



European Monitoring Centre  
for Drugs and Drug Addiction

**DBDD**  
Deutsche Beobachtungsstelle für Drogen und Drogensucht  
DHS IFT BZgA

Tim Pfeiffer-Gerschel, Ingo Kipke, Stephanie Floeter & Krystallia Karachaliou,  
IFT Institute for Therapy Research

Christiane Lieb, Federal Centre for Health Education

Peter Raiser, German Centre for Addiction Issues

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

**GERMANY**

**New Developments, Trends and  
In-Depth Information on Selected Issues**

**Drug Situation 2009/2010**

**IFT Institute for Therapy Research (Institut fuer Therapieforschung, IFT) (Epidemiology and Coordination)**

*Responsible for chapters 1, 2, 4, 5, 6, 7, 8, 9, 10 und 12*

Dr. Tim Pfeiffer-Gerschel (head of the DBDD)

Dr. Stephanie Floeter

Krystallia Karachaliou

Ingo Kipke

Parzivalstr. 25

80804 Munich, Germany

Tel.: +49 (0) 89 - 360804-40

Fax: +49 (0) 89 - 360804-49

Email: pfeiffer-gerschel@ift.de

**Federal Centre for Health Education (Bundeszentrale fuer gesundheitliche Aufklaerung, BZgA) (Prevention)**

*Responsible for chapter 3*

Christiane Lieb/Peter Lang

Ostmerheimer Str. 220

51109 Cologne, Germany

Tel.: +49 (0) 221-8992 - 364

Fax: +49 (0) 221-8992 - 300

Email: peter.lang@bzga.de

**German Centre for Addiction Issues (Deutsche Hauptstelle fuer Suchtfragen, DHS) (Therapy)**

*Responsible for chapter 11*

Peter Raiser

Westring 2

59065 Hamm, Germany

Tel.: +49 (0) 2381-901521

Fax: +49 (0) 2381-901530

Email: raiser@dhs.de

## National experts

In its function as national focal point for the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the DBDD assigns national experts to the five epidemiological key indicators. Serving as contact persons for the EMCDDA, these experts take part in the experts' conferences held yearly at European and national level with a view to further harmonize and develop the key indicators. They moreover contribute to the creation of this annual Report by writing texts on specific topics and giving feedback to the draft versions of the individual chapters.

- Key indicator population surveys (chapter 2)  
National expert: Dr. Ludwig Kraus, IFT Munich
- Key indicator prevalence estimate on problem drug use (chapter 4)  
National expert: Dr. Ludwig Kraus, IFT Munich
- Key indicator drug-related infectious diseases (chapter 6)  
National expert: Dr. Ruth Zimmermann, Robert Koch-Institut
- Key indicator Treatment demand (chapter 5)  
National expert: Dr. Tim Pfeiffer-Gerschel, IFT Munich
- Key indicator drug-related deaths (chapter 6)  
National expert: Dr. Axel Heinemann, University Clinic Hamburg-Eppendorf (UKE)

In addition to the persons mentioned above, the following experts have also contributed to the creation of this annual Report:

Heiko Hergenbahn, BKA Wiesbaden (chapter 10), Dr. Heinrich Kuefner, IFT Munich (chapter 4), Oliver Mueller, CDR Frankfurt (chapter 2 and 10), Alexander Pabst, IFT Munich (chapter 2), Dr. Bernd Wese, CDR Frankfurt (chapter 2 and 10).

**Note:** For better legibility, the present report refrains from using female forms that are instead subsumed under the respective male gender.



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## ABBREVIATIONS

Abbreviation	German	English
ADHD	Aufmerksamkeitsdefizit- /Hyperaktivitaetsstoerung (ADHS)	Attention deficit hyperactivity disorder
AMG	Arzneimittelgesetz	Medical Products Act
AWMF	Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften	Association of the Scientific Medical Societies in Germany
BAEK	Bundesaerztekammer	German Medical Association
BAMF	Bundesamt fuer Migration und Fluechtlinge	Federal Agency for Migration and Refugees
BfArM	Bundesinstitut fuer Arzneimittel und Medizinprodukte	Federal Centre for Drugs and Medical Devices
BGH	Bundesgerichtshof	
BKA	Bundeskriminalamt	Federal Criminal Police Office
BMAS	Bundesministerium fuer Arbeit und Soziales	Federal Ministry for Employment and Social Affaires
BMFSFJ	Bundesministerium fuer Familie, Senioren, Frauen und Jugend	Federal Ministry for Family, Senior Citizens, Women and Youth
BMI	Bundesministerium des Innern	Federal Ministry of the Interior
BMJ	Bundesministerium der Justiz	Federal Ministry of Justice
BMG	Bundesministerium fuer Gesundheit	Federal Ministry for Health
BtM	Betaeubungsmittel	Narcotic drugs
BtM-AEndV	Betaeubungsmittelrechts-AEnderungs- verordnung	Amending regulation on narcotic drugs
BtMG	Betaeubungsmittelgesetz	Narcotics Act
BtMG- AEndG	Gesetz zur AEnderung des Betaeubungsmittelgesetzes	Amending Narcotics Act
BtMVV	Betaeubungsmittelverschreibungs- verordnung	Narcotics Prescription Regulation
BUB- Richtlinien	Richtlinien ueber die Bewertung von aerztlichen Untersuchungs- und Behandlungsmethoden	Guidelines on the evaluation of medical examination and treatment methods
BZgA	Bundeszentrale fuer gesundheitliche Aufklaerung	Federal Centre for Health Education
DBDD	Deutsche Referenzstelle fuer die Europaeische Beobachtungsstelle fuer Drogen und Drogensucht	German Reference Centre for the European Monitoring Centre for Drugs and Drug Addiction
DGVS	Deutsche Gesellschaft fuer Verdauungs- und Stoffwechselkrankheiten	German Society for Digestive and Metabolic Diseases
DHS	Deutsche Hauptstelle fuer Suchtfragen	German Centre for Addiction Issues
DND	Drogennotdienst	Drug Emergency Service
DRV	Deutsche Rentenversicherung Bund	German National Statutory Pension Insurance
EBDD / EMCDDA	Europaeische Beobachtungsstelle fuer Drogen und Drogensucht	European Monitoring Centre for Drugs and Drug Addiction
ECDP		European Cities on Drug Policy
EDDRA	Austausch ueber Aktivaeten zur Reduzierung der Drogennachfrage	Exchange on Drug Demand Reduction Action

Abbreviation	German	English
ESA	Europaeische Suchtstudie (frueher Bundesstudie)	Epidemiological Survey on Addiction
EU	Europaeische Union	European Union
FIA Berlin	Forschungsteam Internationaler Arbeitsmarkt Berlin	Research Team International Labour Market Berlin
G-BA	Gemeinsamer Bundesausschuss	Common Federal Committee
GKV	Gesetzliche Krankenversicherung	SHI -Statutory Health Insurance Scheme
GRV	Gesetzliche Rentenversicherungen	Statutory Social and Pension Insurances
HAART		Highly Activating Antiretroviral Treatment
HBV	Hepatitis B Virus	Hepatitis B Virus
HCV	Hepatitis C Virus	Hepatitis C Virus
HDG	Horizontale Drogengruppe	Horizontal Drug Group
IFT	Institut fuer Therapieforchung	Institute of Therapy Research
IDU	IVD -Intravenoes applizierender Drogenkonsument	Injecting drug user
KJHG	Kinder- und Jugendhilfegesetz	Law on children and youth welfare
LAAM	Levoalphaacetylmethadol	Levomethadyl acetate hydrochloride
LVA	Landesversicherungsanstalt Sachsen	Land Insurance Agency Saxony
MoSyD	Frankfurter Monitoring System Drogen	Frankfurt Monitoring System Drugs
NGO	Nicht-staatliche Organisation	Non-governmental organization
REITOX	Europaeisches Informationsnetzwerk zu Drogen und Sucht	REITOX- European Information Network on Drugs and Addiction
RKI	Robert Koch Institut	RKI - Robert Koch Institute
SGB	Sozialgesetzbuch	Social Security Codes
SQ	Strukturierter Fragebogen	Standard Questionnaire
ST	Standardtabelle	Standard Table
StBA	Statistisches Bundesamt (Destatis)	Federal Statistics Office
StGB	Strafgesetzbuch	Penal Code
THC	Tetrahydrocannabinol	Tetrahydrocannabinol
UN	Vereinte Nationen	United Nations
WHO	Weltgesundheitsorganisation	World Health Organization
ZI	Zentrales Institut der Kassenaerztlichen Versorgungen	Central Institute of SHI-accredited care services
ZOOM	ZOOM - Gesellschaft fuer prospektive Entwicklungen e.V. in Goettingen	ZOOM – Society for prospective developments in Goettingen

## Introduction

One of the major tasks of the German Reference Centre for the European Monitoring Centre for Drugs and Drug Addiction (Deutschen Beobachtungsstelle fuer Drogen und Drogensucht, DBDD)<sup>1</sup> is to report yearly to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) on the drug situation in Germany, serving as a contact partner for the latter in its function as the so-called German REITOX<sup>1</sup> focal point.

The German REITOX Report 2009/2010 has been produced by the DBDD in accordance with the standard European guidelines issued by the EMCDDA, taking into account the quality report's feedback on previous reports. The report is mainly based on the data from the year 2009, but also includes findings from the year 2010 as far as available until completion of the report.

Each chapter of the report has an introductory passage presenting the most important and updated background information – e.g. on the structure of the health care system or the available data sources. These parts have only been revised according to requirements and updated. They describe the most important fundamentals such as methodological aspects of regularly carried out surveys. The introductory passages are to help to see the up-dated information on the drug situation in context and comprehend it without having to resort to supplementary literature. For the first time in 2009, these parts of the report have been marked (framed and highlighted in grey colour) so that readers, familiar with the framework conditions of the German reporting system, may, while reading, concentrate on the new developments.

The other sections of the individual chapters provide exclusively new data and findings from the reporting year. Older data are only used for comparative purposes where appropriate. Otherwise, the report refers to earlier publications or to pertaining standard tables (ST) and structured questionnaires (SQ) of the EMCDDA that contain a multitude of information. They are available from the statistical bulletin released by the EMCDDA ([www.emcdda.europa.eu/stats10](http://www.emcdda.europa.eu/stats10)), but can, of course, also be electronically supplied by the DBDD on request.

In this year's Report, the two selected issues are devoted to the topics "Cost of drug-related treatment" and "History, methods and implementation of national treatment guidelines". With this, a selected issue of the Reitox Report is dedicated for the second time after 2007 to the costs caused by drugs. Although the detailed analysis of the costs caused by drug-related treatment can by no means even come close to being complete given the complexity of the German care system with its network of various service providers and funding organs, it can still provide an overview of data and information available in a comprised form. Although systematic detailed analyses and studies examining the German treatment system for drug

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<sup>1</sup> Réseau Européen d'Information sur les Drogues et les Toxicomanies.

users in terms of costs and benefits do not exist, it was nevertheless possible to collect a host of pertinent data and information on the topic.

Systematic interventions of comparable quality carried out by various institutions at different places, require the definition of common standards. Treatment guidelines laying down the rules for the numerous aspects of interventions in various substance-related disorders form the basis for high-quality care of professional addiction aid. Based on the guidelines of the AWMF<sup>2</sup> for substance-related disorders and the guidelines for substitution treatment as laid out by the German Medical Association (Bundesaerztekammer, BAEK) and the guidelines in respect of the need for rehabilitation in addiction-related diseases as laid out by the German Statutory Social and Pension Insurance Scheme (Deutsche Rentenversicherung, DRV), this year's selected issue describes in detail the institutional background that formed the framework for the development of the respective guidelines and the contents of the guidelines. It also comments on the further development of the existing guidelines. The last part of this selected issue is devoted to the challenges posed by the development of the implementation strategies, the actual implementation and the obstacles encountered.

In the year 2011, the EMCDDA, too, will bring out publications that will complement our selected issue, approaching it from a European perspective.

On behalf of the German Reitox Reference Centre I would like to express my special thanks to all experts for their cooperation, their support and the host of valuable information they have provided us with in the reporting year. It is only thanks to the existence of such an extensive network that cross-sectional reporting within the framework of the Reitox Report is made possible.

Finally, I would like to draw your attention to the new and re-designed website of the DBDD on which you find further information on the DBDD and on the national report ([www.dbdd.de](http://www.dbdd.de)). Information on the EMCDDA, data from other EU-countries and on the European report can be found at [www.emcdda.europa.eu](http://www.emcdda.europa.eu).

Munich, August 2010

Tim Pfeiffer-Gerschel  
Head of the DBDD

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<sup>2</sup> Association of the Scientific Medical Societies in Germany.

## Summary

The present report on the drug situation in Germany has been prepared on behalf of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), which is an agency of the European Union. The report is the result of joint work between the German Reference Centre for the European Monitoring Centre for Drugs and Drug Addiction (Deutsche Beobachtungsstelle fuer Drogen und Drogensucht, DBDD), the Institute for Therapy Research (Institut fuer Therapieforchung, IFT), the Federal Centre for Health Education (Bundeszentrale fuer gesundheitliche Aufklaerung, BZgA) and the German Centre for Addiction Issues (Deutsche Hauptstelle fuer Suchtfragen, DHS). The DBDD is funded by the Federal Ministry for Health and Social Affairs and the EMCDDA. The overall report is structured according to EMCDDA guidelines and is available for download at [www.dbdd.de](http://www.dbdd.de).

### **Drug policy: legislation, strategies and economic analysis**

Isolated “drug” concepts have meanwhile been replaced by a cross-substance “addiction” policy that increasingly sets the focus on common aspects of the whole range of psychotropic substances. Areas of concentration of national policy on illicit substances still are the improvement of the aid offers made for people with cannabis-related problems, projects to support parents of teenagers with abusive or harmful substance use, measures to reintegrate drug addicts into working life, offers made for migrants as well as the initiation of further research on the long-term outcome of substitution treatment and other (demonstration) projects. Moreover, the Federal Laender carried out numerous projects and activities that contained regional prevention activities, demonstration projects and studies. A series of legal changes in the light of the placement of synthetic cannabinoids under the Narcotic Act (Betaeubungsmittelgesetz, BtMG) and changes to the Medical Products Act entered into force. At the beginning of the year 2010, the Common Federal Committee passed a guideline to pave the way for the costs of diamorphine-assisted substitution therapy to be borne by the Statutory Health Insurance Scheme.

### **Drug use in the population and specific targeted groups**

The results of the last Epidemiological Survey on Substance Abuse (ESA) carried out in 2009 corroborate the findings of earlier surveys, showing that about a quarter of the adult population in Germany has experience with drugs. The portion of adults who took drugs in the last 12 months still was at 5%, less than 3% used drugs in the last 30 days. Noteworthy figures were furthermore only reached by cocaine, amphetamines and ecstasy (as well as mushrooms according to ESA). The use of heroin, LSD and crack remains to be limited to a specific group that is clearly smaller in numbers.

There were practically no changes found in the adult population between the two ESA data collections carried out in the years 2006 and 2009 (except for slight variations in the lifetime prevalences). A slight increase – at a very low level though - was found for the current consumption (12-month prevalence) of amphetamines and cocaine. Given the stimulating

effects of the two substances, both changes do however point into the same direction. The current consumption of cannabis in the general population remained unchanged in respect of 2006. This observation confirms earlier findings of the ESA 2006 and DAS data collections that pointed to (a decline and) a stabilisation. The Severity of Dependence Scale (SDS) was used by ESA to collect data also on the severity of possible addiction. In the random sample, cannabis-related problems were found in 1.2% of the interviewees. As for cocaine, the figure was at 0.2% and for amphetamines at 0.1%. 30% of the current users of the respective substances have a cannabis-related disorder and 26% a cocaine- and amphetamine-related disorder respectively.

Among teenagers and young adults, substance use is still much more prevalent, but, at the same time, it is lower than in comparative studies of previous years. With the exception of the statements made on the 30-day category, the prevalences for the use of illicit “drugs“ (total) in the last drug affinity study (DAS) carried out by the BZgA (2008) declined for all age groups in comparison with the survey conducted in the year 2004. This result has mainly been brought about by the decline in cannabis use:

In 2010, first results of the most recent SCHULBUS-survey conducted in Hamburg among 14- to 18-year-old teenagers were presented as well as current data of the Frankfurt monitoring system MoSyD. Data on drug use in the general population can be found in chapter 2.

## **Prevention**

While it has been possible to bring down tobacco and cannabis use significantly over the last few years, the extremely high consumption of alcohol by teenagers in Germany has formed a subject of concern among the public and among health politicians for many months. Not only is alcohol the most commonly used psychotropic substance in Germany, but excessive alcohol consumption among some teenagers often goes along with use of cannabis or other illicit substances. Poly-drug use poses a significantly increased risk of developing addiction.

While substance-related prevention activities are presently focused on alcohol - given the current epidemiological situation - cross-substance measures, like for example the promotion of health and life skills as well as the formation of critical views are, on the whole, equally spread. Very often, the so-called life skills programmes are embedded in the curricula of schools with a view to potentially reach a very large portion of the target group. The field of media addiction is a new challenge for prevention as well.

Within the framework of universal prevention measures, parents – in addition to children and teenagers – form an important target group especially for cross-substance measures. Parents are often embedded in the school setting or are directly addressed as a target group of life skill training measures of family-based prevention. Next to improving child rearing skills and harmonious interaction within the family, parents are to become aware of the importance of the role model function they assume for their children with regard to substance use.

Quality assurance and quality management have meanwhile assumed a central role in health promotion and in the prevention of addiction. In addition to studies conducted on the effectiveness of the interventions and the use of scientifically sound prevention, the Federal Laender employ quality assurance instruments that they have developed themselves or adapted like for example “QIP – Quality in Prevention“ developed by the BZgA and the University Clinic Hamburg-Eppendorf.

### **Problem drug use**

Based on the figures from treatment, police contacts and records of drug-related fatalities, estimates venturing the prevalence of problem (i.e. risky, harmful and dependent) drug use make the number of problematic users of heroin range between 78,000 and 184,000 persons (1.4 to 3.4 persons per 1,000 inhabitants) in the age group of 15-64 years. In comparison with the years before, two estimation methods have been slightly modified and partly based on some new data (e.g. on the number of outpatient addiction aid facilities in Germany) so that the estimated figures are not directly comparable to the years before. The interval of the estimated number of heroin/opioid users that is based on the treatment admissions recorded for the year 2008, is identical with the figure calculated for the year 2005, which represents a plausible figure – given the assumed divergence of estimates between the years 2006 and 2007 – and can be interpreted as an indication of a largely stable population. ESA 2009 also provided data on problem drug use in a broader sense that will be reported in chapter 2. The results of the most recent study carried out by the BZgA to investigate the changes in the portions of “regular“ cannabis users among teenagers and young adults have already been presented in the Reitox Report 2009. Moreover, results have been reported from individual studies that have for example carried out specific surveys on the effects of problem cannabis use on the basis of the German ESPAD data.

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

About half (47.5%; 2008: 49.1%) of the clients who sought help from outpatient drug counselling facilities in connection with illicit drugs in 2009, had primary opiate-related problems; about a third (35.4%; 2008: 32.8%) suffered primarily from cannabis-related disorders. Cannabis-related cases accounted for 61.0% (2008: 59.0%) of the first clients in addiction therapy, while opioids played a minor role among this population (18.3%; 2008: 19.8%). In about one case out of ten, stimulants were the reason for contacting an outpatient addiction counselling centre for the first time; they accounted for about 7% of all newly admitted and leaving patients. In the inpatient setting, opioids continued to play a predominant role in the area of illicit drugs. As for acute (hospital) treatments, toxicoses caused by sedatives/hypnotics (excluding alcohol) were the reason for admittance in about one case out of ten. Cocaine or disorders related to the use of stimulants were also the focus of treatment in every tenth case admitted to one of the specialized drug clinics which took part in the German Statistical Report on Treatment Centres for Substance Use Disorders (8.1% and 9.0% respectively). The number of substitution treatments continued to increase

also in 2009 and currently (2009) lies at 74,600. There are still considerable regional divergences regarding the offer of and demand for substitution treatments.

### **Health correlates and consequences**

Until 1 March 2010 a total of 2,856 new cases of hepatitis C were reported to the RKI for the year 2009. The portion of people who contracted HIV probably through injecting drug use (IDU) continued to decline to 3.5%. The number of newly diagnosed HIV-infections in IDUs shrunk from 125 to 100 cases compared to 2008.

For the year 2009, a total of 5,412 cases of newly diagnosed hepatitis C infections were reported. With this, the incidence continued to decline. Injecting drug use, which in all probability has a causal link with the diagnosed hepatitis C infection, was reported for 1,342 cases (34.1% of the cases with reported exposition). With this, IDUs form a large part of the new hepatitis C diagnoses. Infection with hepatitis C has been showing a slight downward trend among drug users over the last years, but it is still one of the central health issues in this group of persons.

In 2009, the total figure of drug-related deaths decreased to the third-lowest level in the last ten years. In total, 1,331 people died of illicit drugs, which represents a decline by eight percent compared to the previous year. Overdose of heroin (including use of heroin in combination with other drugs) is still the most common cause of death.

### **Response to health correlates and consequences**

A variety of measures such as drug consumption rooms, syringe exchange programmes and other prevention programmes is to contribute to preventing drug-related deaths and infectious diseases.

Several recent publications look into the situation of drug users with hepatitis C virus (HCV-) infections and their treatment. There seems to be increasing evidence that HCV-therapy can be effective in this group of persons even under aggravating circumstances like existing co-use of other substances or psychoses.

### **Social correlates and social reintegration**

Unemployment, low education and low income are still commonly found problems among drug users. Special measures undertaken by social security agencies and offers made by the second labour market address the problems that play a decisive role for the outcome of the therapy. In some regions, cooperations have been undertaken between addiction aid and the working groups formed by the employment agencies and the municipalities (the so-called ARGEn) with a view to motivate unemployed drug users to undergo therapy at an early stage, to counteract chronification and to bring as many clients as possible back into regular employment. Chances to return to the first labour market are however rather limited given the qualifications currently required for employment.

The social situation of clients seeking help from low-threshold facilities remains precarious. Their life is still marked by homelessness and lack of regular occupation caused not least by low education.

### **Drug-related crime, prevention of drug-related crime and prison**

In the year 2009, a total of approximately 235,000 drug crimes were recorded. Out of them 170,000 were general offences committed against the Narcotics Act (BtMG) and about 51,000 were dealing/trafficking crimes. With this, the number of dealing/trafficking crimes continues to be on the decline while the number of the general offences committed against the Narcotics Act has hardly changed.

The number of convictions rendered under the Narcotics Act increased by 7.2% from 2007 to 2008. The result is exclusively attributable to the increase in adult offenders. As for the young adults and juveniles, figures show a slight downward trend.

Drug use, especially injecting drug use, is linked to even higher risks in prison than in freedom. There are differences of opinion on whether or not long term substitution and HCV-therapy for inmates is sufficient.

### **Drug markets**

All in all, there was little change in the development of purity, prices and number of seizures of illicit drugs between 2008 and 2009. The quantity of the drugs seized is subject to fluctuations depending on larger individual seizures. Since a series of seizures of large quantities of cocaine running into the three-digit kilogram range and of heroin in the two-digit kilogram range as well as a record seizure of amphetamines (360 kg) were made in 2009 (in contrast to 2008), the quantity of these substances seized is relatively high. As for cannabis, by way of contrast, there were no larger quantities seized in 2009, therefore the overall quantity considerably declined compared to the previous year.

The number of seizures declined on the whole between 2008 and 2009 by 6.6%, which is a result of the declines in all types of narcotic drugs, except for methamphetamine.

The average concentration of active ingredients of the analyzed illicit drugs has hardly changed in 2009 in comparison with 2008. As for cannabis, levels stayed basically stable for the last ten years. By way of contrast, the concentration of active ingredients in amphetamines and cocaine appeared to be on the decline in the last year, while concentration levels of heroin in the wholesale continually increased and those of street heroin stabilized around 20% (2009: 21.7%).

Prizes paid for the various types of drugs either remained stable (marijuana) or slightly increased between 2008 and 2009 at retail level. Only the prices of amphetamines considerably decreased both at retail level (-15%) and wholesale level (-6%). Heroin (+7%), hashish (+8%), marijuana (+9%) and cocaine (+12%), by way of contrast, became more expensive at wholesale level.

## **History, methods and implementation of national treatment guidelines**

In Germany, guidelines are issued by various institutions, organisations and expert societies. Therefore, they differ in goals, addressees, practical relevance and binding character. The focus of this selected issue is placed on substance-related treatment guidelines that are developed according to a standardized procedure and published by medical professional societies. The underlying definition of treatment guidelines corresponds with those used by the EMCDDA. There are furthermore other guidelines taken into account that have a high practical relevance in Germany for the different areas of treatment, e.g. the guidelines of the German Statutory Social and Pension Insurance and the guidelines of the German Medical Association for substitution treatment. Apart from describing the contents of the guidelines, this chapter also deals with the institutional background, the development and history, the implementation, implementation strategies and obstacles encountered. The selected issue also takes a look at the further development of existing guidelines and discussions held on this subject among experts.

## **Cost of drug-related treatment**

Funding of addiction aid in Germany is marked by a complex system of responsibilities. Therefore, the different funding mechanisms are presented in a first step in relation to the funding organs and the measures funded. However, a systematic overview of all costs related to drug-treatment does not exist. Therefore, available data on costs were compiled from different sources that however cannot provide the complete picture.

## PART A: NEW DEVELOPMENTS AND TRENDS

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

#### 1.1 Introduction

##### 1.1.1 Definitions

In Germany, the term 'drug policy' is undergoing a gradual change of meaning. Until the end of the last century, it was exclusively related to illicit drugs that were at the centre of the political interest. There was no comparable conception neither for an alcohol or tobacco policy nor for an 'addiction'<sup>3</sup> policy, comprising the whole range of addictive substances. Since a few years however, (1) disorders resulting from licit psychotropic substances and (2) common aspects of all substances (e.g. in universal prevention or in patients with multiple abuse) as well as non-substance-related forms of addiction<sup>4</sup> (e.g. pathological gambling) have increasingly moved into the focus of the political interest. This is the reason why the terms 'drug and addiction policy' or 'addiction policy' find more frequent use gradually replacing the term 'drug policy'. As a result of the differences in the policy aims pursued and strategies deployed in the area of licit and illicit substances, the term 'drug and addiction policy' finds preferred usage in the German language.

Moreover, the range of vision is expanding from the original main focus on substance-related addiction to risky and harmful use and thus to a comprehensive understanding of health policy for substance-related disorders and risks. However, in the German language there is no appropriate term reflecting this expansion of the concept, so that the term of 'addiction policy' continues to be used. As a consequence, licit substances and common strategies for both licit and illicit substances have to be taken into account in the annual reports of the DBDD. In many cases however, it is not possible any more to set the two categories apart due to technical and political developments. Nevertheless, in line with the guidelines given for the topic of this report, exclusively illicit substances will be taken into consideration, where possible. Non-substance-related addiction is currently of no relevance for this report.

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<sup>3</sup> The term "addiction" no longer refers to a narrow target group, but comprises risky, harmful and addictive consumption.

<sup>4</sup> There is still scientific controversy over the question whether pathological gambling should be regarded as a non-substance-related form of addiction or as a disorder of impulse control. So far, no final agreement could be reached on this. The non-uniform use of terms in this Reitox Report does not constitute a preference for either of the concepts. The policy introduces non-substance-related forms of addiction in the concept and measures of drug policy.

### 1.1.2 Objectives and focal points of national “drug and addiction policy“

Created in 1998, the position of the Federal Government Commissioner on Narcotic Drugs reports to the Federal Ministry for Health. The Commissioner coordinates the drug and addiction policy of the Federal Government which is based on the following four areas:

- Prevention of drug use
- Counselling and treatment of drug users
- Survival aid and harm reduction
- Repression and supply reduction

The intention hereby is to create a balance between measures undertaken to reduce both demand and supply. The Federal Government’s addiction policy comprises licit psychotropic substances and associated risks taking into account European developments.

In line with the broad conception of the WHO, addiction is understood as a complex illness associated with psychological, somatic and social disorders requiring treatment. Existing measures undertaken to combat drug use and addiction are to be made available as early and comprehensively as possible. Prevention of addiction plays a primordial role in addiction policy. It aims at preventing or at least significantly reducing risky consumption, harmful use and substance dependence. Existing measures and offers are to be further complemented and their quality secured. The national “Action Plan for fighting Drugs and Addiction“ passed in 2003 (Die Drogenbeauftragte der Bundesregierung 2003), will be replaced by an updated national strategy on drug and addiction policy in 2010 and provide the framework for current addiction policy.

### 1.1.3 Political framework

#### **Responsibilities of the Federal Government and the *Laender***

The Federal Government and the *Laender* share their responsibilities in drug and addiction policy. According to the Basic Constitutional Law, the Federal Government has legislative authority over the narcotic drugs law, the penal law, the law of penal execution and the social welfare law. On this basis, it has defined a legal framework for its drug policy and has formulated standards. However, the execution of these federal laws mainly falls under the responsibility of the *Laender*. In addition, the *Laender* also have their own legislative authority in areas which are of relevance for drug and addiction policy including school, health and education systems. The actual implementation of the drug and addiction policy – in particular also funding – mainly lies in the hands of the *Laender* and municipalities which may very well set different focuses within the framework of given legal guidelines and common goals.

Currently, as part of the implementation of the drug policy, a few *Laender* are working on shifting competences especially with regard to counselling, care and general prevention activities to the municipalities (e.g. Hessisches Sozialministerium, 2006), in order to, among

others, improve integration between youth welfare and addiction support systems. However, this will tend to render supra-regional exchange of information and surveying of the overall situation more difficult.

### **The role of the funding organs**

Funding of treatment and rehabilitation is, for the most part, provided by the health or pension insurance schemes respectively. Alternatively, funding is taken over by social welfare providers. Costs caused by (secondary) disorders resulting from drug use and withdrawal (detoxification) are generally borne by the health insurance funds whereas outpatient and inpatient medical rehabilitation is paid for by the pension insurance funds. Social insurance providers act as independent self-governing bodies under public law. Therefore, political decisions often do not have a direct impact on the funding practice with regard to certain treatment offers.

### **The role of non-governmental organizations**

In Germany, health care and social work in particular are governed by the principle of subsidiarity. The associations of SHI-accredited doctors (i.e. general practitioners) are tasked to guarantee outpatient medical care. Private charity organizations in particular, organize large parts of the measures of socio-therapeutic care for drug users for which they receive public funding – from national, *Laender*- and municipal budgets according to certain criteria. Only in few cases (e.g. counselling facilities run by public health offices or psychiatric clinics), the Federal Government itself provides special treatment offers and services for persons with addiction problems. Youth welfare relies on the joint work of governmental and non-governmental institutions (Social Security Codes, Sozialgesetzbuch, SGB VIII).

A general outline of the institutional framework and policies can be found in the structured questionnaire 32.

## **1.2 Legal framework**

### **1.2.1 Laws, regulations, directives or guidelines in the field of drug issues**

#### **Narcotics Act (BtMG)**

The Narcotics Act (BtMG) contains all important regulations on how to deal with these substances taking into account the respective UN-conventions on addictive substances. Substances which are deemed as narcotic drugs in terms of the German Narcotics Act are listed in three schedules encompassing all substances mentioned in the international agreements on narcotic drugs:

- Schedule I: narcotics not eligible for trade and medical prescription (e.g. MDMA, heroin, cannabis).
- Schedule II: narcotics eligible for trade but not for medical prescription (e.g. Delta-9-tetrahydrocannabinol (THC), dexamphetamine).

