and 43% of the imported hashish fell above this limit.

### *THC versus cannabidiol (CBD)*

The potency of cannabis is generally indicated by the concentration of THC. In recent years scientific publications increasingly point at the role of another cannabinoid – cannabidiol (CBD) – in contributing to the (health) effects of cannabis. More specifically, cannabidiol seems to counteract some of the effects of THC that are implicated in, among others, psychosis and dependence. In this regard, especially the ratio between THC and CBD – rather than absolute THC content - seems to count.

Dutch weed contains relatively high average concentrations of THC and very low levels of CBD: in 2011 16.5% versus 0.3%, respectively). For imported weed this balance is slightly better (6.6% versus 0.3%), but here the levels of CBD are also rather low. Imported hashish contains the highest levels of CBD (6.7%), which might to some extent counteract adverse (but possibly also desired) effects of THC (14.3%). Whether these differences translate in different health risks that are relevant at population level remains to be seen.

### *10.3.2 Prices*

Sources on the price of drug samples at consumer level are DIMS/THC-monitor and surveys in Amsterdam (Antenna). It should be noted that prices may vary widely between regions, but a reliable picture on regional differences is not available. Also, prices vary depending on the size and location or source of the purchase (Benschop et al., 2009; Doekhie et al., 2010). Moreover, the Centre of Expertise on Synthetic Drugs and Precursors (2011) also reports on prices of drugs as well as precursors based on reports of regional police agencies, but the source of the report (level in the supply chain) is often not known and the number of reports per drug is sometimes low (KLDP, 2011). Prices reported in this paragraph are not corrected for purity (unless mentioned otherwise).

#### *Cannabis*

- According to the THC-monitor, the average retail price of a gram of imported marijuana is consistently lower compared to other cannabis products (table 10.3.2; see also Standard Table 16).
- Retail prices are significantly higher for Dutch weed sold as 'most potent' compared to Dutch weed sold as 'most popular', and process for Dutch weed were general higher in Amsterdam compared to other regions of the country.
- The retail price of Dutch marijuana increased between 2006 and 2009 and stabilised in 2010 and 2011. Price increases were strongest for the Dutch weed sold as most potent type.
- Taking data for the most potent and popular types of Dutch weed together, a significant correlation is found between prices per gram and THC concentration ( $r=0,15$ ,  $p<.0001$ ).

Table 10.3.2: Average retail price per gram of cannabis products (in €)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Dutch weed – most popular	5.8	5.9	6.1	6.4	6.0	6.2	6.2	7.3	7.7	8.1	8.1	8.3
Dutch weed – most potent		5.9	6.6	7.0	6.3	6.6	7.0	8.5	9.8	10.5	10.1	10.9
Imported weed	3.9	4.0	4.2	4.3	4.9	4.1	4.4	4.3	5.2	4.9	4.6	4.2
Imported hashish	6.3	6.4	7.1	7.6	6.6	6.8	7.3	7.7	8.1	8.7	9.1	7.8

Source: THC-monitor, Trimbos Institute (Niesink et al., 2010).

#### Prices of other drugs

Retail prices of other drugs reported by users who delivered their drugs sample to DIMS did not change very much over the past three years (see Standard Table 16). In 2008 and 2009, the price of an ecstasy tablet varied between 1 and 10 euro. However, the average price per tablet seemed to be slightly higher in 2010 compared to 2008. This is consistent with findings from the Amsterdam Antenna monitor 2010 reporting that prices did not drop after the improved quality and availability of ecstasy, and prices between 10 and 15 euro were no exception. Moreover, prices seem to be linked to MDMA content (Benschop et al., 2011).

The price of cocaine lies between 30 and 75 euro. Average price remained stable in the past years (after a long-term decrease since the early nineties), but prices corrected for purity showed a recent upward trend (Brunt et al., 2010). Benschop et al. (2011) reported that prices Amsterdam dealers have to pay for one kilogram of cocaine have increased up to 32,000-40,000 euro in 2009 and 2010, but prices at retail level remain generally stable at between 50 and 70 euro. However, amounts sold to consumers are often lower than 1 gram and increasingly contain adulterants.

Table 10.3.4 Prices (in €; mean and range) of drug samples delivered to DIMS in 2008, 2009 and 2010

	Heroin			Cocaine			Amphetamine			Ecstasy		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Sample size (n)	24	40	24	637	780	979	843	973	969	1766	1561	1994
Mean (€)	40	40	41	50	50	45	6	8	6	2	3	4
Minimum – maximum (€)	15-60	10-60	15-60	25-70	20-80	30-75	5-15	1-25	2-15	1-10	1-10	1-10

Heroin, cocaine, amphetamine prices are in euro per gram. Ecstasy price is in euro per tablet.. Source: DIMS, Trimbos Institute.

Amphetamine is much cheaper than cocaine - one gram generally costs between 2 and 15 euro - which is sometimes mentioned as a reason to use it as a substitute for cocaine (Van der Poel et al., 2005). Prices tended to increase in 2009 and to decrease again in 2010 (table 10.3.4), which may be related to previously described changes in quality (and availability) Availability of amphetamine has always been reported to be lower – and prices higher- in Amsterdam compared to rural areas, but in 2010 both availability and quality

seemd to have increased in the capital city, while prices were slightly lower than in previous years.

The Centre of Expertise on Synthetic Drugs and Precursors (2011) reports the following prices of precursors and synthetic drugs for 2010:

- BMK: 700-1,000 euro per litre (mean: 950 euro per litre)
- PMK: 1,750-3,600 euro per litre (mean: 2,500 euro per litre)
- Ephedrine: 1,750-2,250 euro per kilogram
- Ergotamine: 20,000 euro per kilogram
- GBL: 50-100 euro per litre.
  
- Ecstasy: 2,250-6,500 euro per kilogram and 2,14-5 euro per tablet
- Mephedrone: 2,250 per kilogram and 12,50-20 euro per gram
- Amphetamine base/oil: 1,800-2,500 per litre
- Amphetamine paste: 1,200 per kilogram
- Amphetamine powder: 1,250-1,750 per kilogram
- Methamphetamine: crystal: 200 euro per gram; powder 12-126 euro per gram
- LSD: 3-7 euro per dose
- Ketamine: 11 euro per gram
- GHB: 20-180 euro per liter

Note, however, that it is not known to what level in the supply chain these prices exactly refer to.

## **PART B: Selected Issues**

## 11 Drug-related health policies and services in prison

### 11.1 The prison system and prison population: contextual information

The actual execution of prison sentences is the responsibility of the Custodial Institutions Agency, which is an agency of the Ministry of Security and Justice. The agency has a certain autonomy. They get an annual budget from the Ministry and agreements are made about performances that should be realized (Van der Leij, 2011).

The focus of the strategy of the prison system is on applying approaches which are geared to the individual (criminogenic) needs in order to reduce recidivism (DJI, 2009). Besides execution of the prison sentence, the strategy aims at taking advantage of the time in prison by reducing possible harm of the imprisonment and to prepare a successful return into society. Addiction care, mental health care and behavioural interventions are offered when necessary. Continuity of care before, during and after imprisonment is a goal.

The Agency is in charge of three<sup>24</sup> sectors: (1) the prison system for adults and (2) for youngsters and (3) forensic care.

#### *The prison system for adult offenders*

- There are 29 penitentiary institutions for adult prisoners – pre-trial prisoners or sentenced prisoners – with different levels of security: closed, limited and highly secured institutions. They are spread over about 60 locations.
- The number of persons entering the prison system decreased from about 44,600 in 2005 to 39,293 in 2010 (Aebi and Delgrande, 2011). See table 11.1.
- On September 30, 2010, there were 11,736 prisoners in the prison system, of whom 94% stayed within the prison walls and around 6% participated in programmes of facilities (partly) outside prison (Linckens and De Loeff, 2011). There is a decreasing trend in this “stock” of prisoners since 2005 (see also Aebi and Delgrande, 2011).
- The total capacity for prisoners in the criminal justice system in 2010 is 12,707 places (per last Tuesday of that year). There has been overcapacity, which leads to changes in the prison system, i.c. closure of units (DJI, 2009). It is estimated, however, that the overcapacity will discontinue after 2010..

*Table 11.1: Prison population, adults, criminal justice system, 2005-2010*

	2005	2006	2007	2008	2009	2010
Number of entries ( <i>flow</i> <sup>I</sup> )	44,580	44,799	43,831	41,599	40,312	39,293
Number per 30 <sup>th</sup> of September ( <i>stock</i> <sup>I</sup> )	15,206	13,718	12,769	11,934	11,682	11,736
Capacity <sup>II</sup>	15,601	14,950	14,818	14,730	13,662	12,707

I. Terminology according to Aebi and Delgrande, 2011 (SPACE I). II. Per last Tuesday of the year.

Source: Kalidien and Zuiderwijk-van Eijk, 2011, based on prison statistics.

<sup>24</sup> The fourth Directorate concerns Special Facilities and is responsible for custody of foreigners, which is outside the framework of the criminal justice system (Van der Leij, 2011).

Of all the possible penalties and sanctions that the Judge can apply (fines, imprisonment, community service, etc.), imprisonment is relatively often applied. The Netherlands has a relatively high percentage of prison sentences compared to neighbouring countries (15% in the year 2006; Smit, 2011). This may be caused by the fact that the Netherlands has a relatively low rate of cases that are submitted to court (these are handled by the Public prosecutor; Smit, 2011). The number of prisoners (per 1,000,000 inhabitants) is somewhat below average compared to the neighbouring countries.

- The majority of prisoners is male (94% in 2010); 36% is between 20 and 29 years old, 28% is between 30 and 39, and 22% is between 40 and 49 years old. 4% is under 19 years and 10% is over 50 years old (Kalidien and Zuiderwijk-van Eijk, 2011).
- 22% committed violent offences, 18% committed drug offences (Opium Act offences), 17% committed property offences and 16% committed property offences with violence (see also Chapter 9). The others committed other offences (sexual offences, traffic offences, disturbance of public order etc).
- 48% of the prisoners are in pre-trial detention (in 2010, per 30th of September), 41% is sentenced to imprisonment (Linckens and De Looff, 2011). The others have variable kinds of legal status. The proportion of prisoners with a prison sentence has been decreasing.
- 6% of the convicted prisoners fall under the responsibility of the prison system in 2010, but serve their sentence outside prison (“extramural”), for instance after diversion to forensic treatment or care facilities, or because they participate in a penitentiary programme (programmes of at least 26 hours a week - partly outside prison - for the last phase of imprisonment which aim at reintegration).
- Mean length of the detention of convicted prisoners is 868 days (per 30th of September 2010), with a median of 540 days. Mostly the total detention period is between 6 months and 3 years (Linckens and De Looff, 2011). At the moment of outflow out of prison, the prisoners have been imprisoned on average 112 days (in 2010), with a median of 30 days. This shorter duration is caused by the prisoners who stayed in detention for only a short period; the fraction of short prison sentences is relatively high in the Netherlands (Aebi and Delgrande, 2011).

For a breakdown of prisoners (sentenced and in detention on remand; untried) by main offence: see Chapter 9, figure 9.1.1).

#### *Juvenile justice institutions*

- There are 11 juvenile justice institutions for young offenders (in principle 12-18 years old) who are convicted to a prison sentence, a Placement in an institution for Juveniles Order (PIJ-order) or who stay in remand custody. The 11 institutions are spread over 15 different locations (Capaciteitspan Justitiële Jeugdinrichtingen, 2011). There are prisons and treatment facilities (Valstar and Afman, 2011).
- In 2010, 2,255 youngsters entered the juvenile justice institutions. The total capacity is 1,318 in 2010; there is a strong decreasing trend, which is due to a change in law which excludes youngsters with a civil measure from the criminal justice prison system. In 2010 (September 30), there were about 700 youngsters in the juvenile justice institutions. There is a decrease since 2007. See table 11.2.
- The majority (93 to 94%) is male (Valstar and Afman, 2011). Two third is convicted for violent offences (mostly the ones under a PIJ order).



- The capacity is higher than the actual number of imprisoned youngsters in the last years, which is due to a decrease in serious crimes committed by youngsters, priority that is given to alternatives to imprisonment, improvements of after-care after imprisonment, further professionalization of youth probation services, more effective behavioural interventions and the development of a network of safety houses (Sectordirectie Justitiële Jeugdinrichtingen, 2011; see also Chapter 9).

Table 11.2: Prison population, youngsters 12-18 years, criminal justice system, 2005-2010

	2005	2006	2007	2008	2009	2010
Number of entries ( <i>flow</i> <sup>I</sup> )	3,221	3,003	2,790	2,441	2,292	2,255
Number on 30th September ( <i>stock</i> <sup>I</sup> )	2,382	2,418	2,431	1,799	1,251	696
Capacity <sup>II</sup>	2,581	2,674	2,768	2,207	1,882	1,318

I. Terminology according to Aebi & Delgrande, 2011 (SPACE I). II. Per last Tuesday of the year. Source: Kalidien & Zuiderwijk-van Eijk, 2011, based on prison statistics.