- Schedule III: narcotics eligible for trade and medical prescription (e.g. amphetamines, codeine, dihydrocodeine, cocaine, methadone, morphine and opium).

The prescription of narcotics (schedule III) as part of a medical therapy is subject to the special regulations on the prescription of narcotic drugs (BtMVV) and requires for example the use of special prescription forms for narcotic drugs.

### **Social Security Codes**

The social security codes define the framework for the financing of addiction therapy. The costs of drug addiction therapy (rehabilitation) are mainly borne by the pension insurance funds. Physical withdrawal (detoxification) and substitution therapy are paid for by the health insurance funds. Other funding organs are the local or supra-local social welfare providers and communities as supporting organs of youth welfare.

With the fusion of unemployment aid and social aid in 2005 ("Hartz IV"), the social security codes (in particular SGB II) have become even more important for people with drug problems. The central goal of the reform being to improve procurement of work, efforts are undertaken to work more intensely on the removal of obstacles hindering the placement on the job market. In this context, drug addiction represents a particularly problematic obstacle requiring specific attention. According to the social security codes (SGB II), the following institutions are in charge of granting aid: the employment agencies or working groups formed by the latter and the municipalities as well as the so-called opting municipalities.

### **Other laws**

Other relevant laws defining the possible legal consequences of the consumption of psychological active substances, for example with regard to participation in road traffic, are the:

- Road Traffic Regulations (Straßenverkehrsordnung, StVO) which specify for example how to conduct traffic controls,
- Road Traffic Act (Straßenverkehrsgesetz, StVG) which sets blood alcohol limits and also describes driving motor vehicles under the influence of other intoxicating substances as a regulatory offence,
- Criminal Code (Strafgesetzbuch, StGB), which also goes into the consequences of the consumption of alcohol and other intoxicating substances in road traffic and
- Driving License Regulation (Fahrerlaubnisverordnung, FeV), which deals with the conditions for driving, doubts about the qualification for driving and the revocation of driving licenses for example because of an existing dependence on narcotic drugs.

## 1.2.2 Laws implementation

A host of information on legal practice and prosecution was provided in a selected issue of the Reitox Report 2008 and a publication of the EMCDDA. Both documents are available from the DBDD.

### **Discontinuance of prosecution**

The German Narcotics Act § 31a provides for the possibility to discontinue prosecution for possession of drugs under certain circumstances, namely when the offender has grown, produced, imported, exported, bought or received and possessed in any other way narcotic substances in small amounts exclusively for personal use and when his guilt is deemed as minor and there is no public interest in prosecution. This provides the public prosecutor with an instrument to stop proceedings for consumption-related offences without court approval. All Federal *Laender* have regulated details of the application of § 31a BtMG through recommendations or guidelines. These guidelines considerably diverged from each other in the individual *Laender* a few years ago, but have meanwhile largely converged. Some divergences in the *Laender* regulations do however persist (cf. Schaefer & Paoli 2006).

### **Threshold values for “small amounts” of cannabis and other substances**

Most of the *Laender* have introduced comparable threshold values for “small amounts” (upper/lower limit) for cannabis. The limits set by the individual *Laender* are guideline values from which public prosecutors and judges may diverge in individual cases. There is no legal claim to the discontinuance of prosecution in the case of possession of small quantities of drugs. However, discontinuance of prosecution does not automatically mean that the crime has no consequences. Public prosecutors have the right to stop proceedings under certain conditions (e.g. community service, fines or counselling in a social institution).

On 3 December 2008, the Federal High Court of Justice lowered the “non-small” amount for methamphetamine from 30 grams methamphetamine base to 5 grams in a principle-establishing ruling. In view of the scientific findings gathered on the toxicity of methamphetamine over the last ten years, the Senate considered it necessary to change the existing law and lower the threshold value. Contrary to a Land Court, the Federal High Court fixed the threshold value not to five gram methamphetamine hydrochloride but to methamphetamine base (for more details see also Patzak 2009).

Already in April 2007, the Federal High Court of Justice rendered a ruling defining the “non-small amount” of buprenorphine. With that, the Federal High Court of Justice added another decision to the series of landmark rulings on “non-small amounts” in which it dealt for the first time with a substance used in substitution therapy which has also made its appearance on the illicit market causing some concern (Winkler 2007). The “non-small amount” in the wording of the BtMG does not refer to – contrary to the term “small amount” – the weight of the seized substance but to the active ingredient contained in the substance.

Some (four) Federal *Laender* have explicitly defined the possibilities of discontinuing prosecution in connection with other narcotic drugs. They have provided for the possibility to discontinue prosecution (Patzak & Bohnen 2009) in the case of the possession of heroin (1g), cocaine (1-3 g depending of the Federal *Land*), amphetamine (two Federal *Laender*: 2,5 g and respectively 3 g) and ecstasy (three *Laender*: between 3 and less than 20 tablets).

#### **Act on diamorphine-assisted substitution therapy<sup>5</sup>**

On 28 May 2009, the German Bundestag passed the “Act on diamorphine-assisted substitution therapy“ creating the legal preconditions for a transfer of the diamorphine-assisted therapy into regular care by changing the Narcotics Act, the Medical Products Act and the Regulation on the Prescription of Narcotic Drugs. The act stipulates among others that diamorphine (pharmaceutically produced heroin) becomes eligible to prescription – on very narrow criteria – as a narcotic drug used for heavily dependent opioid addicts. The act was then presented to the Bundesrat and finally endorsed in a plenary session on 10 June 2009. The Act on diamorphine-assisted substitution therapy entered into force on 21 June 2009.

The act makes it possible for the findings of a clinical study funded by the Federal Ministry for Health, which investigated the treatment of heavily dependent opioid addicts with diamorphine in comparison with a methadone-assisted treatment, to be turned into actual practice. The study was carried out in seven cities. All evaluations on the federal demonstration project on diamorphine-assisted treatment (2001–2007) (cf. also the Reitox Reports 2007 and 2008) were available since 2008 and suggested the long-term superiority of the diamorphine-assisted therapy of severely addicted heroin users over other treatment forms in terms of improving the health condition, achieving abstinence or respectively reducing consumption and facilitating social integration. These findings were recognized again in a public hearing of the Health Committee of the German *Bundestag* on 23 March 2009. The large majority of the members of the committee endorsed the motion to offer the diamorphine-assisted therapy to a small group of seriously ill heroin addicts as an additional treatment option.

Government funding for the *Laender* and municipalities that participated in the demonstration project stopped end of February 2008. The Federal Government continues to fund the documentation and the monitoring of the diamorphine-assisted therapy in Germany in order to ensure quality assurance in terms of course of therapy, therapy standards and effects.

#### **BfArM: license of diaphine as a medical drug**

On 15 October 2009, the Federal Centre for Drugs and Medical Devices (Bundesinstitut fuer Arzneimittel und Medizinprodukte, BfArM)) licensed the proprietary medicinal drug Diaphine<sup>®</sup> 10,000 mg powder to be used for the manufacturing of an injectable solution.

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<sup>5</sup> Federal Law Gazette (2009). Part I No. 41, Bonn: 20.07.2009.

**Common Federal Committee: resolution on diamorphine-assisted therapy**

On 18 March 2010, the common federal committee passed a resolution to amend its guideline “Methods of SHI-accredited physician services: diamorphine-assisted therapy of opiate addicts“ to provide diamorphine-assisted therapy for severe dependent heroin users in regular care through the statutory health insurance. The resolution was published on 11 June 2010 in the Federal Gazette (no. 85 p. 2074) and entered into force on 12 June 2010.

**Evaluation Committee of the Compulsory Health Insurance (BWA)**

The BWA has submitted a resolution for the amendment of the Standardized Evaluation Criteria (EBM) as well as a recommendation for financing diamorphine-supported treatment of opiate addicts to the Federal Ministry of Health (BMG) for examination according to § 87 SGB V, each effective from 1 October 2010.

**New “Guidelines on the performance of substitution-assisted therapy of opiate addicts“**

Likewise, the German Medical Association (Bundesaerztekammer, BAEK) revised its “Guidelines on the performance of substitution-assisted therapy of opiate addicts“ of the year 2002 and passed a corresponding resolution on 19 February 2010. The revised and updated guidelines have meanwhile been published<sup>6</sup> (and are also available on the website of the EMCDDA). The regulations are binding for the substituting physicians in keeping with their medical professional code. In addition, the BAEK will add a facultative, diamorphine-specific module to the postgraduate training “Basic care in addiction medicine“ to provide physicians with the possibility to acquire a corresponding qualification.

**Amending regulation on the cost reimbursement with regard to narcotic drugs (Betaeubungsmittel-Kostenverordnung, BtM-KostV) and precursors (GUEGKostV)**

The amended regulations on the cost reimbursement for narcotic drugs (BtMKostV)<sup>7</sup> and for precursors (GUEGKostV)<sup>8</sup> passed on 30 June 2009 (Federal Law Gazette p.1675 and p.1678) entered into force on 4 July 2009. They serve to cover the costs incurred by the Federal Centre for Drugs and Medical Devices (Bundesinstituts fuer Arzneimittel und Medizinprodukte, BfArM) in carrying out its duties in the area of the narcotic drugs trade and control of precursors.

**Article 5 of the amending law on the narcotics act and other regulations (15th Narcotics Act Amendment)**

The amendments made to the Narcotics Act (Betaeubungsmittelgesetz, BtMG) by Article 5 of the 15<sup>th</sup> Narcotics Act Amendment (Law passed on 17 July 2009, BGBl. I p.1990) entered

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<sup>6</sup> Available at: [www.bundesaerztekammer.de/page.asp?his=1.117.1504.1575.8070](http://www.bundesaerztekammer.de/page.asp?his=1.117.1504.1575.8070).

<sup>7</sup> Available at: [www.gesetze-im-internet.de/btmkostv\\_2009/BJNR167500009.html](http://www.gesetze-im-internet.de/btmkostv_2009/BJNR167500009.html).

<sup>8</sup> Available at: [www.gesetze-im-internet.de/g\\_gkostv/BJNR167800009.html](http://www.gesetze-im-internet.de/g_gkostv/BJNR167800009.html).

into force on 23 July 2009<sup>9</sup>. Their purpose is to make adaptations to regulations and changes to the Medical Products Act, to adapt references to amended purchasing terms and conditions as well as to simplify administration and to correct the range of punishment in § 30a BtMG. They also contain editorial changes and clarifications. The definition of the term "substance" in the BtMG (§ 2, Anlage I BtMG) was adapted to the definition contained in the Medical Products Act (Arzneimittelgesetz, AMG). The amendments also make it possible for patients who take part in clinical tests and in the case of compassionate use to be exempt from a purchasing permit for narcotic drugs (§ 4 BtMG).

#### **24th Amending regulation on narcotic drugs (24. BtMAEndV)**

With the 24<sup>th</sup> Amending regulation on narcotic drugs passed on 18 December 2009 (Federal Law Gazette p.3944), the synthetic cannabinoids "CP-47,497-homologue" and "JWH-018" contained in herbal mixtures like "spice" and other comparable products, have now been permanently placed under the Narcotic Drugs Act (BtMG). Before, they had been placed under the Narcotic Drugs Act by a fast-track regulation passed in January 2009 (22<sup>nd</sup> BtMAEndV) solely for the duration of one year.

Furthermore, three other substances have been placed under the BtMG because of their addiction potential and the health risks posed by these substances: two synthetic cannabinoids (JWH-019 and JWH-073) which have been detected as additives in the herbal mixtures which have recently been made available on the market or have been discussed in narcotic drug Internet forums, as well as mephedrone (4-methylmethcathinone), which has a similar effect as ecstasy and cocaine.

The new active ingredient tapentadole has been put on the list of the narcotic drugs eligible for prescription in order to provide for the drug to be used in pain therapy after having been approved – as expected - as a medical drug.

The 24<sup>th</sup> BtMAEndV entered into force on 22 January 2010<sup>10</sup>. Tapentadole was included in schedule III of the Narcotics Act taking effect on 1 June 2010 (with a provisional regulation until 30 November 2010).

#### **Recommendation of the expert commission according to § 1 paragraph 2 of the Narcotic Drugs Act (BtMG)**

On 3 May 2010, the expert commission recommended in its 35<sup>th</sup> session to the Federal Government according to § 1 paragraph 2 of the BtMG to make the following amendments to schedules I to III of the BtMG:

- Inclusion of the so-called designer drug 4-fluoramfetamine in schedule I of the BtMG:
- Inclusion of the synthetic cannabinoids JWH-200 and JWH-250 in schedule II of the BtMG:

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<sup>9</sup> Available at: [www.bgbl.de/Xaver/start.xav?startbk=Bundesanzeiger\\_BGBI](http://www.bgbl.de/Xaver/start.xav?startbk=Bundesanzeiger_BGBI).

<sup>10</sup> 24. BtMAEndV: [www.bmg.bund.de/SharedDocs/Downloads/DE/Presse/Presse-2009/Presse-2009/btmaendvo,templateId=raw,property=publicationFile.pdf/btmaendvo.pdf](http://www.bmg.bund.de/SharedDocs/Downloads/DE/Presse/Presse-2009/Presse-2009/btmaendvo,templateId=raw,property=publicationFile.pdf/btmaendvo.pdf)

- Change of the position of cannabis in schedules I to III of the BtMG:
- Schedule I BtMG: Inclusion of the following additional special provision (e) on the position cannabis (marijuana, plants and parts of the plant belonging to the species of cannabis plants): - except e) cannabis and cannabis preparations made for the purposes designated in schedules II und III.
- Schedule II BtMG: Inclusion of the position cannabis (marijuana, plants and parts of the plant belonging to the species of cannabis plants) with the following qualification: - provided that they are meant for medical purposes.
- Schedule III BtMG: Inclusion of the position cannabis extract (extract obtained from plants and parts of the plant belonging to the species of cannabis plants), with the following qualification: - only in preparations which are approved as proprietary medicinal products.

The decision on the ingredients tramadol and tilidine as well as on the plant *Mitragyna speciosa* (Kratom) and its ingredients mitragynine and 7-hydroxymitragynine has been deferred.

### **13<sup>th</sup> Amending state treaty on broadcast services**

On 30 October 2009, the conference of the Minister-Presidents of the *Laender* passed the 13<sup>th</sup> amending state treaty on broadcast services. After its ratification by the Land parliaments, it entered into force on 1 April 2010. Focal areas of the amendments are referred to advertisement and product placements in programmes of the public and private broadcasting stations which have been approved of in part. This means that product placements will be allowed for the first time on German radio programmes provided they are correspondingly labelled. Cigarettes and medical drugs have been excluded from this provision. Product placements of these articles continue to be forbidden. The same applies to children's and news programmes which will have to remain free of product placements.

### **Ruling of the Federal Supreme Court (Bundesgerichtshof, BGH) on GBL**

In its ruling of 8 December 2009 (BGH, ruling dd. 8.12.2009, 1 StR 277/09) the First Criminal Division of the Federal Supreme Court established that GBL is to be classified as a pharmaceutical falling under the Medical Products Act (Arzneimittelgesetz, AMG). The decision was among others based on the pharmacological effect of GBL and the circumstance that possible ways of usage are known in the public – as can be seen among others from Internet forums – and that a consumer market has already formed. The First Criminal Division clarified furthermore in its ruling that the revision of the Medical Products Act did not change the legal situation with regard to GBL and that the distribution of GBL for private consumption continues to be punishable (PM No. 249/2009 of the Federal Supreme Court).

GBL is produced in large quantities by the chemical industry and is added as a chemical intermediate to other substances for chemical processes or in small concentrations for the

manufacturing of detergents and solvents. In the human body, it is rapidly transformed into GHB (scene name: liquid ecstasy). Contrary to GHB, GBL does not fall under the Narcotic Drugs Act. Similar to ecstasy, GHB and GBL have – in small dosages – a disinhibiting and sexually stimulating effect, in medium dosages they have a euphorogenic effect. Higher dosages lead to drowsiness and unconsciousness (with the risk of respiratory arrest). Severe physical withdrawal symptoms are reported.

Because of its usage in many chemical processes, GBL is not expected to be placed under the Narcotic Drugs Act. In order to counteract misuse for private consumption, the industry has set up a voluntary monitoring system that reports suspicious transactions to the Joint Drug Precursor Control Unit. It is also being discussed to add substances to GBL to make consumption impossible ([betaeubungsmittelrecht.info](http://betaeubungsmittelrecht.info), Newsletter 1/2010, 15.02.2010).

### **Report of the Federal Ministry for Health on measures and the status of planned projects with regard to the admission of pharmaceuticals containing cannabis and dronabinole**

At the end of January 2010, the Federal Ministry for Health reported to the health committee of the German Bundestag on measures and the status of planned projects with regard to the admission of pharmaceuticals containing cannabis and dronabinole in Germany and in other European countries.

The Federal Ministry for Health takes the view that cannabis and its ingredients shall only be used for medical purposes if there is sufficient medical evidence. The evidence is deemed as given in the case of licensed pharmaceuticals.

Currently, an application for the admission of a pharmaceutical containing dronabinole is pending at the Federal Centre for Drugs and Medical Devices (Bundesinstitut fuer Arzneimittel und Medizinprodukte, BfArM). According to the applicant, the admission is requested for indications like weight loss, nausea and vomiting with AIDS, cancer and cancer chemotherapy. Dronabinole is the name for the chemical compound delta-9-tetrahydrocannabinole, the main ingredient of cannabis sativa. Dronabinole is listed in schedule III of the Narcotic Drugs Act. This schedule contains the narcotic drugs eligible for trade and prescription. Should the admission be granted, the eligibility for trade would be given without having to change the provisions of the Narcotic Drugs Act.

Cannabis extract as an ingredient of proprietary medicinal products falls under schedule I of the BtMG (narcotic drugs not eligible for trade). In order to make proprietary medicinal products containing cannabis extract as an ingredient eligible for prescription, it would be necessary to change the position “cannabis“ in the schedules of the BtMG by a regulation according to § 1 paragraph 1 BtMG.

Therefore, the Federal Ministry for Health has asked the expert committee on narcotic drugs, which is to be heard before any changes are made to the schedules of the BtMG in line with § 1 paragraph 2 sentence 1 BtMG, to deal with the subject matter. In its session held on 7 December 2009, the expert committee discussed possibilities of repositioning cannabis

without taking any final decision. If the pharmaceutical Sativex<sup>®</sup>, which contains cannabis extract, receives a positive decision in the aforementioned European admission procedure, it would probably be possible to ask the expert committee for a prompt decision on the question of amending the schedules of the Narcotic Drugs Act. The expert discussions that have been held so far on the possibilities of repositioning are merely about establishing the eligibility for trade of a proprietary medicinal product licensed according to the provisions of the Medical Products Act. The further legal status of cannabis as a narcotic drug that is not eligible for trade and thus illegal remains unaffected by these considerations.

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

#### **1.3.1 National action plan**

On 25 June 2003, the Federal Cabinet passed the “Action Plan for Fighting Drugs and Addiction“ as a continual agenda to reduce addiction and drug problems in Germany. In the Coalition Agreement „Growth. Education. Solidarity.“ between the parties of CDU, CSU and FDP for the 17th Legislative Period the following decision was made for the drug and addiction policy of the Federal Government: “Prevention, therapy, support to get out of addiction and combat of drug-related crime make up the key focus of our drug policy. Dependent drug users are sick persons who need comprehensive medical aid and support.”

#### **1.3.2 Implementation and evaluation of the national action plan**

The Federal Government conceives of health prevention as a community task and investment in the future that is assumed with cross-departmental responsibility. The goal of the comprehensive prevention concept is to motivate people to lead healthy lives, build up individual health-related resources in order to avoid sickness and stay healthy. As many prevention professionals as possible are to be involved in this concept. The Federal Government will not follow up on the prevention bill introduced by the Federal Ministry for Health in the last legislative period. Within the framework of the prevention strategy, the Federal Government will evaluate and coordinate existing measures, analyze experience and findings made at national and international level, build on well-proven programmes and structures and develop and spread these further (Deutscher Bundestag, Drucksache 17/845).

On 24 March 2010, the Federal Government Commissioner on Narcotic Drugs presented her plans in the health committee of the German *Bundestag* (lower house of the German Federal Parliament) to develop a new national strategy on drug and addiction policy by the end of the year, which should be passed by the federal cabinet (Deutscher Bundestag, Drucksache 17/1652).

#### **German addiction research network**

Since 2001, one focal area of Germany’s drug and addiction policy has been addiction research that was continued in the second funding period until November 2008. In four research networks, funded by the Federal Ministry for Education and Research, scientists

from different fields have cooperated with facilities of primary care and addiction support within the framework of application-oriented research projects in their region. Even though government funding for the research networks stopped in 2007, it is to be expected that the formed networks will continue to carry out common research activities and will also be able to identify new funding possibilities to realize the numerous initiatives some of which are derived from Federal Government projects. A series of results presented in this report and pertaining publications stem from the projects carried out within the framework of the research networks or their follow-up initiatives.

### **Demonstration programmes and research projects funded by the Federal Government**

- **Pilot project on hepatitis C prevention in Berlin**  
The Berlin counselling centre “Fixpunkt e.V.” has been carrying out a pilot project on hepatitis C prevention since October 2008. The project is funded by the BMG from the budget for demonstration projects in cooperation with the Land Berlin that takes over the costs of the scientific evaluation which is carried out by the Centre for Interdisciplinary Addiction Research (Zentrum fuer Interdisziplinäre Suchtforschung, ZIS) in Hamburg. The goal of the project is to reach especially young drug users who do not yet apply drugs intravenously and to inform them about the risks of infection and, ideally, prevent intravenous consumption<sup>11</sup>. More detailed information on this project can be found in chapter 7.3.
- **INCANT**  
The counselling centre “Therapieladen“ represents Germany in the international research project INCANT. The therapy is addressed to young cannabis users in the age group of 13-18 years. Currently (summer 2010), only partial results are available from the random sample drawn in Berlin (n=120). Present findings of the study suggest a significant superiority of the multi-dimensional family therapy (MDFT) over the youth therapy control group with regard to the reduction of cannabis consumption. Similarly, the retention quota was found to be significantly higher as well as the subjective satisfaction level of the parents participating in MDFT. With regard to comorbid psychosocial stress of the young people, it was possible in both therapy groups to improve stress symptoms. The final results of the INCANT-study are expected for autumn 2010<sup>12</sup>. A short presentation of the INCANT-study and the results available so far can be also found in chapter 5.3.2.
- **Transfer of the cannabis cessation programme “Quit the Shit“**  
The cannabis cessation programme “Quit the Shit“ has been made available since 2004 at [www.drugcom.de](http://www.drugcom.de) and has been successfully integrated in the communal structures of outpatient addiction aid (cf. also the REITOX Reports of previous years). The second transfer phase was completed in summer 2009 and the implementation of a quality

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<sup>11</sup> [www.fixpunkt.org](http://www.fixpunkt.org)

<sup>12</sup> [www.incant.de](http://www.incant.de) bzw. [www.incant.eu](http://www.incant.eu)

assuring regional network “Quit the shit“ initiated in currently nine counselling facilities in seven *Laender*<sup>13</sup>.

- Transfer of the project “Realize it“  
“Realize it“ addresses adolescent cannabis users (see also last Reitox reports). The results of the scientific evaluation of the transfer of “Realize it“ are available since the beginning of 2010<sup>14</sup>. Additional information can be found in chapter 3.5.3.
- Transfer of the CANDIS therapy  
Within the framework of the multi-centre, randomized controlled study on the “Implementation of a targeted therapy for cannabis disorders” in the outpatient German addiction aid system“ carried out by the TU Dresden between 2007 and 2009, it was investigated how effective the modular therapy concept CANDIS proves to be under real conditions in outpatient addiction aid facilities (see also the Reitox Reports of previous years)<sup>15</sup>. The transfer project has meanwhile been successfully terminated. For the results of the study see also chapter 5.3.2.
- Project „AVerCa“  
“AVerCa“ is jointly carried out by the German Centre for Addiction Issues (DHS) and the LWL-Addiction Coordination Centre (LWL-Koordinationszentrum Sucht) to set up an effective care structure for the early recognition of and intervention in youth cannabis abuse with a view to facilitate the cooperation with and access to teenage cannabis users (see also the Reitox Report 2009).<sup>16</sup>
- Eltern.aktiv – Pro-active parental work in outpatient addiction aid  
The two-year project jointly carried out between the German Centre for Addiction Issues (DHS) and the LWL-Addiction Coordination Centre (LWL-Koordinationszentrum Sucht) started in 2009. The goal of the project is to pro-actively reach the parents of teenagers with abusive or harmful substance use and at the same time, to obtain efficient access to these teenagers via the parents. They are to be reached at an early stage and to receive adequate support. Another goal of the project is to initiate and promote efficient communication and cooperation between drug aid facilities and intermediate institutions and to promote an optimal, pro-active access to parents of substance using teenagers. The national project is complemented by the additional LWL-project “Pro-active parental work with parents of substance using children and adolescents and youth protection professionals“. In order to add value to the national project for Westphalia-Lippe, the youth welfare offices, especially the youth protection professionals, are to receive support for their pro-active work with the parents<sup>17</sup>.

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<sup>13</sup> [www.drugcom.de](http://www.drugcom.de)

<sup>14</sup> [www.realize-it.org](http://www.realize-it.org)

<sup>15</sup> [www.candis-projekt.de](http://www.candis-projekt.de)

<sup>16</sup> [www.averca.de](http://www.averca.de)

<sup>17</sup> [www.dhs.de/web/projekte/elternarbeit.php](http://www.dhs.de/web/projekte/elternarbeit.php)

- **Parents help parents**

The primordial goal of the project of the federal association of parents of daughters and sons at risk of becoming addicted or suffering from addiction is to develop an “Action guideline for the future work of the parent groups“. Important elements of the project funded by the Federal Ministry for Health are interviews and workshops run by experts on possible new approaches to be taken in order to better reach parents of substance using children and adolescents at an early stage (psychological training, family work according to the CRAFT approach, a.o.) as well as a survey of the approximately 100 parent groups in Germany in order to find out about the needs and concerns of parents of young people at the risk of addiction or suffering from addiction<sup>18</sup>.
- **Development of the group training “CAN Stop“**

Tasked by the Federal Ministry for Health, the German Centre for Addiction Problems among children and adolescents (Deutsches Zentrum fuer Suchtfragen des Kindes- und Jugendalters, DZSKJ) analyses and evaluates a manualized treatment programme called “CAN Stop” from February 2008 until April 2011. The programme is addressed to young people (14 -21 years of age) with problematic cannabis use (see also the Reitox Reports of previous years)<sup>19</sup>.
- **Long-term effects of substitution therapy: PREMOS**

Based on the results of the COBRA-Study (Cost Benefit and Risk Appraisal of Substitution Treatments), the Federal Ministry for Health commissioned a research project in 2007, in order to gain insight into the long-term effects of substitution treatment. Within the framework of a nationwide representative, clinical epidemiological study running under the acronym PREMOS (Predictors, Moderators and Outcomes of Substitution Treatment), the clinical, psycho-pathological, social and substance-related course and outcome of the therapy of more than 2,600 patients from 223 facilities are longitudinally analysed and described over a period of time of up to five years. The final report will be completed by the end of the year 2010<sup>20</sup>.
- **Quality assurance in diamorphine-assisted therapy – documentation standards and monitoring of heroin-based therapy in Germany**

Since the end of the federal demonstration project carried out on heroin-based therapy in the middle of the year 2007, the documentation of treatment standards and therapeutic effects has been guaranteed by the introduction of a quality assurance project funded by the Federal Ministry for Health. For the year 2008, documentation sheets on the therapy course of a total of 231 patients treated with diamorphine are available. Out of these patients, 40 have been newly included (since the middle of 2007) into therapy (17.3%). The results of the therapy documentation of the year 2008 show that also the new entries match the profile of severely addicted heroin users. In comparison with the participants in

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<sup>18</sup> [www.bvek.org](http://www.bvek.org)

<sup>19</sup> [www.canstop.med.uni-rostock.de/](http://www.canstop.med.uni-rostock.de/)

<sup>20</sup> [www.premos-studie.de](http://www.premos-studie.de)

the federal demonstration project there are only few and, if at all, slight divergences in the patient profiles to be found at the beginning of the therapy. The new patients are, on average, three years older, live in somewhat more stable housing conditions and a larger portion of them has got work. Their health condition is bad – similar to the one of the patients who took part in the demonstration project. The therapy courses show on the one hand a long-term stabilisation or slight improvement of the patients who have been treated with diamorphine since the demonstration project. On the other hand, there is a positive development in the health condition and consumption behaviour to be recognized in the newly admitted patients, even though they are in most of the cases not as pronounced yet as among the “old patients”<sup>21</sup>.

- FAIRE: Agency for labour market integration and reintegration of addicted people

Within the framework of a demonstration project jointly funded by the Federal Ministry for Health and the Land Rhineland-Palatinate from the end of 2006 to October 2009, FAIRE pursued the goal to promote labour market integration of patients undergoing rehabilitation (see also the Reitox Reports of previous years). Together with the Land Mecklenburg-Western Pomerania, the Federal Ministry of Health furthermore supported the transfer of FAIRE into Mecklenburg-Western Pomerania from October 2008 till the end of 2009<sup>22</sup>. For the results of the project FAIRE see also chapter 8.3.3.

- Survey on good practice approaches for the integration of addicted people into working life under the Social Codes II (SGB II)

The goal of the joint research group formed by the Research Team International Labour Market (Forschungsteam Internationaler Arbeitsmarkt), Prof. Dr. Dieter Henkel and Zoom – Society for prospective development (Gesellschaft fuer prospektive Entwicklungen e.V)<sup>23</sup> was to collect data on possibly all measures carried out by the centres and agencies involved in providing basic social care services under the Social Codes II (SGB II) with regard to counselling for and placement of people with addiction or at risk of addiction. The survey was also to collect data on good practice examples.

The results of the project, which stopped in summer 2009, show a great heterogeneity as regards the concrete work procedures used in the care provided for addicted people in line with the SGB II. In each phase – starting with the detection of the addiction problem, the care and promotion to the integration into working life – practical work approaches used by the social security agencies diverge considerably. Basic social care providers who have cooperation agreements with local addiction centres tend to better comply with good practice criteria that are controversially discussed by experts. Further information on this project can be found in chapter 8.3.3<sup>24</sup>.

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<sup>21</sup> [www.zis-hamburg.de](http://www.zis-hamburg.de)

<sup>22</sup> [www.fachstelle-faire.de](http://www.fachstelle-faire.de)

<sup>23</sup> [www.prospektive-entwicklungen.de/](http://www.prospektive-entwicklungen.de/)

<sup>24</sup> <http://www.prospektive-entwicklungen.de/projekte/abgeschlossene-projekte/suchtkranke-im-sgb-ii>

- Access to the addiction aid system by people with a migration background  
With a view to develop, test and evaluate culture-sensitive addiction aid, the project “transVer-sucht” was launched in early summer 2009. Funded by the BMG, the project will run for three years. Alongside six regional projects that are to serve as examples for testing and evaluating target group specific access and development of measures, the initiative also comprises an accompanying scientific project that is carried out by FOGS (Gesellschaft fuer Forschung und Beratung im Gesundheits- und Sozialbereich - Society for Research and Counselling in Health and Social Affairs in Cologne) in cooperation with FTK – Fortbildung transkulturell (Society for transcultural further education) in Freudenstadt. Furthermore, a scientific advisory committee was set up to support the demonstration project. The projects (carried out in Berlin, Cloppenburg, Cologne, Leipzig, Nuremberg and Warstein) realize a broad range of measures for various target groups in very different regional settings<sup>25</sup>.
- Modular prevention concept for children from families with addiction problems  
Since 2008, the German Institute for Addiction and Prevention Research (Deutsches Institut fuer Sucht- und Praeventionsforschung, DISuP) and the Catholic College NRW (Katholischen Hochschule NRW) and the German Centre for Addiction Research in Childhood and Adolescence at the University Clinic Hamburg Eppendorf (Deutsche Zentrum fuer Suchtfragen des Kindes- und Jugendalters, DZSKJ am Universitaetsklinikum Hamburg Eppendorf) have jointly carried out the project “Conception and evaluation of a modular prevention concept for children from families with addiction problems – a prospective, randomised multi-centre study” that is also funded by the BMB (see also the Reitox Report 2009). Running for a total of three years, the project comprises a one-year conceptual development phase and a two-year field phase in which the efficiency of the modular prevention concept is experimentally tested. Since the beginning of the field phase in February 2010, the prevention programme “Trampolin” has been tested and scientifically evaluated in more than 20 counselling facilities<sup>26</sup>.
- JES Self-help  
The German Umbrella Association of the Aids-Help-Centres (Deutsche Aids-Hilfe) has been lending its support for 20 years to the countrywide Jes-network in which various regional organisations, countrywide and locally operating groups of current and former drug users and substituted people are joined together. Scientific research shows that participation in the JES-self-help organisation can strengthen the motivation to abstain from using drugs and promote the formation of social networks. The organisation increases, among others, the accessibility to certain target groups among drug users and does valuable services with regard to HIV/AIDS and hepatitis prevention as well as harm reduction. The Federal Ministry for Health provides funds to improve and expand the PR-

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<sup>25</sup> [www.transVer-sucht.de](http://www.transVer-sucht.de)

<sup>26</sup> cf. chapter 3 and [www.projekt-trampolin.de](http://www.projekt-trampolin.de)

work of the JES-network with a view to expand and better use existing potentials. The PR-work will also take account of the circumstance that the JES-target groups show much more interest in and have broader access to the Internet than in previous years. Some of the PR-material will be made available in the English language in order to strengthen the integration of the JES-network into the international organisation INPUD (International Network People who Use Drugs) and promote the exchange also at international level<sup>27</sup>.

- Spice, Smoke, Sence & Co. – Herbal mixtures containing cannabinoids: consumption and motives of consumption set against a changing legal situation  
The research project on “spice” and other comparable herbal mixtures containing cannabinoids funded by the BMG and the Centre for Drug Research (CDR) at the university in Frankfurt in 2009/2010 investigates characteristics and motives of consumption of experimental or regular users as well as the general prevalence and changes in the consumption of such products before and after their placement under the Narcotic Drugs Act. Furthermore, there have been provided new findings from the prospect of staff of the so called head shops. This survey especially helps to take a closer look at motives of consumption and background circumstances. Of special interest for the survey are persons with extended consumption experience. The final report is available at the homepage of the Federal Government Commissioner on Narcotic Drugs<sup>28</sup>.
- FreD goes net  
Placed under the title “FreD goes net“, the German demonstration project “Early intervention in drug users who have come to the notice of the police for the first time - FreD“ (see also previous Reitox Reports) is currently transferred into 17 EU countries. “FreD goes net“ is carried out between November 2007 to October 2010 by the LWL-Coordination Centre Addiction and scientifically evaluated by the Cologne Society for Research and Counselling in Health and Social Affairs (Gesellschaft fuer Forschung und Beratung im Gesundheits- und Sozialbereich, FOGS). The project is jointly funded by the European Commission and the participating member states as well as by the Federal Ministry for Health<sup>29</sup>.
- EU Project Senior Drug Dependents and Care Structures (SDDCARE)  
The project SDDCARE combines research and practice from four European countries to clarify questions on the life situation and health of senior drug dependent women and men and to develop foundations for their care. Central project goals are to acquire basic knowledge of the life situation and health condition of older drug users as well as on their objective and subjective care requirements. The project was funded by the European Commission from January 2008 till the end of June 2010<sup>30</sup>. In the year 2009, the Federal ministry for Health promoted in-depth surveys of senior drug users and experts from drug

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<sup>27</sup> [www.jes.aidshilfe.de](http://www.jes.aidshilfe.de)

<sup>28</sup> [www.drogenbeauftragte.de](http://www.drogenbeauftragte.de)

<sup>29</sup> [www.lwl.org/LWL/Jugend/lwl\\_ks/Projekte\\_KS1/FreD/fred\\_goes\\_net/](http://www.lwl.org/LWL/Jugend/lwl_ks/Projekte_KS1/FreD/fred_goes_net/)

<sup>30</sup> See also REITOX Report 2008/09, chapter 12 and [www.sddcare.eu](http://www.sddcare.eu).

care and care for senior citizens in order to gain competent knowledge of the situation of elderly drug users in Germany. The final report can be downloaded from [www.drogenbeauftragte.de](http://www.drogenbeauftragte.de).

- EU-Project DRUID

The German Federal Highway Research Institute (Bundesanstalt fuer Straßenwesen, BASt, [www.bast.de](http://www.bast.de)) takes the chair in the project of the European Commission, in which 37 partners are working together on "Alcohol, Drugs, Medicines and Driving" (duration: 2006-2010). The results of this interdisciplinary research project are expected to provide important information on how often psychoactive substances appear in road traffic as well as on their risk potential. Moreover, experimental studies on these psychoactive substances are expected to serve as a basis for recommendations to be made on currently non-existing danger thresholds that are to be defined in analogy to the 0.5 per mill blood alcohol concentration<sup>31</sup>.

### **Activities undertaken by the *Laender***

As a result of the federal structure of the Federal Republic of Germany and the principle of subsidiarity as well as the differences in the degree of problems and starting conditions, there exist considerable regional differences in how substance-related disorders are dealt with. As a consequence, drug and addiction programmes are subject to different guidelines and rules in the individual *Laender*. However, the *Laender* have agreed on a profile for regional outpatient addiction support facilities. There are no uniform formal requirements or criteria for quality assurance with regard to measures aiming at the reduction of drug demand. Approaches going into this direction – e.g. the development of guidelines and programmes for quality assurance – are solely adopted at a technical level by professional and scientific associations as well as by the funding organs. Compliance with and application of these guidelines are, however, not mandatory (see 5.5). Therefore, a multitude of different approaches and methods or instruments are currently used in the individual *Laender* and municipalities. Furthermore, large differences with regard to the availability of resources are to be found between the *Laender*.

The *Laender* have a very well developed network at their disposal to deal with people suffering from addiction problems. It is based on the cornerstones of prevention, treatment and aftercare. The countrywide offers made range from prevention, outpatient counselling, qualified detoxification treatments, adaptation facilities, complementary measures (low-threshold facilities, day-care facilities, job programmes and employment projects, assisted living, youth housing, socio-therapeutic transitional residential facilities, hostels for the homeless), other specific offers (nursing homes and treatment ordered by a judge) to self-help initiatives. The work of the large majority of the care facilities is governed by an integrative approach (licit and illicit substances, pathological gambling, addictive problems linked to computer or Internet use, eating disorders, etc.), which is, if necessary, complemented by specific measures for certain target groups. As for the preventive activities

<sup>31</sup> See also the REITOX Reports of previous years and [www.druid-project.eu](http://www.druid-project.eu).

undertaken for at-risk groups, both local approaches and countrywide available projects like early intervention in drug users who have come to the notice of the police for the first time (FreD) or the implementation of the intervention programme “Realize it“ in the *Laender* have proved successful.

The *Laender* too, have set a focus on children and teenagers as well as on licit addictive substances. Central to their work are a stronger target orientation of help offers, the comparison of demand and offer in addiction care and the optimization of the aid system through improved cooperation, cost control and work sharing. Some of the activities deployed by the *Laender* are also presented under the respective topics of the chapters.

There are numerous projects carried out in the Federal *Laender* addressing a series of target groups with different settings and focuses. They range from specific services offered like for example to migrants or socially disadvantaged families over school projects or initiatives undertaken by sport clubs to differentiated interventions, for example in drug users who have come to the notice of the police for the first time. All *Laender* (also those not mentioned explicitly) are promoting numerous measures and projects in the field of drug and addiction. The summary of activities reported by the Federal *Laender* is therefore only a selection of the substantial and most important projects.

### **North Rhine-Westphalia**

The GINKO foundation for prevention in North Rhine-Westphalia is in charge of the coordination of addiction prevention activities and serves as an interface between the Ministry for Employment, Health and Social Affairs and the prevention professionals. Commissioned by the Ministry for Employment, Health and Social Affairs of North Rhine-Westphalia, the GINKO foundation for prevention ([www.stark-statt-breit.de](http://www.stark-statt-breit.de)) developed the cannabis prevention programme “Strong instead of stoned“ which was already presented in the last Reitox Report. Further information on “Strong instead of stoned“ can also be found in chapter 3 of this Reitox Report.

As part of the North Rhine-Westphalian PR campaign “Addiction always has a history“, several weeks in autumn 2009 were placed under the motto “Prevention of addiction concerns us all“. More than 500 events were held in eight regions of the Land until the end of November. The government of the Land supported the activities by an accompanying programme with large media coverage. The goal of these weeks was to give an insight into the causes of addiction, to show people what possibilities they have themselves to prevent addiction and make them aware of potential risks of addiction. To round off the programme, possible ways out of addiction were presented and help offers made.

Initiated by the Federal Ministry of Justice of the Land North Rhine-Westphalia, a working group made up of medical professionals of penal institutions of the Land North Rhine-Westphalia and representatives of the medical chambers of North Rhine and Westphalia-Lippe has developed "Medical treatment recommendations on the drug therapy of heroin addiction in penal institutions (substitution therapy in prison)". The recommendations have been approved by the respective bodies of the medical chambers North Rhine and

Westphalia-Lippe as well as by the Ministry for Employment, Health and Social Affairs of the Land North Rhine-Westphalia. The recommendations were presented to the doctors of the penal institutions in North Rhine-Westphalia within the framework of a workshop.

### ***Bavaria***

The project "mindzone" (drug prevention for young party goers) carried out for many years in Bavaria was expanded last year by campaigns on "spice", "natural drugs" and "poly-drug use".

Within the framework of a project carried out by "Mudra alternative youth help and drug aid" first aid measures are offered for drug users in penal institutions.

"Therapie Sofort Muenchen" ("Therapy Now Munich") is a low-threshold cessation-oriented offer made by the Munich drug aid system. The goal of the initiative is to facilitate the quick referral of addicted people to a suitable withdrawal and rehabilitation centre without long waiting times or counselling work - also for clients without health insurance.

In Regensburg, a street work offer is made to addicted people - who often additionally suffer from psychological disorders - who are hardly or not at all reached by existing regular help offers.

### ***Berlin***

The project "Contraddict" addresses the problem of co-consumption of people undergoing substitution therapy within the framework of a consumption control training. After having been developed and prepared for several years, the programme has been tested by the organisation "Emergency Service for addicted people and people at risk of addiction – Berlin" in a several-year-long trial period. The Contraddict programme is embedded in regular individual counselling offers. The participants formulate their own goals and put them down in writing in an agreement. A manual has been developed for the programme, in which, among others, the structure and fundamental principles of Contraddict, like for example the binding character, concreteness and flexibility are laid out. From the experience made so far, the programme appears to be promising and suited for a broad spectrum of users of licit and illicit drugs.

The federal demonstration project "Transit" has been carried out in Berlin since June 2009 by Gangway e.V.. The goal of the project is to facilitate the access to the local drug aid system for adolescents with a migration background by reducing thresholds. The project comprises trainings carried out for multipliers and peers, cooperation in expert counselling as well as the promotion of the linkage and exchange of existing offers.

Within the framework of the ESF-programme 2007-2013, nine measures of qualification, employment and counselling for addicted people or people at risk of addiction are funded also in the year 2010 with a total of 1,105 participants. These projects aim at stabilizing the living conditions, increasing the working capacity and improving the participation in the working life and the social integration of drug addicts. In the year 2009, the brochure "Work

creates perspectives“ on successful measures of social reintegration into the labour market was published.

Running over a period of three years, the federal demonstration project “Early intervention as a measure of hepatitis C prevention“ is carried out by the counselling centre Fixpunkt e.V. (see also chapter 7.3).

### **Brandenburg**

The extended Fred PLUS Programme is still offered as a demonstration project in 12 selected outpatient counselling centres for drug addicts, especially for the target group of alcohol consuming adolescents in consideration of substance-specific particularities.

The PEER-project offered at driving schools forms also an integral part of the prevention measures carried out within the framework of the *Land* programme "Responsible consumption of alcohol". The project also addresses the problem of drug use/misuse in road traffic.

### **Saarland**

The project FreD (early recognition and intervention in drug use and substance abuse) is offered in all districts of the *Land*.

Also funded by the Land is the network project “Counselling and intervention in young German migrants from Eastern Europe with drug and prison experience“.

There is moreover a cross-border project for multipliers and youth at risk of developing addiction carried out between the region of Lothringia, the German speaking communities of Belgium, Luxemburg and Rhineland-Palatinate (expert project of the “Mondorfer Group“).

### **Saxony-Anhalt**

The study “Modern Drug and Addiction Prevention – MODRUS IV“ was already presented in detail in the last Reitox Report.

In addition to current publications (e.g. *Land* addiction reports, project reports, press releases), Saxony-Anhalt has a new guideline since 2009: “Guideline: Contribution to child welfare assurance by the drug counselling centres of the non-governmental welfare organisation “Freie Wohlfahrtspflege“ in the Land Saxony-Anhalt“.

The project “Cooperation Youth Welfare - School in the town of Dessau-Roßlau“ is to promote the interlocking between prevention work in the school setting and social education measures of youth welfare. The coordination centre at the youth welfare office can link prevention offers to general social services and offers made by child day care institutions and is thus able to act quickly in case of need thanks to early networking. With this project, it is possible to optimally support children and adolescents according to their individual needs in the town districts where they are living in. The project “cooperation youth welfare / school“ has been coordinated with the highest administration level of the *Land* and is to guarantee the quality of the cooperation in the future and give it a more binding character. To this purpose, cooperation agreements have been made with the individual schools.

## **Thuringia**

In Thuringia too, the project FreD is still carried out by many counselling centres.

The project "Pilot network in Thuringia" (run by the Professional Association Drugs and Narcotic substances - Fachverband Drogen und Rauschmittel e.V., fdr) is also active in early intervention. Within the framework of the project, committed volunteers called "pilots" working in an honorary capacity in a drug self-help group, accompany or "pilot" addicted people for example after a detoxification therapy for a limited period of time in order to integrate them into the existing help system of professional offers and self-help groups. Apart from promoting early intervention, the project tries to reach especially those addicts who have become known as "revolving door patients" who are readmitted again and again to the same clinic but do not make use of any further help measures.

A survey recently carried out by the Thuringian counselling centres addressed the subject "migration". The results are presented in chapter 8.2.2.

The project "Drogerie" ("Drug store") in Erfurt is specifically addressed to the target group of young people who may get into contact with drugs and may experimentally use and misuse them (see also chapter 3).

A therapy model offered by the Social Administration Authority Central Germany is the so-called "Magdeburger Weg" (Magdeburg Path), which is also used in Thuringia. In order to give people dependent on alcohol, pharmaceuticals and drugs the possibility to quickly undergo rehabilitation therapy, application procedures have been shortened and made more efficient. Patients in acute therapy are offered the possibility to skip the so far obligatory motivational phase provided by the counselling facilities if they decide to undergo medical rehabilitation. Thanks to an early therapy start, a deterioration of addiction and consequential damages can be counteracted and motivation built up to lead a drug-free life. The procedure known as the "Magdeburger Weg" has meanwhile been taken over not only by all clinics specialized in addiction therapy in central Germany but has also been put into practice in cooperation with the working groups formed between the municipalities and employment agencies (ARGEn) in Saxony, Saxony-Anhalt and Thuringia. This means that a doctor at the employment agency can directly apply for withdrawal treatment after he has medically established the existence of an addiction problem in the recipient of unemployment benefits.

### **Activities undertaken by the Federal Centre for Health Education (Bundeszentrale fuer Gesundheitliche Aufklaerung, BZgA)**

The prevention activities undertaken by the BZgA aim at motivating potential and actual users of harmful substances to critically reflect their consumption behaviour and to establish less risky forms of use. Apart from illicit drugs, in particular the licit and socially accepted drugs nicotine and alcohol are given central attention among the prevention activities. Since 2006, the BZgA added a new focus on its list of activities: the fight against 'pathological gambling'. When developing new measures and media, the Bzga attaches specific importance at systematically addressing target groups in their living environment. In the

following, two measures carried out in 2009 are presented to give a glimpse of the multitude of addiction-specific prevention activities undertaken by the BZgA:

- National competition “Good practice strategies of municipal addiction prevention – addiction prevention for children and teenagers at local level“  
The competition “Good practice strategies of municipal addiction prevention“ has been held for the fourth time by the BZgA and Federal Government Commissioner on Narcotic Drugs in cooperation with the municipal head organisations and working associations of the health insurance funds (see also chapter 3.2.3). In the year 2011, the 5<sup>th</sup> competition will be held with a focus on “Addiction prevention for children and teenagers in special life situations“.
- Campaign: “Making children strong! Come and play along! Strong children – real champions“  
As part of the activities of early addiction prevention, several events were organized within the framework of the programme: “Making children strong“ by local prevention centres in cooperation with the German Football Association (Deutscher Fußball-Bund, DFB) in spring 2010.

### **Conferences and working groups**

As in previous years, a host of conferences and working sessions were held also in the reporting year. From the large number of administrative, organisational, technical and scientific events, only a very small and arbitrary selection will be presented serving as examples for the host of events on offer.

- Cooperation day “Addiction and Drugs“ in North Rhine-Westphalia  
The cooperation day “Addiction and Drugs“ took place in the year 2001 for the first time as a concrete implementation measure of the “Land programme against addiction“ and has been held since every two years. The goal of this event is to bring experts from different fields and institutions together in order to promote interdisciplinary cooperation in various subject areas. The cooperation day offers a unique platform for communication and networking between all participating professionals from drug help organisations in NRW as well as physicians, chemists and psychotherapists. The event is funded by the Ministry for Employment, Health and Social Affairs and planned and held by the working group “interdisciplinary continuing education measure“. The topic of the Cooperation Day 2009 was: “Addiction and demographic change“<sup>32</sup>.
- Expert Conference “Quality in the Prevention of Addiction“ in North Rhine-Westphalia  
The goal of the conference held by the Land coordination centre in cooperation with the BZgA was to present current standards of addiction prevention and to promote the transfer of these standards to different levels with a view to optimize prevention measures in the whole of Germany. The expert conference served as an information

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<sup>32</sup> [www.wissensuchtwege.de](http://www.wissensuchtwege.de)

platform and driving force for the development and harmonization of uniform quality standards and quality assurance procedures in the prevention of addiction.

- Scientific symposium of the German Centre for Addiction Issues (DHS)  
The 18<sup>th</sup> scientific symposium of the DHS held in Tutzing in June 2009, dealt with the topic "Threshold values – Is there any such thing as low-risk consumption of addictive substances?". Apart from presenting the different substances, the participants of the symposium took a closer look at special use situations and life circumstances, like for example substitution, participation in the road traffic and hazards at the workplace. The symposium was addressed to decision makers, multipliers and scientific professionals from basic and practical research.
- 2<sup>nd</sup> German Addiction Congress in Cologne  
On the occasion of the 2<sup>nd</sup> German Addiction Congress jointly held by the German Society for Addiction Research and Addiction Therapy (Deutsche Gesellschaft fuer Suchtforschung und Suchttherapie e.V.) and the German Society for Addiction Psychology (Deutsche Gesellschaft fuer Suchtpsychologie e.V.), 180 presentations were given in 45 symposiums in Cologne in September 2009. With that, the congress gave an intensive insight into the subject area of addiction research. Special attention was attached during the congress to the areas family and youth, prevention as well as comorbidity and addiction therapy.
- Expert conference "Senior drug dependents – care concepts at the interface between addiction help and care for the elderly " in Bavaria  
In cooperation with the Department for Health and Environment of the capital of the free state of Bavaria Munich, the region Upper Bavaria and the Association Drugs and Narcotic Substances (Fachverband Drogen und Rauschmittel e.V., fdr), the Bavarian Umbrella Welfare Association (Der Paritaetische e.v.) and its member organisation Condrops held the expert conference "Senior drug dependents" on 22<sup>nd</sup> October 2009. Lecturers at the conference provided background information, presented work approaches, care and therapy concepts of various projects and gave concrete advice for dealing with an aging group of clients. This expert conference was one of three national conferences held within the framework of the project "Senior Drug Dependents and Care Structures" (SDDCARE)<sup>33</sup>.
- 18<sup>th</sup> Congress of the German Society for Addiction Medicine (Deutsche Gesellschaft fuer Suchtmedizin, DGS)  
"Intoxication as part of life" – Placed under this motto, the DGS held its 18<sup>th</sup> Congress in November 2009. With this motto, the organisation wants to express its opposition to a shift in the focus of addiction policy into the direction of a renaissance of the abstinence paradigm. The DGS proceeds on the principle that understanding what drug dependents seek to find during intoxication can be of use for addiction therapy.

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<sup>33</sup> [www.sddcare.eu](http://www.sddcare.eu)

- Expert meeting "Further development of substitution therapy 2009"  
This expert meeting was held in December 2009 by "akzept e.V." in cooperation with the German Medical Association (BAEK), the Medical Association Westphalia-Lippe (Aerztekammer Westfalen-Lippe), the Professional Association of German Psychiatrists (Berufsverband der Deutschen Psychiater/Deutschen Nervenaezte), the Federal Association of Parents and Family Members for Accepting Drug Work (Bundesverband der Eltern und Angehoerigen fuer akzeptierende Drogenarbeit), the German Society for Psychiatry and Psychotherapy (Deutsche Gesellschaft fuer Psychiatrie, Psychotherapie and Nervenheilkunde, DGPPN), the German Society for Addiction Medicine (Deutsche Gesellschaft fuer Suchtmedizin, DGS), the German Umbrella Help Association for Aids (Deutsche Aidshilfe, DAH) and the Association of SHI-Accredited Physicians Berlin (Kassenaerztliche Vereinigung Berlin, KV Berlin). The presentations gave an overview of existing good practice approaches in Germany and the possibilities of further developments in substitution therapy. At the meeting special attention was given to the 23<sup>rd</sup> amending regulation on narcotic drugs (BtMAEndV), the updated guidelines of the German Medical Association on substitution therapy, the development of a cross-association position on the psychosocial care of substituted patients and the impact of the legal provisions on diamorphine assisted therapy.
- Expert conference "Sociological findings and conclusions on substance use of adolescents"  
This conference was held in December 2009 by the Area Association Westphalia-Lippe (Landschaftsverband Westfalen-Lippe), the Coordination Centre Addiction (Koordinationsstelle Sucht, LWL-KS) in cooperation with the German Society for Addiction Research and Addiction Therapy (Deutsche Gesellschaft fuer Suchtforschung und Suchttherapie e.V., DG Sucht). The goal of the conference was to present the most recent findings on the social life circumstances of young people at risk of becoming addicted as well as on individual coping strategies of adolescents in problem situations to an expert audience and to provide the opportunity for discussion. The presentations also included findings of studies on the consumption of licit substances with special regard to underprivileged groups.
- Closing session of the transfer of "Realize it"  
The closing session of the transfer project "Realize it" was held in January 2010 by the Villa Schoepflin (Loerrach) and the delphi-Institute for Research, Consulting and Project Development (Berlin) (delphi-Gesellschaft fuer Forschung, Beratung und Projektentwicklung mbH) (for the contents of the programme see also the Reitox Reports of previous years and chapter 3.5.3).
- 33<sup>rd</sup> Federal Drug Congress of the Association for Drugs and Narcotic Substances (Fachverband Drogen und Rauschmittel, fdr)  
250 participants met in May 2010 in Stuttgart to discuss the topic of the congress "From Cyber to the Round Table. Modern Networking". The Association for Drugs and Narcotic Substances has been organizing the federal drug congress since 1980 as an expert

meeting on addiction therapy laying the focus on illicit drugs. The purpose of the congress is to bring specialists from various practical fields together with a view to provide information, exchange experience, present projects and improve practical work in general. The topics of the congress have sparked important discussion processes. A mixture of lectures (input) and seminars (output) helps to create a link between teaching and acting and thus contributes towards increasing knowledge and promoting technical discourse.

- Workshop "Work-related measures in inpatient rehabilitation therapy – status and developmental perspectives"  
At the workshop run in Kassel in January 2010, the DHS placed the question on the current and future position of different work-related measures and approaches used in addiction therapy into the centre of attention. Both the requirements of the service providers with regard to structural quality on the one hand and the perspectives of the people undergoing rehabilitation therapy on the other were taken into account in the discussions. The people who start therapy often have very little to offer in terms of own resources and they need therefore to learn first the basic skills in order to have a realistic chance to participate in the working life and society.
- Interdisciplinary Congress for Addiction Medicine  
The 11<sup>th</sup> Interdisciplinary Congress for Addiction Medicine took place in July 2010 offering specialists of addiction medicine and therapy the possibility to exchange the most recent scientific findings and expand their knowledge base in addiction medicine.
- DHS-Conference on Cooperation  
The DHS-conference is held regularly every two years. In September 2010 it took place in Weimar and was dedicated to the topic of the cooperation between the addiction help system and the help organisation for the homeless. Special attention was given to the possibilities of the municipalities, the legal framework of the provided help services and cost aspects. About 80 representatives from municipalities, working groups between municipalities and employment agencies (ARGEn), the Federal Association of the help organisations for the homeless (Bundesarbeitsgemeinschaft Wohnungslosenhilfe e.V.) and the German Association of Cities (Bundesvereinigung der kommunalen Spitzenverbände) and the addiction and drug help organisations engaged in a debate on the question as to how cooperation between help for the homeless and help for drug dependents can be improved.
- In 2009, the results and conclusions of an expert meeting held already in 2008 on the topic "Tried and tested transfer - good practice examples of cannabis therapy for the practical work" were published (Kipke et al. 2009).

### **International cooperation**

Germany actively cooperates with international institutions in the area of drugs and addiction. Its most important partners are the European Commission, the Horizontal Drugs Group

(HDG), the European Monitoring Centre for Drugs and Addiction and the Pompidou-Group at the Council of Europe. Germany also plays an active role in the activities undertaken by the United Nations such as the current assessment of the implementation status of the UNGASS-resolutions. Germany is also an active partner in the Commission on Narcotic Drugs of the United Nations (CND). The Federal Commissioner on Narcotic Drugs assumes an important coordinating function when representing Germany in the European and other international bodies dealing with drug policy (Die Drogenbeauftragte der Bundesregierung 2009). She shares her function with the special agencies of various ministries (Ministry of the Interior, Ministry for Health, Ministry of Foreign Affairs) or experts from other areas when representing Germany at the international stage. German representatives also actively participate in the Civil Society Forum on Drugs of the European Commission.

In the reporting period, Germany engaged in various bilateral cooperation projects with regard to drugs and addiction with Turkey (twinning projects), Central Asia (Central Asian Drug Action Programme) and participated in various international projects (e.g. DRUID, or “FreD goes Net”) in which German experts cooperated with colleagues from countries within and outside of the EU.

Moreover, German experts participated in 2009 and 2010 in several expert meetings on the revision of the data collection instruments of UNODC (Annual Report Questionnaire) and in technical consultation convened by UNODC on the topics “non-medical use of prescription drugs“ and “alternatives to compulsory treatment”.

### **1.3.3 Other drug policy developments**

There are no new developments to report on.

### **1.3.4 Coordination arrangements**

Coordination between the Federal Government and the *Laender* takes place in the conferences of government departments and their working groups. The so-called interministerial working groups guarantee the exchange and coordination of cross-departmental measures between the various federal agencies. The national Board on Drugs and Addiction (Drogen- und Suchtrat, DSR) as well as its steering group also play an important role in this field since they facilitate both the vertical and horizontal exchange between the different institutions and the federal and Land ministries. As part of the steering group, the working group ‘German Statistical Report on Treatment Centres for Substance Use Disorders’ has been installed in order to coordinate the collection of statistical data in this area. The working group ‘Interface problems in the care of addicts’ of the DSR also deals with coordination tasks. It mainly strives to improve the transfer of addicted people from treatment to work, to facilitate the transfer at the interface between prison and reintegration, as well as to improve early-intervention in counselling and treatment of people suffering from addiction and the cooperation with youth aid and the help system for the homeless. In addition, cooperation between Federal and *Laender* governments also takes place within the framework of various projects.

On a national level, the Federal Centre for Health Education (Bundeszentrale fuer gesundheitliche Aufklaerung, BZgA) is in charge of the planning and execution of prevention programs and the monitoring of preventive activities and their quality assurance. It chairs the working group "Addiction prevention" which also reports to the Board on Drugs and Addiction. The Federal Centre for Drugs and Medical Devices (Bundesinstitut fuer Arzneimittel und Medizinprodukte, BfArM) is responsible for the licensing of pharmaceuticals. Affiliated with the BfArM is the Federal Opium Agency which, among others, grants the licences to trade in narcotic drugs and precursors and supervises the trade in narcotic drugs and precursors among licence holders. It also keeps the national substitution register.

### **New Federal Government Commissioner on Narcotic Drugs**

The Federal Minister for Health appointed the member of the Bundestag (lower house of the German parliament) Mechthild Dyckmans (FDP) as Federal Government Commissioner on Narcotic Drugs on 19 November 2009. As commissioner of the Federal Government for drug-related issues she will coordinate the drug and addiction policy of the Federal Government in the 17<sup>th</sup> legislative period and represent it in the public. Mechthild Dyckmans will continue the useful approaches of the previous addiction and drug policy. The new Commissioner on Narcotic Drugs will also convene the National Board on Drugs and Addiction as an advisory committee. The National Board on Drugs and Addiction is made up of representatives of the respective federal and Land ministries, the municipalities, addiction help system, research and self-help organisations.

## **1.4 Economic analysis**

### **1.4.1 Overview**

A detailed overview of the data sources available in Germany giving an insight into public expenditures as well as the presentation of the problems linked to the collection and analysis of these data were the subject of a selected issue of the Reitox Report 2007 which is available in German and English language at the website of the DBDD. In spring 2008, the EMCDDA moreover published a summary of the information provided by the member states on the subject matter which is also available from the DBDD.

To understand the structure of funding, one needs to have a grasp of the Federal structure of Germany and the principle of subsidiarity, which has led to a complex system of responsibilities at the Federal, *Laender* and local levels along with social insurance schemes with respect to the funding and execution of tasks. Especially information on financial resources which the *Laender* and local governments allocate to drug or addiction problems is not aggregated or compiled at the national level at present as a result of limited comparability.

Another problem posed by the compilation of public expenditures for drug-related issues is the fact that the German care system does not differentiate any more between individual substances or licit and illicit substances respectively rendering the task of ascertaining the

share of illicit drugs in the costs expended almost impossible. It is furthermore particularly difficult to identify *non-labelled* costs specifically relating to addiction in the cross-sectional areas of police and judiciary, detention and social welfare system which would however account for a considerable portion in a comprehensive estimation of the overall costs.

It is apparent, then, that solely the identification of costs incurred (prior to the calculation of specific shares for licit or illicit substances) is associated with considerable effort.

### 1.4.2 Public expenditures and budgets

Funded by the Federal Ministry for Health, the DBDD carried out a study in 2008 in cooperation with the chair of medical management of the university to venture for the first time an overall estimate of the direct (labelled and non-labelled) government expenditure and funds provided by the statutory social insurance schemes in the area of illicit drugs in the year 2006 (Mostardt et al. 2009).