### Forensic Care

- The sector 'forensic care' of the Custodial Institutions Agency is responsible for forensic care in the framework of the criminal justice system, a.o. for those who are detained under a hospital order, and also for diversion of prisoners to mental health care, addiction care and care for persons with (mild) learning disabilities. This directorate has a budget for purchasing forensic care outside the prison system (Van Gemmert and Van Schijndel, 2011).
- In 2010, 94 persons got a hospital order/disposal on behalf of the state. There is a substantial decrease compared to the years before (in 2006, there were 188). In 96% of the cases, the offence concerns violence. In 2010, the total capacity is 2,156 places, while there are 202 long stay-places available. Per ultimo September 2010, there were 1,977 persons under this order, of whom 93% is male.
- For vulnerable prisoners with mental health problems, addiction problems or other kinds of adaptive problems, there exist special prisons or units within the prison system:
  - Penitentiary Psychiatric Centres (since 2009; capacity in 2010: 700 places; occupation: 550 in 2010; five institutions)
  - Institution for Prolific Offenders (these are closed prison places; exists since 2005; capacity: 1,000 places).
  - In addition, diversion to care facilities outside prison (f.i. addiction care) is a priority in the approach of these prisoners (see also Chapter 9).
- For forensic care outside prison, there are contracts with 76 institutions in 2010.
- 1,219 diversions to care outside prison were realised in 2010 (Van Gemmert & van Schijndel, 2011), the majority to residential care.
- Most diversions concerned psychiatric treatment facilities. Furthermore, there are diversions to addiction care or to care centres for persons with severe behavioural disturbances and mild learning disabilities.
- With regards to offenders with addiction problems, there is an increasing trend in the number of activities of addiction rehabilitation services in the framework of an diversion to care outside prison, see Chapter 9 (www.svg.nl, 2011). Most diversions of clients of

addiction probation services concern specialized addiction care, second in rank are referrals to psychiatric care.

### *Drug users in prison*

Until recently, the assessment of drug addiction amongst prisoners was not assessed systematically. However, a new system is in development, in which all prisoners are screened at the moment of entrance into the prison system: the 'entry, selection and screening' project. If a prisoner has a problem, he will be subject of discussion in the multidisciplinary psycho-medical consultation and a personal plan will be developed for him, if necessary. The new assessment procedure is meant for signalling of problems, it does not generate data about the prevalence of drug problems amongst prisoners.

Research about drug users in the prison population since 2003 (Vogelvang et al., 2003; Oliemeulen et al., 2007; Bulten & Nijman, 2009; Van Ooyen, 2009) shows that 30-40% of the adult Dutch prison population suffers from addiction problems prior to their entry into the prison system.

Oliemeulen et al. (2007) conducted a survey amongst 637 adult male prisoners in Remand Houses. This is the only report containing information about specified drugs in relation to characteristics of users. The authors assessed problematic alcohol use with the scale of Candel and the Quantity-Frequency-Variability Index, using different specified cut-off points. Problematic use of cannabis was assessed with the Cannabis Abuse Screening Test and problematic use of hard drugs with the Screening Psychiatry and Addiction in combination with the MATE. All instruments measure frequency of use, amount of use, and characteristics of problematic use (like loss of control).

- Their results showed that 22% of the prisoners is a cannabis user with a high risk of misuse; 11% is a cannabis user with a medium risk of misuse. The cannabis users are relatively young men who committed Opium Act offences, property offences (also with violence), maltreatment and murder/manslaughter. They have a mean of 28 criminal antecedents (as reported by the police).
- 19% is a problematic cocaine user. They committed mainly property offences and Opium Act offences and have a mean of 47 criminal antecedents (as reported by the police).
- The illegal (non-prescribed) problematic use of sedatives, mostly in combination with problematic use of other drugs is reported by 15% of the prisoners. They committed mainly Opium Act offences and the police reports a mean of 44 criminal antecedents.
- 12% is a problematic user of opiates. They committed mainly property offences without violence and Opium Act offences and have a substantial criminal record of mean 58 antecedents. See table 11.3.
- Problematic use of alcohol was found among 30% of the prisoners.
- The study showed that the majority of problematic substance users also suffers from psychiatric or somatic co-morbidity. In the study the presence of psychiatric disorders has been assessed using screening instruments (i.e., they do not provide a diagnosis but give an indication).
  - There are indications for a personality disorder in three quarter of the problematic substance users;
  - In more than half there are indications for a possible or probable anxiety disorder;
  - In one third a depressive disorder is suspected;
  - 40% have psychotic complaints.

- Somatic malfunctioning has been found in 40% of prisoners with substance use problems.
- Discrepancies were found in the treatment needs as expressed by the imprisoned problematic substance users and the appraisal of experts. Experts have the opinion that help with cutting or regulate use is of primary importance. Problematic substance users themselves say to be in need of support in tackling the basic limitations they face in daily life, such as health, relational restrictions and accommodation.

*Table 11.3 Prevalence of problematic substance use and gambling amongst adult prisoners in Remand Houses, year before entry in prison<sup>I</sup>*

Substance <sup>II</sup> :	%
Cannabis <sup>III</sup>	33.2
Cocaine	18.7
Sedatives	15.1
Opiates	11.9
Stimulants	4.3
Ecstasy	1,9
Gambling	6.0
Alcohol	30.0

I. More than one answer is possible. II. Operationalisations differ per substance. III. High risk and medium risk. Source: Oliemeulen et al., 2007.

Psychological and psychiatric problems seem to co-occur often, as well as mild learning disabilities (Kaal et al., 2009).

Kepper et al. (2009; see also National Report 2010) investigated substance use amongst male adolescents in juvenile justice institutions. Questionnaires were filled out by 155 boys who were placed in 10 institutions between March and July 2009. Main results are:

- Prior to their imprisonment, the boys had a high level of alcohol and drug use.
- Roughly 60 to 80% used cannabis in the last year before imprisonment and 54 to 70% used cannabis in the last month before imprisonment.
- 21 to 27% used hard drugs.
- The majority of the boys (65%) reported the use of cannabis since their incarceration and almost all of them used it at the institution.
- 6% used hard drugs during detention and within the institution.

In reaction to these findings, the minister of Security and Justice announced measures to intensify the drug controls in the juvenile justice institutions (like security gates, additional drug tests, use of sniffer dogs with special training to detect drugs in combination with prevention and treatment (like behavioural interventions) (T.K. 24587/392 and 402).

Wouters, Doekhie, Korf & Benschop (2011; see also Chapter 9) conducted a face-to-face interview survey amongst a sample of detainees (weighted for representativity) in 16 penitentiary institutions who were convicted to an imprisonment of more than four months and who had been detained at least three months. The aim of the survey was to get insight in risky behaviour for infectious diseases.

- Only two out of 378 detainees reported to have injected drugs in prison ever. Only one detainee reported to have injected drugs (heroin) during the current imprisonment. No

detainee reported to have shared needles with other detainees during the current imprisonment.

- These results indicate that injecting of drugs hardly occurs in Dutch prisons.

With regard to drug-related infectious diseases, the seroprevalence of HIV, hepatitis B (HBV) and C (HCV) has been assessed using a cross sectional design in 229 male detainees in one prison in the South of the Netherlands (see also National Report 2010, § 6.1.1b and § 6.1.3) (Schreuder et al, 2010). The detainees filled in a questionnaire on risk behaviour (the data were kept confidential between prisoner and researcher) and a blood test was performed to test for current or past drug-related infections. Note that the numbers in this study are small and it remains unclear whether they are representative for the total population of male prisoners in the Netherlands.

- More than half of the population (54%) ever used hard drugs.
- 36% used drugs during their imprisonment.
- 8% ever injected drugs; 0.5% reported injecting in the past year, which also underscores that injecting is rare in Dutch prisons.
- None of the detainees had a positive HIV test-result.
- In 3 persons (1.3%) there were indications for a current HBV infection. 50 detainees (22%) were either previously infected with hepatitis B (15/50) or have been vaccinated (35/50).
- In 11 persons (4.8%) an active hepatitis C virus infection was found (HCV-RNA). Ten of these 11 ever used hard drugs and 6 of them had ever injected drugs. These data show that in prison, hard drug users have the largest HCV risk.

The prevalence of hepatitis C among detainees has also been assessed by searching for information on HCV testing and risk behaviour in medical records of a selection of prisons (see also National Report 2010, § 6.1.3) (Leemrijse et al, 2010).

- For the study, the medical files of a sample of 3,360 detainees were searched, drawn from 11 (of a total of 56) penitentiary institutions. The sample comprised 8% women.
- For 2,678 (80%) of the sample information was available on the risk factor injecting drug use. Nine percent of the cases with available information (ever) injected drugs.
- Because the medical files are not suited to generate management information, a reliable estimation of the annual hepatitis C prevalence was not possible. Based on the collected data, the HCV prevalence in the sample will roughly be between 2.0 and 10.7%.
- For 645 of 3,360 persons, data on injecting drug use and HCV were present in the files. Injecting drug use was identified as a significant risk factor in injecting drug users ( $p < 0.0001$ ) (Leemrijse et al, 2010).

## **11.2 Organization of prison health policies and service delivery**

### *11.2.1 Prison health*

#### *Regulatory framework of general health care in prison*

The Dutch prison system is obliged to realize a prison regime which prevents a deterioration of the physical and mental condition of the detainee during his imprisonment. Furthermore, the principle is that prisoners should have equivalent access to health care and to health care of equivalent quality as they would have outside prison.

- The Penitentiary Basic Act (*Penitentiaire Beginselenwet*) states that “the prisoner has the right of medical care by a physician who is connected to the institution or his substitute” (art. 42/1 Pbw). The prisoner also has the right to consult a physician of his own choice, although this is for his own account (art. 42/2 Pbw).
- The director of the penitentiary institution bears the responsibility for regular availability of the physician of the institution or his substitute (by office hours, other times if necessary; art. 42/3 Pbw).
- The director also bears the responsibility for the provision of medicines and diets and for the treatment of the prisoner by the physician of the institution, or for the transfer of the prisoner to a hospital or other care facility for treatment (art. 42/4 Pbw).
- There are rules concerning complaints of the prisoners about decisions by the physician of the institution or his substitute (art. 42/5 Pbw).
- Compulsory treatment is possible if the physician judges this as a necessity to prevent danger for the health of the prisoner or others (art. 32/1 Pbw). This is bound by rules (art. 32/2 Pbw).
- There are roughly one physician per 290 prisoners and one nurse per 58 prisoners available. These numbers are based on a workload study from 2006.

The Services of Penitentiary Institutions formulated a mission statement with regards to health care in prisons (Commissie Samenwerking Infectieziekten, 2008): “*The Services of Penitentiary Institutions take care for an effective, efficient and client-oriented health care in her institutions, of which the quality is equivalent to the health care in the free society, taking into account the special situation of the imprisonment*”. Medical interventions in prison should be of professional quality, equivalent to the care outside prison, and continuity of care is a basic principle (DJI, 2006).

For the planning and control cycle, each year a plan is formulated (“Jaarplan”). The planning and control cycle is based on output measurement. There are 9 steering indicators (used for management agreements between the sector director and general director) and 15 other indicators (used as policy information).

### 11.2.2 Drug-related health policies targeting prisoners

#### *Prison-related targets in national drug policies*

The national drug policy and other policy documents (for instance with regards to probation services) describe interventions for imprisoned drug users. These interventions are described in Chapter 9, § 9.3.

Most interventions aim at a more general target group and are not exclusively focused on drug users or addicts. Some are applicable for all prisoners, others are applicable for offenders with problems that can affect their rehabilitation and their criminal recidivism. Addicts are a relevant target group for the last category of interventions. There are, however, no special units in the prison system exclusively for addicted prisoners.

The following interventions are available:

- Penitentiary Psychiatric Centres (see § 9.3.2).
- Forensic care as an alternative to prison (see § 9.3.2).
- Addiction probation services (see § 9.3.3).
- Prescription of substitutes (see below)
- Behavioural interventions for drug users inside and outside prison (see § 9.3.4).

- The measure of Placement in an Institution for prolific offenders, which is applied to a relatively large group of addicts (see § 9.3.5).
- Aftercare after release from prison (see § 9.3.6).

All these interventions are in full development and in a process of professionalization in 2011 (see Chapter 9). A new Act for Forensic Care is in an advanced phase of development (*Wet forensische zorg*, T.K. 32 398/1), which states that the care should preferably be given by mental health and addiction centres outside the prison system, by diversion to care. Also, the ministry of Security and Justice has its own budget to buy forensic care (see § 11.1).

### *Policies regarding drug prevention, harm reduction and care*

#### *Policy of determent of drug use*

The Dutch prison system aims at a drug-free detention situation. The presence of drugs in penitentiary institutions is considered as a disturbance of order and safety, it causes health risks and it does not comply with the aim to use the period of detention as a time to kick the habit of drug use and to make a new start after release. The determent policy is in force for all illegal drugs, alcohol and for medication without prescription (DJI, 2008; T.K. 24587/428). Use, dealing and smuggling are not tolerated (DJI, 2008), in contrast to the tolerance strategy towards drug use and possession of small amounts of drugs for own use in society (Stc: 2011-11134). There is, however, a reporting policy: the possession of small amounts for own use will not lead to an official report to the police (DJI, 2008). This reporting policy is based on the guidelines of the Public Prosecutor (Stc: 2011-11134).

Prescription of substitutes (methadone) is possible in prison, as well as prescription of benzodiazepines and psychiatric medication, all in accordance with professional standards in the medical care outside prison (Richtlijn, 2008).

The experience over the years has learned that it is virtually impossible to keep the penitentiary institutions actually drug-free. This poses a dilemma to the prison system: measures of control can be (technically) possible but they have to be acceptable with regards to the aim of humane execution of detention.

Preventive and repressive measures are used in order to achieve a drug-free detention situation. In a broader sense, the determent policy also includes judicial addiction care: prisoners can make use of treatment and behavioural interventions inside as well as outside prison (see § 11.1 and § 11.2.2; also Chapter 9). They are stimulated and motivated by the prison personnel to make use of these interventions.

*Preventive measures* include:

- a. enhancement of expertise and skills in identification of drug use and addiction for personnel;
- b. providing information about the rules regarding drugs to visitors of prisoners;
- c. providing information about treatment and counselling inside and outside prison to prisoners (users as well as non-users and addicts);
- d. supervision, presence and attention of the personnel, in order to detect drug use or drug smuggling and dealing;
- e. personnel should serve as an example to the prisoners.