Adding the identified and calculated expenditures, one gets a range between 5.2 and 6.1 billion EUR spent in 2006 for the area of illicit drugs which breaks down as follows: the portion of the German National Statutory Pension Insurance in the funding for medical rehabilitation, participation in working life and benefits granted for the reduction in earning capacity amounted to about 172 million EUR. The extrapolation of the expenditures of the medical health insurance institutions for medication, hospital treatment, rehabilitation etc. came to 1.4 billion EUR. At the institutional level, an amount of 3.6 to 4.5 billion EUR was provided for the prevention and reduction of the consequences of drug-related problems in the form of prevention, intervention and repression measures.

The expenditures are broken down in more detail in standard table STPE.

A large part of the estimated expenditures (>65%) is to be assigned to the function "public security and order". Funds provided for the functions "health" and "social security" account for a considerably lower portion in the overall spending. However, here the largest gaps in data collection are to be found.

In view of the great expense associated with the data collection, the question arises however whether and how a regular update of the estimation of the expenditures can be done in the future.

There are no new systematic estimations available for the reporting year 2009. Data on public expenses for therapy (e.g. from the German Statistical Report on Treatment Centres for Substance Use Disorders) are taken account of by this year's selected issue on treatment costs (see chapter 12).

### 1.4.3 Social costs

So far, there have been no studies carried out on the social costs caused by the use of illicit substances in Germany.



## 2 Drug use in the general population and specific targeted groups

### 2.1 Introduction

#### Aspects of drug use

Experience with drugs means, in many cases, a one-off or only infrequent use of drugs. After the drug was 'tried', its use is, in most cases, completely discontinued in the course of time. Drug use related to the lifetime is therefore only a rough indicator of the extent of drug use at a given point of time. The figures also include people reporting experience with drugs sometimes dating back 20 or 30 years.

Therefore, drug use in the 12 months (12-month-prevalence) prior to the survey is a better indicator of current user numbers. More significant is the information provided by surveys on drug use 30 days prior to the survey. The clear difference which is shown in the total population between lifetime-prevalence, 12-month-prevalence and 30-day-prevalence identifies experimental or short-term use as the most common pattern of consumption.

#### National data sources and international studies

In Germany, epidemiological sources for drug use data are mainly available through regular national representative surveys and prevalence studies which are complemented by regional quantitative and qualitative studies. Furthermore, international studies in which individual *Laender* and regions are taking part, will also be mentioned in this chapter. Due to their international comparability, these surveys are also grouped under "national data" although studies like ESPAD (see below) or HBSC (see below) have so far not been carried out by all *Laender*. The short descriptions also contain information on the participating countries.

- The Drug Affinity Study (DAS) carried out by the Federal Centre for Health Education (BZgA) investigates the use, the motives for use and the situational conditions with regard to tobacco, alcohol and illegal addictive substances among teenagers and young adults (age group 12-25 years) on a long-term basis. The study has been conducted since 1973 every 3 to 4 years. Initially designed as a personal interview, it has been carried out as a telephone interview (CATI) with a sample of 3,000 interviewees. The last survey dates back to the year 2008. Its results were presented in the last Reitox Report (BZgA 2010). In 2007, the Federal Centre for Health Education additionally published the findings of a representative survey conducted on cannabis use among 3,602 interviewees in the age group from 12 to 19 years (BZgA 2007). A summary of the results was already presented in the REITOX Report 2007.

In the drug affinity study carried out in the year 2008 (BZgA 2010) a representative sample of 3,001 adolescents and young adults aged between 12 and 25 years was surveyed. Data

collection was done with computer-based telephone interviews (CATI)<sup>34</sup>. The interviews were conducted in February and March 2008. Within the framework of the DAS 2008, data were collected on cannabis, ecstasy, LSD, amphetamines, cocaine, crack, heroin, inhalants and psychoactive plants (e.g. “magic mushrooms“). For each of these substances, the interviewees are asked whether they have already been offered the drug, whether they could imagine to try out the drug and whether they have used or are using the drug. The data on the individual substances are compiled so that cross-substance inferences can be made on the use of illicit drugs on the whole, on the use of any other drug than cannabis or on whether various drugs are or were used simultaneously. A differentiated overview broken down by gender and individual substances was already presented in the REITOX Report 2009.

- The Epidemiological Survey on Substance Abuse (ESA) (former Federal Study on the abuse of psychoactive substances among adults in Germany) is a paper-based national study on the use of psychotropic substances, their effects and assessment as well as on other basic data. Since 1980 the study has been conducted every 3 to 4 years on the basis of a representative sample of the resident population in the age group from 18 to 64 years. Funded by the BMG, the survey has been conducted by the IFT since 1990. The sample taken in each survey has comprised about 8,000 persons since 1995. Some of the *Laender* have provided additional funding for a regional expansion of the sample to create a statistical basis for regional evaluations.

By combining mail and telephone interviewing methods for the Epidemiological Survey on Substance Abuse 2009, a mixed mode design was used for data collection which optionally also provided the possibility of filling in the questionnaire in the Internet (Kraus & Pabst 2010; Pabst et al. 2010a). After cleansing, data on 8,030 persons (participation: 3,731 in writing, 3,376 by telephone, 927 online) in the age between 18 to 64 years were available<sup>35</sup>. This corresponds to a response rate of 50.1 % after deduction of random sample neutral failures. The used design and poststratification weight reached an effectiveness of 83.5 %.

<sup>34</sup> The random sample was drawn according to the ADM-sampling design for telephone interviews. From a telephone master sample containing all relevant telephone numbers, landline numbers were drawn by means of an unrestricted random sampling with equal selection probability. After calling the numbers, it was established if a private household, in which adolescents and young adults were living, had been sampled. If there were one or more adolescents and young adults aged between 12 and 25 years living in one of the households reached, the person who last had his birthday, was selected. In the case of children in the age of 12 and 13 years, permission of one the parents was obtained prior to interviewing.

<sup>35</sup> The population of the Epidemiological Survey on Substance Abuse 2009 comprises all German speaking persons born in the years between 1945 and 1991 living in private households. The sample is thus based on about 51.6 million persons of the general population in the age of 18 to 64 years (as of 31.12.2008, Statistisches Bundesamt). The ESA sample 2009 was based on a random sample drawn from the entries in the registration office in two steps. In a first step, municipalities or city/town districts respectively were selected in proportion to the number of residents and stratified according to Federal State, administrative districts and “BIK“ region sizes. With the German BIK classification system, municipalities and town districts are categorized in terms of number of residents and city/town centres or peripheral regions. In a second step, individuals were drawn disproportionally from the selected regions by age group; it must be added however, that younger adults were overrepresented in the random sample. The goal was to include 8,000 cases with respectively 1,000 persons in the age groups 18-20, 21-24 and 25-29 years, 1,400 in the age groups 30-39, 40-49, 50-59 years and 800 persons in the age group 60-64 years in the net random sample.

Divergences from the population exist in the weighted survey with regard to nationality and school education. The results of the non-response analyses show that non-participants reported alcohol and drug use more seldomly than participants. In comparison with the respondents of the mail survey, mode effects seem to indicate a smaller prevalence of cannabis use among respondents of the telephone survey and a lower prevalence of alcohol consumption among respondents of the online survey.

- The “European School Survey Project on Alcohol and other Drugs” (ESPAD) was carried out already in 1995 in 26, 1999 in 31 and 2003 in 35 European countries. In 2007, some *Laender* participated for the second time in the survey after 2003. The participants in 2007 were Bavaria, Berlin, Brandenburg, Hesse, Saarland, Mecklenburg-Western Pomerania and Thuringia. Initiated by the Pompidou-Group at the Council of Europe and coordinated by CAN<sup>36</sup> in Stockholm, the survey uses European-wide uniform standards for data collection. The survey is carried out among 15- to 16-year olds in school grades 9 and 10. In 2007, the adjusted sample size comprised 12,448 pupils from 586 classes at 567 schools (Kraus et al. 2008a). The ESPAD data are, in parts, also based on individual *Laender* surveys.
- As part of the WHO-funded Study on the Health Behaviour of School-Aged Children (HBSC), which is meanwhile carried out every four years in 41 countries, five *Laender* (North Rhine-Westphalia, Berlin, Hamburg, Saxony, Hesse) participated in the survey on the health behaviour of pupils between 9 and 17 years of age in 2005/2006. For the survey conducted in 2006, data was also collected on the use of illicit drugs. Results have been available since summer 2007 (Nickel et al. 2008; Settertobulte & Richter 2007). The Reitox Report 2008 presented also data from an evaluation of an HBSC study carried out by the Land North Rhine- Westphalia (Richter et al. 2008).
- Early in 2007, the first results of the Health Interview and Examination Survey for Children and Adolescents (Kinder- und Jugendgesundheitssurvey, KiGGS) were presented (Lampert & Thamm 2007). The findings are based on countrywide representative data on the health state of children and adolescents in the age of 0-17 years. A total of 17,641 children and adolescents participated in the study. For the analyses of the tobacco, alcohol and drug use, the data from the interviews conducted among the 11 to 17 year old boys and girls and their parents were used. The most important results of the evaluation have already been presented in the Reitox Reports 2007 and 2008. Schleswig-Holstein made its own contribution to the national health survey by publishing a report on the health state of children and adolescents in Schleswig-Holstein (RKI 2007b; Schuetze et al. 2007) which was also referred to in the REITOX Report 2008.

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<sup>36</sup> Swedish Council for Information on Alcohol and Other Drugs.

### Data from the *Laender* and regional monitoring systems

Apart from these surveys, most of which are conducted on a regular basis, various studies commissioned by some individual *Laender* are carried out irregularly at regional and local level focusing among others on the extent and effects of the use of a specific substance, use patterns or characteristics of a specific group of users. These studies are based in part on individual evaluations carried out within the framework of larger national studies which have already been mentioned under the rubric of the national data sources (e.g. regional evaluations of KiGGs, HBSC and ESPAD).

After the last data collection in 2007/2008, a survey called “Hamburg School bus“ was carried out for the fourth time within the framework of the Local Monitoring System (LMS) among students aged 14 to 18 years at schools providing general or vocational education. The results of the survey 2009 are based on a random sample drawn among the 14- to 18-year-old adolescents and young adults in Hamburg (N=1.132) (Baumgaertner 2010). The sample was adapted to the statistical report on schools in terms of gender, age and type of school and weighted in terms of age and gender according to the official population survey.

- Another source that has been providing information on drug trends at local level for many years is the Monitoring System Drug Trends (MoSyD) from Frankfurt/Main. MoSyD is made up of several components: a representative school survey, a trend scout panel, a scene-based survey and an expert survey.

In the reporting period 2009, students aged between 15 and 18 years (N=1.157) (weighted and corrected sample) were surveyed at schools providing general and vocational training within the framework of a yearly school survey (Werse et al. 2010). Furthermore, the data from the most recent expert surveys within MoSyD are also available.

- In May 2009, the findings of the MODRUS IV study (*Moderne Drogen- und Suchtpraevention – Modern Drug and Addiction Prevention*) were presented in Saxony-Anhalt. In the fourth sociological - empirical MODRUS study, students and teachers from grade six to twelve were asked about their experience with and attitude towards licit addictive substances, drugs and their use of the computer and the Internet (N=2.432). The results were already presented in the Reitox Report 2009.

### Use of available data sources

This report presents the respectively relevant results of the most recent studies focusing on the national epidemiological studies on substance and drug abuse (Epidemiological Survey on Substance Abuse, ESA and Drug Affinity Study, DAS). Insofar as no new data were published in the period under review, this report confines itself to presenting only a few basic data. The most important results of ESA 2006 on substance abuse among the adult population and of the two studies on cannabis and alcohol consumption among adolescents and young adults published by the Federal Centre for Health Education in 2007 were already presented in the previous Reitox Reports.

When interpreting the results of population surveys, it needs however to be taken into account that the figures may be non-negligibly underestimated given the fact that in particular persons with a high use of illegal drugs are more difficult to reach by such studies and often have a tendency to underreport the frequency and quantity of their use. Therefore, especially in the case of heroin addicts, estimation methods tapping other data sources (e.g. police files, cf. chapter 4.2). In addition to quantitative data, also qualitative studies have been taken into account.

## 2.2 Drug use in the general population

### 2.2.1 Overview of the use of various drugs

Table 2.1 presents a minimal estimate of the prevalence of the use of illicit drugs in Germany. It is based on the last two epidemiological surveys conducted on substance abuse (ESA 2006, 2009) and the most recent DAS (2008).

Table 2.1 Prevalence of illicit drugs in Germany

	Source	Age	Prevalence	Total <sup>1)</sup>
Lifetime	ESA 2009	18-64	26.7%	13,812,000
	ESA 2006	18-64	23.7%	12,270,000
	DAS 2008	12-17	10.0%	508,000
12 Months	ESA 2009	18-64	5.1%	2,638,000
	ESA 2006	18-64	5.0%	2,589,000
	DAS 2008	12-17	7.4%	376,000
30 Days <sup>2)</sup>	ESA 2009	18-64	2.6%	1,345,000
	ESA 2006	18-64	2.5%	1,294,000
	DAS 2008	12-17	2.8%	142,000

1) Figures are rounded. Population figures used in the age categories 18-65 years: 51,773,467 (year 2006); 51,729,010 (year 2007, more recent figures are not available) (Source: Statistisches Jahrbuch 2009, Statistisches Bundesamt); figures from the Federal Statistical Office for the age groups 18-65 in comparison with 18-64 in ESA, therefore slight deviations in the above-mentioned absolute figures; 12-17 years: 5,075,140 (year 2008) (Source: Gesundheitsberichterstattung des Bundes, GBE 2010)

2) DAS: "current use" instead of "30-day prevalence".

BZgA 2010j; Kraus et al. 2007; Pabst et al. 2010a.

While the lifetime prevalences of the use of illicit drugs among adults in the age group 18-64 years (ESA) slightly increased between 2006 and 2009 (2006: 23.7%; 2009: 26.7%), the figures for the use of illicit drugs in the 12-month category remained practically unchanged between the two data collection years 2006 and 2009 (2006: 5.0%; 2009: 5.1%). The situation is similar for the use within the last 30 days prior to the survey (2006: 2.5%; 2009: 2.6%) (Pabst et al. 2010a). However, the lifetime prevalence is not suitable as an indicator for current changes since it does not give any valuable clues to the current use behaviour of the interviewees. In literature, the 12-month prevalence is generally used as a reference value since, on the one hand, it is referred to a reasonably limited time window of past use and, on the other, it provides interpretable prevalence values (whereas the 30-day

prevalence of the use of illicit drugs with the exception of cannabis often only gives extremely low figures) (details on the population surveys are also contained in the online standard table 1).

Since the prevalence of the use of illicit drugs (total) significantly depends on the use experience with cannabis (and is almost identical with it), the findings of the ESA 2009 indicate a stabilisation of the decline of the current use of cannabis in the general population, which had already been observed by the ESA 2007. Within the framework of the ESA 2009, only 7.4% of the interviewees (2006: 5.8%) report experience with other illicit drugs in the lifetime category. Even lower are the values for the 12-month (1.3%) and 30-day prevalence (0.6%), which have remained practically unchanged in comparison with the survey carried out in 2006 (1.2% and 0.7% respectively) (cf. also Table 2.2).

## **2.2.2 Comparison of the use of individual drugs**

### **National data**

The most recent data on the prevalences of the use of individual drugs stem from the ESA 2009. Data on the use of illicit substances among teenagers and young adults were provided by the most recent DAS in 2008 that were already been presented in the REITOX Report 2009.

In order to give an overview of the use of the general population, the most important and most recent data on the lifetime, 12-month and 30-day prevalence for the use of individual substances for the age groups 12-17 and 18-64 years were compiled in Table 2.2.

Cannabis remains the by far most frequently consumed illicit drug. Worth mentioning are only the values reached by cocaine, amphetamines, ecstasy (and mushrooms in ESA). The use of heroin, LSD and crack remains limited to specific and much smaller groups.

There have been hardly any changes in the adult population between the two ESA surveys conducted in 2006 and 2009 (with the exception of slight differences in the lifetime prevalences). Current use (12-month prevalence) of amphetamines and cocaine was found to slightly increase, at an extremely low level though. Given the stimulating effects of the two substances, both changes do however point into the same direction.

Table 2.2 Prevalence of the use of illicit drugs broken down by substances

Source	DAS 2008 (%; 12-17 Years)			ESA 2006 (%; 18-64 Years)			ESA 2009 (%; 18-64 Years)		
	LT	12 M	30 D <sup>1)</sup>	LT	12 M	30 D	LT	12 M	30 D
Cannabis	9.6	6.6	3.7	23.0	4.7	2.2	25.6	4.8	2.4
Amphetamines	0.7	0.6	0.2	2.5	0.5	0.3	3.7	0.7	0.3
Ecstasy	1.1	0.8	0.3	2.0	0.4	0.2	2.4	0.4	0.2
LSD	0.4	0.3	0.0	1.7	0.1	0.0	2.4	0.1	0.1
Heroin	0.1	0.1	0.0	0.4	0.1	0.1	0.5	0.1	0.0
Cocaine	0.9	0.8	0.3	2.5	0.6	0.2	3.3	0.8	0.3
Crack	--	--	--	0.3	0.1	0.0	0.2	0.1	0.0
Mushrooms	--	--	--	2.4	0.4	0.1	2.8	0.1	0.1
Volatile substances	--	--	--	--	--	--	--	--	--
Any illicit drug	10.0	7.4	2.8	23.7	5.0	2.5	26.7	5.1	2.6
Illicit drugs besides cannabis	--	--	--	5.8	1.2	0.7	7.4	1.3	0.6

1) Lt: Lifetime, 12 M: 12 Months, 30 D: 30 Days  
DAS: 30 D corresponds to "current use"

BZgA 2010i; Kraus et al. 2007; Pabst et al. 2010b.

Use of hallucinogenic mushrooms by the adult population declined from 0.4% to 0.1% in the 12-month-category between 2006 and 2009. Unchanged is the current use of cannabis in the general population. These results corroborate the DAS figures and the earlier reported findings of the ESA 2006 that pointed to (a decline) and stabilisation.

A complete overview of the lifetime, 12-month and 30-day prevalences broken down by gender and age group from the ESA 2009 is provided by Table 2.3. In the reporting year 2009, herbal mixture "spice" was included for the first time in the catalogue of questions.

Use of illicit drugs is a phenomenon occurring primarily in younger age groups. The portion of the 12-month-users among the below-30-year olds lies on average around 14%, among older users however, it is only about 2%. For many substances (except cannabis), the current (i.e. 12-month) consumption prevalences are already low among younger age groups, among the above-30-year olds they lie for all older age groups consistently below 1%. Apart from cannabis, only amphetamines and cocaine play a major role among the 20-29-year olds, although consumption experience with ecstasy, LSD and hallucinogenic mushrooms in the age groups above 30 years is quite common in the lifetime category. Looking at the relation between lifetime prevalences and current consumption, it is to be assumed that use of these substances is only of a transitional nature in the majority of users.

Cannabis remains the by far most used illicit substance. One in 20 persons on average reports use of cannabis in the 12-month category. Prevalence among men is double as high

than among women (6.4% vs. 3.1%, OR = 2.2, CI = 1.8 – 2.7<sup>37</sup>). These significant differences in gender and age also exist for cocaine and amphetamines, i.e. use is much more prevalent among men and younger age groups than among women and older people (Pabst et al. 2010a).

The severity of dependence on cannabis, cocaine and amphetamines is established with the Severity of Dependence scale (SDS; Gossop et al. 1995)<sup>38</sup>. Related to the total sample, 1.2% of the interviewees display cannabis-related problems. As for cocaine, this applies to 0.2% and as for amphetamines to 0.1%. Out of the current users of the respective substances, 30% display a cannabis-related disorder and 26% a cocaine- and amphetamine-related disorder respectively. The aforementioned gender and age effects also exist in this context.

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<sup>37</sup> OR: Odds Ratio, CI: Confidence interval.

<sup>38</sup> The scale is made up of five items. The answers are weighted in such a way that a maximum of 20 points can be reached. For dependence on cannabis, a value of two or more points is used as a cut-off value (Steiner et al. 2008), for cocaine dependence a value of three or more points (Kaye & Darke 2002) and for amphetamines a value of four or more points (Topp & Mattick 1997).

Table 2.3 Lifetime-, 12-month- and 30-day prevalence of the use of illicit drugs, 18- to 64-year olds (ESA)

Lifetime	Total	Gender		Age group						
		M	F	18-20	21-24	25-29	30-39	40-49	50-59	60-64
Any illicit drug <sup>1)</sup>	26.7	31.1	22.1	26.6	41.4	45.2	35.4	22.2	18.7	7.2
Cannabis	25.6	30.3	20.9	25.8	40.8	44.6	34.0	21.3	17.8	5.8
Ill.drugs excl. cannabis	7.4	9.2	5.6	6.1	9.9	12.7	10.1	5.4	6.5	2.6
Amphetamines	3.7	5.1	2.2	3.4	6.1	7.1	4.4	2.5	3.2	0.9
Ecstasy	2.4	3.0	1.9	2.7	4.4	6.4	4.8	1.2	0.3	0.1
LSD	2.4	3.3	1.5	0.7	1.3	4.1	3.1	1.6	3.4	1.1
Heroin	0.5	0.7	0.2	0.4	0.0	0.5	0.8	0.4	0.5	0.0
Other opiates	1.4	1.7	1.1	0.7	1.2	1.4	1.6	1.5	1.4	1.5
Cocaine	3.3	4.4	2.2	2.3	4.8	6.2	5.0	3.1	1.8	0.3
Crack	0.2	0.3	0.1	0.6	0.1	0.5	0.3	0.2	0.1	0.0
Mushrooms	2.8	3.8	1.8	2.3	4.8	7.5	3.9	1.6	1.7	0.5
Spice	0.8	1.1	0.4	2.5	2.5	2.1	0.5	0.5	0.0	0.0
<b>12-Months</b>	<b>Total</b>	<b>M</b>	<b>F</b>	<b>18-20</b>	<b>21-24</b>	<b>25-29</b>	<b>30-39</b>	<b>40-49</b>	<b>50-59</b>	<b>60-64</b>
Any illicit drug	5.1	6.7	3.4	16.8	15.3	12.0	4.8	2.4	1.1	0.3
Cannabis	4.8	6.4	3.1	16.1	14.4	11.1	4.4	2.3	1.1	0.1
Ill.drugs excl. cannabis	1.3	1.9	0.8	4.0	4.0	3.2	1.5	0.6	0.1	0.3
Amphetamines	0.7	1.1	0.4	2.6	3.0	2.1	0.5	0.3	0.0	0.0
Ecstasy	0.4	0.6	0.2	1.5	1.2	1.2	0.4	0.2	0.0	0.0
LSD	0.1	0.2	0.1	0.5	0.2	0.3	0.0	0.2	0.0	0.0
Heroin	0.1	0.2	0.0	0.4	0.0	0.1	0.1	0.1	0.0	0.0
Other opiates	0.2	0.2	0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1
Cocaine	0.8	1.2	0.4	1.4	2.4	2.0	1.0	0.4	0.1	0.1
Crack	0.1	0.2	0.0	0.5	0.0	0.1	0.0	0.2	0.0	0.0
Mushrooms	0.2	0.4	0.1	1.0	0.8	0.3	0.1	0.3	0.0	0.0
Spice	0.4	0.6	0.2	1.9	1.8	1.0	0.3	0.1	0.0	0.0
<b>30-Days</b>	<b>Total</b>	<b>M</b>	<b>F</b>	<b>18-20</b>	<b>21-24</b>	<b>25-29</b>	<b>30-39</b>	<b>40-49</b>	<b>50-59</b>	<b>60-64</b>
Any illicit drug	2.6	3.8	1.4	7.4	8.0	6.0	2.6	1.4	0.6	0.1
Cannabis	2.4	3.4	1.3	6.8	7.1	5.5	2.4	1.2	0.6	0.1
Ill.drugs excl. cannabis	0.6	1.0	0.3	1.7	2.5	1.1	0.6	0.5	0.1	0.0
Amphetamines	0.3	0.5	0.2	0.9	1.7	0.9	0.1	0.2	0.0	0.0
Ecstasy	0.2	0.3	0.0	0.6	0.9	0.1	0.3	0.0	0.0	0.0
LSD	0.1	0.2	0.0	0.2	0.1	0.1	0.0	0.2	0.0	0.0
Heroin	0.0	0.1	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.0
Other opiates	0.1	0.1	0.0	0.2	0.2	0.0	0.1	0.1	0.1	0.0
Cocaine	0.3	0.5	0.1	0.7	0.4	0.5	0.3	0.4	0.0	0.0
Crack	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Mushrooms	0.1	0.2	0.0	0.4	0.1	0.0	0.0	0.2	0.0	0.0
Spice	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0

1) Cannabis, amphetamines, ecstasy, LSD, opiates, cocaine, crack and mushrooms (without spice).

(Pabst et al. 2010a), special calculations.

Table 2.4 gives an overview of the trends of the lifetime and 12-month prevalences of the use of illicit drugs among young adults in the age group 18 to 39 years. The presented findings are based on the seven surveys carried out within the framework of the ESA between 1990 and 2009. After the repeatedly reported increase especially in the second half of the 1990s and until 2003, current cannabis use (use in the last 12 months) dropped below the level of 2003 to stabilize at the level of 2006. Current use of amphetamines, opioids and cocaine has not changed at a statistically significant scale since 2003 or even since 1997 and 1985. Current use of ecstasy has been on the decline since 2003.

Table 2.4 Prevalence trends in the use of illicit drugs among the 18- to 39-year olds in the whole of Germany, 1990-2009 (ESA)

Substance		Year						
		1990	1995	1997	2000	2003	2006	2009
Illicit drugs	LT <sup>1)</sup>	14.6*	19.0*	18.9*	27.7*	33.8*	34.7*	37.6
	12M <sup>1)</sup>	4.3*	8.3*	7.9*	10.8	12.2*	9.6	9.9
	30D <sup>1)</sup>		5.6	5.3	5.9	6.4*	4.9	5.0
Cannabis	LT	14.0*	18.2*	17.6*	27.2*	33.1*	33.9*	36.6
	12M	4.1*	7.8*	7.2*	10.4	11.8*	9.2	9.3
	30D		4.9	4.8	5.7*	6.0*	4.4	4.5
Amphetamines	LT	2.8*	3.6*	2.1*	3.0*	4.6	4.0*	5.2
	12M	0.4 *	1.3	0.8*	1.0*	1.6	1.2	1.6
Ecstasy	LT		2.5*	2.8*	2.8*	4.4	4.3	4.8
	12M		1.6*	1.5*	1.2	1.4*	0.9	0.8
LSD	LT	1.8*	2.3	1.8*	2.3	3.1	2.3	2.7
	12M	0.1	0.9*	0.6*	0.3	0.4*	0.2	0.2
Opiates	LT	1.4	2.2	1.1	1.4	1.9	1.4	1.6
	12M	0.1*	0.7*	0.5	0.4	0.5	0.4	0.4
Cocaine/Crack	LT	1.3*	3.2*	2.0*	3.7*	4.8	4.1	5.0
	12M	0.3*	1.5	1.1	1.5	1.5	1.2	1.6

1) LT Lifetime prevalence; 12M = 12-month prevalence; 30 D = 30-day prevalence.

2) \* p<.05 for a change in respect of 2009.

3) Logistic regressions to predict the prevalences broken down by year (Ref: 2009), age, (gender). For small sample sizes (n≤10) Fisher's exact test was used.

(Pabst et al. 2010a), special calculations.

Trend data for the lifetime prevalences of the cannabis use by adolescents and young adults aged between 12 and 25 years, which are based on the DAS, were already presented in the REITOX Report 2009. Trend data on the lifetime prevalences of the use of illicit drugs in the age categories 12 to 17 years and 18 to 25 years respectively are presented in chapter 2.3.2 of this Report.

## Data from the *Laender* and the regional monitoring systems

### Hesse

Tasked by the Hessian Land Centre for Addiction Issues (Hessische Landesstelle fuer Suchtfragen e.V., HLS) in the year 2007, the Institute for Interdisciplinary Addiction and Drug Research (Institut fuer interdisziplinäre Sucht- und Drogenforschung, ISD) conducted a representative survey on nicotine, alcohol, medical drugs and illicit drugs with funding from the Hessian Ministry for Social Affairs. The findings of the survey were published in 2010 (Buth et al. 2010)<sup>39</sup>. Data on the use of illicit drugs were collected among the 12- to 69-year olds for the previous year. According to these data, about 2% of the Hessian population have at least occasionally used cannabis products in the last 12 months. Single experimental use was not recorded. This portion is about double as high among men than among women (2.8% vs. 1.3%; Table 2.5).

Table 2.5 Prevalence of the use of illicit drugs in the Hessian population (2007)

12 Months		Total	Gender		Age group					
			M	F	17-24	25-29	30-39	40-49	50-59	60-69
Cannabis	%	2.1	2.8	1.3	6.7	5.8	2.0	0.8	0.8	0.3
	N	5,586	2,806	2,780	671	419	1,106	1,331	1,048	992
Other illicit drugs	%				1.3	1.6	0.5	0.1	0.3	0.2
	N				671	419	1,106	1,331	1,048	992

(Buth et al. 2010)

According to the statements made by the interviewees, only very few people (0.5%) used other illicit drugs (ecstasy, cocaine, heroin etc.). It is however known that some of the drug users cannot be reached by representative surveys. Therefore, no reliable inferences can be made about the actual size of the portion of users of illicit drugs other than cannabis in Hesse. Figures for the use of illicit drugs considerably diverge between the youngest and the oldest age group. The 12-month prevalence of cannabis use is at 6.7% in the group of the 17- to 24-year olds. With increasing age, less and less people use cannabis products: among the 60- to 69-year olds only a very small portion of 0.3% reported cannabis use in the previous year. As for the other illicit drugs, the portions are even smaller and the described tendencies are similar – apart from slight variations. Figures also diverge considerably from region to region in Hesse. The highest prevalences of the use of cannabis and other illicit drugs were reported (as was expected) from the city of Frankfurt whereas the comparable

<sup>39</sup> The representative survey conducted in Hesse is based on telephone interviewing according to the CATI-method. The survey population is formed by the German speaking population living in Hesse in private households in the age group from 17 and 69 years with a landline connection. From each of the 21 administrative districts and the 4 independent cities of the *Land* Hesse, 200 persons were interviewed by telephone. For the city of Frankfurt the case figure was 600. With this, N was in total 5,600. The survey was conducted from 15 October to 12 November 2007. The data from the interviews were weighted for the statistical evaluation using the variables age, gender, BIK region categories and population figure of the individual administrative districts.

values reported from the north, centre and south of Hesse were significantly lower (Table 2.6)

Table 2.6 Use behaviour of the Hessian population broken down by region (2007)

12 Months		Area				
		Frankfurt	Urban Municipality	Northern Hesse	Middle Hesse	South Hesse
Cannabis	%	4.1	3.3	1.2	2.4	1.5
Other illicit drugs		0.9	0.1	0.4	0.5	0.5
	N	546	620	1,040	999	2,394

(Buth et al. 2010)

As a result of the aforementioned qualifications attached to the accessibility to the users of illicit drugs, especially the lower prevalence rates are to be interpreted with caution. In comparison with the national data (ESA 2009) presented above, the considerably lower 12-month prevalences of the cannabis use are striking; it needs however to be noted that one-off experimental use in the 12-month category in Hesse was grouped under the category of the non-users. The same applies to the category "other illicit drugs". Here again, it needs to be pointed to the limited validity of these regional findings.

### 2.3 Drug use in the school and youth population

With a prevalence of about 5-6%, psychological disorders linked to the use of illicit drugs in children and adolescents continue to be among the epidemiologically most important psychiatric disorders occurring during childhood and adolescence (Sack et al. 2008). Current studies moreover suggest that cannabis use has a much more harmful effect on the brain in adolescents than in adults (Sonnenmoser 2008; Thomasius & Petersen 2008). The vast majority of adolescents stop using drugs when entering adulthood. Early interventions can help to prevent the onset of substance-related disorders and the beginning of an addiction career (Stolle et al. 2007). Alongside the majority of young people who do not develop any persisting disorders, there is a non-negligible group, though, who displays highly problematic use patterns already at an early age and, in many cases, also develops psychological co-morbidities at a later stage such as disturbed social behaviour, affective disorders and anxiety disorders (e.g. Thomasius & Stolle 2008b). For this group of persons it is particularly important to be provided with specific treatment offers as described for example by Kuestner and colleagues (2008), (see also Thomasius & Stolle 2008a). Universal and selective prevention of nicotine consumption apparently assumes a key role in preventing the later onset of substance-related disorders in adolescents since nicotine dependence is highly associated with other disorders as a result of the use of illicit substances (Perkonigg et al. 2008). In view of the particular importance assumed by the use of also licit psychotropic substances (especially alcohol and tobacco) by teenagers and young adults, findings on the use of licit substances will be cursorily presented in the following.

With regard to the diagnosis of substance-related disorders in children and adolescents, Sack and Krueger (Sack & Krueger 2009) generally remark that the uncritical use of the diagnostic ICD-10 criteria in substance using children and adolescents, verifiably leads to wrong classifications. Especially drug screenings are not suited to indicate the stadium the young drug patient is in. The authors therefore advise to use standardized interviews for recording the addiction-related medical history and to ask in detail about substance use over defined periods of time. However, in German speaking territory, there is no standardized interview available for diagnosing substance-related disorders in children and adolescents which would also include psychological comorbidity.

So far, there has been insufficient research done on trend prognoses for substance disorders especially for childhood and adolescence. In a few surveys, the existence of one or several of the following variables abets an unfavourable influence on the trend: certain legal provisions, availability of psychoactive substances, extreme economic deprivation, negative peer role models, inadequate schooling and disorganized neighbourhood (quoted from: Thomasius 2009a). Other risk factors are comorbid psychosocial disorders, substance abuse and psychological disorders of the parents. The following predictors, by contrast, have a favourable influence on the trend prognosis for substance use of adolescents: fear of negative consequences of substance use, psychosocial competence, absence of psychological disorders, abstinent peers, emotional support by the parents. The absence of family risk factors alone does not have a protective effect on adolescent substance users. Only a functional family (alongside peer influences) lowers the risk of experimental substance use especially in boys, if child rearing methods by parents offer challenges, attention and reliable structures at the same time. Therefore, it is advisable for therapeutic work with substance users to enquire about the family background and have the family of origin preferably be involved in the therapy. This is imperative especially in adolescents with a migration background (quoted from: Sack & Thomasius 2009).

Schindler and colleagues (2009) reported in a recently published analysis on the correlation between attachment behaviour and addiction preference in adolescents and young adults. According to the authors, the preference for specific substances can be regarded as being influenced by certain attachment strategies based on the self-medication hypothesis. For example, heroin consumption seems to be associated more often with lacking coping strategies and cannabis use seems to reinforce already existing strategies that tend to have a deactivating or distancing effect.

### **2.3.1 Use of licit psychotropic substances**

#### **Alcohol**

The most recent DAS findings (BZgA 2009a) confirm that experience with the consumption of alcohol among 12-25-year olds is very common. About three quarters (75.8%) of the 12- to 17-year olds already have had experience with alcohol once in their lifetime. Among the 18- to 25-year olds the quasi totality of all interviewees report consumption at least once in their lifetime (97.4%). The 12-month prevalences are only somewhat lower (68.0% and 94.1%

respectively). Gender-specific differences were not found with regard to prevalences. As for regular consumption (defined as at least once per week) though, which has been on the decline since 1979 (from 44% to 29%), differences in gender and age are substantial. The portion of regular consumers among both genders first strongly increases after the age of 16 years. This increase does however not continue after the age of 18. Generally speaking, more male teenagers and young adults regularly drink alcohol. An indicator to measure risky consumption behaviour among young people is the so-called binge drinking defined as consuming five or more drinks at a time. At present, one in five teenagers aged between 12 and 17 years states to have practiced binge drinking at least once in the last 30 days, a third of this group reports to do this at least once a week. With this, there is a sizeable figure of young people showing risky alcohol consumption behaviour which increases the probability of the occurrence of later alcohol-related problems and disorders.

Findings on the alcohol consumption among young people from the Health Interview and Examination Survey for Children and Adolescents (Kinder- und Jugendgesundheitssurvey, KiGGS) (Lampert & Thamm 2007) and the HBSC study (Settertobulte & Richter 2007) were already presented in the REITOX Reports 2007, 2008 and 2009.

## **Tobacco**

Data on tobacco consumption among teenagers and young adults are available from the DAS (BZgA 2009b). The lifetime prevalences of smoking among the 12- to 25-year olds were at 60.9% in 2008. About one in five teenagers and young adults smokes daily, little less than 14% even more than ten cigarettes per day. The average age at onset of smoking is 13.7 years and has not changed much since 1986. The quota of smokers among the 12- to 17-year old teenagers continually declined between 1979 and 1993 to rise again until 1997 and stagnate at a high level until 2001. Since 2001, the portion has considerably shrunk again and currently is at 16% (for both genders).

Findings on the tobacco consumption of adolescents from the last HBSC study (cf. also Nickel et al. 2008), KiGGS and MODRUS IV have already been presented in the REITOX Reports 2007 and 2009.

### **2.3.2 Use of illicit drugs**

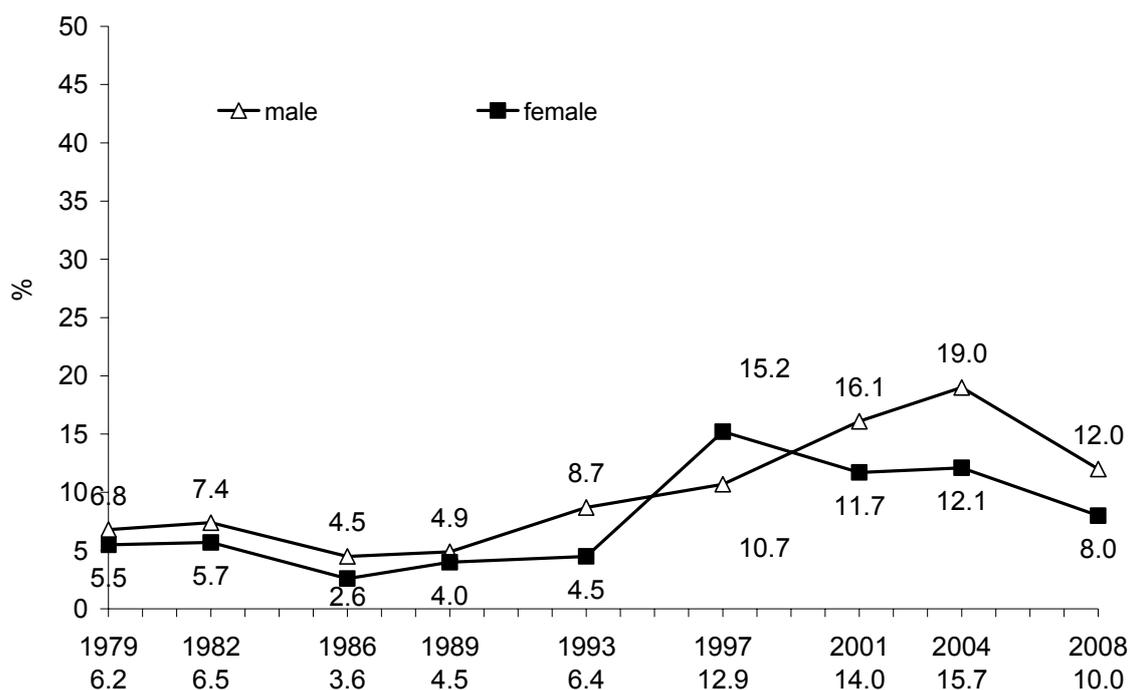
#### **National data**

The results of the European School Survey Project on Addiction and other Drugs (ESPAD) were already presented in the last REITOX Reports (Kraus et al. 2008b).

The review data from the DAS on the use of illicit drugs by adolescents and young adults as well as trend analyses of the cannabis use were already presented in the REITOX Report 2009 (chapter 2.2.1 and 2.2.2).

Trend data on the use of illicit substances by adolescents (12- to 17-year olds) and young adults (18- to 25-year olds) have been provided by the DAS since 1979 (BZgA 2010). From 1979 to 1993, the development of the lifetime prevalences of illicit drugs among adolescents

between 12 and 17 years of age varies only slightly on the whole running almost parallel for females and males until 1989. Afterwards, the portion of those who have already had experience with any illicit drug, takes a diverging course in the female and male adolescents: among the female adolescents the portion of those with consumption experience with illicit drugs jumps from 4.5% (1993) to 15.2% (1997)<sup>40</sup>. Since 2001 (11.2%) lifetime prevalences have been on the decline again. In 2008, they dropped to 8.0 percent. Lifetime prevalences among the male adolescents continually increased from 8.7 percent in 1993 to 19.0 percent in the year 2004 and fell to the current (2008) level of 12.0 percent (Figure 2.1).



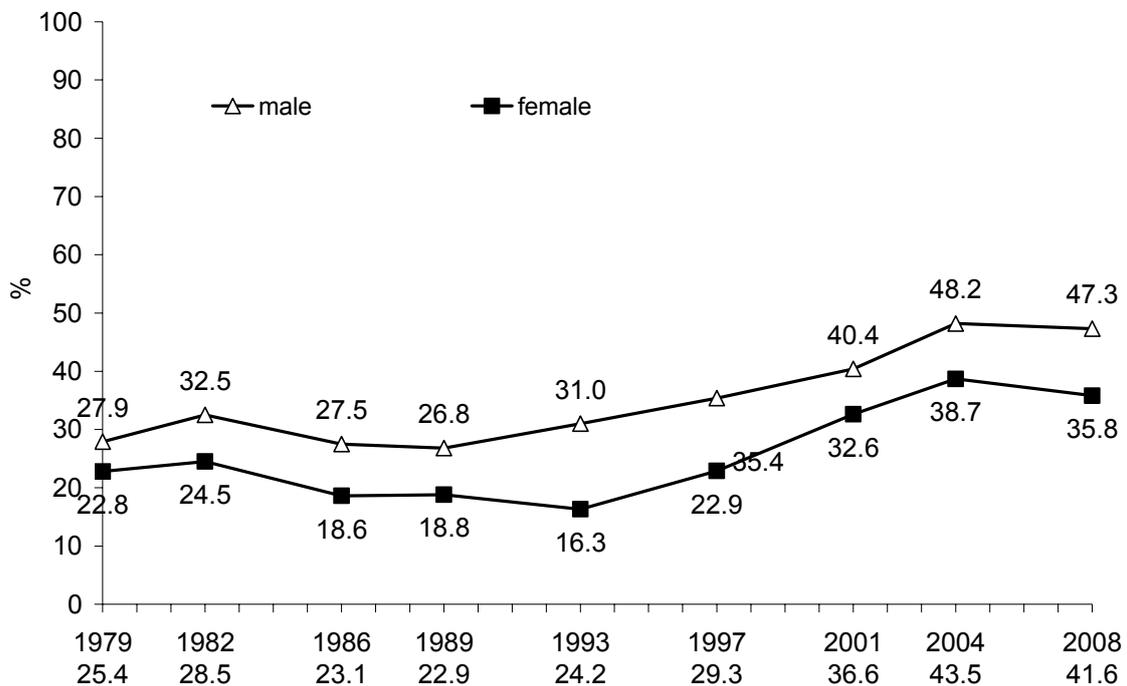
(BZgA 2010).

Figure 2.1 Lifetime prevalence of illicit drugs, 12- to 17-year olds, 1979-2008 (DAS)

Consumption experience with illicit drugs among the 18- to 25-year olds is significantly higher across all categories measured than among the 12- to 17-year olds. In this age group, gender differences are also more pronounced across the board. The portion of male young adults who have already had experience with drugs is between five and 14.7 percent points higher than the one of the female young adults over the whole reporting period. Since the beginning of the 1980s, the lifetime prevalence of the 18- to 25-year olds declined for both genders: the portion in the female young adults sank from 24.5% (1982) to 16.3% (1993) and in the male young adults from 32.5% (1982) to 26.8% (1989). From then onwards, the gender specific lifetime prevalences significantly increased till the year 2004. After that, the

<sup>40</sup> This increase was mainly attributable to the increase in the use of ecstasy as a “new party drug” in the context of the then forming techno party scenes and the increase in use of cannabis.

values hardly changed and were at 47.3% (male young adults) and 35.8% (female young adults) in 2008 (Figure 2.2).



BZgA 2010.

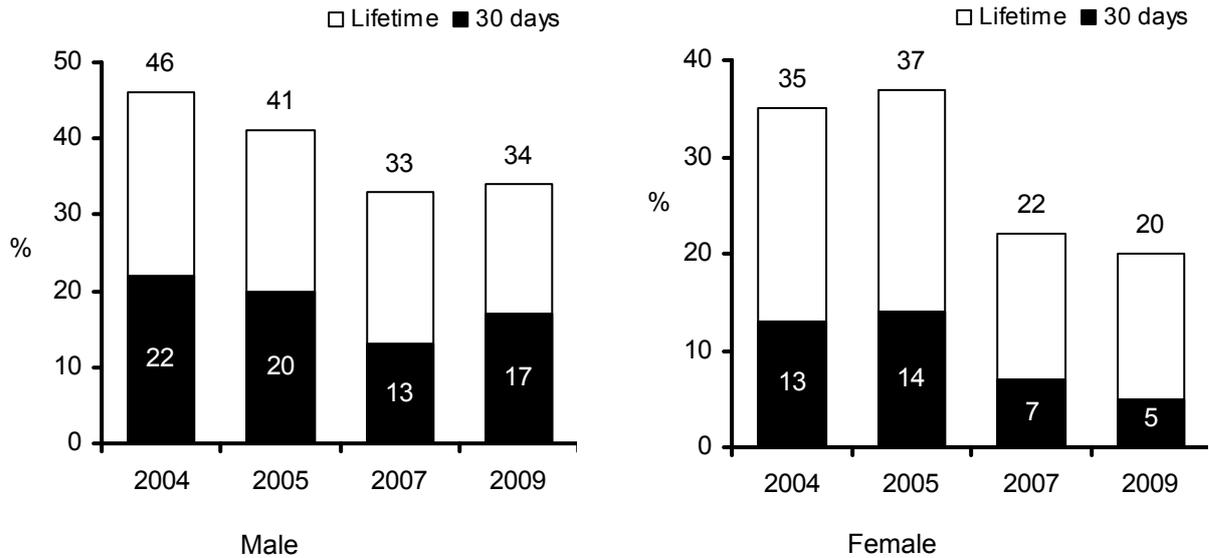
Figure 2.2 Lifetime prevalence illicit drugs, 18- to 25-year olds, 1979-2008 (DAS)

## Data from the *Laender* and the regional monitoring systems

### *Hamburg*

In 2009, the Office for Addiction Prevention conducted a survey called “Hamburger Schulbus” (Hamburg School Bus) among teachers and students in the age group between 14 and 18 years on substance use. The survey has been carried out for the fourth time since 2004 in Hamburg (Baumgaertner 2010).

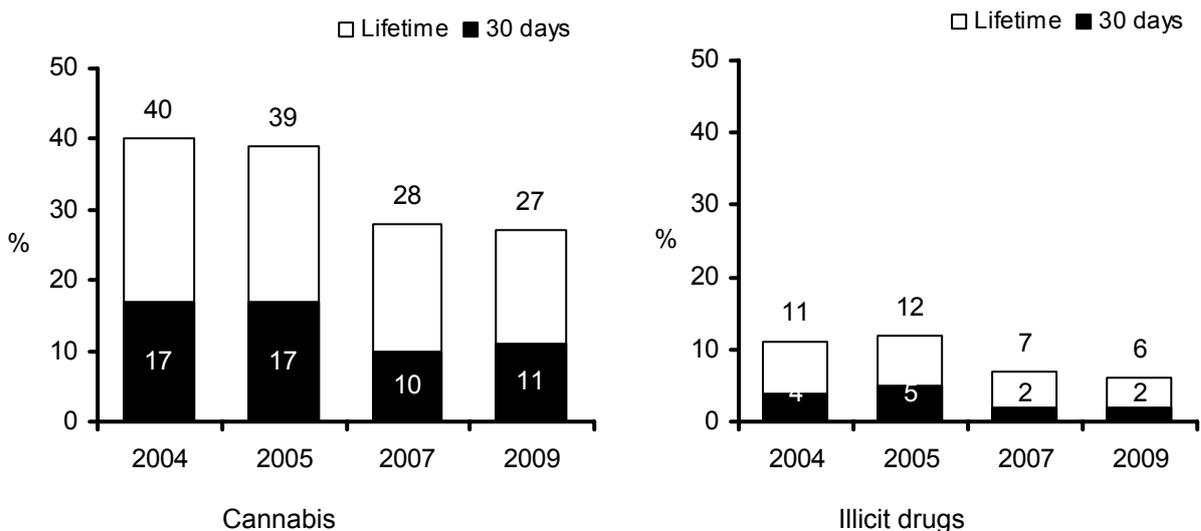
Contrary to the first three “School bus” surveys, the survey conducted in 2009 was a special one dedicated to gambling and computer gaming. Therefore, only few basic data on the substance use behaviour of the adolescents and young adults were collected. In the year 2009 too, cannabis was the most commonly used illicit drug among the interviewed students (Figure 2.3). About a quarter of the 14- to 18-year olds in Hamburg reported cannabis use in the lifetime. One in ten adolescents reported cannabis use in the last 30 days. Similar to alcohol and tobacco use, prevalence of cannabis use also declined most strongly – irrespective of the age group – between 2005 and 2007. The average age of initial use of cannabis was at 14.7 years in this survey.



(Baumgaertner 2010).

Figure 2.3 Lifetime- and 30-day prevalence of cannabis use among Hamburg adolescents 2004-2009

For the substances ecstasy, amphetamines, cocaine, psilocybin containing mushrooms and methamphetamines, the lifetime prevalences declined for the second time since 2005 among the interviewed students (Figure 2.4). Use experience with inhalants and LSD, by contrast, went up, though the lifetime prevalence for LSD is still below 2%. The overall prevalences of the use of illicit drugs reached their lowest level since 2004 both in the lifetime category (5.8%) and the 30-day category (1.6%).



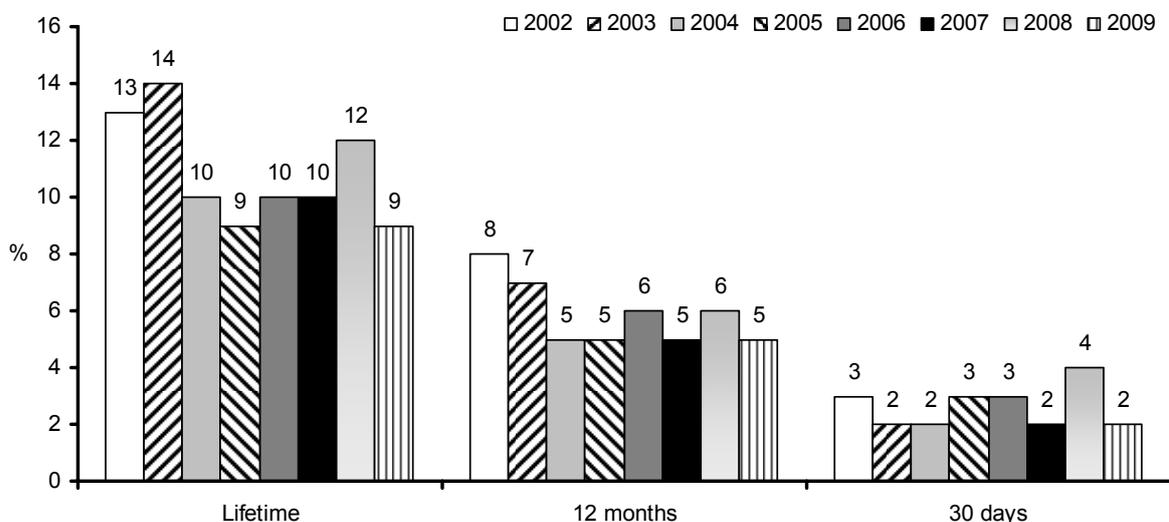
(Baumgaertner 2010).

Figure 2.4 Lifetime and 30-day prevalence of the use of cannabis and other illicit drugs (except cannabis) among Hamburg youth 2004-2009

### Frankfurt (MoSyD)

After the increase in 2008 (12%), only 9% of the 15-18-year-old Frankfurt students reported that they had experience with at least one illicit drug except for cannabis in 2009 (Figure 2.5). Apart from the lifetime prevalences, the 12-month and 30-day prevalences of the consumption of illicit drugs (excluding cannabis) too, fell back to the levels of 2007 after having increased in 2008. 3% of the students have taken ecstasy at least once in their life. While the use level for ecstasy apparently did not change, this substance went through a striking development on the black market: in lieu of the “original” substance MDMA, various other synthetic substances (among others m-cpp), some of which do not fall under the Narcotic Drugs Act and whose effects slightly diverge from the original, were much more commonly contained in the pills.

The lifetime prevalence of “speed” was on a slight decline and reached 3% in 2009 (2008: 5%). The portion of the 15-18-year old Frankfurt students who have had experience with the use of cocaine, fell back to 3% after having slightly increased in 2008 (6%). The lifetime prevalence of methamphetamine, which is among the most rejected drugs among the 15-18-year-olds, still was only at 1%. Use experience with psychoactive mushrooms (4%; 2008: 5%) and LSD (still at 2%) practically did not change at all and only a minority (<1%) of the 15-18-year-olds has had experience with heroin (Werse et al. 2010).



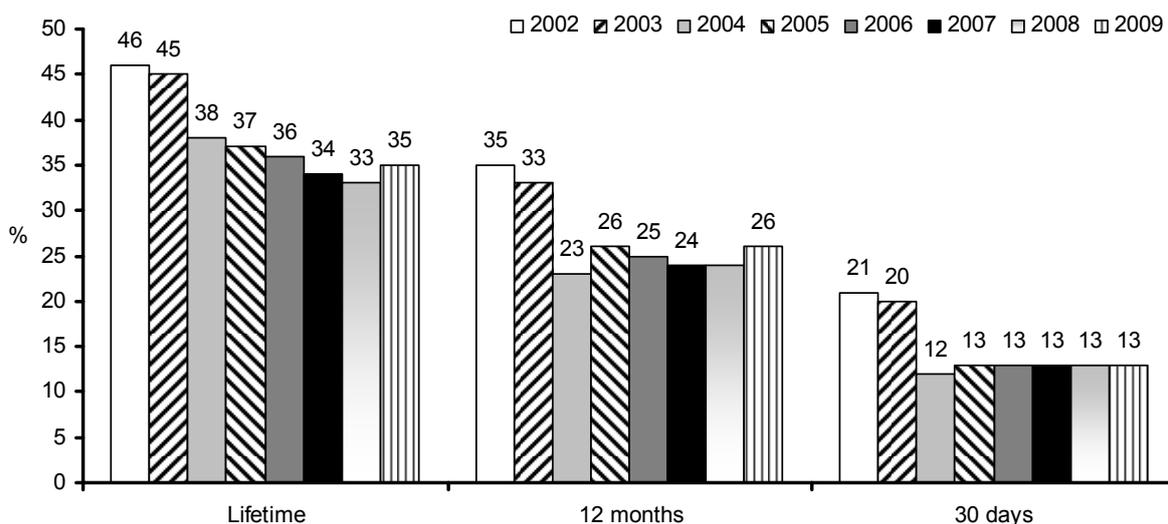
Werse et al. 2010.

Figure 2.5 Lifetime-, 12 month- and 30-day-prevalence of the use of illicit drugs (except cannabis) among Frankfurt students aged between 15 and 18 years - 2002-2009 (MoSyD)

With regard to the use of cannabis, the school survey recently conducted within the framework of the Frankfurt MoSyD do not show any striking changes for 2009 either; the lifetime prevalence of the use of cannabis among Frankfurt students has been on a continual

decline from 2002 to 2008, but increased by 2% in 2009 (Werse et al. 2010). The 30-day- and 12-month prevalences have remained stable for several years (Figure 2.5).

The age of initial use of cannabis increased among Frankfurt students from 14.5 ( $\pm 1.4$ ) years in 2002 to currently 15.1 ( $\pm 1.5$ ) years. A corresponding development is to be observed among those students who started cannabis use before the age of 14 years. This portion has shrunk from 21% in 2002 to currently (2009) 12% (Werse et al. 2010).



Werse et al. 2010.

Figure 2.6 Lifetime-, 12 month- and 30-day prevalence of cannabis use among Frankfurt students aged between 15 and 18 years - 2002-2009 (MoSyD)

Despite the unchanged low prevalences, there are indications from the current expert survey conducted within the framework of the MoSyD (Werse et al. 2010) that the trend of a low cannabis use among adolescents might have reversed in 2009. Especially in groups of young adolescents, intense use patterns - in part paired with behavioural disorders – have been observed<sup>41</sup>. It seems also that the trend of a correlation between drug/addiction problems and psychiatric problems apparently has continued. Use of anabolic steroids and the prevalence of heroin among potentially endangered adolescents are regarded as slightly declining by the experts.

In 2008, data on the use of herbal mixtures which had moved into the centre of attention under the name “spice” (cf. also the REITOX report 2009), were collected for the first time within the framework of the Frankfurt school survey MoSyD. According to the findings of the survey, about 6% of the 15-18-year-olds reported in 2008 that they had used “spice” at least once in their lives, 3% also in the last 30 days (Werse et al. 2009). In the year 2009, the lifetime prevalence was still at 6% whereas the 30-day prevalence dropped to 1%. Numerous succession products have meanwhile cropped up. But, their use is, according to the experts

<sup>41</sup> Intense alcohol consumption and associated disinhibition with regard to aggression and sexuality have been more commonly found in certain groups of adolescents. It seems that also persons from an Islamic parental home do not observe anymore the religiously founded ban of alcohol.

in Frankfurt (Werse et al. 2010), limited to narrowly defined groups like for example experienced middle-aged cannabis users or clients of therapy facilities. Experience with other “herbal mixtures“, which was surveyed for the first time in 2009, was at 3% of the interviewed students (30-day prevalence: 1%)<sup>42</sup>. Findings from a first survey, which was also conducted in Frankfurt on “spice“ and other herbal mixtures (Werse & Mueller 2009), indicate that a high number of different persons had apparently been motivated by media coverage on “spice“ to try out herbal mixtures. In the survey conducted in 2009 however, only a comparatively small group of persons still were consuming such products. These persons, mostly middle-aged, used the herbal mixtures as a replacement for cannabis because of legal concerns or to integrate the drug into their use patterns as a complement to a spectrum of different substances. Initially, the legal availability of the drug and the non-detectability of the active substances played an important role in consumption.

### Summary and trends

After the substantial increases in cannabis use prevalences from about the middle of the nineties onwards, recent findings give the impression that the situation has somewhat eased in terms of consumption and prevalences especially among teenagers and young adults. During the last three to four years in particular, numerous initiatives and projects have been launched addressing especially (young) cannabis users. These projects range from low-threshold offers to highly structured psychotherapeutic interventional approaches. Moreover, possible risks and long-term consequences of intense or addictive cannabis use have much more often been the subject of discussion both in the general public and in expert circles.

Sustainable changes in the use of other substances have not been reported recently. However, consumption behaviour still does vary at regional level. Significant figures of crack users for example have been reported for years only from Hamburg and Frankfurt. The characteristics of the markets like prices and/or purity of the various substances are also subject to considerable regional differences (the prices for crack for example have almost doubled in Frankfurt in a very short time (Werse et al. 2009)) and can therefore influence changes in the consumption behaviour. Moreover, individual substances or groups of substances (e.g. GHB/GBL, methamphetamines, biogenic drugs, tilidine) have repeatedly moved into the centre of attention in recent months, often in connection with intense media reporting. It is a problem that regular monitoring systems are not available for all of these substances. Moreover, some of the appearances of these substances are transitional phenomena which are often pertain to specific (also from an epidemiological view) small groups and can not necessarily be taken as indicators of sustainable changes in the use patterns.

In connection with the use of illicit substances by teenagers and young adults it is important to note that the use of illicit and licit substances (especially alcohol, tobacco but also medical

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<sup>42</sup> The data have to be interpreted with caution since the name “Spice“ is also used for other herbal incenses. It might be possible that adolescents who reported the consumption of spice, which is controlled since January 2009, have actually consumed other herbal incenses (especially when they were invited to do so).

drugs) is often closely linked so that important developments may possibly be neglected when looking at the use of illicit substances in an isolated manner.

It remains to be seen how far the appearance of synthetic cannabinoids, which was first reported on in connection with the consumption of herb mixtures such as “spice”, will lead to a change in the market. With the ban of these substances, which were identified in December 2008, the large majority of the mixtures which were free to sell on the market until then, are not available any more in Germany. Due to the high number of synthetic cannabinoids that can be produced theoretically, certain herbal incenses with cannabinoids remain still legally available since it is not possible to control the whole group of substances by the narcotic act.

Based on the data from the HBSC, Ottovar and colleagues (2009) recently investigated the connection between alcohol, tobacco and cannabis use and their impact on the quality of life of adolescents<sup>43</sup>. They analyzed the role played by substance use and socio-demographic and socio-economic factors in the adolescents' awareness of their health condition and their subjective quality of life.

The findings show that female gender, higher age and lower family wealth correlate with a higher risk of an impaired self-perception in terms of health and subjective quality of life both for alcohol and cannabis and tobacco consumption. While adolescents from socially disadvantaged families report more often about regular or experimental use of tobacco than their peers who are socially better off, it is exactly the other way round for alcohol consumption.

Taking a closer look at the 15-year-old cannabis users and non-users, one finds that 47% of the adolescents who regularly or experimentally used cannabis also regularly drank alcohol (compared to 19.9% among all 15-year-olds). In addition, 72% of the adolescents who had experimentally used cannabis stated that they had tried alcohol once before the age of 13 years, while this only applied to 48% of the non-users. 73.3% of the cannabis users also reported to have experienced intoxication caused by alcohol (comparative value of all 15-year olds: 29.4%) twice or several times. There was no significant correlation found between cannabis use and the economic situation of the family.

To summarize, the analyses showed that (tobacco) and cannabis users differ from their non-using peers especially in terms of their self-reported general health condition. Furthermore, there seem to be indications that especially younger substance users run a higher risk of impairment of their subjective quality of life. With regard to school performance, the findings of the study confirm that young cannabis users score worse than their non-consuming peers. A positive finding was that the majority of the German 15-year-old adolescents have never tried cannabis yet (84.1%) and are in a good to excellent health condition (86.0%).

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<sup>43</sup> The data basis for this survey was formed by the German sample drawn within the framework of the HBSC in 2005/2006. A total of N=7,224 children and adolescents aged 11, 13 and 15 years participated in the survey (cf. also the Reitox Reports 2007 and 2008). Evaluations of cannabis use were exclusively calculated on the basis of the statements made by the 15-year olds (N=2,552).

The authors therefore recommend taking better account of the differences in the use behaviour of the different groups in the development of prevention programmes in the future.