*Repressive measures include:*

1. (Body)searches, cell inspection and other inspections;
2. Control on the import of goods into prison;
3. If necessary: visit behind glass or a ban on visitors (when the prisoner and/or his visitors were repeatedly involved in smuggling drugs);
4. Designing the visiting room by installing barriers under and on the tables ('snakes') to prevent smuggling;
5. Use of sniffer dogs;
6. A uniform policy of reporting violations of the rules (see above);
7. Urine controls, at random among all prisoners as well as directed to certain situations; fraud will be sanctioned;
8. Sanctions will be applied according to uniform standards in the prison system. Sanctions are different for soft or hard drugs and for use, dealing or smuggling. They can consist of warnings, moving down from a more open to a closed penitentiary institution, separation, suspension of leave, discontinuation of treatment of interventions.

The Inspection of the Execution of Sanctions screened and investigated the policy of determent of drug use in four penitentiary institutions (T.K. 24587/428). It was reported that a systematic evaluation of the policy in the individual institutions is lacking. The outcomes of urine controls, cell inspections, searches etc. is not used for evaluative monitoring. Sniffer dogs are actually used periodically and the number of (urine) controls increased in the last years, also at entrance into prison. Behavioural interventions and treatment options are present for prisoners.

In 2011, the policy of determent is being evaluated. Results are not public yet. The results will be input for the re-evaluation of this policy.

*Policy on harm reduction: needle and syringe exchange*

One of the pillars of harm reduction outside prison, needle and syringe exchange programmes, are not available in Dutch prisons. However, various sources indicate that injecting is a rare practice in Dutch prisons (see also § 11.1)

*Policy on harm reduction: programme for infectious diseases*

The Custodial Institutions Agency has a special programme for infectious diseases in prisons. Information, prevention and treatment of HIV/Aids, Hepatitis B and C, and other via sexual and blood-blood contact transferrable diseases (caused by a bacterium, virus, fungus or prion) are an important part of this programme (Commissie Samenwerking Infectieziekten, 2008). This is considered of importance because of the presence of several risk factors in prisons:

- It is assumed that the prison population belongs to a higher risk group than the mean citizen in the free society and that the different target groups need specific approaches.
- In addition, it is expected that the group of chronic ill and greying prisoners – especially those with HIV - will increase in the coming period.
- Injecting drugs is considered a risk factor for infectious diseases.
- Relatively many prisoners had a nomadic existence before imprisonment, which is a risk factor.
- Non-western prisoners might come from countries where infectious diseases are relatively frequent.
- Aggression and other behaviours pose a risk for medical and other personnel.

- Sexual contacts in prison and outside prison (in prostitution) also pose a risk.
- In a prison there is a density of activities and people within an institution. Furthermore, there may be more than one persons (two to six) in one cell (this is possible since 2004).

The planned measures consist of:

- information for prisoners as well as personnel
- training of personnel
- introduction of hygienic measures
- medical tests
- investigation into the source of the infection
- vaccination of prisoners and personnel
- prevention programmes and prevention activities.
- In addition, the institutions are prepared for crisis situations i.c. outbreaks of infections.

The Services of Penitentiary Institutions aim at ongoing national campaigns in the free society. There is co-operation with public medical facilities outside prison (GGD'en). Some institutions did set up a 'SOA-policlinic'.

The plans are co-ordinated by a special commission in which diverse organisations inside and outside the prison system participate (Infectieziektenbeleid DJI, 2008).

## **11.3 Provision of drug-related health services in prison**

### *11.3.1 Prevention, treatment, rehabilitation, harm reduction*

For interventions in the criminal justice system, see § 9.3 and § 9.6.

In 2009, an update was made of the intervention matrix for the judicial addiction care including all effective interventions (Koeter et al, 2009). In addition to the interventions described in this matrix (and in § 9.3 and § 9.6), we here mention the guideline for medical care for imprisoned drug addicts and provide data on the provision of methadone in prison settings.

#### *Guideline for Medicinal Care for imprisoned drug addicts*

This guideline was published in 2008 and focuses on opiate addiction. It describes the state of the art in pharmacological treatment, including methadone and buprenorphine substitution therapy and detoxification. Also the use of adjuvant medication (anti-emetics, analgesics, anti-diarrhoea, tranquilizers, sleep medication) during treatment is described. The guideline further addresses issues like benzodiazepine (mis)use by opiate addicts and comorbidity (both somatic and psychiatric), but also organisational aspects such as registration, ways of methadone distribution and collaboration with other departments.

#### *Provision of methadone: LCMR*

The nationwide central methadone registration (LCMR or "Landelijke Centrale Methadon Registratie") is an information system containing data on heroin-addicted individuals receiving substitution medication. The LCMR web application is 24 hours a day available and facilitates information exchange between medical staff, e.g., on dosages prescribed and treatment history. The registration can be used by the regular addiction care institutes, medical services in prisons, in forensic care, by GPs and in pharmacies.



In 2010, more than 2.5 million distributed doses have been registered. In the following data, the number of dosages (not the number of individuals receiving the medication) is the unit of presentation.

- 75,132 (3.0%) of the doses were provided by the medical staff in prison. They were provided to 1,409 prisoners. Note however that it is unclear how long these prisoners on substitution treatment stayed in prison. Moreover, the participation of prisons in this registration system is small.
- In prison, 92% of the medication was distributed to men, while in addiction care 79% of the doses were received by men.
- The prison population receiving substitution medication is younger than those in addiction care (table 11.4).
  - In the prison population 34% of the dosages have been distributed to individuals younger than 40 years.
  - In addiction care only 13% have been disseminated to this younger age group.
- The prescription pattern of substitution medication differs substantial between prison and addiction care.
  - Methadone is by far the most prescribed medication. In prison, 99.9% of all prescription of substitution medication concern methadone. In addiction care, 6.8% of all prescriptions concern other substitution medications.
  - The second largest group prescribed in addiction care is heroin (4.1%), but this is not prescribed in prison.
  - Suboxone, buprenorphine and palfium are prescribed on a small scale, both in addiction care as within prison walls.
- Although the impression exists that the prescribed dosage of methadone is substantial lower in prison than outside prison, the available data of the LCMR do not show big differences.
  - In prison, 66.2% of the prescribed methadone has a dose below 60 mg, compared to 59.1% of methadone prescribed in addiction care institutes.
  - It is not known whether the participating medical services in prison represent a biased sample.

Table 11.4 Characteristics of opioid addicts receiving substitution therapy in prison and in addiction care, in 2010

Age	20-29 yrs	30-39 yrs	40-49 yrs	50-59 yrs	>60 yrs		
Prison	5.0	29.2	46.6	18.4	0.8		
Addiction care	1.2	11.9	41.0	38.6	7.3		
Medication	Methadone tablet	Methadone liquid	Buprenorphine	Suboxone	Heroin	Palfium	Unknown
Prison	24.9	74.9	<0.0	0.1	0	<0.0	0
Addiction care	70.0	23.2	<0.0	0.3	4.1	<0.0	2.4
Methadone dosage	0-30 mg	30-60 mg	60-120 mg	>120 mg			
Prison	27.7	38.5	27.6	6.3			
Addiction care	21.1	38.0	34.7	6.3			

In percentages. Note that the data refer to the number of distributed dosages. Source: LCMR, IVZ

#### *Hepatitis C screening and treatment*

In several pilot projects the possibilities for an active policy with regard to screening and treatment of hepatitis C have been performed during the past couple of years. In the pilots, guidelines, procedures and protocols were developed for screening and treatment of hepatitis C, in collaboration with local municipal health services and the hospitals (see also § 11.2.2). The pilots have been finished and further steps are currently awaited. Major obstacles for starting hepatitis C treatment are the expenses. In the Dutch system it is arranged that when HCV treatment is started within prison (in Dutch nomenclature: "a DBC is opened"), the complete package has to be paid on a prison budget. If on medical grounds the start of HCV treatment can be postponed until release of the patient, this is preferred. This will in the majority of cases result in postponing of the start of treatment in detainees with a remaining sentence shorter than 6 months.

#### *11.3.2 Drug testing*

As described in § 11.2.2, urine controls are used to check whether a prisoner has used drugs.

- There are specific regulations for the urine controls (DJI, 2008; regeling Urinecontrole penitentiaire inrichtingen). These regulations specify the exact procedures and protocols which have to be applied.
- The prisoner has the right to get a repeat of the test. During this procedure, no sanctions will be applied.
- There are no systematic data about the total number neither of urine controls nor about the outcomes or the sanctions (T.K. 24587/428).

## 11.4 Service quality

### 11.4.1 Practical guidelines and standards of drug-related health services for prisoners

Medical care for prisoners is described in many guidelines, manuals and procedures. Most of these do not specifically focus on drug users, e.g., the Procedures health care ("DJI Procedures gezondheidszorg"), the guideline on screening, treatment and prevention of tuberculosis (2010), the care programme for detainees with minor intellectual disabilities ("Zorgprogramma voor gedetineerden met een licht verstandelijke beperking"), a guideline for the care in ACT and FACT teams ("Modelbeschrijving forensische (F)ACT") etc. However, drug users will make up a substantial part of the target groups addressed in these documents. Standard health care specific for drug users is described in the Guideline for Medicinal Care for imprisoned drug addicts (see above).

#### *Quality assurance*

Several changes have taken place in the judicial addiction care to improve quality and effectiveness of the interventions. New elements have been added, such as the "lifestyle training" (see also previous National Reports). It has been realised that interventions with proven effectiveness outside prison do not necessarily have the same effect in prison settings. Also, these interventions often need to be adjusted for this closed environment. For example, the "lifestyle training", which has been widely used in addiction care and psychiatry, has been evaluated specifically for addicted prisoners (Ganpat and Van den Eijnden, 2008).

- The changes in judicial addiction care resulted from the introduction of several products and programmes which aimed to improve quality, including "Push back recidivism" ("Terugdringen Recidive"), Modernising the Prison system ("Modernisering gevangeniswezen"), "optimising provisional sanctions" ("Optimalisering voorwaardelijke sancties"), professionalising probation and after care service ("professionalisering reclasseringstoezicht en advies"), Renewal of forensic care ("Vernieuwing Forensische Zorg, VFZ) and the programme "sound tackling of aftercare" ("Sluitende aanpak nazorg") (source: Koeter et al, 2009).
- Another change aiming to improve quality in the judicial addiction care is in the funding system. Interventions will be only financed when they are acknowledged by a Committee of Admission on Behavioural Interventions in Justice ("Erkenningscommissie Gedragsinterventies Justitie"). To be acknowledged, interventions must fulfil certain quality criteria and have to be proven effective. This new focus on quality criteria restricts the number of interventions to be used. It has the advantage that a clear description of the aim, content and target group is obligatory. Professionals can be trained better and the programme integrity can be controlled (Koeter et al, 2009).

### 11.4.2 Training of staff in drug-related prevention, risk awareness and reduction

Prison staff is trained in awareness on drug use and they stimulate treatment in addicts. There are no numbers available on the amount of time used for training or refreshing courses with regard to drug-related knowledge and attitudes of personnel.

## 11.5 Discussion, methodological limitations and information gaps

### 11.5.1 *Equivalence of care*

The central principle that prisoners should have equivalent access to health care and to health care of equivalent quality as they would have outside prison, applies to both addicted and other prisoners. We have shown in this special issue that this principle is followed to a high extent, but inherent to the closed setting of prisons, several limitations are in place.

- In the Dutch prison systems, possession, use or trade of all drugs (including alcohol and non-prescribed medication) is prohibited. The argument is held that prohibition of drugs implies that the provision of drug use paraphernalia would be contradictory. Thus, while needle and syringe exchange is widely available outside prison (and even available in some police stations), no such programs exist in Dutch prisons. It is of note, however, that the popularity of injecting drug use is low in the Netherlands, and several sources indicate that this risk behaviour is also very rare in prison.
- Another difference is on the level of heroin assisted treatment. This therapy has been scientifically proven effective for opiate addicts with long lasting problems who are resistant to methadone or other substitution medication. It is available in several municipalities in the Netherlands for a selected group of treatment-resistant heroin addicts. However, as heroin is listed on list I of the Opium Act, it is never allowed in prison, even not when prescribed for medical treatment.
- A third issue with regard to equivalence of care concerns the treatment of hepatitis C. In prison, all major care that *can* be postponed, will be delayed until after release. This also includes hepatitis C care. The costs of hepatitis C medication are high, and will almost double in the near future when new medication (boceprevir and telaprevir) is permitted on the Dutch market, which is expected at the beginning of 2012. In the absence of a high medical urgency (such as a deteriorating liver function), treatment is now postponed until after release. Also testing on hepatitis C is not regular in every prison, among others because treatment will not be offered in case of a positive finding and a limited remaining sentence duration. This policy is not exclusive for hepatitis C, but also concerns other major care and fits in the principle that care in prison is restricted to treatment with a high medical necessity.

### 11.5.2 *Methodological limitations and information gaps*

Information on the epidemiological situation with regard to drug users and their health in prison is scarce. Although at several points in time during imprisonment information is collected, this is only meant for medical purposes and not available for policy information. Besides, a recent inventory of medical records to estimate the hepatitis C prevalence among prisoners showed that both information on hepatitis C test results, as well as information on risk behaviour, is very incomplete (see § 11.1) (Leemrijse, 2010). It is highly likely that the medical records are also incomplete for many other variables which may be of interest for an epidemiological description of the prison population.

Currently, a new ICT structure is being built to store medical information of the detainees, which will be expected to be operational in two years time. Unfortunately, only at a later stage it will be decided whether the information collected in this new system will be made available for policy purposes.

The distribution of substitution medication to opiate addicted prisoners is stored in the database LCMR (see § 11.3.1). Not only are the data that are currently available incomplete, resulting from a limited participation of penitentiary institutions, there is also a discussion ongoing on the continuation of the register. In case the database is no longer filled in by the penitentiary institutions and in the absence of other databases, no information will be available anymore on methadone prescription in these settings.