Jonas & colleagues (2009) investigated and described various use patterns of cannabis by means of an interactive self-test on the prevention of risky cannabis use<sup>44</sup>. Using three classic analytical methods, they were able to identify three groups of consumers. The first group is mainly made up of users who have a relatively low substance use per month. They generally prefer a soft consumption effect and have a comparatively low consumption motivation. Addictions symptoms are relatively poorly developed among them. This group is best classified by the terms “occasional users” or “low-risk users” that are also used in other studies. Among the members of the second cluster, by way of contrast, consumption is integrated more strongly into everyday life and displays a higher functionality. The regular and strong use of cannabis has mainly hedonistic traits. This tallies with other studies in which cannabis use has been associated with social consumption motives and expanded perception. However, also disphoric consumption aspects have been found among the members of this cluster. A third of the users of this group displays substance dependence. It has moreover been found that consumption has been strongly functionalized to compensate for problems. The third user cluster is made up of intense users who consume cannabis several times per day especially to compensate for negative affects. Members of this cluster are least satisfied with their lives. The portion of cannabis addicts in this cluster is the highest. This group can be best referred to as “permanent users” or “high-risk group”.

Since the present data have not been collected within the framework of a survey, but by means of a freely accessible self-test in the Internet, the found use patterns may, also according to the opinion of the authors, only be transferred to the general population with reservations. The authors nevertheless arrive at the conclusion that the found use patterns permit sufficient generalization.

Table 2.7 and Table 2.8 summarize once more the results of the most recent studies carried out on the prevalence of the use among adolescents for illicit drugs on the whole and separately for cannabis. When comparing the values it needs to be noted that the age groups are not identical. Also the substances labelled “illicit drugs” vary between the surveys, so that direct comparisons are impossible (e.g. in the BZgA-survey, cannabis is included in the category “illicit drugs”). It also needs to be taken into account that ESPAD and HBSC have only been conducted in some of the 16 *Laender*, which can also lead to divergences. Some of the differences in the prevalence estimates can also be attributed to for example different methods (telephone vs. face-to-face interviewing) or different phrasing used in the

<sup>44</sup> To this purpose, a random sample was drawn from all recent users of an Internet-based self-test (N=1,590) and broken down by cluster forming variables like frequency of use, effect preferences and motives for use. The study was based on the questionnaires filled in by the users of the Internet-based “Cannabis-Check”, which has been freely available since 2005 on the website “drugcom.de” (cf. earlier Reitox Reports) and which contains 24 questions. The evaluation was done on the data provided by the users until 30.04.2009. In the evaluation period, a total of 136,238 data sets were available which were cleansed in various steps from incomplete entries and inconsistent or extreme answer patterns. Users who were not in the 12-25 year age range, were sorted out. The remaining N=80,830 data were used as the survey population for the analysis. From these data a two percent random sample of 1,590 data sets was drawn.

questionnaires.

Details on surveys conducted among the general population are contained in online standard table 2, among adolescents in standard table 30.

Table 2.7 Prevalences of the use of illicit drugs among school populations and adolescents in various German studies

Study <sup>1)</sup>	Year	Age group	Region	Prevalence (%)		
				30 days	12 months	Lifetime
BZgA	2008	12-15	National	1.6 <sup>2)</sup>	3.7	4.2
BZgA	2008	16-17	National	5.0	13.6	19.9
BZgA	2008	18-19	National	7.0	16.2	35.8
BZgA	2004	12-15	National	1.3	5.6	7.7
BZgA	2004	16-17	National	5.1	20.7	32.1
BZgA	2004	18-19	National	6.7	18.8	40.6
ESPAD	2007	15-16	7 Laender			10.1
ESPAD	2003	15-16	6 Laender	3.8	8.3	12.3
MoSyD	2009	15-18	Frankfurt	2	5	9
MoSyD	2007	15-18	Frankfurt	2	5	10
MoSyD	2005	15-18	Frankfurt	3	5	9
Schulbus	2009	14-18	Hamburg	2 <sup>2)</sup>		6
Schulbus	2007	14-18	Hamburg	2		7
Schulbus	2005	14-18	Hamburg	5		12

1) BZgA: Cannabis, heroin, cocaine, amphetamines, ecstasy and LSD. Data on the use of "illicit drugs except cannabis" are not available. The presented data from the year 2004 are the result of a re-analysis carried out by the BZgA. Therefore, figures can diverge from those of previous years. ESPAD: amphetamines, LSD, ecstasy, cocaine, crack and heroin. ESPAD interviews students from grades 9 and 10, the focus is therefore on the 15-16-year age range, but also a few students aged 14 and 17 years were included. MoSyD: psychoactive mushrooms, ecstasy, speed, cocaine, LSD, crack, heroin, crystal and GHB/GBL. Schulbus: ecstasy, mushrooms, LSD, speed/amphetamine, cocaine, crack and heroin.

2) Corresponds to "present use" (BZgA) or respectively "current use" (Schulbus).

Table 2.8 Prevalences of the use of cannabis among school populations and adolescents in various studies

Study	Year	Age group	Region	Use in period (%)		
				30 days <sup>1)</sup>	12 months	Lifetime
HBSC <sup>2)</sup>	2006	15	5 Laender	7.1/4.3		18.1/13.8
HBSC	2002	M=15.7	4 Laender		18.0	24.0
KiGGS <sup>2)</sup>	2003-2006	11-17	National		9.2/6.2	
BZgA	2008	12-19	National	3.7 (2.0) <sup>3)</sup>	9.1	16.7
BZgA	2007	12-19	National	3.4 (2.3) <sup>3)</sup>	8.0	15.1
BZgA	2004	12-19	National	3.4 (2.3) <sup>3)</sup>	12.1	21.3
ESPAD <sup>4)</sup>	2007	15-16	7 Laender	8.1	17.2	25.2
ESPAD	2003	15-16	6 Laender		24.0	31.0
MoSyD	2009	15-18	Frankfurt	13	26	35
MoSyD	2007	15-18	Frankfurt	13	24	34
MoSyD	2005	15-18	Frankfurt	13	26	37
MoSyD	2004	15-18	Frankfurt	12	23	38
Schulbus	2009	14-18	Hamburg	11		27
Schulbus	2007	14-18	Hamburg	10		28
Schulbus	2005	14-18	Hamburg	17		39
Schulbus	2004	14-18	Hamburg	17		40

1) BZgA (30 days = "present"), Schulbus ("current use" = 30 days).

2) HBSC (2006) and KiGGS: First figure: boys, second figure: girls.

3) In brackets: Regular use (> 10 times in the last year).

4) ESPAD interviews students from grades 9 and 10, the focus is therefore on the 15-16-year age range, but also a few students aged 14 and 17 years were included.

## 2.4 Drug use among targeted groups/settings at national and local level

### Repatriates and migrants

Substance abuse among migrants is in third place on the list of psychological disorders. Even more frequent are psychosomatic and depressive syndromes. Post traumatic stress disorders and psychoses have a lower incidence than drug dependence (Collatz 2001). Adolescent ethnic German immigrants from Russia constitute a specific social risk group in Germany exhibiting disintegrated biographies at a disproportionately high scale including substance abuse and deviance. Access to migrants who only make use of care offers upon referral continues to constitute a special problem. Mediators speaking the mother tongue of the immigrants could contribute to overcoming barriers both in preventive and curative care and facilitate the access to the health care system (Walter et al. 2007).

Studies analyzing the explanatory models for addiction-related illnesses of repatriates from the former Soviet Union, migrants from Turkey or native Germans confirm that cultural

differences assumed by the explanatory models with regard to substance abuse may lead to communication problems with the personnel of addiction support facilities (Heimann et al. 2007; Penka et al. 2008). The lower usage of health care offers by patients with a migration background in comparison with native Germans also results from a different conceptual understanding of “addiction” and care structures which are to be called on if necessary. It is also not possible to convey medical or every day conceptions beyond merely linguistic notions without taking into account the respective cultural context and related connotations of language.

### **(Techno-) party scene and other youth cultures**

The Frankfurt MoSyD reports that techno music continued to gain popularity among young people also in 2009. It also seems like more and more adolescents join the techno scene. Nothing changed in the order of the most popular drugs: alcohol (and cigarettes) are followed by cannabis and speed. The previously reported temporary spread of GHB/GBL (“liquid Ecstasy”) shrunk to a minimum level again – possibly thanks to effective prevention messages (Werse et al. 2010).

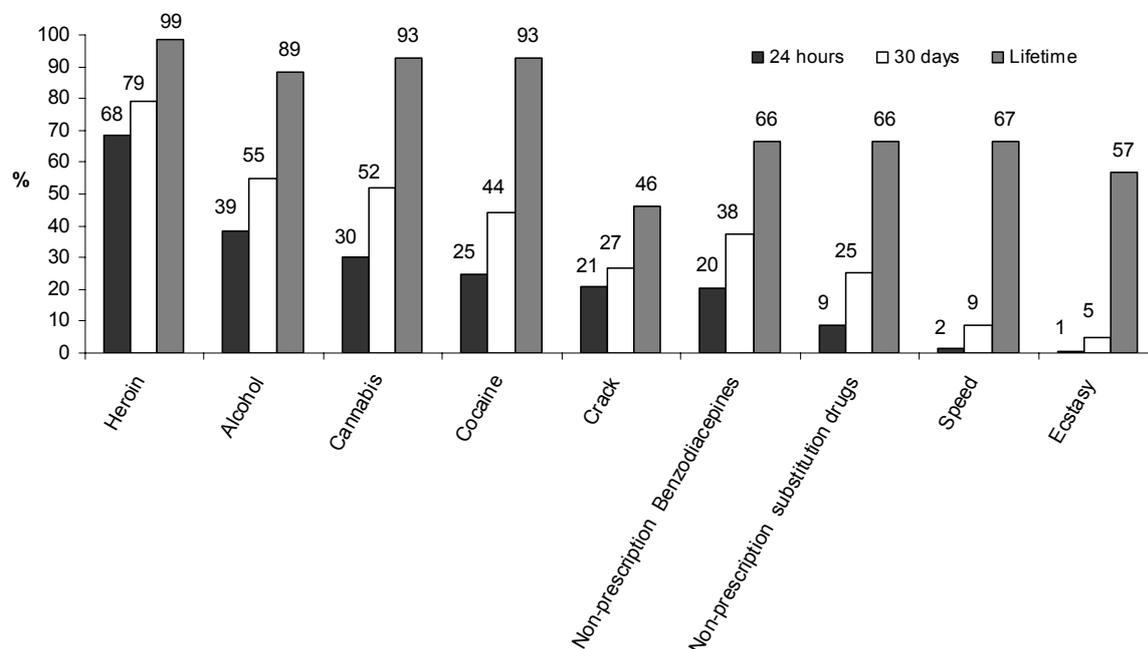
### **German-wide scene survey 2008**

In 2009, Thane, Wickert and Verthein (2009) presented the results of an extensive scene survey. So far, studies on drug scenes and consumption rooms have generally only been referred to individual cities or facilities. For the here presented study however, surveys have been carried out in almost all German cities that provide drug consumption rooms. The survey was conducted by means of a standardized questionnaire<sup>45</sup> among the visitors of the participating drug consumption rooms or other locations frequented by scene members (e.g. cafés). In a few individual cities, also members of the open drug scene who do not frequent any of the respective facilities, were interviewed. In total, N=16 facilities from 13 cities took part in the survey. Apart from numerous other data (e.g. on the infection status or the life

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<sup>45</sup> To this purpose, a standardized questionnaire containing 46 questions was developed and coordinated with the members of the National Working Group Consumption Room (Arbeitskreis Konsumraum, AK Konsumraum). The questionnaires were sent off centrally. The goal was to reach 30-50% of the regular (i.e. at least weekly) clients in each facility. The figures were estimated by the facilities and the respective number of questionnaires (total N=1.430) sent to the individual facilities. The interviews were conducted by the staff of the respective facilities, in part with the support of external interviewers. Interviewing was done face-to-face based on an interview manual. Double interviewing was excluded afterwards by combining different questionnaire items. The survey was conducted in the period between 26.05. and 25.07.2008; only in Frankfurt, the period was extended until 31.08.2008. The interviews were conducted with the clients on a voluntary basis. As a recompensation the interviewees received food vouchers or cigarettes (depending on the possibilities of the facilities). Filling out the questionnaire takes about 30-45 minutes. Apart from having sufficient knowledge of the German language, participants need to be prepared to engage in an intense session of interviewing. It is therefore possible that certain groups are systematically underrepresented as a result of the length of the interview (for example users who are in a bad physical or psychosocial condition and whose concentration span is not long enough for the interview or also crack users with a particularly strong craving or users with insufficient German language skills). As for a few questions on the use of help offers, it is not possible to draw a direct comparison between the cities because of the different types of locations where the surveys were conducted (consumption room, scene, café). Out of the total of N=1,430 sent questionnaires, N=791 were filled out, sent back and analyzed. No questionnaires were excluded from the evaluation.

situation), the scene survey also provides information on the prevalence of drug use among the interviewed people. Figure 2.7 shows the prevalence of the use of individual substances for the last 24 hours, the last 30 days and the lifetime respectively.



Thane et al. 2009.

Figure 2.7 Prevalence of drug use broken down by substances (scene survey, 2008)

In the mean, 2.1 substances were consumed in the last 24 hours, 3.2 substances in the last 30 days, nine different substances were the maximum reported. 11.3% of the interviewees said that they had not used any substances in the last 24 hours. 5.8% negated use in the last 30 days. Gender differences in the consumption prevalences showed in a higher portion of men using heroin, alcohol and cannabis. Women, though, were found to use somewhat more commonly cocaine, crack and non-prescribed benzodiazepines as well as substitution drugs.

The special position of the drug scenes in Hamburg and Frankfurt with regard to the use of crack (Prinzleve et al. 2004, Kemmesies 2002) was already documented some years ago and clearly confirmed by means of the local data of the study. Whereas the 24-hour-prevalence of crack is up to 3% at the most in all other cities, it exceeds 50% in Frankfurt and Hamburg. A comparison of the central key data with the Frankfurt scene study (Mueller et al. 2009), which has been carried out regularly since 2002, shows that the drug scene in Frankfurt is very similar to other local “open” drug scenes. The high prevalence of crack and also considerably higher rate of benzodiazepine use are the reason for a more extensive drug use on average in Frankfurt compared to other urban drug scenes (30 days: 4.7 vs. 3.2 substances; 24 hours: 2.5 vs. 2.1 substances).

## 3 Prevention

### 3.1 Introduction

#### 3.1.1 Organisational framework

The primary goal of prevention is to promote the health of the individual, maintain abstinence, prevent and reduce abuse and addiction. The prevention of addiction is - alongside addiction therapy and repressive measures – an integral part of the comprehensive addiction and drug policy of the Federal Republic of Germany. Apart from severe psychological and physical harm done to the individual, substance abuse and addiction also cause enormous damage to the national economy. Prevention of addiction therefore assumes a central position in Germany. Prevention is one of the four main areas of German addiction and drug policy is based on (cf. chapter 1.1.2).

The prevention of addiction has been strengthened by the development of a comprehensive prevention strategy that matches set targets with concrete measures in the area of addiction prevention.

Responsible for the implementation of the drug and addiction policy and the pertaining prevention activities are the respective ministerial agencies, in particular the Federal Centre for Health Education (BZgA), the *Laender*, communal administration and the self-governmental bodies of the social insurance funds. Obligated to the principle of subsidiarity, this multitude of actors makes sure that the preventive measures are broadly spread across all federal levels of the Federal Republic of Germany.

#### 3.1.2 Current developments and trends

Current substance-related developments and trends have been described in chapter 2.

##### **Polydrug use**

Current analyses of epidemiological data show that the probability of teenagers and young adults using illicit drugs increases significantly with the concurrent use of water pipes or shishas and the experience of alcohol intoxication (BZgA 2010).

Alcohol is not only the most widely spread psychotropic substance in Germany, but also assumes the role of a moderator variable with regard to the use of other illicit psychotropic substances, as can be clearly seen from Table 3.1. Use of alcohol together with cannabis or another illicit drug is a risk behaviour of young people that is widely spread not only in Germany (EMCDDA 2009a; Laging 2005). The majority of the users generally stop using illicit substances when assuming adult roles later on life, but there are groups of persons who are significantly at risk of developing addiction as a result of polydrug use.

Table 3.1 Correlation alcohol intoxication and 12-month prevalence of an illicit drug

Alcohol intoxication experience	12-25 year olds			14-17 year olds			18-25 year olds		
	Total	M	F	Total	M	F	Total	M	F
No alcohol intoxication	1.90%	3.00%	1.00%	2.20%	3.30%	1.20%	3.10%	5.60%	1.60%
In the last year but not in last 3 months	13.20%	14.70%	11.20%	14.10%	16.60%	10.80%	12.90%	13.90%	11.50%
In last 30 days	28.30%	31.70%	22.70%	36.70%	47.50%	20.00%	25.70%	27.20%	23.10%

BZgA 2010.

### Developments and trends

The too high alcohol consumption by youth in Germany has been dominating public and health expert debates for many months. However, problem alcohol use is not only widely spread among youth in Germany, but also especially in the adult population. In Germany, roughly 9.5 million men and women aged between 18 and 64 years run the risk of permanently damaging their health through alcohol (DHS 2010). Among them are 1.3 million alcohol dependents and a further 2 million alcohol abusers. The statistical report on the hospital diagnoses of the Federal Statistics Office (Statistisches Bundesamt 2009a) shows quite strikingly that not only the number of adolescents who have been treated in hospital for acute alcohol intoxication has gone up, but that in almost each age group there are more and more people treated for intoxication in hospital from year to year. The number of patients in the 45-50 year age range, for example, treated for acute intoxication in the last eight years, went up by 122% from 5,675 in the year 2000 to 12,617 in the year 2008 (Statistisches Bundesamt 2009a).

Prevention activities have therefore been focused on alcohol, as is also shown by the data of the documentation system Dot.sys in the year 2009. As in previous years, substance-specific measures provided in the reporting year 2009, were geared to the substances alcohol, cannabis and tobacco.

Figure 3.1 shows that 79% of all substance-related measures have been referred to alcohol whereas tobacco intervention activities have become less important within the framework of substance-related measures over the last twelve months.

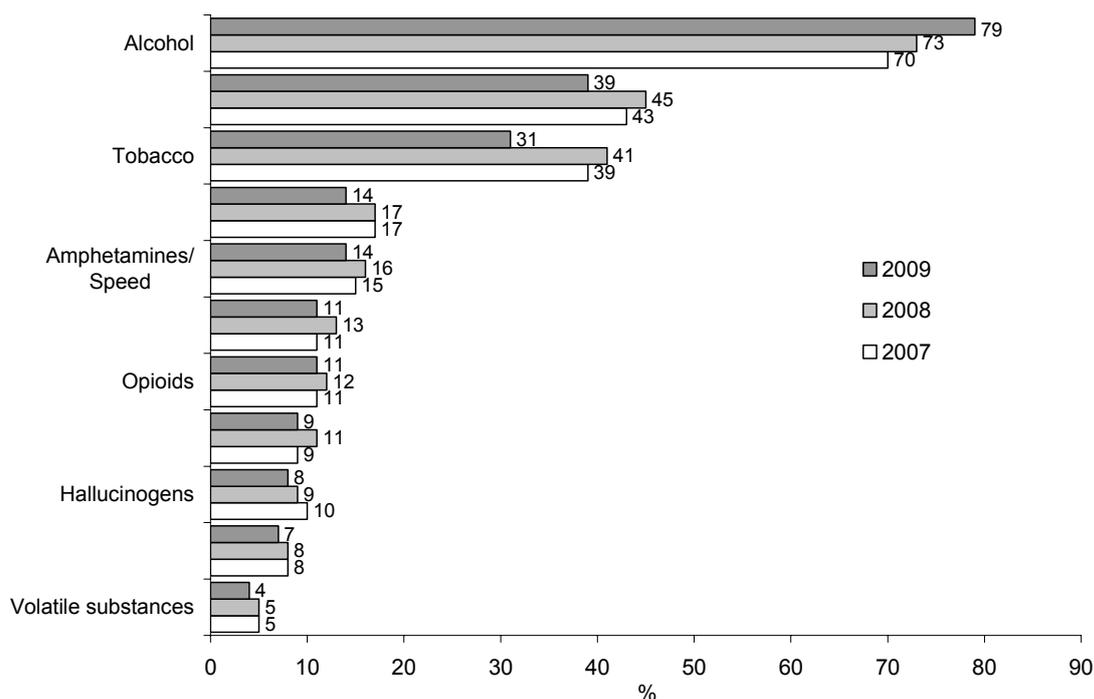


Figure 3.1 Development of the surveyed substances from 2007 to 2009

In this context, the Federal Centre for Health Education has been implementing a multi-level prevention strategy with the title “Alcohol? Know your limit“ since 2009 that combines mass media measures with personal communicative elements provided at a broad scale. These behavioural prevention interventions are complemented by co-operations and joint projects carried out in a few individual *Laender* in order to structurally strengthen them over the medium and long term.

Next to the aforementioned substance-related measures, promotion of health and life skills as well as the provision of information and formation of critical attitudes form another cornerstone of current prevention activities. The so-called life skills programmes are often integrated into school curricula in order to potentially reach large parts of the population in school age (see also on this the following chapter).

### 3.1.3 Effectiveness and efficiency in addiction prevention

Prevention activities are carried out by various players in Germany. This makes it possible to take a broad approach and transfer promising and successful measures into actual practice.

From today’s perspective, central approaches taken to increase effectiveness and efficiency in addiction prevention are evaluation, networking and transfer. In order to guarantee a structured and systemic sustainable exchange and transfer, structures and co-operations at various levels with almost all relevant players have been successfully developed over the last years. Among these are for example also the development of quality standards and the further development of existing quality assurance measures in addiction prevention. In this connection, the BZgA-*Laender*-cooperation group “addiction prevention“ (a cooperation between the *Laender* representatives and the BZgA) is equally trend-setting as the events

and experts' meetings organized by the German Monitoring Centre for Drugs and Drug Addiction (Deutschen Beobachtungsstelle fuer Drogen und Drogensucht, DBDD), the BZgA, the German Centre for Addiction Issues (DHS) as well as by many other players, and last but not least the monitoring system Dot.sys (documentation system used for addiction prevention), a joint project of the BZgA and the *Laender*.

### Quality assurance instruments in addiction prevention

Quality assurance and quality management have assumed a central position in health promotion and prevention of addiction. Part of them are analyses of the effectiveness conditions and of the effectiveness of prevention measures alongside quality assurance of scientifically-founded prevention. Currently, there are different quality assurance measures and instruments in the *Laender* used, especially at a regional level. Alongside various instruments developed by the *Laender* themselves, the project planning instrument "quint-essenz"<sup>46</sup> or the approach "participative quality development"<sup>47</sup> are used in Germany.

The BZgA, too, has developed quality assurance measures and standard procedures for its own measures, which are also made available to external institutions and organisations. "QIP- Quality in Prevention"<sup>48</sup> is an instrument developed by the BZgA together with the University Clinic Hamburg-Eppendorf (UKE). With QIP, structural, conceptual, process and outcome quality are systematically analyzed and furthermore evaluated by experts in their respective working fields. A total of 300 projects have so far been evaluated with QIP, among them approximately 40 addiction prevention projects (Landeskoordinierungsstelle Suchtvorbeugung NRW & BZgA 2009).

### Dot.sys

The project *Dot.sys* jointly carried out by the BZgA and the *Laender* provides comprehensive information on the prevention activities implemented in Germany within one calendar year. With this, *Dot.sys* makes an important contribution to reporting on prevention and improving also the quality and transparency in prevention practice. The participating counselling centres, authorities, associations, specialized ambulatories and coordination agencies at Land level permanently document their activities in the electronic data collection system. Documentation takes place on a voluntary basis, therefore no claim can be laid on completeness of the documented prevention measures.

After *Dot.sys* has reached a very high prevalence rate and has established itself as a monitoring system in the prevention of addiction over the last four years, an external evaluation of the acceptance and on the understanding of the system was carried out in 2009/2010. The goal of the analysis was to gain information for the optimization and further development of *Dot.sys* or respectively of the framework conditions of the system. The results of the study show that the users are generally satisfied with the system and give full

<sup>46</sup> <http://www.quint-essenz.ch/de>

<sup>47</sup> <http://www.partizipative-qualitaetsentwicklung.de>

<sup>48</sup> <http://www.uke.de/extern/qip/index.html>

marks for efficiency. The analysis showed moreover that an expansion of the evaluation functionalities of the tool and a tighter definition of the content categories could make an important contribution to an even higher satisfaction rate and acceptance of the documentation system. The recommendations of the evaluation are to be put into practice in a revised software version already for the reporting year 2011.

In the reporting year 2009, 338 facilities from all over Germany recorded prevention measures in Dot.sys (in comparison with 320 facilities in the year 2008). Reporting with Dot.sys in the year 2009 was based on total of approximately 34,000 documented addiction prevention measures, projects and programmes. Selected results show that:

- 46% of the documented measures are activities that are addressed to multipliers or final addressees respectively; approximately 8% are measures that can be assigned to the area PR.
- The primary field of prevention activities is the school setting with approximately 39%. Main target groups of preventive measures are teachers (31% of the measures for multipliers) as well as children and adolescents (54% of the measures for final addressees).
- Substance-specific prevention activities in 2009 increasingly focused on the substance alcohol (79%) whereas cannabis (39%) and especially tobacco (31%) were more seldom addressed. With this, the trend of previous years continued: addiction prevention in Germany is increasingly reacting to the problems caused by alcohol. This is for example also demonstrated by the fact that 85% of all substance-specific measures for multipliers in the year 2009 were geared to the substance alcohol.

### 3.2 Universal prevention

Universal prevention forms the mainstay of the prevention activities undertaken in Germany. Universal prevention comprises programmes, projects and activities that address the general population or parts of it that run a low or average risk of developing addiction or dependence. Prevention or help measures are ideally provided in the everyday world of the targeted groups, this also applies to universal prevention measures. Typical activity areas for universal prevention measures are schools, work settings, communal facilities or sports clubs, to mention just a few (Spring & Philips 2007).

Universal prevention comprises behavioural and condition prevention measures (BZgA 2007) and are split up into substance-specific, non-substance-related and cross-substance projects. Cross-substance prevention activities are mainly referred to as activities serving to teach life skills or to promote forming critical opinions.

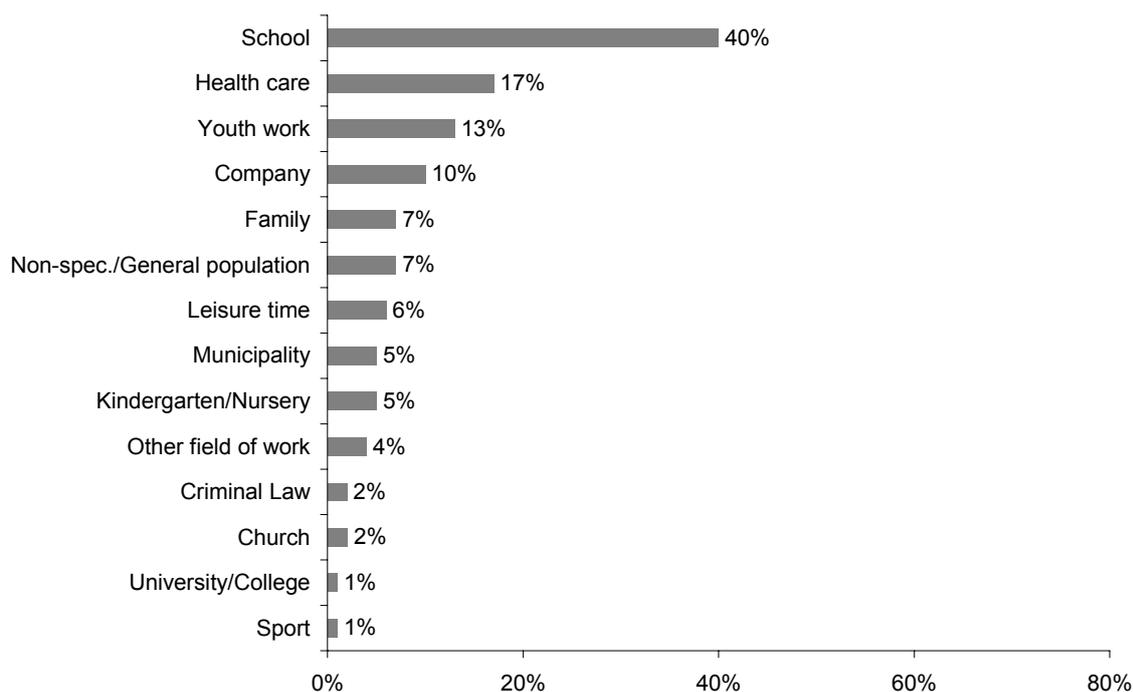
In the year 2009, the universal measures of prevention of cannabis use and abuse “*Strong instead of stoned*” undertaken by the *Land* North Rhine-Westphalia were complemented by target-oriented communication tools. *Strong instead of stoned* is embedded in the national campaign “*Addiction always has a history*” in terms of contents and structure. Apart from directly addressing the target group by for example using written information material or

organizing events for applicants for driving licence, the interventions actively involve reference persons from the school or family setting. According to estimates by the responsible Land Coordination Centre North Rhine-Westphalia, approximately 54,000 persons from the target group adolescents and young adults as well as approximately 14,000 multipliers from addiction help and youth welfare were reached.

### 3.2.1 School

Schools are an ideal setting for carrying out universal prevention measures. They provide the broadest access to the main target group of universal prevention and make it possible for preventive measures to be integrated into the school curriculum. Schools are equally suited for substance-related, non-substance-related and cross-substance-related activities.

The programmes integrated into the school setting have been successfully used at national level for many years. *Be smart – Don't Start, Smoke free School and Class 2000* are mentioned here as examples. The aforementioned programmes are generally made up of different modules ranging from promoting social skills and conveying information to motivating to lead a healthy lifestyle.



Dot.Sys 2009, own presentation

N=32.817 measures)

Figure 3.2 Settings of prevention measures

The majority (40%) of all preventive measures registered in Dot.sys in the year 2009 have been implemented in schools. These comprise measures for final addressees, e.g. students, further education measures and trainings for teachers, social pedagogues and psychologists at schools or parents. Both substance-non-specific (45% of the measures documented in

2009) and substance-related (46% of the measures documented in 2009) prevention measures are implemented in the school setting. Almost one in ten measures carried out in the school setting dealt with substance-related addictions like for example eating disorders or pathological gambling. Prevention at schools is focused on the promotion of health and life skills as well as on the provision of information and the formation of critical attitudes.

“Becoming independent“ is an example for a supra-regional school programme for the prevention of addiction and violence at primary school level. *Becoming independent* is based on the life skills approach and addresses factors that strengthen the personality in order to successfully prevent addiction, violence, aggression and stress. *Becoming independent* was developed and evaluated by the Institute for Therapy Research and Prevention (Institut fuer Therapieforschung und Praevention, IFT-Nord) in Kiel. So far, the programme has been realised in 8 *Laender* and more than 2,000 teachers have participated in corresponding further education events. The effectiveness of the programme was tested within the framework of a several-year-long control group study in Saxony. The study shows that participation in the programme can lead to a decline in behavioural disorders and the disposition for violence on the one hand and to an increase in social skills on the other. *Becoming independent* is currently expanded to grades five and six. “Becoming independent 5+6“ is based on interactive classroom instruction units and an addiction-specific activity course (grade 5 nicotine, grade 6 alcohol). In addition to the instruction modules, *Becoming independent 5+6* contains a parent module that comprises for example letters from parents on the individual instruction units or parents’ evenings.<sup>49</sup>

The interactive programme *Cannabis – Quo Vadis*“, developed by the Villa Schoepflin is a short intervention of about 2 hours during which the role of cannabis use in the lives of fictional people is thematized in a role play and subsequently discussed. The adolescents furthermore receive information on specific help offers made in the region they live in. *Cannabis – Quo Vadis* is meanwhile used in schools in North Rhine-Westphalia, Hesse, Rhineland-Palatinate and in Switzerland by approximately 40 participating centres for addiction prevention. Selected evaluation results show that the intervention has significantly increased the knowledge of the adolescents in the area of cannabis. Likewise, the consumption risks were rated significantly higher six weeks after the intervention.