Another gap in the available information is the level to which interventions are implemented and how many detainees are reached. Apart from that, the evidence for most interventions is still rather broad and a-specific for the special target groups. Little is known on the effectiveness of these interventions in prison with regard to both the substance use behaviour as well as the criminal behaviour (Koeter et al, 2009).

## 12 Drug users with children (addicted parents, parenting, child care and related issues)

### *Introduction*

In the Netherlands, special attention for the children of parents with problematic drug and alcohol use exists since decades. Already in the 1980s coordinated care for pregnant drug addicted mothers and their (un)born children was organised in several initiatives. Amsterdam was the first city in the Netherlands that initiated a medical and social network for children of drug addicted parents. Some years later also Rotterdam organised a special unit, "Central Address" (in Dutch: het Centraal Adres), which offered integrated care from general health care, addiction care, youth work and social work to pregnant heroin addicted women. In the nineties, projects were started for children of parents with an alcohol addiction, which constitute a much larger group. They were not restricted to the largest cities, but also set up in other regions (Eindhoven, Purmerend, Zeeland). Since then, many organisations coordinating care for children of addicted parents have been founded and there is quite a number of well described interventions in our country, although many of these are not yet approved by the Committee of Admission for the national Database Effective Youth Interventions (see § 12.3).

The risks and challenges that children of addicted parents face are diverse and include physical, cognitive, emotional and social disorders or disturbances. The induced harm is usually complex and requires action on multiple aspects, which asks for collaboration of addiction care, prenatal care, youth work, public health, social work but also, for example, the school system. The central aim in all the activities is the optimisation of the development, health and wellbeing of the child and an increase in pedagogical skills of the parents.

The problems that addicted parents and their children encounter are not unique and resemble in many aspects those of parents with psychiatric problems and their offspring. Moreover, it is well known that drug use or drug addiction by itself may induce psychological or psychiatric co-morbidity. Therefore, many interventions are not necessarily or exclusively related to substance (mis)use, psychological or psychiatric problems. Physical or emotional neglect, parental violence, or poverty can be present in both types of families. Furthermore, the relative influence of separate risk and protective factors (and whether they are related to the substance use problems or the psychiatric morbidity) is often not clear. Mainly for these reasons, in the Netherlands the attention of health professionals has been for long on comprehensive preventive programmes that can be used for children and their parents with either psychiatric problems or substance use problems or both (Boel et al., 2005; Hosman et al., 2009).<sup>25</sup>

In the Netherlands, there are no national policies, laws or legal arrangements that directly target drug using parents with children (see § 12.2). Instead, the legal and policy framework

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<sup>25</sup> In Dutch professional and scientific literature this is phrased as *Kinderen van Ouders met Psychische Problemen en Kinderen van Verslaafde Ouders*. In Dutch publications on this subject these terms are in general abbreviated as "KOPP/KVO".

focus on a much wider population of children at risk and their parents. Recently, the new Dutch government confronted the ministries and municipalities with substantial savings, and many health care and social organisations applying the above mentioned interventions expressed their concern that a reduction of financial resources after 2012 will result in a reduction of the availability of interventions (Goossens & Speetjens, 2011; Van der Zanden, 2011).

## **12.1 Size of the problem**

### *12.1.1 Epidemiological characteristics*

There are two partly complementary sources in the Netherlands providing information on drug using parents: a nationwide population survey (The Netherlands Mental Health Survey and Incidence Study, NEMESIS, see also §2.1) and the national register of clients in addiction care, the National Alcohol and Drugs Information System (LADIS). These data sources deliver information on parents with a substance use problem (alcohol and drugs) in the general population and those in treatment respectively. For this Selected Issue, data were extracted from both databases. It is of note that the estimates from both sources will be an underestimation of the real size of the problem. Taking into account underreporting, in most Dutch literature it is assumed that more than 300,000 children have a parent with a substance use disorder (Bool, 2002).

#### *Population based data*

NEMESIS is a psychiatric epidemiological project studying the prevalence and incidence of mental health problems, including substance use disorders (de Graaf et al, 2010). Data for the first NEMESIS study were collected in 1996. Between 2007 and 2009 a second study was done, NEMESIS-2. In this nationwide study 6,646 people (18-64 years) were interviewed face-to-face and DSM-IV disorders were assessed with the CIDI 3.0. The number of parents with a substance use disorder were identified and data were extrapolated to the whole population.

- Based on this analysis, it is estimated that around 116,000 parents with children younger than 18 years have a substance use disorder.
- These parents have in total 220,000 children that are younger than 18 years, and 141,000 children younger than 13 years (de Graaf et al, 2010). Almost all these children are living with their parents (Saskia van Dorsselaer, personal communication).
- It is of note, however, that problematic alcohol and drug users are largely missed by this type of research.

#### *Treatment data*

The second source is the extensive database of the national register of clients in addiction care (LADIS, see also §5.3). This database contains information of the regular drug treatment services and has a national coverage. It includes information on living situation and several indicators for the severity of the client's substance use problem. For this Special Issue, an overview is made of clients with drug, alcohol or other addiction problems who were in treatment during the period 2006-2010.

Table 12.1.1 shows that the percentage of clients of whom it is known that they live with children yearly varies around 15%. Note however that the data are incomplete and information on living situation is missing in this period for 14-29% of clients. A quarter of clients with children live without partner. The data presented in table 12.1.1 include substance use disorders (alcohol and illegal and legal drugs) as well as non-substance addictions (such as gambling).

*Table 12.1.1 Number of outpatient and inpatient clients in addiction care with children*

<b>Year of registration</b>	<b>Total in care for own problem</b>	<b>With children without partner</b>	<b>With children with partner</b>	<b>Total with children</b>
2006	67,484	2,657 (3.9%)	7,391 (11.0%)	10,048 (14.9%)
2007	73,467	2,762 (3.8%)	8,741 (11.9%)	11,503 (15.7%)
2008	75,780	2,807 (3.7%)	9,150 (12.1%)	11,957 (15.8%)
2009	76,835	2,738 (3.6%)	9,128 (11.9%)	11,866 (15.4%)
2010	76,125	2,679 (3.5%)	8,760 (11.5%)	11,439 (15.0%)

In brackets percentage of total clients in addiction care for his or her own problem. Source: LADIS, IVZ.

In table 12.1.2 the distribution of the primary problem for which the client is in treatment is summarised.

- The number of clients with children with primarily alcohol problems is twice as large as the number of clients with illegal drugs as the primary problem.
- In the category illegal drugs, one third of the clients with children have a primary problem with opiates.
- The second largest problem is cannabis.
- For clients with children and more than one substance use problem, alcohol use is the most prevalent secondary problem (more than 500 cases each year), followed by cocaine (both forms) (not in table). Opiates and cannabis are a secondary problem for just less than 300 clients with children each year.
- Around two third of the clients with children in 2010 concern fathers (not in table);
  - parents in addiction care with a primary alcohol problem are in 63.2% male
  - parents with a primary illegal drug problem are in 70.0% male
  - parents with a primary other problem (e.g., medication, gambling) are in 66.2% male.
- Also minor differences in age exist. Data are given for the year 2010. Clients with children having a primary alcohol problem are slightly older than the other clients:
  - Mean age of clients with a primary alcohol problem was 45.4 years
  - Mean age of clients with a primary illegal drug problem was 39.0 years
  - Mean age of clients with a primary other problem was 41.9 years.
- Note that only a part of the problematic substance users is in treatment. Treatment coverage may highly vary between substances. Usually, it is assumed that less than 10% of problematic alcohol users is in treatment, while treatment coverage for opiate users is around 70%. It is unknown whether these figures differ for parents and non-parents, but significant differences are not expected.



Table 12.1.2 Number of clients in addiction care with children and their primary substance problem at registration

Year of registration	Alcohol	Opiates*	Basecoke	Cocaine HCl	Cannabis	Other illegal drugs***	Other
2006	6,243	1,211	434	505	666	246	743
2007	7,085	1,244	463	638	923	278	872
2008	7,415	1,206	455	671	1,010	324	876
2009	7,302	1,153	441	633	1,064	390	883
2010	6,909	1,168	366	553	1,095	397	951

\* Opiates include heroin, morphine, methadone, other opiates. \*\* Other include medical drugs or gambling. \*\*\* Other illegal drugs include cocaine unspecified, amphetamine, ecstasy, LSD, GHB and other. Source: LADIS, IVZ.

To have an indication of the severity of problematic drug use among the clients in addiction care with children, we studied variables that give an impression of the extent of drug use (table 12.1.3) and social circumstances (table 12.1.4). The data refer to clients having a drug problem and living with children registered in 2010.

- Most clients with children in addiction care have a long lasting problem (in 42% the drug use problem exists for more than 10 years; note that for 22% data on duration are missing)
- More than half of the parents with a drug problem use daily or several times a day at intake.
- A quarter of clients with children have had recent or ever psychiatric treatment.

Table 12.1.3 Description of population of clients with children having a drug-related primary problem in 2010. Variables associated with the extent of drug use

Duration of drug use problem	0-2 years	2-10 years	>10 years	Missing
	10.3	26.1	41.9	21.7
Frequency of use	Several times a day or daily	Several times a week or weekly	Irregular or not applicable anymore	Missing
	55.2	13.3	12.2	19.3
Previous psychiatric treatment	Ever	Last year	Never	Missing
	16.2	8.2	42.2	33.3

In percentages. Source: LADIS, IVZ

Data on educational level, housing, income and previous contact with the police are used as indicators for the social circumstances.

- On average, the level of education in parents with a primary drug problem in addiction care is low (table 12.1.4). Data are available for 89% of the clients. Almost half have no education, primary school, or lower secondary school types. 30% finished a middle

secondary school type or intermediate vocational education and 1 in 10 graduated from higher secondary school, higher vocational school or university.

- More than half of the parents in treatment in 2010 received an unemployment benefit or had no income at all. 41% had an income from work.
- The far majority of clients with children and a primarily illegal drug problem own or rent a house. 1 in 12 relies on the housing of people in his or her social environment, lives in a (social) pension or is imprisoned. Less than 1% of the clients with children is homeless.
- A quarter of the population has never been in contact with the juridical system; with regard to the remainder, half of them have had ever or recent contacts with the police or justice, for the other half data are missing.

*Table 12.1.4 Description of population of clients with children having a drug-related primary problem in 2010. Variables associated with social circumstances*

<b>Educational level</b>	<b>Low</b>	<b>Middle</b>	<b>High</b>	<b>Missing</b>
	48.5	29.6	10.8	11.0
<b>Income</b>	<b>Work</b>	<b>Unemployment benefit</b>	<b>No income</b>	<b>Other or missing</b>
	40.9	44.6	7.7	6.8
<b>Housing</b>	<b>Own housing (owner or renting)</b>	<b>With parents, family of friends, (social) pension, prison</b>	<b>homeless</b>	<b>Other or missing</b>
	82.5	7.9	0.9	9.7
<b>Contact with police/ justice</b>	<b>Ever</b>	<b>Last year</b>	<b>Never</b>	<b>Missing</b>
	30.3	8.2	24.5	37.1

In percentages. Low educational level: no education, primary school, or lower secondary school types. Middle educational level: middle secondary school type or intermediate vocational education. High educational level: higher secondary school, higher vocational education or university. Source: LADIS, IVZ

### *Pregnant women*

Data on the number of pregnant women using drugs are scarce and mainly non-informative. The annual number (*prevalence*) of pregnant women who use drugs in the Netherlands is not known and neither is the number of women that entered treatment (*treatment demand*).

- A recent study in Rotterdam among 3,997 pregnant women participating in the Generation R study<sup>26</sup> estimated the prevalence of cannabis use at 3.3%. In the study self-report data (which provided an estimate of 2.3%) and urinalysis (estimated cannabis

<sup>26</sup> The Generation R study is a prospective cohort study from the fetal period to later life in a multi-ethnic urban population in a big city in the Netherlands (Rotterdam) targeting growth and physical development, behavioural and cognitive development, diseases in childhood, and health and health care. In total 9778 mothers with a delivery date from April 2002 until January 2006 were enrolled in this study. Until now, of all eligible children at birth, 61% participated in the study.

use 1.8%) were combined for optimal estimation (El Marroun, 2010). It was not assessed whether this cannabis use fulfilled criteria for problematic use, although drug use during pregnancy may be always considered as problematic in the sense of possible harm for the foetus.

- Mid nineteen nineties it has been estimated, based on extrapolation from available data in the four major cities, that around 150 addicted babies were yearly born in the Netherlands (T.K. 24077-4). Most of these children were from mothers with a heroin addiction. However, since then, the situation with regard to drug use and responses to drug use have substantially changed, and no estimates have become available since then.

### *12.1.2 Evidence of physical, mental and other risks/harms related to addicted parents and their children*

The paediatric and obstetric complications of drug use during pregnancy have been studied extensively, both in animal models and in human studies. Exposure to levels of illegal drugs in utero may result in many health risk for the foetus, such as foetal growth retardation and low birth weight, preterm delivery and prematurity, foetal anomalies, e.g. urinary, cardiovascular and facial malformations or hemorrhagic infarction and tissue necrosis which also may result in congenital malformations, disturbance of intrauterine brain development, and directly after birth the neonatal withdrawal syndrome (notorious in children from opiate using mothers, as 74-90% of children of mothers using heroin or methadone during pregnancy may have withdrawal symptoms like tremor, restlessness, inconsolable crying, vomiting, diarrhoea, increased frequency of breathing (see Bool, 2002). A comparable syndrome (foetal alcohol syndrome or FAS) may develop in children of mothers using alcohol during pregnancy, even after moderate alcohol use. Several years ago it was estimated that in the Netherlands FAS yearly afflicts 350 children, while the milder form (foetal alcohol effect) may be found in 700 - 3,500 newborns each year (see Bool, 2002). Drug use during pregnancy also poses the mother at increased risks, such as abruption of the placenta.

Also the effects of drug using parents on their born children have been subject of many studies. Developmental retardation, including cognitive and emotional developmental delay, behavioural problems, and the development of serious psychological or psychiatric morbidity of the child itself have a higher frequency in children of parents with a substance use disorders, as well as in children of parents with psychiatric disease. Further, there is an increased risk of neglect, (physical) child abuse, somatic problems and, at a later age, delinquency. However, not every child with a parent with a substance use disorder develops problems. It is assumed that a accumulation of risk factors and a limited availability of protective factors increase the risk of development of problems in the child (Romijn et al, 2010).

Recent studies in the Netherlands ranged from the effects of drug use during pregnancy to the risk and protective factors for children of addicted parents during childhood and adolescence. As mentioned before, most studies are not restricted to children of parents with a substance use disorder, but include the much larger group of children with parents with psychiatric problems as well.

### *Risks during pregnancy*

In the Generation R study (see also §12.1.1), the effects of intrauterine cannabis exposure on pre- and postnatal child development is being studied (El Marroun, 2010). This topic is of high interest in the Netherlands because of the relatively high level of THC in Dutch cannabis and the ongoing discussions about the seriousness of the effects. The study showed an association between maternal cannabis use during pregnancy and several prenatal outcomes, but the effects diminished in the postnatal period and even disappeared when the child grew older.

- Exposure to potent cannabis in utero is related to a reduced foetal growth and smaller foetal head size (risk factors in neurodevelopment and for behavioural problems). The effect of cannabis (usually combined with tobacco) on intrauterine growth was stronger than for prenatal tobacco exposure alone.
- Maternal cannabis use during pregnancy was associated with adaptations in the foetal placental and cardiac blood flow. Theoretically, this finding was expected as the endogenous cannabinoid system has a known neuromodulatory role in cardiovascular regulation. However, the observation could also be explained by the co-occurrence of tobacco use. There were no changes observed in the foetal cerebral blood flow.
- After birth, associations between maternal cannabis use during pregnancy and child behaviour were found, but these were inconsistent and became weaker with increasing age of the child. An increased risk for externalizing problems at 18 months of age was no longer statistically significant after controlling for maternal psychopathology. Further, the effects of maternal cannabis use on child behavioural problems were found to be gender specific. At 18 months of age they were still present in girls but no longer in boys.
- Also verbal and non-verbal cognitive performance at 30 months of age did not differ between children of cannabis using mothers compared with non-using mothers.
- The study concluded that in the prenatal period maternal cannabis use is associated with reduced foetal growth and blood redistribution, while in the postnatal period the associations with behavioural problems and cognitive performance are weak and disappear after 3 years, when controlling for confounders (El Marroun, 2010).

### *Risks after birth and into adolescence*

There is an overwhelming literature on (1) risk factors associated with psychiatric and substance disorders and closely related to this on (2) the transmission of psychiatric problems and substance use disorder from parents to children. The bulk of this literature was published in the last two decades. In this Selected Issue, we will only present data of recent Dutch literature reviews.

In 2010, an overview was made of risk and protective factors associated with the development of psychological disorders in the offspring of parents with substance use or psychiatric disorders. For this, a literature review was combined with expert interviews (Romijn et al., 2010). Both risk and protective factors were found to be operative on different levels and interacting with each other: the parent, the child and the environment. The study concludes that it is often the balance between risk and protective factors that influence the transgenerational transmission of psychopathology from parents with a psychiatric disorder or addiction to their offspring.

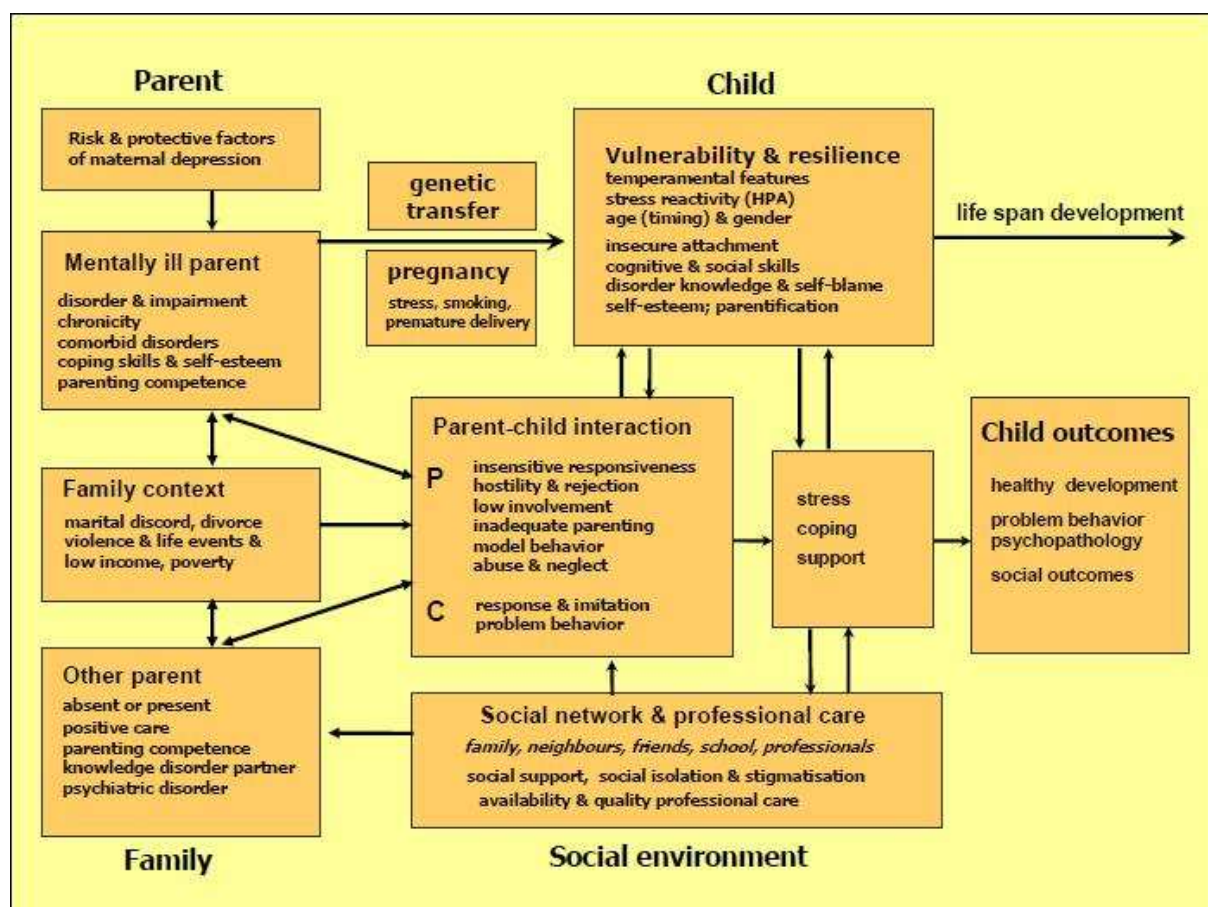
- At the level of the child, the age or stage of life is a specific risk factor. In general, the younger the child, the more vulnerable it is (see also Bool et al, 2007).
  - Children 0-5 years of age have the highest risk, particularly on emotional and behavioural problems (separation anxiety, attachment problems, anxiety).
  - At age 6-12 years the highest risk is on the development of mood disorders, anxiety, behavioural changes and psychosomatic disorders.
  - Between 12-18 years adolescents may develop conflicts with parents or school, which can be accompanied by feelings of guilt and shame, in the end leading to withdrawal and social isolation.
  - Once adult, the offspring of parents with an addiction or psychiatric disorder may develop a psychiatric disorder themselves, such as anxiety or mood disorders, eating disorders or schizophrenia, or substance abuse or dependence.
  - Also features like temperament, behavioural inhibition, negative emotionality, stress reactivity, unsafe attachment, negative self-esteem, limited cognitive and social skills, incomplete understanding of the parental disorder, parentification and self-blaming behaviour may increase the child's vulnerability.
  - On the other hand, resilience may be a protective factor. Factors contributing to resilience include positive emotionality, safe attachment, cognitive and social competence, positive self-esteem, self-confidence, relevant knowledge of the parental disorder, a realistic self-image, and social support.
  - In addition to environmental factors, also genetic factors may contribute to the development of psychopathology in the child. The estimated heritability of alcohol and drugs misuse and dependence ranges from 30-80%. However, other genetic factors may contribute to resilience.
- At the level of the parent, evidence is available that the impact on the child is bigger when both parents have an addiction than if one parent has a substance use problem.
  - Also, the quality of upbringing is an important predictor of behavioural problems. Risks are increased in families with limited care (physical, emotional, environmental), little parental authority, but many restrictions and punishment. What's more, families with parental substance use disorders are often hampered by single parenthood, low SES, lack of social support, etc.
  - A healthy parent-child interaction in these families is often absent. This may lead to insensitive reactions, low engagement with the child, rejection and child abuse.
  - Another factor is the gender of the parent with the substance use disorder. Especially in drug addicted mothers with a psychiatric problem, low educational level and a confined number of close social relations, the risk on behavioural disturbances in the child is biggest.
- At the level of the environment, the presence of a co-parent and social networks may strengthen the resilience of the child. Instable circumstances in the (wider) family, stressful negative events, and a low SES increase the risk on psychopathology in the child (Romijn et al, 2010).

The conclusions of this overview are in line with previous Dutch reviews, in that both *disorder-specific risk factors* (genetic and biochemical factors, parent modelling styles and pathological family coping styles) and *common factors* (neglect or abuse, poverty, neighbourhood violence or domestic violence) are responsible for the increased risk in children of parents with an substance use or psychiatric disorder (Van Doesum et al, 2005;

Hosman et al., 2009). On the other hand, *protective factors* buffer the negative impact of risk factors and are mainly common ones, i.e. not disorder-specific (high level of life skills, attention or care by the other parent, the coping skills of the child, and social support by friends or other family members).

Based on the analysis of risk and protective factors a developmental model of trans-generational transmission of psychopathology has been developed (figure 12.1) (Hosman et al., 2009). The model can serve as a point of departure for the development and organisation of preventive and treatment interventions of problems in children of parents with a substance use or psychiatric disorder.

Figure 12.1 A developmental model of trans-generational transmission of psychopathology



Source: Hosman et al., 2009.

- The model underscores the need for multiple preventive interventions along the life span, as it differentiates between developmental stages in the child's life and discriminates between genetic risk transmission, prenatal influences, parent-child interactions, family processes and conditions and social influences from outside the family. This specificity of stages and processes in the model can be used to identify specific intervention targets.
- The model also shows the complex interrelationships between these factors and stresses the need for caution in describing causal relationships in developmental processes. A single disorder can be the result of multiple causes or developmental

trajectories, but a particular factor (e.g., a specific parental diagnosis) can also result in multiple outcomes (e.g., diagnoses and/or social outcomes) in children.

Summarising, this model can be used as a guide in the development of effective multi-component programmes and a comprehensive prevention policy for children of parents with psychiatric and/or substance use disorders (Hosman et al., 2009).

## 12.2 Policy and legal frameworks

### *Policy*

No national prevention or other policies have been developed in former years specifically targeting drug using pregnant women or drug addicted parents and their children. Instead, policy and legal frameworks target all children at risk without distinction between the underlying cause. Currently, there is a system reform ongoing in the organisation of youth care ("jeugdzorg") (see below), which also affects the children of parents with a substance use disorder. One of the most important changes is a decentralisation from youth care from the level of the provinces to the municipalities. A second major change is the shift in health policy, initiated by the current (liberal) government, from active interference with the people's health towards the idea that every citizen is responsible for its own health and can make healthy choices on an individual basis (T.K. 32793-2) (see chapters 1 and 3). This will have consequences for many prevention activities, although prevention work for vulnerable children will be relatively spared.

It is of note that during the last couple of years the importance of the youth has been well acknowledged in the national policy, exemplified by the foundation of the first Ministry of Youth and Family by the previous government in February 2007. It offered the opportunity to have youth and family policy in one administrative scope and with one coordinating Minister. The current government, however, has closed this Ministry in October 2010. The responsibility for policy on youth is currently distributed over four ministries and the general attention for youth has diminished. It is feared that the availability of preventive interventions and care for children of parents with a substance use disorder will be threatened by the savings of the government of mental health (T.K. Aanhangel 150)

### *The current organisation of youth care*

Youth care in the Netherlands is organised in 15 Bureaus Youth care ("Bureaus Jeugdzorg"), 3 nationwide operating family guardianship institutions ("Landelijk Werkende Gezinsvoogdij Instellingen" or "LWI's") and 57 organisations for Youth and help with Upbringing ("Jeugd & Opvoedhulp"). These 57 organisations for youth include institutions that offer closed youth care and/or judicial youth care (MOgroep Jeugdzorg, 2010).

- The organisations execute enforced measures in the context of child protection ("Jeugdbescherming") and after-care and resettlement of discharged juvenile prisoners ("Jeugdreclassering").
- They also include the Child Protective Agency (in Dutch: "AMKs") and the Child Line ("Kindertelefoon").

- The Bureaus Youth Care also issue referrals to provincially financed youth care as well as youth mental health care financed by the General Law for Special Medical Expenses (Algemene Wet Bijzondere Ziektekosten or "AWBZ").

In recent years, a strong increase has been observed in the treatment demand in youth care.