Approximately one in ten interventions follow the approach of peer education. Peer education approaches are based on the assumption that fellows of the same age (peers) are better suited than for example teachers or counselling experts to create favourable preconditions for initiating learning processes. This is, among others, attributable to greater social closeness between peers, the use of common language codes and thus to greater authenticity. (Backes & Schoenbach 2002). Teenagers who are willing to assume the roles of peers, are trained to provide support as experts in problem situations and to promote problem solving skills among their fellow students. Peers thus serve as prevention helpers at ground level, i.e. also at places where licit and/or illicit drugs are consumed.

<sup>49</sup> [www.eigenstaendigwerden.de](http://www.eigenstaendigwerden.de)

Peer approaches at schools are sometimes also addressed to parents, as can be seen from the example “Peer parents at school” (PEaS – Peer Eltern an Schule) – a prevention project run by the *Land* Berlin. The two leitmotifs - 1. Parents can do a lot to protect their children from addiction and 2. Parents are made aware of their possibilities to contribute to creating the school setting - have been tested in the pilot project at secondary schools in Berlin since 2009. The goals of the peer project are to strengthen parental participation in school, to improve the parent-child relationship and the communication within the family, to increase family protection factors and to minimize risk factors for addiction<sup>50</sup>.

### 3.2.2 Family

As the most important and constant socialisation instance for children and adolescents, the family assumes an important role in the field of work of prevention. Until the start of puberty, the family exerts the largest influence, positive or negative, on the norms and values adopted by children and thus also on forming different modes of behaviour. Parents and siblings, but also close relatives and acquaintances often serve as role models whose lifestyle is - consciously or unconsciously - imitated and adapted to. Given this, the family also has a great influence on the health education and thus on the health condition of the child.

7% of the prevention measures carried out in 2009 were realized in the family setting. This prevention field is equally suited for the implementation of non-substance-related (41%) and substance-related measures (43%). A large portion of the measures (17%) are addressing non-substance-related or respectively behavioural forms of addiction. Substance-related measures carried out in the family setting largely focus on the substances alcohol (58%) and cannabis (55%). Substance-related measures are mainly geared to final addressees, i.e. the family as a whole, parents (mother and/or father) and their (substance using) children.

The programme “Strengthening Families“ from the US has meanwhile been adapted to the German speaking territory and is currently implemented as a pilot project in four *Laender*. *Strengthening Families* is a family based prevention programme for addiction and behavioural disorders of children aged between 10 and 14 years and their parents. The implementation of *Strengthening Families* is currently funded by the Federal Ministry for Education and Research and evaluated by the German Centre for Addiction Research in Childhood and Adolescence (Deutsches Zentrum fuer Suchtfragen im Kindes- und Jugendalter, DZSKJ) within the framework of a randomised controlled multi-centre study<sup>51</sup>. *Strengthening Families* has proven very effective in the USA, England and in Sweden. Children and adolescents who participated with their families in the programme, had less problems at school and consumed less tobacco, alcohol or illicit drugs like cannabis in terms of frequency and quantity. Participating parents report furthermore about improved child rearing skills and a more harmonious interaction within the family.

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<sup>50</sup> More detailed information at: [http://www.berlin-suchtpraevention.de/Fuer\\_Eltern-c1-l1-k28.html](http://www.berlin-suchtpraevention.de/Fuer_Eltern-c1-l1-k28.html).

<sup>51</sup> Further information: [www.familien-staerken.info](http://www.familien-staerken.info).

Last years' report presented "Papilio" as an example of a primary prevention programme for behavioural disorders that is already used in the kindergarten. *Papilio* is based on a preventive concept that is to counteract the development of addiction and violence in later stages of childhood and adolescence. Apart from promoting socio-emotional skills, *Papilio* minimizes risk factors by for example teaching parents child rearing skills (Hessische Landesstelle fuer Suchtfragen e.V. 2009). So far, evaluation findings suggest that *Papilio*-measures contribute to increasing pro-social behaviour and significantly reducing behavioural disorders among kindergarten children (Barquero et al. 2005). Meanwhile, 3,516 nursery staff in eleven *Laender* have been trained in the programme and around 63,000 children have been reached<sup>52</sup>.

### 3.2.3 Community

To be holistic and sustainable, addiction prevention needs to involve not only family and school but also the social environment of children and teenagers. It is imperative for communities, cities, regions and districts to participate in the development and implementation of prevention measures. In this context, communities are not only to serve as a setting for the implementation of these measures but they are to assume a more active role. Generally speaking, the role of a community as an active player in addiction prevention strongly depends on its size or more specifically on the number of inhabitants. Small municipalities often do not have the staff and financial resources to implement preventive measures at the local government level.

Community-based addiction prevention activities are often carried out in inter-community and supra-local cooperation projects with various local partners being involved like for example addiction prevention facilities, churches, self-help organizations, local clubs and institutions, parties and associations, etc. Apart from kindergartens and schools, especially organized and non-organized recreational settings as well as the public health sector serve as fields of works for community-based prevention.

### 3.2.4 Recreational and sports settings

Apart from the aforementioned fields of work (school, family and community), recreational and sports settings are important areas of activity for universal prevention measures. More than 70% of all children and teenagers are, at least for a short time, members of a sports club. Sports clubs exist throughout the country and thus guarantee high accessibility to children of different social strata including the socially disadvantaged ones with a low risk of stigmatization of this target group.

With the national prevention campaign "Making children strong", the BZgA addresses adults who are in charge of children and adolescents. Parents, teachers and trainers in sports clubs are important persons of trust who are in a position to strengthen and support children in their development. The main goals of *Making children strong* is to strengthen the confidence

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<sup>52</sup> Status June 2010.

and the feeling of self-worth of adolescents and to promote their conflict and communication skills. Children and adolescents are to learn, assuming a strong and self-assured position, to say “no” to addictive substances of any type<sup>53</sup>.

In order to guarantee reach and sustainability of the campaign, the BZgA has entered a strategic partnership with sports associations with large memberships (German Soccer Association, German Gymnastics Federation/Gymnastics Youth Federation, German Olympic Sports Federation, German Handball Federation, German Athletics Federation, DJK-Youth Sports Associations). As part of the activities of early addiction prevention, several events were organized within the framework of the programme “Making children strong” by local prevention centres in cooperation with the German Football Association (Deutscher Fußball-Bund, DFB) in spring 2010. Apart from giving fun kicking the football, the events were about promoting the social competences of children and teenagers. Another goal was to stimulate contacts between teachers, honorary trainers and prevention professionals in order to help creating local networks for addiction prevention. The events were carried out in the whole of Germany on about 670 so-called mini-football fields of the DFB.

### 3.3 Selective prevention

Selective prevention is addressed to groups of people who have a significantly higher risk of developing addictions than the average population. This risk can be immanent or a group of people can carry a higher risk of developing addiction through their whole lives (Spring & Philips 2007). Both biological, psychosocial, social and environmental influences are to be taken into account as risk factors. Selective prevention measures are for example developed for

- early school leavers
- socially disadvantaged people
- homeless youth
- people with a migration background
- children and teenagers from families with addiction problems
- teenagers with consumption experience
- clubbers

The target groups of selective prevention measures are often addressed in recreational settings. Interventions for socially disadvantaged youth or children and teenagers from families with addiction problems are often carried out in school and pre-school settings. Generally speaking, this approach has got the advantage of using existing resources at an early stage.

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<sup>53</sup> You'll find more information on “Making children strong” at [www.kinderstarkmachen.de](http://www.kinderstarkmachen.de).

### 3.3.1 At-risk groups

#### Socially disadvantaged groups

People living in socially difficult circumstances are very often placed at particular health risks. Statistically, the risk of falling seriously ill or dying earlier is double as high for people from a lower social class than for those from higher social strata. Social disadvantages thus create inequality in health conditions (BMG 2008). People living in socially difficult circumstances are very often placed at particular health risks. Statistically, the risk of falling seriously ill or dying earlier is double as high for people from a lower social class than for those from higher social strata. Social disadvantages thus create inequality in health conditions (BMG 2008). Poverty, unemployment and a low social status are further risk factors favouring the onset or aggravation of addiction-related problems. It is therefore particularly important to promote and strengthen this group of people in the development as early as possible. However, children and teenagers with promotional needs often do not have the personal, social and/or cognitive skills to sufficiently translate prevention contents so that the “usual” prevention measures are hardly useable for the work with these children and teenagers.

In this context, last year’s report already informed about *PeP – Educational programme for health promotion and prevention of addiction and violence*. *PeP* is meanwhile also offered in schools in Bavaria and *PeP*-multiplier trainings are provided. *PeP* is successfully used especially at schools for children with learning difficulties, integration classes and lower level secondary schools. *PeP* has been designed for grades 3 to 9 with different concentration areas and goals depending on the age and the skills of the children and adolescents.

#### Prevention of addiction for people with a migration background

Addiction prevention for people with a migration background comprises a multitude of measures ranging from establishing contact with a public addiction facility over activating and supporting self-help initiatives to strengthening the personality and reducing the risk of developing addictions. These activities are generally embedded in comprehensive measures to promote the social and societal integration of immigrants, which are for example funded by the Federal Ministry for Families, Senior Citizens, Women and Youth (Bundesministerium fuer Familie, Senioren, Frauen und Jugend, BMFSFJ) or by the Federal Agency for Migration and Refugees (Bundesamt fuer Migration und Fluechtlinge, BAMF).

Placed under the aspect of *Culture Sensitive Prevention of Addiction*, the special health brochure for immigrants and the guidelines for *Culture Sensitive Addiction Prevention in Companies* of the *Land* Berlin were already presented in the last reporting year. The health brochure “Staying independent“ has meanwhile been translated into six languages: German, Russian, Turkish, Arabic, Vietnamese und Polish. The centre for addiction prevention in the *Land* Berlin has moreover developed a fact sheet on the substance tilidine available in German, Arabic, Turkish and English<sup>54</sup>.

<sup>54</sup> Further information at <http://www.berlin-suchtpraevention.de>.

### 3.3.2 At-risk families

#### Children and adolescents from families with addiction problems

At present, about 2.65 million children and teenagers living in Germany have a parent affected by an alcohol-related disorder (abuse or dependence) and another 40,000 children and adolescents live with a drug-dependent parent. An estimated 6 million adults grew up as children in families with addiction problems<sup>55</sup>. Since consolidated scientific findings are showing that alcohol and drug addiction can reoccur in families, this group is one of the largest known target groups of selective prevention measures. Reasons for the higher risk of developing addiction are among others are domestic violence, separation and divorce of the parents, physical and emotional abuse or also sexual abuse that occur more frequently in addiction-stricken families than on average (Thomasius et al. 2008).

At the national level, the Federal Ministry for Health funds the modular prevention concept “Trampolin“ for eight- to twelve-year-old children from families with addiction problems. *Trampolin* is to strengthen children from addiction-stricken families in their positive self-perception and problem solving skills. *Trampolin* teaches children for example effective stress coping skills and provides them with the possibility of psychological stress relief by breaking up the taboo subject of addiction and dependence. The project is currently tested at 26 locations in 12 *Laender* and scientifically evaluated by the DZSKJ<sup>56</sup>.

At the *Laender*-level, various stakeholders bundle their activities and provide information material for multipliers on the subject of children from families with addiction problems. The Hamburg project “connect“ is a model of good practice<sup>57</sup>. *Connect* focuses on the concomitant aspects of parental addiction: material deprivation, unemployment, migration, housing in a district with need for development etc. The persons affected are placed above average at high physical, psychological and social health risks. Therefore, it is particularly important to take preventive and health promoting action as early as possible. *Connect* aims at interlinking various fields of work– not only addiction and counselling facilities but also institutions and organisations that are active in the area “around the child“. After the completion of the pilot phase in the year 2009, funding of *connect* has been secured for the time being and the project is to be transferred into a regular offer within a period of two years<sup>58</sup>.

“COA – Children of Alcoholism“ is a training programme for running further education events for multipliers in the area of addiction-stricken systems in Hesse. COA is to enable multipliers to hold further training events on the subject of children from families with addiction problems. In the year 2009, 15 professionals took part in the training and several trainer

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<sup>55</sup> [www.fruehehilfen.de](http://www.fruehehilfen.de)

<sup>56</sup> Information at [www.projekt-trampolin.de](http://www.projekt-trampolin.de).

<sup>57</sup> Information at [www.gesundheitliche-chancengleichheit.de](http://www.gesundheitliche-chancengleichheit.de).

<sup>58</sup> Further information at <http://www.sucht-hamburg.de/projekte/connect>.

tandems from the areas addiction prevention, family and youth welfare and addiction help were formed (Hessische Landesstelle fuer Suchtfragen e.V. 2010)<sup>59</sup>.

### 3.3.3 Recreational settings

Prevention measures carried out in recreational settings offer the possibility of addressing a very heterogeneous group of children and teenagers. These may be teenagers meeting in a youth centre, early school leavers in a youth welfare facility or clubbers. Among them often are teenagers with drug use experience, socially disadvantaged youth or juvenile delinquents who require different prevention responses than youth without consumption experience.

Generally speaking, recreational settings may be split into an organized and a non-organized area. In the organized one (youth aid institutions, church-run organisations, community-based youth centres) prevention measures are carried out that are often derived from the Law on children and youth welfare (Social Security Codes, SGB VIII). These measures mainly aim at promoting children and teenagers in their development and helping them to become social individuals capable of living in a community. As a result of the described heterogeneity, it is imperative to take children and teenagers seriously in the environments they live in and to orient activities to teaching them skills like risk competence and risk management instead of limiting them merely to abstinence or reduction of consumption.

In the non-organized area, prevention of addiction is more open. This means that activities and offers are low-threshold and generally voluntary. They mainly aim at minimizing behaviours that are harmful to health and at promoting responsible substance use. In the non-organized area, prevention work is based among others on the guidelines of acceptance-based drug work and resource-oriented prevention. These approaches are to be found in numerous scene- or party-based projects offered in many, mostly larger cities. Activities undertaken within the frame of such party projects are mostly carried out by drug agencies or addiction prevention facilities respectively in cooperation with local clubs, discotheques or organizers of music and party events.

For adolescents and young adults in the club and music scene of the independent state of Thuringia, the project "DROGERIE" ("Drug store") is offered<sup>60</sup>. *DROGERIE* provides prevention and help through social reach out work for example at music events. The target group of the project is formed by adolescents and young adults who are at risk of getting into contact with drugs, experimenting with or abusing them. Apart from providing information on addictive substances, *DROGERIE* provides counselling for adolescents and young adults with problem drug use and refers users to further help offers.

Operating at the regional level is the project "Mindzone" in Bavaria. *Mindzone* has been providing information on risks of addiction and party drugs since 1996. Placed under the motto "Be clean and groovy" ("Sauber drauf"), *Mindzone* carries out various activities at clubs, at concerts and festivals. Apart from offering information material at the information

<sup>59</sup> More detailed information also at [www.hls-online.de](http://www.hls-online.de).

<sup>60</sup> [www.drogerie-projekt.de](http://www.drogerie-projekt.de)

booth, *mindzone* also provides the opportunity for an informative talk on the subject of party and drugs<sup>61</sup>.

### 3.4 Indicated prevention

The target group of indicated prevention measures are persons who have a high risk of developing addiction. In this connection, the necessity of indicated prevention measures is derived from the existence of important individually attributable indicators that promote the later development of addiction. In contrast to selective prevention, indicated prevention is generally carried out at an individual level, and this means it is not about the identification of groups of persons who fit the mentioned criteria (EMCDDA 2009b).

#### 3.4.1 Children and teenagers at risk with individually attributable risk factors

Behavioural disorders in children are a central risk factor for the development of addiction-related problems at teenage and adult age. There are indications of psychological problems for a total of about a fifth of all children and teenagers. About 10% are displaying psychological problems, i.e. specific disorders ranging from anxieties over depression to social behaviour disorders (RKI 2007a). Psychological disorders are significantly more common in children and teenagers with a lower socio-economic background than in children and teenagers with a higher socio-economic background. These children and teenagers generally have lower social and personal resources and are thus running up against additional problems (cf. also the passage on socially disadvantaged youth).

Explanatory models of psychological disorders meanwhile comprise both risk factors and protection factors. Family cohesion has a protective effect with respect to psychological disorders, i.e. it considerably lowers the risk of developing psychological disorders. Family cohesion is also a central protection factor with regard to the development of addictive behaviour. These risk and protection factors should by all means be taken into account both in the prevention of addiction and in the treatment of behavioural disorders in children and teenagers.

#### 3.4.2 Children with ADHD

It is currently estimated that about 3-10% children and teenagers are affected by an attention deficit/hyperactivity disorder. Numerous studies showed that children with ADHD run a significantly higher risk of developing an addictive disorder (Thomasius et al. 2008). Survey findings were already presented in previous Reitox Reports.

There is no information available on preventive measures currently carried out for children and adolescents affected by ADHD.

#### 3.4.3 Early intervention

At the interface between indicated prevention and therapy, measures have meanwhile been

<sup>61</sup> [www.mindzone.info](http://www.mindzone.info)

established which are assignable to the term “early intervention“. The target group of early intervention measures is characterized by problems caused by increased substance use and/or problems that are closely linked to it. This group of people has a very high risk of developing addiction. However, at the time of the intervention, it does not meet the DSM-IV or ICD-10 criteria (yet) (EMCDDA 2009b). In general, treatment can only be initiated if dependence has been established by a diagnosis according to DSM-IV or ICD-10.

Early intervention measures are meanwhile well established in the German prevention system. This applies both to the area of excessive alcohol consumption by children and adolescents and the use of illicit substances – especially cannabis. Like in the previous reporting year, approximately 30% of all measures documented in Dot.sys are assignable to the prevention areas early recognition and early intervention. However, early intervention activities still need to be further expanded.

There are programmes that have been established at the national level for many years like for example “Quit the Shit“, “FreD – Early intervention in drug users who have come to the notice of the police for the first time“, “Close to the limit (Hart am Limit, HaLT)“, or “Self-control training“. In the following, the results of the transfer of “Realize it“ will be presented as another example of early intervention:

The short intervention programme “Realize it“ is mainly addressed to young adults of an average age of 22 years. The main goal of *Realize it* is to reduce or respectively stop substance use of young people with problem cannabis use<sup>62</sup>. The programme is basically made up of three elements:

- Five individual sessions with a coach over a period of ten weeks plus one additional group session
- Joint clarification of personal goals between client and coach
- Analysis of the circumstances of use in the course of the intervention in order to be able to recognize future risk situations and to develop control strategies

The project has been carried out since 2007 at the national level with the goal to integrate the intervention programme into the work of as many drug and addiction counselling facilities as possible. So far, the transfer has been thoroughly positive. *Realize it* is currently represented in the whole of Germany with 161 counselling facilities and 353 coaches. The transfer of *Realize it* was evaluated at a closing session. At this occasion, the short intervention programme was compared to other programmes and it was discussed how the network that has been formed by the facilities can continue *Realize it* in the future without funding from the Federal Ministry for Health.

### 3.5 National and regional media campaigns

National and regional media campaigns are instruments of universal prevention activities. Providing information on risks that emanate from a substance, forms an integral part of a

<sup>62</sup> Further information at [www.realize-it.org](http://www.realize-it.org).

multi-level prevention strategy. Taking in and processing information and potentially changing ones behaviour is all the more easier if the information is provided in an interactive manner. For this reason, it is necessary to support the provision of information by mass media and strengthen it by a targeted interactive internet offer.

As in the year before, campaigns addressing in particular abusive alcohol consumption have been initiated and intensified also in the current reporting period. In this context, the Federal Centre for Health Education (BZgA) for example, has launched the campaign "Alcohol? Know your limit" in cooperation with the association of private health insurers. In addition to mass media measures like posters and cinema advertisement, the campaign directly addresses the target group with a comprehensive Internet offer<sup>63</sup> and personal communicative measures like for example the peer activities undertaken in the recreational setting. All parts of the campaign and its effectiveness are currently evaluated. First results are expected by the end of 2010.

The campaign "Saar-BOB" sensitizes people to the risks and dangers of participation in road traffic under the influence of alcohol and drugs. *Saar-BOB* is addressed to all road users, but especially to the particularly endangered driving novices in the 18-24-year age range. Originally designed in Belgium, the campaign has been adapted to the young motorists in Germany and has been implemented not only in the Saarland, but also for example in Thuringia and Hesse.

The campaign launched by the Land Berlin "Of course...!" ("Na klar...!") has already been presented in last year's report. Since its start, the campaign has directly reached more than 100,000 persons. *Of course...!* is supported by the Berlin Governmental Administration for Health, Environment and Customer Protection and by the Governmental Administration for Education, Science and Research as well as by all 12 districts of Berlin together with the Centre for Addiction Prevention of the Land Berlin and is to counteract risky use patterns like for example alcohol abuse.<sup>64</sup> The campaign is embedded in the overall prevention strategy "Staying independent". The Centre for Addiction Prevention has placed its activities under this motto dedicating them not only to the substance alcohol, but also to other subjects like cannabis and medical drug abuse, non-substance-related addictions and behavioural prevention measures.

The touring exhibition "Addiction always has a history" has been successfully organized by the Land Coordination Centre for the Prevention of Addiction in North Rhine-Westphalia for more than ten years. The goal of this PR-campaign is to give ideas how paths leading to addiction can be avoided right from the beginning. To this purpose, the exhibition uses different objects to show a differentiated picture of addiction and drugs. The target group is to assess with all its senses and also in a playful way attitudes, knowledge and behaviour and is to complement, and, if necessary, also correct these. In the reporting year 2009, exhibitions took place at five locations and attracted approximately 7,500 visitors.

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<sup>63</sup> [www.kenn-dein-limit.info](http://www.kenn-dein-limit.info)

<sup>64</sup> For further information please turn to [www.praevention-na-klar.de](http://www.praevention-na-klar.de).

## 4 Problem drug use

### 4.1 Introduction

#### The term “problem drug use“

There is no uniform definition of the term ‘problem use’. However, there are practical definitions for specific areas (e.g. the prevalence estimation of the EMCDDA). Generally speaking, consumption is regarded as problematic if at least one of the following criteria is fulfilled:

- Risk carrying use (risky consumption)
- Harmful use (F1x.1) or addiction (F1x.2) in terms of a clinical diagnosis (ICD / DSM)
- Harm inflicted on other persons
- Negative social consequences or delinquency

In addition to the collection of clinical diagnoses "dependent use" and "harmful use", for which the international criteria of the ICD-10 (Dilling et al. 2005) apply, the German Core Data Set proposes a definition for "risky drug use" (German Centre for Addiction Issues, DHS). According to expert opinion, "risky drug use" shall be recorded for any substance or disorder, if neither the ICD-criteria for addiction nor for harmful use are fulfilled and thus no diagnosis can be made and if at the same time the number of consumption days during the last 30 days is bigger than zero. In this case, the recommendations of the WHO, the British Medical Association and the board of trustees of the DHS apply to the evaluation of the individual "risky alcohol consumption". For other substances, there are currently no binding recommendations.

Irrespective of the above definitions, consumption can also be problematic if the user himself experiences it as problematic and for example considers himself as being addicted without having an objective diagnostic classification of addiction (Kleiber & Soellner 1998). The working definitions used at different places respectively comprise different subsets of the described total group. Only the terms based on clinical classification systems are clearly defined. As for other terms like for example ‘risky drug use’, definition and understanding of the concept vary considerably.

#### Measuring and estimation methods

Sometimes there are considerable methodological difficulties in evaluating data from specific collection systems or studies with regard to problematic use in terms of addiction. Whereas with police records only the higher probability of intense drug users to be picked up by police can be interpreted as an indication of problem drug use, surveys make use of additional information (frequency of use, accompanying circumstances, diagnostic criteria) or adapted clinical tests to differentiate. A relatively safe classification is possible in therapy facilities where staff has been trained or has experience in diagnosing such cases. The

abovementioned definition of “risky consumption” in the German Core Data Set excludes any consumption (within the last 30 days) of a substance of the categories F11 (opioids) – F19 (multiple substance use and other substances) of the ICD-10 classification. Concretely defined threshold values only exist for alcohol (F10).

In addition to content-related and general methodological difficulties in defining problem drug use, specific difficulties arise when collecting data on illicit drugs. A series of surveys shows that users of drugs like heroin or cocaine tend to report only the consumption of ‘soft’ drugs like for example cannabis correctly while denying using for example heroin or correcting down intensity and frequency of use.

While population surveys allow for valid statements to be made on experimental drug use and lighter forms of multiple or sustained drug use, intense or regular users are generally underrepresented in the population sample. Moreover, in their case, the extent of the problem is under-reported. Methodological problems have been described by Kraus et al. (1998) and Rehm et al. (2005).

Based on a literature review on the epidemiology of multiple use of illicit drugs in Hamburg, Ilse and colleagues (2007) conclude that in view of frequently occurring poly-drug use, the diagnostic methods should be further developed and adapted to the complexity of consumption patterns. Furthermore, discriminating between licit/illicit substances and focusing on the concept of problem use of a primary drug or respectively a medical classification of a main drug is - according to the authors - not sufficient. These difficulties are of special relevance in particular for extrapolations which are based on treatment data.

### **National and local estimates of drug use**

The EMCDDA has collected a series of methods for estimating the prevalence of problem drug use at national level and has developed them further. The selection of the target groups of these methods are based on the definition of problem drug use as an “intravenous or long-term/regular use of opioids, cocaine or amphetamines” (Kraus et al. 2003).

However, as it would not have been possible to exclude multiple mentions in police records when reviewing several substances, and as valid mortality estimates are only available for heroin users, the prevalence estimates for Germany were restricted to the target group of heroin users.

In view of the particular risks carried by intravenous drug use, this use pattern is of particular interest when trying to minimize secondary harm. Although injecting drug use has been on the decline among the patients of addiction aid facilities in Germany for several years now, it continues to be strongly linked to heroin. Therefore, differentiation among user groups for estimating prevalences and describing patients is done in terms of main drug and not in terms of administration route.

## 4.2 Prevalence and incidence estimates of PDU

### 4.2.1 EMCDDA estimate methods (indirect estimates)

For the year 2009, two multiplier methods were recalculated and based also on results of the previous years:

- Estimate based on police contacts  
Assuming an average consumption period of 8 to 10 years, the numbers of heroin users who have come to the notice of the police for the first time (incidence), are summed up over the respective years. The portion of persons in drug-related death cases already known to police is used respectively to calculate the estimated number of unknown cases.
- Estimate based on drug-related deaths  
The number of drug-related deaths in the reference year is extrapolated to the overall figure of opiate users in the population using the quota of drug-related deaths in outpatient clients per year.

Moreover, the estimate based on the treatment data from the year 2008 was recalculated. Since some of the data (diagnostic data of the patients in hospitals) that are needed for the estimation calculation, are generally made available only with considerable delay, it is not possible for the current Reitox Report to venture an estimate for this multiplier based on the data for the year 2009.

- Estimate based on treatment admissions  
The overall figure of treated cases is calculated on the basis of recorded client figures in outpatient and inpatient treatment, the total figure of counselling facilities as well as a multiplier for reaching the target group.

All results are only to be taken as a rough approximation since different preconditions are to be presupposed. Especially the multipliers used have only limited validity as they are based on small case figures and selective samples. The methods have been described elsewhere. All multiplier methods as such are subject to considerable qualifications. Changes in prevalences for example, are not necessarily reflected by the therapy demand. The collection of data on users who come to the notice of the police for the first time, is significantly influenced by the prosecution pressure exercised by the police. The absolute figures of drug-related deaths only allow cautious interpretation. Other estimation methods (e.g. capture-recapture studies or other multiplier methods) have not been used since necessary parameters were not available in a timely, empirically evidenced form.

The individual estimates can be found in standard table 7.

### Results of the prevalence estimates

Calculations based on figures collected from treatment, police contacts and drug-related deaths lead to an estimated figure of problem heroin users ranging between 78,000 and 184,000 persons (if one takes the estimates of the year 2008 as a basis for the treatment

data). This corresponds to a quota of 1.4 to 3.4 persons in 1,000 inhabitants in the age of 15 to 64 years (Table 4.1).

Table 4.1 Prevalence estimates of problem opioid use from 2005 to 2009 (number in 1,000, age group 15-64 years)

Data source	Reference year					Prevalence per 1,000
	2005	2006	2007	2008	2009	
Treatment	155-184	136-162	131-156	155-184 <sup>1)</sup>	<sup>2)</sup>	2.8-3.4
Police contacts	128-166	117-159	108-149	99-137	89-127	1.6-2.3
Drug-related deaths <sup>3)</sup>	79-96	103-130	99-113	117-178	91-119	1.7-2.2

1) New calculation basis: Facility register of the DBDD (N=1,332 outpatient facilities)

2) Cf. chapter 4.2.1 on the missing calculation of the estimate based on therapy data for 2009.

3) Previous year's values of the estimates were methodologically revised and adjusted.

DBDD 2010, special calculation.

Compared to the year before, the estimate is considerably higher as a result of the use of the multiplier "therapy demand". But this is presumably an artefact that can be primarily attributed to the fact that an out-dated reference figure has been used for the overall number of outpatient facilities over the last years. Moreover, the methodological basis for the estimate of the total number of outpatient facilities has been partially adjusted in the extrapolation:

- Since 2005, an unchanged figure of a total of N=934 outpatient facilities was used for the calculation of the estimate, which was based on a survey carried out in the year 2004 (Patzak & Bohnen 2009). It is to be assumed that the continued use of the unchanged figure of N=934 facilities between 2005 and 2008 led to a systematic underestimation that did not take the expansion of the care system during the past years into account.
- In 2010, the facility register of the DBDD, which was set up in 2006 with the joint support of the Federal Ministry for Health, charity organisations, Laender and specialist facilities, was used for the first time as a reference for calculating the total number of outpatient facilities in Germany. The definitions used by the facility register are oriented to the standards of the German core data set of the addiction treatment centres (Suess & Pfeiffer-Gerschel 2009) and therefore show high consistency with the collection methods used by the German Statistical Report on Treatment Centres for Substance Use Disorders (Deutsche Suchthilfestatistik, DSHS). The DBDD facility register showed a reference value of a total of N=1,332 outpatient facilities in Germany. This overall figure of outpatient facilities tallies with the figures provided by the most recent short reports from the *Laender* that are based on the reference year 2008 (Floeter & Pfeiffer-Gerschel 2009)<sup>65</sup>.

<sup>65</sup> In the year 2008, the Laender identified a total number of N=1,272 outpatient facilities. This figure too, is significantly higher than the comparative figure of 2005 and would have on its own led to an increase in the estimated value even if the same methodological approach had been used (174,000-207,000).

The interval of the estimated figure of heroin/opioid users calculated on the basis of the admissions to therapy in the year 2008 is identical with the value estimated for the year 2005, which is, given the assumed deviation of the estimates for the years 2006-2007, a plausible value that can be interpreted as an indication of a largely stable population.

The figure of heroin users who have come to police notice for the first time has been on a strong decline for years (2000: 7,914; 2009: 3,592). In parallel, the portion of drug-related deaths that had before been registered as users having come to the notice of the police for the first time, remained stable between 2005 and 2008 and slightly declined in 2009. Therefore, the estimates based on this indicator have continually been declining. The figure of drug-related deaths slightly declined in 2009 compared to 2008 (at an only slightly changed mortality rate of the outpatient clients) with the consequence that the interval, too, lies below the value of the previous year.