- Between 2005 and 2009 (year of most recent data available) the use of indicated youth care increased with 38% (MOgroep Jeugdzorg, 2010).
- In 2009, 75,323 unique clients were registered in the indicated youth care, which is 2.1% of the 3,527,375 children 0-18 years living in the Netherlands in 2009. In 2008, 2.0% of all 0-18 year olds were in youth care; in 2007 1.9% (MOgroep Jeugdzorg, 2010).
- Between 2005 and 2009, there was an increase of 40% in youth protection measures ("jeugdbeschermingsmaatregelen") and a 30% increase in measures on after-care and resettlement ("jeugdreclassering").
- In these five years, there has also been a substantial increase in reporting of child abuse. The Advice and Registration Office Child Abuse issued 50% more advices and 50% more consults (MOgroep Jeugdzorg, 2010).
- There is no specific information available on the number of children from parents with a substance use disorder in the different branches of youth care.

In 2009, the government expressed its concern about the ever increasing number of children who seem to be in need of professional care. Also there were serious doubts about the efficient functioning of youth work. Youth workers, parents and children had complained about long waiting lists, a labyrinth of instances which seem to send the child "from pillar to post", too many health care and social workers in one family, limited time for actual care for the child itself, availability of too few evidence-based interventions, high pressure of accountability, rules and bureaucracy and too many and too complex financing structures. Therefore, a parliamentary working group was set up to analyse the causes of the existing problems in youth work and to explore the future possibilities of youth work (Werkgroep Toekomstverkenning Jeugdzorg, 2010). As most important causes for the increase in treatment demand were considered the declining acceptance of deviant behaviour in society, the persistent problems in multi-problem families, the atmosphere of securing one's work against claims, and splitting up of the organisations. It was concluded that many "normal" problems were changed into "care problems" while at the same time the care for multi-problem families was too scattered. The financing structures and organisation of youth care were seen as major barriers. The parliamentary working group formulated a list of advices for the revision of youth care, which were almost completely taken over by the government (T.K. 32202-5).

#### *The revision of youth care*

Central in the ongoing revision of youth care is the simplification of the financial system and a central coordinating role for the municipalities (T.K. 32202-5):

- There will be one financing structure which includes both prevention and youth care, youth mental health services and care for youth with limited mental capacities. The central coordination of all finances will be at the level of the municipalities. With one centralised financing structure, committing collaboration between all professionals from different backgrounds is pursued, facilitating continuation of care. One financing structure will also decrease bureaucracy and may reduce unfaithful declarations. Finally,



also the finances of other arrangements (e.g., social work) are coordinated at the level of the municipalities, which enables congregation of care for the whole family.

- The municipalities have already installed so called “Centres for Youth and Family” (“Centra voor Jeugd en Gezin”), which are low threshold facilities working at the beginning of the child care chain (prevention and timely signalling of deviant developments). The leading principle here is that support should be available “close to home”. Also the execution of the enforced measures of youth care will become under the responsibility of the municipalities.
- The third main line of the revision of youth care is an increase in quality and professionalism, including the development of guidelines and certification.

In September 2011, the ministries of Health, Welfare and Sports and of Justice underlined again the transition of the youth care system, which will also lead to a yearly saving of € 300 million from 2017 onwards (T.K. 31839-130).

### *Legal frameworks*

There are no Dutch laws or other legal arrangements that directly target (a) pregnant women who use drugs or (b) drug addicted parents and their children. In schemes 12.1 to 12.3 important legal arrangements are summarised in relation to child protection in general.

According to the Dutch law, the unborn foetus is not an independent judicial subject, as personality only starts with birth (Binda, 2010). Despite that, the unborn foetus does receive judicial protection (Art. 1:2 BW), but the amount depends on the prevailing views. Also, the right of self-determination (“zelfbeschikkingrecht”) of the mother is a strong consideration in the decision to apply legal measures. Respect for the autonomy of the mother and respect for the physical integrity of the child may sometimes be conflicting interests and may have serious shortcomings for both the child and the future mother (Berghmans et al., 2009).

The possibilities to interfere during pregnancy are limited (Binda, 2010). With measures like provisional guardianship and prenatal superintendence it is possible to force the (addicted) mother to protect the child on a limited scale.

- Jurisdiction leaves some room for coercive measures such as a prenatal supervision order from the moment that the foetus is viable, i.e. when a pregnancy lasts more than 24 weeks. However, this is rather late as the embryo is most vulnerable in the first gestational weeks (Binda, 2010). When the mother shows no substantial change in her drug use, the Children's Court Magistrate can demand that the child is immediately placed in care after birth, i.e. outside the residence of the mother (“uithuisplaatsing”) (Berghmans et al., 2009).
- It is also possible to enforce psychiatric hospital admission (“wet BOPZ”). However, the judge seldom applies this measure on pregnant women with an addiction, as this law has been specifically designed for persons with a mental illness.

After birth, both professionals and the Council of Child Protection will try to keep mother and child together as long as possible, even under non-optimal circumstances.

- In threatening situations for the child, the judge will most probably determine that a preliminary supervision order is the best solution (scheme 12.1). In that case, a guardian will be appointed by the Bureau of Youth Care.

- The measures in scheme 12.3 are reported to be only exceptionally used, e.g. when mothers are seriously mentally retarded or severe psychiatric patients and continually resistant against psychiatric hospital admittance. It should finally be noted that detention does not mean that treatment will be mandatory, but instead is meant for the aversion of dangerous situations.

**Scheme 12.1: Legal arrangements for child protection** (Kinderbeschermingsmaatregelen)

**Preliminary supervision orders** (*Voorlopige ondertoezichtstelling: Civil Code, Article 1: 255*)

Awaiting the report of the Council of Child Protection, the Children's Court Magistrate (*kinderrechter*) puts the child under supervision when this is considered necessary. This procedure lasts three months.

**Supervision orders** (*Ondertoezichtstelling: Civil Code, Article 1: 256*)

Based on the results of the research activities of the Council of Child Protection, the Children's Court Magistrate may impose external supervision for a maximum of one year. After that period this supervision may be annually continued for another year.

**Scheme 12.2: Rights and obligations of parents and the rights of children**

*Civil Code (Article 1: 247)*

Parents have the duty for care and education of their children, for mental and physical well-being and for the advancement of the development of the child's personality.

*European Convention on Protection of Human Rights (Article 8)*

Everyone has the right to respect for his private and family life, his home and his correspondence. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

*Convention of the Rights of the Child (preamble)*

Because they are not matured yet, children have the right to receive special protection and care, included appropriate legal protection, both before and after their birth.

**Scheme 12.3: Types of enforced psychiatric hospital admission** (gedwongen opname)

**Court authorisation** (Rechtelijke machtiging: *The Psychiatric Hospitals Act (BOPZ), Article 2*)<sup>27</sup>

The judge can authorise an enforced admittance of a person with psychiatric disorder in a psychiatric hospital.

Necessary condition is in those cases, that this disorder causes (dangers or) harms that cannot be prevented outside a psychiatric hospital.

The authorisation is valid for 3 or 6 months.

A request for court authorisation can be initiated by the spouse, the parent, adult family members or by a guardian.

A declaration has to be signed by a psychiatrist.

The judge decides after taking the evidence of both parties.

<sup>27</sup> The BOPZ may be replaced by the Law on Mandatory Mental Health Care (*Wet Verplichte GGZ*). An important issue in this law is mandatory treatment, including both admission and treatment. The danger-criterion has been replaced by the harm-criterion (Binda, 2010).

**Detention** (Inbewaringstelling: *The Psychiatric Hospitals Act (BOPZ)*, Article 20)

In cases of emergency the Mayor of a city may decide that detention is needed when a person is not willing to be admitted in a psychiatric hospital.

A necessary condition for the Mayor's decision is the conclusion that it is very likely that this person can become (dangerous or) harmful for other persons as a result of psychiatric disorders. Consequently the decision is aiming at the avoidance of this (danger or) harm and this needs urgent action and a decision of the judge will be probably too late.

Detention will be realised after a written medical declaration of a psychiatrist.

The judge is enabled to consider a continuation of detention.

## 12.3 Responses

### *Interventions*

In the past years, many interventions for addicted parents and their children have been developed, both for prevention and treatment, but still, the coverage of the target groups remains small. This may be explained by the fact that children of clients in addiction care are not screened systematically, but also because many parents are not in treatment and thus their children are not reached by addiction care. Another inhibiting factor is the lack of available interventions for this target group in some of the mental health care or addiction care organisations. Also, prejudices against addiction and mental disorders are still prevalent and are assumed to function as a serious factor limiting participation (Bool et al., 2005). A last significant problem is the group of adults that is treated for addiction problems, but who are not recognised as being parent of a child. In addiction care it is still not common practice to find out whether the addicted client has any offspring (personal communication C. Hoefnagels).

In light of the complexity of problems surrounding children of addicted parents, the necessity for a coherent package of interventions tapered on the special needs of the specific child concerned is obvious, but often not reached. Case management for children of addicted parents is considered to be essential and has found to be effective both for the parents and for the offspring (Bool, 2002). In the Dutch situation, the focus of case management should be on the contact between parent and child rather than on the first vital necessities, which are usually guaranteed enough. The "Strength model", focusing on the strong aspects in the client system, and the integral models seem to best fit the Dutch situation and are the most appropriate for Dutch children of addicted parents (Bool, 2002).

The interventions available in the Netherlands aim to strengthen the protective factors around the child (see also the model of Hosman et al, figure 12.1). They are often not exclusively developed for children of addicted parents, but target a wider group of children with parents with any mental disorder, including substance use disorders. The interventions are usually tailored to specific age-groups.

- In very young children, they often target a reduction of the burden.
- At older age, the interventions aim to improve the knowledge on the disorder of the parent, and to improve coping skills to handle these problems in and outside the home situation, thus they aim at enabling an increase in psychosocial well-being.

- Parent interventions are frequently directed at increasing parenting skills (e.g. improved parent-child interaction patterns, increased competence). They try to enable the general improvement of the situation at home.

The offered interventions in the Netherlands are both standardised face-to-face interventions and online interventions (Dijkstra & De Ruiter, 2011; KOPP/KVO, 2011; Romijn et al 2010). Especially the face-to-face interventions only reach a small proportion of the families they target. An expert estimation expects that less than 1% of the high risk group (including children of addicted parents and children of parents with a psychiatric disorder) is in contact with any of these face-to-face interventions. The reach of the web based interventions is better (Romijn et al 2010; Dijkstra & De Ruiter, 2011).

- "Strengthening Families" is the only family-based intervention that specifically targets parents with an alcohol or drug addiction. It supports parents in their skills in raising their children. Regarding the children, the intervention tries to increase their social capacities, communication and self-confidence. A pre-post evaluation showed positive results on the functioning of the parents and the family. Largest effects were found on engagement of the parents, organization and coherence in the family, communication, conflicts and resilience.
- The face-to-face support groups for KOPP (children of parents with a psychiatric disorder) and KVO (children of addicted parents) intend to increase the social well-being of the children by increasing their resilience, thereby diminishing their likelihood on the development of psychopathology. For the children, the KOPP/ KVO support groups are tapered to various age groups (8-12 years, 13-15 years and 16-25 years). There is also a group course for parents. An effect study is ongoing in the age group 8-12 years.
- "Squeak says the Mouse" offers support for children 4-8 years with a parent with a psychosocial, mental or substance use problem. It is offered in neighbourhoods with a low socio-economic status where the concentration of families with these problems is substantial. The intervention aims to prevent that the children develop comparable problems as their parents, despite the high-risk environment. Usually the groups are composed of children with many different backgrounds (e.g., with regard to the basic problem of their parents, ethnicity). A pre-post evaluation showed a significant decrease in emotional problems and significant increase in social behaviour of the children. Parents had significant less problems in upbringing.<sup>28</sup>
- [Kopstoring.nl](http://Kopstoring.nl) is an interactive website for KOPP/KVO children. The site includes information pages, a panel discussion, e-mail services and chat box and aims to strengthen the coping skills of adolescents and young adults in order to alleviate behavioural and psychological problems. The target group consists of adolescents and young adults in the range 16-25 years. Every month the site is visited by 10,000 unique individuals. A process evaluation showed a significant decrease of parentification, as well as a significant decrease of negative feelings of the child regarding the home situation. In a randomised controlled trial the experimental group is currently compared with a waiting list group at baseline, at 3, 6 and 9 months and 12-month follow-up. Also the cost-effectiveness is studied and results are awaited next year (Woolderink et al., 2010).

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<sup>28</sup> For a more extensive description, see Mostert & Kasander (2007). For an evaluation, see Abspoel et al., 2010.

- [Survivalkid.nl](http://Survivalkid.nl) is a closed site for youngsters (12-24 years) with a parent or sibling with a psychiatric or substance use disorder. The site provides information on psychiatric disorders and addiction, offers a chat function with peers and a chat and email facility with a "survival coach".
- The website [kopopouders.nl](http://kopopouders.nl) is based on the face-to-face version of the course "kopopouders" ("cheer up, parents"). The website is an online interactive support site for parents with a psychiatric disorder or addiction on issues related to the upbringing of children. The website aims to encourage the mental wellbeing of the children and to prevent psychiatric problems. Professionals from mental health institutes coach the parents in online group courses, and with chat and email facilities. A pre-post evaluation showed a significant decrease in the previously serious problems in upbringing of the parents to a normal level (Van der Zanden et al, 2010). Also this site reaches a substantial number of parents (almost 40,000 in 2009) (Dijkstra & De Ruiter, 2011; KOPP/KVO, 2011; Romijn et al 2010).

A more general preventive intervention programme, called Precaution (*Voorzorg*)<sup>29</sup>, is available since 2006. It is based on the American Nurse Family Partnership that was found effective in three randomised controlled trials. The programme, which is also relevant for children of addicted parents, was translated to the Dutch situation and has been admitted to the Database Effective Youth Interventions and judged as "sufficiently theoretically based" (see chapter 3). The first results of a Dutch randomised controlled trial will be published at the end of 2012.

- Precaution (*Voorzorg*) is meant for pregnant women (minimum 14 and maximum 28 weeks) who are at risk.
- An obstetrician selects the participants based on the following primary criteria: no other children yet; being pregnant for a maximum of 28 weeks; maximum 25 years old; maximum lower vocational education. Several secondary criteria are determined and weighted by a nurse: being sufficiently motivated to participate; lack of sufficient social network; alcohol use or drug use; violence or physical abuse; psychiatric problems; and personal opinion on motherhood.
- The programme starts during pregnancy and lasts until the child is two years old. In this period 60 home visits of 1-1,5 hours are realised and tapered from once a week to once a month.
- Three manuals were developed for each phase of the programme, one for pregnancy visits and the other two for baby visits and toddler visits respectively.

Inpatient treatment for addicted parents with their children (0-12 years old) is since more than fifteen years offered by one regional organization of addiction care. Pregnant women can also be admitted. The inpatient treatment clinic (called *De Lage Kamp*, formerly known as *De Herberg*) is open for addicts from the whole country who want to solve their drug addiction and their drug related problems. The Herberg has been evaluated in 1999 with an uncontrolled pre-post test design (see the Dutch EDDRA project: *Therapeutic Community "The Herberg" for Addicted Parents and their Children*).

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<sup>29</sup> See [www.nji.nl](http://www.nji.nl). This programme was developed by the Vrije Universiteit (VU) in Amsterdam, Erasmus University in Rotterdam, the Netherlands Youth Institute (NJI), a regional Youth Care organization (Evean) and the Trimbos Institute.

- In 1998-1999, this facility targeted parents and their children from 0-16 years. In almost all cases these were mothers that were mainly addicted to opiates and/or cocaine. During the evaluation, the facility offered intensive treatment and outpatient aftercare for 16 families and the average annual coverage was 28 families. Most mothers (70%) were refractory to alcohol treatment, methadone treatment or detoxification. The types of interventions used were advice and support, crisis intervention, family therapy, individual and group therapy, methadone substitution, opiate prescription, and rehabilitation activities.
- Currently, data presented on the website of *De Lage Kamp* show that around nine families (at the same time) are in treatment.<sup>30</sup> Treatment duration is on average 12 months and starts with a detoxification phase of 3 to 4 weeks in the regional organization of addiction care (VNN). Children should live for that period with family members or elsewhere. Treatment consists of individual and group-sessions for parents and education and games for the children. Every client receives personal support by a professional in reaching pre-specified treatment targets. Intermediary readjustments of these targets are possible. There is intensive cooperation with family guardians and professionals who may refer the mother to another type of treatment or care. Social workers are supportive in solving financial and judicial problems. The use of alcohol and drugs is prohibited. Children are in a daycare centre with four fulltime child workers. At least six months of after care is offered by a special worker.

### Guidelines

Several guidelines are published for addicted parents and their offspring, ranging from neonatal care to case management, early detection or physical child abuse for older children. Most likely, many more guidelines are in use, but these have not been made widely accessible.

- We traced two protocols on the treatment of the Neonatal Abstinence Syndrome (NAS) in newborns.
  - One NAS-guideline/protocol has been written and is used by professionals in an organisation for mental health care in the city of The Hague and presents check points concerning diagnostics, multidisciplinary treatment or care and medical treatment (Leeuwenburgh-Pronk et al., 2006). Parenting support after leaving hospital is available in inpatient and outpatient support programmes. Between 1998 and 2004, the mean duration of hospitalisation of the babies was 47 days and half of the NAS-babies were separated from the mother and referred to foster-parents.
  - The second protocol (Drugsprotocol or NAS-protocol) was developed more than 25 years ago by the Academic Medical Centre of the University of Groningen and the National Reporting Unit for Child Abuse (“Algemeen Meldpunt Kindermishandeling”). It focuses on medical treatment, support and monitoring. Following this protocol, a probationary period of two weeks after child birth is used to check whether the mother is able to take sufficient care of her child. If not, the Council of Child Protection is alerted. The total protocol period is two years.
- A comprehensive assistance manual on case management for children with parents with a substance use disorder is used nationwide (Bool, 2002; 2003). The manual deals with

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<sup>30</sup> See [www.vnn.nl/index.cfm?pid=329](http://www.vnn.nl/index.cfm?pid=329)

the complexity of the development of problems for children of parents with psychiatric or substance use problems and aims to overcome the previously existing differences in the methods or models of case management used.

- In 2007, a protocol was published by a group of professionals from different regional organisations (youth care, municipal health services, addiction care and a university), for the early detection of risks in children of parents with a substance use disorder (Bureau Jeugdzorg Groningen, 2007). The protocol briefly describes the agreements made between several care organisations in the region concerning the coordination of activities for this target group. Drug use during pregnancy is considered an indication for delivery and neonatal care in a clinical setting, which is concentrated in the Medical Centre of the regional University. Post release actions are supposed to include frequent monitoring in an outpatient clinic (at least every three months and during two years). Child neglect and child abuse (disorder-related violence) is also included in this protocol.
- A nationwide guideline is available for (suspicion of) child abuse, including child neglect, sexual abuse or physical abuse (Reporting Code, or “Meldcode”) (Baeten, 2002). This guideline is not restricted to the offspring of addicted parents but includes all children at risk. The guideline aims to increase quality and effectiveness of the reporting and consists of six basic elements: (1) the genesis of a conjecture; (2) professional interaction; (3) research; (4) initiating help; (5) evaluation and (6) aftercare. Each element is described in several steps that should be taken by the professional. For Corrections or even refuting the conjecture should remain open.
- A KOPP/KVO protocol for youth care is in preparation (personal communication R. van der Zanden).
- Finally, a national guideline on pharmacological treatment for addicted prisoners includes several suggestions about how to act in case of pregnancy (Ministry of Justice, 2008).

### *Quality assurance*

Activities related to quality assurance in prevention of disorders in children of parents with psychiatric disorder and/or substance use disorder are twofold. Both type of activities contribute to evidence-based medicine in the field of children of addicted parents and aim to gain insight in the quality and the effectiveness of existing and newly developed interventions.

- In 2007, a national Committee of Admission (Erkenningscommissie) started to judge several interventions. This committee was formally installed in 2008 and in 2009 the genesis of a national database of effective interventions was officially started and released on the internet. This database is still growing and today it is housed in the Centre for Healthy Living (“Centrum Gezond Leven”) of the National Institute for Public Health and the Environment (RIVM). However, there is still work to do. A search in the Database Effective Youth Interventions (see also chapter 3) with the predefined keywords (KOPP or KOPP/KVO) showed that only three of the interventions for these target groups in the Netherlands were until now admitted to the database, implying that they are theoretically well described or even better. The increased implementation of the interventions (not monitored yet) from this national database and selective funding of interventions by the government is supposed to increase effective decision making in health care, including addiction care (see also chapter 3).

- A second flow of activities consists of the elaboration of the results of the systematic review study published in 2009 (Van Doesum et al., 2005; Hosman et al., 2009; Van Doesum et al., 2009). These publications also serve as a starting point for future activities to enhance the quality of the preventive interventions and programmes that have been focal in this chapter. Also the ten-year programme Scoring Results (see former national reports) has contributed to a more extensive (though not always systematical) description and a more evidence-driven approach.



## Part C Bibliography

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T.K.28684-311.Tweede Kamer der Staten-Generaal vergaderjaar 2010-2011 publicatienummer 28684 nr.31 (2011). Naar een veiliger samenleving; Brief regering; Alcohol- en drugsgebruik als strafverzwaringsgrond bij geweld. Sdu Uitgevers, Den Haag

T.K.29350-10: Tweede Kamer der Staten-Generaal vergaderjaar 2010-2011 publicatienummer 29350 nr.10 (2011). ICT bij politie: rapport 2010. Sdu uitgevers, Den Haag

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T.K.29911-54. Tweede Kamer der Staten-Generaal vergaderjaar 2010-2011 publicatienummer 29911 nr.54 (2011). Bestrijding georganiseerde criminaliteit; Brief regering; Aanbieding jaarverslag Regionale Informatie- en ExpertiseCentra (RIEC's) 2010 en beleidskader RIEC's en Landelijk Informatie en Expertise Centrum (LIEC). Sdu Uitgevers, Den Haag

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T.K.311109-11. Tweede Kamer der Staten-Generaal vergaderjaar 2010-2011 publicatienummer 311109 nr.11. (2011). Evaluatie Wet BIBOB. Sdu Uitgevers, Den Haag

T.K.31839-130. Tweede Kamer der Staten-Generaal vergaderjaar 2011-2012 publicatienummer 31839 nr.130 (2011). Jeugdzorg; Brief regering; Stelselwijziging zorg voor jeugd. Sdu Uitgevers, Den Haag

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## 13.2            **Alphabetic list of relevant data bases**

Amsterdamse cohortstudie, Amsterdam Cohort Study

Local cohort study on mortality among methadone clients registered at the CMR (see below), conducted by the Municipal Health Service Amsterdam.

Homepage: [www.ggd.amsterdam.nl](http://www.ggd.amsterdam.nl)

Antenne (Amsterdam Antenna)

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

Homepages: [www.jur.uva.nl](http://www.jur.uva.nl) & [www.jellinek.nl](http://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](http://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](http://www.cbs.nl)

Clïënt 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.ggd.amsterdam.nl](http://www.ggd.amsterdam.nl)

Clïënt 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](http://www.ggznederland.nl)

CMR, Centrale Methadon Registratie, Central Methadone Register (CMR)

Local registration of methadone substitution treatment, conducted by the Municipal Health Service Amsterdam. Homepage: [www.ggd.amsterdam.nl](http://www.ggd.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 Municipal Health Service Amsterdam. Homepage:

[www.ggd.amsterdam.nl](http://www.ggd.amsterdam.nl)

Database problematische harddrugsgebruikers 2008, Data base problem hard drug users 2008

Data base about a field sample of 572 socially marginalized problem hard drug users. This database is a compilation of databases supplied by the Municipal Health Service Amsterdam, the Addiction Research Institute Rotterdam (IVO) and Bureau INTRAVAL.

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](http://www.trimbos.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](http://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/](http://www.denhaag.nl/)

#### HBSC, Health Behaviour in School-Aged Children

National monitor on the 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](http://www.trimbos.nl) & [www.hbsc.org](http://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](http://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](http://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/](http://www.politie.nl/KLPD/)

#### LADIS, Landelijk Alcohol en Drugs Informatie Systeem, National Alcohol and Drugs Information System (LADIS)

National registration system of addiction care and treatment, conducted by the Organization Care Information Systems (IVZ). Homepage: [www.sivz.nl](http://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](http://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](http://www.veiligheid.nl)

LMR, Landelijke Medische Registratie, Dutch Hospital Data (DHD)  
National registration of admissions to hospitals, including admissions due to problem alcohol and drug use, conducted by Prismant. Homepage: [www.prismant.nl](http://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/](http://www.intraval.nl/)

Monitor veelplegers (ISD), Monitor prolific offenders (ISD)  
National registration of suspects and convicts who 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/](http://www.wodc.nl/)

National Security Monitor, Veiligheidsmonitor Rijk (VMR)  
National monitor on the experiences of citizens with crime and security and their opinion about police action, conducted by the Ministry of the Interior and Kingdom Relations (BZK). Homepage: [www.minbzk.nl/](http://www.minbzk.nl/)

NEMESIS II, Netherlands Mental Health Survey and Incidence Study  
Second 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](http://www.trimbos.nl)

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](http://www.jur.uva.nl/criminologie)

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 Addiction Research Institute Rotterdam (IVO). Homepage: [www.ivo.nl](http://www.ivo.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](http://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/](http://www.wodc.nl/)



#### OCTA, Organised Crime Threat Assessment

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/](http://www.politie.nl/KLPD/)

#### OGGZ Monitor Amsterdam, Public Mental Health Care Monitor Amsterdam

Local monitor on marginalized inhabitants of Amsterdam including problem drug users, conducted by the Municipal Health Service Amsterdam (GGD Amsterdam). Homepage: [www.ggd.amsterdam.nl](http://www.ggd.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/](http://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](http://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/](http://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](http://www.trimbos.nl)

#### 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/](http://www.dji.nl/)

### 13.3 List of relevant internet addresses (2011)

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

<b>URL Websites</b>	<b>Contents</b>
<b><i>Research institutes</i></b>	
<a href="http://www.trimbos.nl/">http://www.trimbos.nl/</a>	Netherlands Institute of Mental Health and Addiction
<a href="http://www.wodc.nl">http://www.wodc.nl</a>	Research and Documentation Centre of the Ministry of Safety and Justice
<a href="http://www.cedro-uva.org">http://www.cedro-uva.org</a>	Centre for Drug Research, University of Amsterdam
<a href="http://www.intraval.nl">http://www.intraval.nl</a>	Intraval. Bureau for Research and Consultancy
<a href="http://www.aiar.nl/">http://www.aiar.nl/</a>	Amsterdam Institute for Addiction Research
<a href="http://www.ivo.nl/">http://www.ivo.nl/</a>	Addiction Research Institute Foundation, Rotterdam
<a href="http://www.scp.nl/">http://www.scp.nl/</a>	The Netherlands Institute for Social Research
<a href="http://www.nispa.nl/">http://www.nispa.nl/</a>	Nijmegen Institute for Scientist-Practitioners in Addiction
<a href="http://www.rivm.nl/">http://www.rivm.nl/</a>	National Institute for Public Health and the Environment
<a href="http://www.sivz.nl/">http://www.sivz.nl/</a>	Care Information Systems Foundation
<a href="http://www.prismant.nl/">http://www.prismant.nl/</a>	Kiwa Prismant: Consultancy agency for the Health Care Sector
<a href="http://www.zonmw.nl/">http://www.zonmw.nl/</a>	Netherlands Organisation for Health Research and Development
<a href="http://www.hiv-monitoring.nl/">http://www.hiv-monitoring.nl/</a>	HIV Monitoring Foundation (HMF)
<a href="http://www.jur.uva.nl/criminologieuk">http://www.jur.uva.nl/criminologieuk</a>	Bonger Institute: multidiscipline research group within the Faculty of Law of the University of Amsterdam
<a href="http://www.drugresearch.nl/">http://www.drugresearch.nl/</a>	CVO: independent non-profit organisation for

research, training and consultancy

**Ministries/ governmental organisations**

<a href="http://www.rijksoverheid.nl/ministeries/vws">http://www.rijksoverheid.nl/ministeries/vws</a>	Ministry of Health, Welfare and Sport
<a href="http://www.rijksoverheid.nl/ministeries/venj">http://www.rijksoverheid.nl/ministeries/venj</a>	Ministry of Security and Justice
<a href="http://www.rijksoverheid.nl/ministeries/bzk">http://www.rijksoverheid.nl/ministeries/bzk</a>	Ministry of the Interior and Kingdom Relations
<a href="http://www.om.nl/vast_menu_blok/english/">http://www.om.nl/vast_menu_blok/english/</a>	Public Prosecution Service (English section)
<a href="http://www.politie.nl/KLPD/">http://www.politie.nl/KLPD/</a>	National Police Agency
<a href="https://www.riecnet.nl/">https://www.riecnet.nl/</a>	Regional Information and Expert Center (Coordination combating organized crime)
<a href="http://www.hetccv.nl/english">http://www.hetccv.nl/english</a>	Dutch Centre for Crime Prevention & Safety
<a href="http://www.cbs.nl/">http://www.cbs.nl/</a>	Statistics Netherlands

**Online information and care websites**

<a href="http://www.drugsinfoteam.nl/">http://www.drugsinfoteam.nl/</a>	Drugs and Alcohol Info Team of Brijder Addiction Care
<a href="http://www.unitydrugs.nl">http://www.unitydrugs.nl</a>	Unity: educational peer project in Amsterdam
<a href="http://www.drugsinfo.nl/">http://www.drugsinfo.nl/</a>	Objective information on drugs for the general public

**(Addition) Care institutes**

<a href="http://www.ggznederland.nl/">http://www.ggznederland.nl/</a>	Netherlands Association for Mental Health Care
<a href="http://www.ggd.nl/">http://www.ggd.nl/</a>	Umbrella Organisation of Municipal Health Services
<a href="http://www.boumanggz.nl/">http://www.boumanggz.nl/</a>	Bouman GGZ (Addiction Care Rotterdam)
<a href="http://www.brijder.nl/">http://www.brijder.nl/</a>	Brijder verslavingszorg (Addiction Care North Holland)
<a href="http://www.jellinek.nl">http://www.jellinek.nl</a>	Jellinek Addiction Care Amsterdam
<a href="http://www.centrummaliebaan.nl/">http://www.centrummaliebaan.nl/</a>	Centrum Maliebaan (Addiction Care Utrecht)

<a href="http://www.vnn.nl/">http://www.vnn.nl/</a>	Verslavingszorg Noord Nederland (Addiction Care Northern Netherlands)
<a href="http://www.parnassia.nl">http://www.parnassia.nl</a>	Parnassia, psycho-medisch centrum (Addiction Care The Hague)
<a href="http://www.novadic-kentron.nl/">http://www.novadic-kentron.nl/</a>	Novadic-Kentron, netwerk voor verslavingszorg (Addiction Care North Brabant)
<a href="http://www.tactus.nl/">http://www.tactus.nl/</a>	TACTUS, Instelling voor verslavingszorg (Addiction Care Gelderland and Overijssel)
<a href="http://www.ggztml.nl/">http://www.ggztml.nl/</a>	GGZ Noord- en Midden-Limburg (Addiction Care Northern and Central Limburg)
<a href="http://www.mondriaan.eu/home/">http://www.mondriaan.eu/home/</a>	Mondriaan Zorggroep (Addiction Care Southern Limburg)
<a href="http://www.emergis.nl/">http://www.emergis.nl/</a>	Emergis – Centrum voor Geestelijke Gezondheidszorg (Addiction Care Zeeland)
<a href="http://www.gezond.amsterdam.nl/">http://www.gezond.amsterdam.nl/</a>	Municipal Health Service of Amsterdam
<a href="http://www.castlecraig.nl/">http://www.castlecraig.nl/</a>	Castle Craig: private rehab centre for treatment of alcoholism and other addictions
<a href="http://www.rodersana.nl/en/home/">http://www.rodersana.nl/en/home/</a>	RoderSana: private rehab centre for treatment of addictions
<a href="http://www.addiction-solutions.nl/">http://www.addiction-solutions.nl/</a>	SolutionS: private rehab centre for treatment of addictions

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## 14.2 List of abbreviations used in the text

4-MA	4-methylamphetamine
ACS	Amsterdam Cohort Studies
ACT	Assertive Community Treatment
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
BZP	1-benzylpiperazine
CAM	Coordination Centre for the Assessment and Monitoring of New Drugs
CAPI	Computerised Assisted Personal Interview
CASI	Computer Assisted Self-Interviewing
CBD	Cannabidiol
CBS	Statistics Netherlands
CBT	Cognitive Behavioural Treatment
CBO	Dutch Institute 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
CDC	Centres for Disease Control
CEDRO	Centre for Drug Research
CIA	Cannabis Intelligence Amsterdam
CIDI	Composite International Diagnostic Interview
CMR	Central Methadone Registration
CPA	Central Post for Ambulance Transports
CRA	Community Reinforcement Approach
CVGU	Centre Safe and Healthy Nightlife
DBC	Diagnosis Treatment Combinations
DHD	Dutch Hospital Data
DIL	Drugs Information Line
DIMS	Drugs Information and Monitoring System
DJI	Department of Judicial Institutions
DNR	National Crime Squad
DNSSSU	Dutch National School Surveys on Substance Use
DOB	2,5-dimethoxy-4-bromoamphetamine
DSM	Diagnostic and Statistical Manual of Mental Disorders
DUTCH-C	Drug Users Treatment for Chronic Hepatitis C
E.K.	Senate
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EU	European Union
FACT	Function Assertive Community Treatment
FIOD	Fiscal Intelligence and Investigation Department
GBL	Gamma-butyrolacton
GGD	Municipal Health Service



GG&GD	Area Health Authority
GGZ	Mental Health Service
GHB	Gamma-hydroxy-butyrate
GMR	General Mortality Register
HAART	Highly Active Anti-Retroviral Treatment
HAT	Heroin-assisted treatment
HAVO	Secondary education at middle level
HBV	Hepatitis B virus
HBSC	Health Behaviour in School-aged Children
HCV	Hepatitis C virus
HIV	Human Immune Deficiency Virus
HKS	Defendant Recognition System (of the Police)
HTN	Healthy Nightlife Toolbox
ICASA	International Collaboration on ADHD and Substance Abuse
ICD	International Classification of Diseases, Injuries and Causes of Death
ICT	Intensive Community-based Treatment
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
IVZ	The Foundation for the Provision of Care Information
KLPD	National Police Agency
LADIS	National Alcohol and Drugs Information System
LCI	National Coordination Structure on Infectious Diseases
LCMR	National Board for Substance Registration
LEDD	National Centre of Expertise on Double Diagnosis
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
MDI	Monitor drug-related emergencies
MDMA	3,4-methylene-dioxymethamphetamine
MIM	Multivariate (Social) Indicator Method
MSM	Men having Sex with Men
NDM	National Drug Monitor
NEMESIS	Netherlands Mental Health Survey and Incidence Study

NHG	Association for General Practitioners
NIGZ	National Institute for Health Promotion and Disease Control
NIVEL	Netherlands Institute for Health Services Research
NNIA	No new information available
NND	National Network Drugs Expertise
NPO	National Drug Use Survey/National Prevalence Survey
NVIC	National Poisons Information Centre
OBJD	Justice Documentation Research Database
OCTA	Organised Crime Threat Assessment
OMC	Office of Medicinal Cannabis
OMDATA	Public Prosecution Department Data
PMA	Paramethoxyamphetamine
PMK	Piperonyl-Methyl-Keton
PMMA	<a href="#">Para-Methoxymethamphetamine</a>
PPC	Penitentiary Psychiatric Centres
RDS	Respondent Driven Sampling
RIEC	Regional Information and Expertise Centres
RIOB	Guideline on Methadone Maintenance Treatment
RISc	Risk Assessment Scales
RIVM	National Institute for Public Health and the Environment
ROM	Routine Outcome Monitoring
SCP	National Institute for SocioCultural Studies
SES	Socioeconomic Status
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
SVG	Addiction Probation Services
SWOV	Institute for Road Safety Research
TBC	Tuberculosis
TDI	Treatment Demand Indicator
THC	Tetrahydrocannabinol
T.K.	Lower House of Parliament
TM	Treatment Multiplier
TRAILS	Tracking Adolescents Individual Lives' Survey
VAPO	Very Active Adult Prolific Offenders
VBA	Drugfree Addiction Support Unit
VNG	Association of Netherlands Municipalities
VVGN	Dutch Association of Addiction Physicians
VWO	Secondary education at the higher level, pre-university education
VWS	Ministry of Public Health, Welfare and Sport
WHO	World Health Organisation
WODC	Research and Documentation Centre of the Dutch Ministry of Justice
WTZi	Admittance of Care Institutions Act
XTC	Ecstasy
ZonMw	Netherlands Organisation for Health Research and Development

#### 14. 3 List of full references of laws in original language (with link)

- **Opiumwet:** [http://wetten.overheid.nl/BWBR0001941/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0001941/geldigheidsdatum_21-11-2011)
- **Wet Victor:** [http://wetten.overheid.nl/BWBR0013719/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0013719/geldigheidsdatum_21-11-2011)
- **Uitvoeringsregeling Opiumwet:**  
[http://wetten.overheid.nl/BWBR0014569/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0014569/geldigheidsdatum_21-11-2011)
- **Opiumwetbesluit:** [http://wetten.overheid.nl/BWBR0014405/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0014405/geldigheidsdatum_21-11-2011)
- **Beleidsregels bestuurlijke boete Opiumwet:**  
[http://wetten.overheid.nl/BWBR0027767/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0027767/geldigheidsdatum_21-11-2011)
- **Uitvoeringsregeling Opiumwet:**  
[http://wetten.overheid.nl/BWBR0014569/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0014569/geldigheidsdatum_21-11-2011)
- **Penitentiaire Beginselenwet:**  
[http://wetten.overheid.nl/BWBR0009709/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0009709/geldigheidsdatum_21-11-2011)
- **Uitvoeringsbesluit voorwaardelijke invrijheidstelling:**  
[http://wetten.overheid.nl/BWBR0024029/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0024029/geldigheidsdatum_21-11-2011)
- **Plaatsing in een inrichting voor stelselmatige daders (ISD):**  
[http://wetten.overheid.nl/BWBR0017012/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0017012/geldigheidsdatum_21-11-2011)
- **Wet Voorkoming Misbruik Chemicaliën:**  
[http://wetten.overheid.nl/BWBR0007286/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0007286/geldigheidsdatum_21-11-2011)
- **Wijzigingswet Wet voorkoming misbruik chemicaliën, enz. (handel in drugsprecursoren):** [http://wetten.overheid.nl/BWBR0019523/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0019523/geldigheidsdatum_21-11-2011)
- **Mandaatregeling Wet voorkoming misbruik chemicaliën 2006:**  
[http://wetten.overheid.nl/BWBR0019984/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0019984/geldigheidsdatum_21-11-2011)
- **Wet bevordering integriteitsbeoordelingen door het openbaar bestuur (Wet Bibob):**  
[http://wetten.overheid.nl/BWBR0013798/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0013798/geldigheidsdatum_21-11-2011)
- **Besluit Bibob:** [http://wetten.overheid.nl/BWBR0014964/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0014964/geldigheidsdatum_21-11-2011)
- **Zorgverzekeringswet:** [http://wetten.overheid.nl/BWBR0018450/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0018450/geldigheidsdatum_21-11-2011)
- **Geneesmiddelenwet:** [http://wetten.overheid.nl/BWBR0021505/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0021505/geldigheidsdatum_21-11-2011)
- **Wet Maatschappelijke Ondersteuning (WMO):**  
[http://wetten.overheid.nl/BWBR0020031/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0020031/geldigheidsdatum_21-11-2011)
- **Interimbesluit Forensische Zorg (act in preparation):**  
[http://wetten.overheid.nl/BWBR0029333/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0029333/geldigheidsdatum_21-11-2011)
- **Algemene Wet Bijzondere Ziektekosten:**  
[http://wetten.overheid.nl/BWBR0002614/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0002614/geldigheidsdatum_21-11-2011)
- **Wegenverkeerswet:** [http://wetten.overheid.nl/BWBR0006622/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0006622/geldigheidsdatum_21-11-2011)
- **Gemeentewet:** [http://wetten.overheid.nl/BWBR0005416/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0005416/geldigheidsdatum_21-11-2011)
- **Drank- en Horecawet:** [http://wetten.overheid.nl/BWBR0002458/geldigheidsdatum\\_21-11-2011](http://wetten.overheid.nl/BWBR0002458/geldigheidsdatum_21-11-2011)
- **Wet Publieke Gezondheid:**  
[http://wetten.overheid.nl/BWBR0024705/geldigheidsdatum\\_22-11-2011](http://wetten.overheid.nl/BWBR0024705/geldigheidsdatum_22-11-2011)
- **Wet Verplichte Geestelijke Gezondheidszorg (in preparation)**

## Map of the Netherlands: provinces and major cities

### The Netherlands