The range of values (1.7-3.4/1,000) still lies within the prevalence range that a European meta study calculated for the dependence on illicit substances for the age group 18 to 65 years (3.0/1,000; threshold values: 2.0-6.0) (Wittchen & Jacobi 2005). Further details are contained in chapter 4.2.2.

When choosing a broader definition of the target group including users of opioids, cocaine, crack and amphetamines, the following problem arises: these substances do comply with the definition of the target group by the EMCDDA. However, there is no possibility to verify injecting or highly frequent consumption of these substances with the data sources available. In this way, an unknown number of persons whose problems with drug use might be less severe would be taken into account possibly leading to an overestimation of the prevalence.

Up dated calculations based on treatment data from the year 2008 which include clients with cocaine and amphetamine problems, produce a prevalence of 197,000-234,000 (2007: 167,000-198,000). This corresponds to a prevalence of 3.6-4.3 (in 1,000 inhabitants) (2006: 3.0-3.6) that is higher than in the previous year (this increase may also be largely explained by the above-mentioned adjustment of the calculation basis for the treatment data). Estimates based on police data and drug-related deaths are not performed for the extended target group because of the reasons described above.

The results of the national prevalence estimates are contained in standard table 7 and of the local prevalence estimates in standard table 8.

#### **4.2.2 Incidence estimates on problem drug use**

The incidence of problematic opioid consumption (the number of new cases registered in a specific year) makes it possible to exactly measure changes over time serving as an early indication of future developments with respect to prevalences and treatment demand. However, the estimation models used are based on several assumptions and only make it possible to perform partial incidence estimates since they are solely based on cases that have been registered by the drug treatment facilities. The EMCDDA has recently developed new guidelines for incidence estimates in cooperation with a group of European experts with

a view to stimulate further progress in this area (Scalia Tomba et al. 2008). No new studies have been conducted in Germany on the subject matter.

### 4.3 Data on PDUs from non-treatment sources

#### Estimates on the general population

Chapter 2.2.2 already presented data on cannabis-, cocaine- and amphetamine-related disorders that are based on the Epidemiological Addiction Survey conducted in 2009 (ESA; Pabst et al. 2010a) and that were categorized according to the Severity of Dependence Scale (SDS).

#### Estimates on problem drug use in prisons

Persons serving a custodial sentence for drug-related crimes – mostly drug-trafficking offences – or for other reasons, often continue to consume psychotropic substances in prison. Epidemiological data on the consumption of psychotropic substances in penal institutions are very difficult to collect and have little validity. A general picture of the situation can be obtained from Simon & Tischer (2006) on the basis of the data provided by the Ministries of Justice of the individual *Laender*. Insofar as data were collected and estimates of the prevalence or dependence on licit and illicit substances performed, figures range between 40% and 50%. The portion of prison inmates who are assumed to be addicted to illicit drugs amounts to about 33%. Prevalences for female inmates tend to be somewhat higher than those for male ones. At the cut off date 31.03.2008, the Federal Ministry of Justice presented the data collected from the individual *Laender* and 195 prisons for the indicators bank of the World Health Organisation (WHO) and the European Network on Drugs and Infections Prevention in Prison (ENDIPP) (Bundesministerium der Justiz 2009). The results are shown in detail in Chapter 9.5.

There are no current estimates of PDU available that are based for example on the data from low-threshold facilities, police records or emergency admissions.

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

#### 4.4.1 Description of the forms of use falling outside of the EMCDDA's PDU<sup>66</sup>-definition (in vulnerable groups)

##### Problematic/intensive use of cannabis

Various studies have been conducted recently to collect data on "problematic" or "risky" use of cannabis. However, terminology and operationalisation differ from study to study so that data comparability is very restricted. It appears nevertheless necessary to include cannabis use in the investigation of problem and risky use patterns given the data available on the possible long-term effects of cannabis use.

<sup>66</sup> Problem Drug Use.

The findings of the most recent studies conducted by the BZgA on the change of the portions of “regular” cannabis users among adolescents and young adults have already been presented in the Reitox Report 2009. According to these findings, regular use (at least 10 times in the last year) of cannabis both in the age category of the 12- to 25-year olds and the 12- to 17-year olds has been on the decline since 1993 (BZgA 2010).

Within the framework of the last ESPAD (see chapter 2.1) a screening instrument has been used for the first time as an optional module to collect data on the problems linked to cannabis use (Cannabis Abuse Screening Test, CAST, Legleye et al. 2007). Based on a detailed analysis of the German ESPAD data, Piontek and colleagues investigated the prevalence and predictors of cannabis-related problems in adolescents in a recently published work (Piontek et al. 2009)<sup>67</sup>. The most frequently reported problems that were identified with CAST, were reprimands from friends or family to reduce consumption (31.7%) and memory problems (27.6%). Problems linked to use (20.8%), cannabis use in the morning (16.8%) or unsuccessful attempts to reduce consumption (13.8%) as well as consumption without company (10.7%) were relatively frequently mentioned. All in all, one in ten adolescents who had used cannabis in the last year displayed high-risk consumption. In comparison with a first international analysis of the ESPAD data from 17 countries, Germany seems to be more at the lower end of the scale.

Even if the majority of the interviewed adolescents said that they had not experienced the surveyed problems in the last year, one in three however reported about interventions of family or friends and memory problems. The latter tallies with international findings that indicate that cognitive impairments belong among the most consistent effects of even moderate cannabis use. In total, boys run a significantly higher risk of problematic use than girls. As shown by a multitude of other studies, boys generally appear to display unfavourable use behaviour. According to the authors this could also be an indication for cannabis use being part of a complex general pattern of types of problem behaviour that interact with each other and possibly reinforce each other.

#### **4.4.2 Prevalence estimates of intensive, frequent, long-term and other problematic forms of use, not included in the PDU-definition**

##### **Other data on teenagers and young adults**

In the following, selected findings from the most recent studies analyzing the connections between problematic, risky or regular use and the later onset of substance-related disorders will be reported to complement the already presented data from the repeat surveys. The

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<sup>67</sup> To this purpose, data on 1,933 current cannabis users from the European School Survey Project on Alcohol and other Drugs 2007 (ESPAD) were analyzed. The cannabis-related problems were recorded by means of the Cannabis Abuse Screening Test (CAST). Taking the original total random sample (N= 12.448) as a basis, the present analysis took only account of students who used cannabis at least once in the last 12 months (N=1.933, 15.5%). The CAST used for collecting data on cannabis-related problems, records six indicators of problematic use, among them are use of cannabis already in the morning and occurrence of memory problems.. Based on a sum score of all six items, CAST ultimately aims at breaking down the survey population into low-risk and high-risk users.

high-risk phases for first substance use and the onset of regular consumption and substance use disorders (substance abuse and dependence) lie in the second decade of life. It is of note that large parts of the transitions from initial use to regular use and from initial use to substance use disorders occur in the first few years after initial consumption. In this context, the shortest transition period was found for cannabis (in comparison with alcohol or nicotine). After initial use, the age range from 15 to 18 years is the decisive period in which the transition to substance use disorders takes place (Wittchen et al. 2008b). Behrendt and colleagues (2009) could not only show for cannabis but also for alcohol and nicotine that an early onset of substance use in adolescence compared to a later start of substance use in adolescence is connected with a higher risk of developing substance abuse and dependence. However, cannabis use is not necessarily a transitory youth phenomenon: in people with a raised use frequency during adolescence, cannabis use persists into the third or fourth decade of life. Alcohol dependence and straining life circumstances also form risk factors for the persistence of cannabis use into the third or fourth decade of life (Perkonig et al. 2008a).

Noack and colleagues (Noack et al. 2009) investigated the associations between cannabis use patterns and DSM-IV cannabis dependence<sup>68</sup>. Individual use variables are highly associated with the presence of cannabis dependence. In the surveyed regular cannabis users (at least monthly use in the last 12 months), the variables frequency of use outside of social contexts and frequency of early daytime use are equally associated with DSM-IV cannabis dependence as is frequency of use. Frequency of use is part of established, commonly used screening instruments for the detection of cannabis dependence. The variable “frequency of cannabis use before going to sleep or when waking up at night time” and the extreme use pattern “water pipe” are also associated with the addiction diagnosis. These variables are however only moderate predictors of dependence. According to the authors, a model that includes multiple use patterns is much better suited to predict dependence than the frequency of use alone. The association of different use pattern variables with cannabis dependence, alongside frequency of use, can thus not be interpreted as parallel correlations, since they rather serve to predict additional parts of the variance of cannabis dependence. The authors arrive at the conclusion that a differentiation of the items related to cannabis use patterns could make an important contribution to a more reliable screening of high-risk persons in the area of prevention and early intervention.

#### 4.4.3 Medical drug abuse

##### Overview

Estimates of the prevalence of dependence on medical drugs range between 700,000 (Schwabe 2007) and 1.9 million people addicted to pharmaceuticals in Germany (Kraus & Augustin 2001; Soyka et al. 2005). According to the results found by the Epidemiological Survey on Substance Abuse 2006, almost 5% of all people interviewed in the age group from

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<sup>68</sup> To this purpose, N=3,904 students were surveyed in a cross-sectional Internet interview.

18 to 64 years display a problematic use of medical drugs according to the criteria of the short questionnaire on the use of medical drugs (Watzl et al. 1991). Despite the high prevalences of the dependence on medical drugs, the disease – often named “quiet addiction“, is hardly perceived by the public in contrast to drug and alcohol addiction (Rabbata 2005). Mostly older people (Ruhwinkel 2009) and women (Simoni-Wastila et al. 2004) are dependent on medical drugs. But also teenagers, young adults and people afflicted by psychopathological disorders as well as people with substance use disorders represent important groups at risk of developing disorders in connection with medical drug abuse. For opioid addicts, for example, it is easier to get access to the black market. They have a higher tendency of misusing pharmaceuticals as effect modulators for drugs (Kuefner & Roesner 2008).

Even if especially disorders caused by the use of benzodiazepines are not a new topic any more, benzodiazepine addicts – and people dependent on other drugs – very seldom undergo addiction-specific medical treatment. Holzbach (2008) surmises that the reasons for the countrywide low usage of withdrawal treatment by medical drug addicts are connected with the absent balancing of the pros and cons of long-term treatment and the overestimation of the difficulties and stress associated with the withdrawal treatment. Medical drug addicts represent a group in their own right among dependent patients since they differ from for example alcohol addicted patients in terms of onset and processing of the disease. Dependence on medical drugs often remains much longer undetected due to the socially inconspicuous behaviour of the people affected and is also often negated by the dependents. Generally, medical drug addicts gain access to medical drugs through the contact with the medical care system and not via black markets or the free market.

Changes of conceptual framework conditions possibly also have an influence on the misuse of medical drugs. The quantities of substitution drugs prescribed in Germany (methadone, buprenorphine) have continually increased in parallel to the extension of the substitution treatment offers made in Germany over the last years (Boeger & Schmidt 2008). But the prescribed quantities of other medical drugs (especially opioids/analgesics) have as well substantially increased over the last years (Boeger & Schmidt 2008), so that a higher availability of these groups of medical drugs – also on the black market – is to be assumed.

In addition to the problem posed by the misuse of analgesics and benzodiazepines that has been known for many years, new trends have been recently discovered in the misuse of medical drugs like for example the misuse of antidepressants (Kuefner et al. 2009) or the misuse of performance enhancing (doping) drugs (Die Drogenbeauftragte der Bundesregierung 2009). Doping at work has developed into a new phenomenon of medical drug abuse over the last years. It is estimated that more than 2 million people in Germany have taken medical drugs at least once in their lifetime to enhance their performance at work (Die Drogenbeauftragte der Bundesregierung 2009). As a reaction to this new trend, the Act on Improving the Fight against Doping in Sports and the Regulation on Doping Drugs Amounts have been passed in 2007. The main goal of the anti-drug act and regulations is to curb the activities of the internationally linked criminal structures.

### Data from the monitoring system Phar-Mon

Funded by the BMB, the Phar-Mon project has been investigating medical drug abuse among clients of a random sample drawn among outpatient addiction counselling facilities in Germany since 1988. The goal of the project is to collect data on the misuse and addiction potential of medical drugs and to contribute to the identification of trends of medical drug abuse.

After having attached special attention to antidepressants and misuse of substitution drugs in the analyses of last years, the evaluation of PHAR-MON 2008 placed the focus on the abuse of analgesic drugs.

Analgesic drugs have been leading the list of drugs sold in Germany for many years (Glaeske 2010). Out of the 156 million packs of painkillers (out of a total of 1,570 million medical drugs), 81% were sold without prescription. Over-the-counter combination drugs (e.g. acetylsalicylic acid and/or paracetamol in combination with caffeine) have turned out to be particularly problematic in this context. Withdrawal headaches, a strong craving for more analgesics and other side effects frequently occur after application. Long-term effects of analgesic drugs especially affect the gastro-intestinal system, the hematopoietic system as well as the renal functions.

In contrast with narcotics, which also have a pain relieving effect, analgesics do not lead to a depressed level of consciousness. One generally distinguishes between analgesics acting on the peripheral and on the central nervous system. Common classification divides analgesics into opioid analgesics (like morphine, fentanyl or methadone) and non-opioids, which are also referred to as chemically defined analgesics. These in turn are split into three sub-groups: (1) acid antiphlogistic (anti-inflammatory) and antipyretic (lowering the fever) analgesics (e.g. acetylsalicylic acid), (2) non-acid antipyretic analgesics (e.g. paracetamol) and (3) non-opioid analgesics without antiphlogistic and antipyretic action.

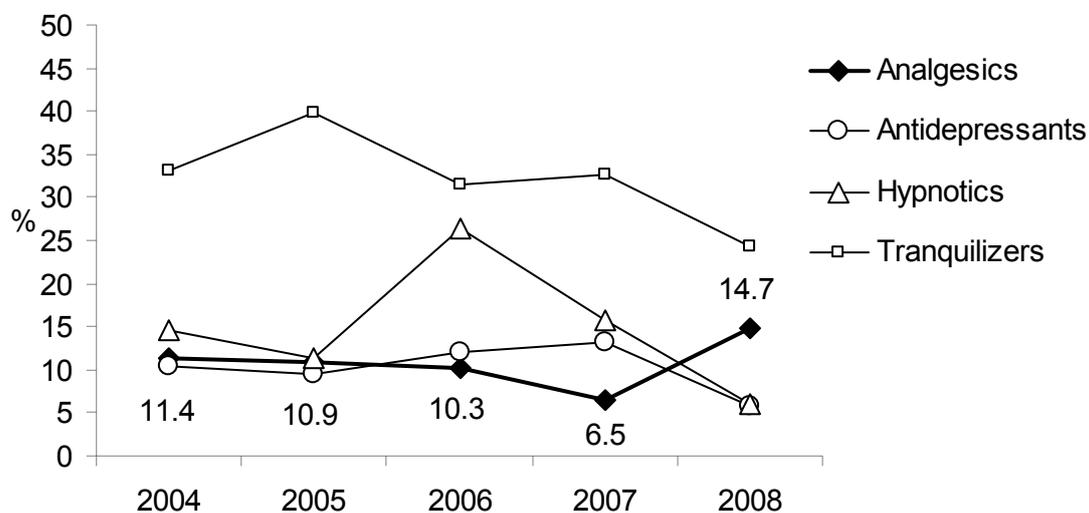
Out of the total of N=326 recordings of medical drug abuse in the year 2008, N=48 belonged to the group of analgesics (14.7%). With this, only substitution drugs (42.9%) and tranquilizers (24.2%) were even more frequently abused than painkillers among the patient group with addiction-related disorders in counselling facilities. Among the opioid analgesics (7.7%), tilidine (2,5%) and tramadol (2,8%) were the most commonly misused medical drugs. Among the chemically defined analgesics (7.1%), paracetamol (2.1%) and acetylsalicylic acid (1.8%) were most frequently mentioned. The substances were not differentiated any further in terms of the above-mentioned sub-group as a result of rare occurrence.

When analyzing the misuse of analgesics within various main diagnostic categories, one gets the following picture: in the group of persons with primary alcohol-related disorders, 22% of the misused medical drugs belong to the analgesic group, among the opioid clients 6.1% (if one defines substitution drugs as a group of its own). Among the persons with disorders caused by the use of sedatives/hypnotics, 30.3% of the entries were referred to analgesics. It appears that in the category of opioid-related disorders analgesics are - contrary to the substances used as substitution drugs - less attractive compared to other substance groups

(especially tranquilizers). In the two other main diagnostic categories, tranquilizers are the most common medical drugs misused followed by analgesics.

In the majority of cases, analgesics were obtained on medical prescription (in 52.1% of all cases), followed – at a large distance – by analgesics obtained without prescription (12.5%). The black market as primary source of supply was only mentioned in 4.2% (especially by opioid users). Far more than half of the analgesics were used daily (58.4%), in about a quarter of the cases (26.9%), the analgesics were taken for a duration of 10 to 25 days (referred to the last 30 days). Quite frequent was the combination of analgesics with other substances (60.4%). In the Phar-Mon sample, three or more of the six addiction criteria according to ICD-10 were fulfilled in 39.6% of all reported cases of abuse with regard to the use of analgesics and can therefore be interpreted as an indication of the presence of dependence on analgesics. In the majority of cases, the maximum dose (54.2%) and duration of administration (52.1%) were exceeded. In a little less than half of the cases (47.9%) misuse of the medical drug was reported and in a third of the cases (33.3%) physical and psychological damage was found.

With regard to the reasons given for taking analgesics, pain relief was at the top of the list (62.2%), as was to be expected, followed by “avoidance of withdrawal symptoms” (37.8%), “sedation” (31.1%), “stimulation” (22.2%) and “euphorization” (20.0%). Further reasons mentioned were “mood elevation” (17.8%), “performance enhancement” (15.6%) and “anxiety reduction” (11.1%).



IFT; own calculations.

Figure 4.1 Portions of misused medical drug groups in Phar-Mon (2004-2008)

Figure 4.1 shows the portions of the five most frequently mentioned medical drug groups in Phar-Mon for the period 2004-2008. In 2008, there was a significant increase in the reporting of misuse with regard to analgesics (without substitution drugs). Their portion climbed from 6.5% in the year 2007 to 14.7% in the year 2008 which corresponds to an increase of 126%. Within the group of the analgesics, the portion of opioid-analgesics increased by 1 percent

point from 6.4% to 7.4% and the portion of the non-opioid-analgesics rose from 5.0% in the year 2004 to 7.4% in the year 2008. This increase is primarily attributable to clients with the main diagnosis alcohol or sedatives/hypnotics.

### **Other current developments**

In a recently published work, Soyka (2009) preoccupies himself with the increasingly propagated use of pharmaceuticals to improve performance in healthy individuals (“neuro-enhancement”). There is a host of substances (including psycho-stimulants) that are advocated for performance enhancement. Recently collected survey data from the German Statutory Health Insurance for Salaried Employees (Deutsche Angestellten Krankenkasse, DAK) indicate that many health employees are already taking medical drugs to keep up their work performance. According to the findings of a survey conducted by the DAK among approximately 3,000 salaried employees in the age range between 20 and 50 years, 17% of the interviewees have taken medical drugs at least once in their lives to improve their cognitive performance or psychological condition (DAK Forschung 2009). Soyka points to a whole series of ethical implications resulting from research approaches that regard it possible to pharmacologically optimize every sphere of human co-existence. Normann and colleagues (Normann et al. 2009), too, take a critical look at the subject of neuro-enhancement stressing that in the majority of pharmaceuticals neither the effects nor the risks are really well known and proven. According to the authors, the action and effects expected from the “enhancement” of cognitive and emotional functions also remain unclear. Foerstl (Foerstl 2009) points to the principles of ethical reservations with regard to an “unnatural” enhancement of cognitive functions resulting from pressure exercised on individuals to take performance enhancing medical drugs for work and recreation. He also thematizes potential deficits resulting from use in other performance and motivation areas (as regards the individual and society), largely unclear long-term effects and long-term disorders, possible rebound effects and conceivable neuro-psychiatric consequences.

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

### 5.1 Introduction

#### Treatment phases

People willing to overcome their substance dependency with professional support are offered a wide range of cessation counselling and therapeutic services. On the one hand, there are substitution offers with a limited target orientation aiming at stabilizing the overall condition, and, on the other, abstinence-oriented treatment offers. The two concepts complement each other, since, in the long term, substitution too, aims at abstinence from drugs, where possible.

Based on the present state of knowledge, abstinence-oriented therapy can be subdivided in four basic phases ("phase model"):

- contact and motivation phase
- withdrawal phase
- rehabilitation phase
- integration and after care phase

The therapy is structured according to the above phase model. The goal of the *contact phase* is to develop, maintain and strengthen the motivation to have addiction treated. All measures undertaken should be embedded in a treatment and help plan for the therapy which should start with counselling comprising medical, psychological and social diagnostics and case history. The help plan should take account of therapy and health care offers available at regional level in order to select the measures which are best suited for the individual case.

In the *withdrawal phase*, multi-professional teams assist in working on addiction with all its aspects in a 'qualified withdrawal' programme. The duration of the withdrawal phase may vary, depending on the individual circumstances, between two to six weeks.

The goal of the *rehabilitation phase* is to stabilize the abstinence achieved in the detoxification phase and to put a definitive end to addiction. Rehabilitation therapies can be carried out in an outpatient, inpatient- or a day-patient setting. The standard therapy duration is six months.

The *integration and after-care phase* comprises, on the one hand, a "phase of assimilation", and, on the other, assisted living or other outpatient after-care measures. In the assimilation phase, individual therapeutic measures move into the background in favour of an outward orientation with a view to promote integration into work and society. In the integration phase, clients receive support from the special service departments of the job agencies as well as from the social security administration.

### Data sources

Information on the characteristics and consumption patterns of clients in treatment is available from various sources.

Based on the German Core Data Set on the Documentation of Addiction Treatment (Deutscher Kerndatensatz, KDS), the German Statistical Report on Treatment Centres for Substance Use Disorders (Deutsche Suchthilfestatistik, DSHS) (Pfeiffer-Gerschel et al. 2010e) provides extensive data on outpatients from the large majority (2009: N=779; 2008: N=753) of the outpatient facilities funded by the *Laender* and municipalities. Since January 2007, most of the addiction aid facilities in Germany use the new Core Data Set (DHS 2008). Due to revisions made in connection with the introduction of the new Core Data Set, the results of the evaluations of the statistical report for the out- and inpatient facilities from 2007 onwards may only be cautiously set in relation to the data of the previous years (on the introduction of the new core data set see also REITOX Report 2008, chapter 4.3). The "Treatment Demand Indicator (TDI)" of the EMCDDA is integrated in the Core Data Set. However, there are still divergences between the TDI and the KDS because the German treatment system orients itself to the ICD-10 classification, which renders substance-based analyses difficult or impossible.

The DSHS is also a rich statistical source for data from the inpatient setting. N=157 (2008: N=131) facilities took part in the national evaluation 2009 of the DSHS (Pfeiffer-Gerschel et al. 2009).

A lot of the larger, especially psychiatric clinics which also offer addiction-specific treatment are not represented in the DSHS. In order to fill these gaps as far as possible, two other sources were tapped for data on clients with addiction problems in inpatient therapy.

- The Statistical Report on Hospital Diagnoses, whose most recent data are available for the reporting year 2008 (Statistisches Bundesamt 2009a), documents the diagnoses on the discharge of all patients from inpatient facilities. Apart from the main diagnosis it also records age and gender. The Report of the Federal Statistical Office thus serves as an information basis for the data from the DSHS. Though complete, the Statistical Report on Hospital Diagnoses is not addiction-specific and offers little detailed information for the area of interest. It does however allow a differentiation of the number of cases according to the ICD-classification (F10-F19). Apart from accounting information on services provided by hospitals, there is no systematic compilation of comprehensive statistical data on hospital treatments. However, general documentation standards do exist for example for psychiatric clinics or facilities for child or adolescent psychiatry. These contain information on the treatment of patients with addiction problems. So far, no systematic analysis has been carried out on the transfer of these data into the KDS standard.
- The statistics from the German Statutory Pension Insurance (DRV 2010) document all cases for which the costs were borne by the pension insurer. However, the part of

inpatient therapies which were acute treatments or which were financed by other sources, is missing.

The distribution of main diagnoses in the two statistical reports is identical to a large extent, if one takes into account the substantially higher portion of undifferentiated diagnoses in respect of F19 (multiple substance use and consumption of other psychotropic substances) in the data recorded by the DRV.

- Since 1 July 2002, data on opioid substitution therapy (OST) is recorded by the substitution register with the purpose to avoid double prescriptions of substitution drugs and to monitor the implementation of specific quality standards in therapy. The short-term use of substitution drugs in detoxification is not recorded by this register. For 2009, this data source provides information on the number and gender distribution of treated clients and on the substitution drugs used, complete with a list of names of the doctors in charge of therapy.
- Data from regional monitoring systems, can, insofar as they use the German Core Data Set, be compared to the federal data. Partly based on the original data and covering whole regions, these evaluations are a valuable complement to the national statistical reports.

As a result of the different data sources, it is more difficult to describe the profile of drug-addicted patients in treatment than of drug-addicted patients out of treatment. While it is necessary to use various sources at the same time, one needs to bear in mind that each source has a different type of selectivity.

Information on the characteristics of the treated drug users are to be found in standard table 3.

## 5.2 Strategy, Policy

According to the analysis of the most recent *Laender* short reports<sup>69</sup> (Floeter & Pfeiffer-Gerschel 2009) there are little less than 1,300 specialized outpatient drug counselling facilities which treat patients mainly for problems with drugs or other psychotropic substances<sup>70</sup>. In about 300 specialized hospital wards 8,800 beds are provided for people with substance use disorders. More than 110 facilities (>2,030 treatment slots) carry out qualified withdrawal treatment (OPS 8-985). At least 311 facilities (>13,165 treatment slots) offer inpatient rehabilitation measures and at least 109 facilities (>1,062 treatment slots) carry out daycare rehabilitation measures (including alcohol and other substances). These services are complemented by at least 126 adaptation facilities (>1,292 treatment slots), 261

<sup>69</sup> The *Laender* short reports contain the data collected by the DBDD on the number of drug-addicts in the *Laender* and on the help offers made by the respective *Laender*. Compared to the last survey (2004), some of the categories were removed and others were combined so that comparisons over time are only possible on a limited scale. For the reporting year 2008, the data sets from 15 out of the 16 *Laender* are available.

<sup>70</sup> This is an estimation of the total number of ambulatory psychosocial counselling facilities among which facilities exclusively or primarily treating users of illicit drugs, are in the minority.

inpatient (>11,026 beds) and 139 daycare (>1,832 treatment slots) social therapy facilities as well as by services offered in the area of assisted living (in at least 840 facilities; >10,257 places) and 232 job and employment projects (>3.342 places) (Floeter & Pfeiffer-Gerschel 2009). The majority of the facilities are independent non-profit organizations. Especially inpatient therapy is carried out by public and private providers. Supported by the Federal Government, the *Laender* and the associations, the DBDD has set up a central register of all addiction aid facilities in Germany which, for the first time, will provide an almost complete overview of all existing professional offers made in the area of addiction. The register is oriented to the classification of the German Core Data Set (DHS 2008), (Suess & Pfeiffer-Gerschel 2009).

A first exemplary evaluation of the register (based on the data for 2008) carried out to get some insight into the methodological approaches was presented to the respective expert committees at the beginning of the year 2010. The calculations of the response quota of the DSHS were based on the facilities register and will be used for the first time for the documentation year 2009<sup>71</sup>. There is large convergence between the facilities register and the data collected by the *Laender* within the framework of the *Laender* short reports. The few remaining divergences partly resulted from different definitions used for the facilities and types of facilities.

Low-threshold services and counselling (>300 facilities) are, for the most part, funded by the Federal Government. However, a relevant portion of the costs of outpatient facilities is borne by the legally and economically responsible providers themselves. Except for the therapeutic treatment, outpatient addiction support is, for the most part, voluntarily funded by the *Laender* and municipalities. However, the institutions have no legal claim to these funds.

Acute treatments of drug-related problems and withdrawal treatments are generally carried out in hospitals. The costs for this withdrawal phase are in general borne by the statutory health insurance. The main diagnosis for all patients treated in German hospitals is reported to the Federal Statistical Office which regularly publishes these data (Statistical Report on Hospital Diagnoses).

Rehabilitation is to stabilize long-term abstinence and to restore the earning capacity of the patient. Therefore, the costs of rehabilitation are generally borne by the statutory health insurers. These also decide on the type, scope and duration of the therapy. Statistical data on the services rendered are available from the social administration authorities.

In Germany, inpatient and outpatient treatment of addicted persons is mainly done by psychiatric facilities. Following the model of qualified withdrawal, physical withdrawal treatment is complemented by continuing after-care measures. A lot of clinics for psychiatry and psychotherapy also have special wards for qualified heroin withdrawal treatment. According to the data collected within the framework of the "Staffing Directive for Psychiatry" (Personalverordnung Psychiatrie) (2006: 247 clinics and wards with about 42,000 beds), the

<sup>71</sup> The total number of counselling and treatment facilities as well as of the outpatient clinics from the register (N=1,332) was used as a reference value for the estimates already in chapter 4.

portion of (all) addicted patients is stable at 18%. A shift in treatment demand towards increasingly intensive treatment forms has been observed for a long time. Outpatient care of addicted people in psychiatric facilities has been strongly expanded especially through the set-up of psychiatric ambulatories in institutes tasked to carry out treatment for addicts. In 414 psychiatric ambulatories about 650,000 treatments are carried out per year, 12% of them for addicted patients. At the local and regional level, psychiatric-psychotherapeutic facilities closely cooperate with the psychosocial counselling facilities and the out- and inpatient rehabilitation facilities. In some *Laender*, like for example in Baden-Wuerttemberg, well-structured help-networks for drug patients have meanwhile been established at a local level.

Except for a few specific cases, there is no legal funding basis provided by the Social Security Codes (SGB IV and XII) for the integration or after-care phase. Here, the legally and economically responsible bodies of the facilities have to resort to financing models tapping federal government budgets or budgets of the social security funds and job agencies.

### 5.3 Treatment systems

The German treatment system for people with drug-related problems or their relatives is – as described above – very elaborate ranging from institutions offering first low-threshold contacts over counselling services to intensive treatment and therapy in specialized inpatient facilities and a large offer of opioid substitution treatments. Planning of the treatment demand in the various segments of the medical and/or social help system at a national level does however not match with the federal structure of the Federal Republic of Germany. Planning is done instead at *Laender* or community level.

A differentiation between drug-free and pharmacologically assisted treatment – especially OST - is not very useful to describe the therapy system in Germany. The question as to whether psycho-social counselling facilities, which play a central role in the care for drug addicts, are to be assigned to drug-free or pharmacologically-assisted treatment, is problematic to answer especially in the case of psycho-social care provided within the framework of substitution programmes (with the exception of a few cases in which the counselling facilities themselves administer the substitution drugs). Generally, medical substitution treatment takes place outside of the counselling facilities. Psychosocial care or therapy, by contrast, take place in the counselling facilities and are thus, per se, neither obligated to a drug-free nor a medication-assisted approach.

There is also a host of self-help organisations working in parallel or cooperating with professional help services in the area of addiction. So far however, they have mostly been addressed to alcohol addicts and older target groups.

#### 5.3.1 Organisation and quality assurance

##### Organisation

Contact, motivation and outpatient treatment are mainly offered by outpatient counselling facilities; withdrawal treatments/detoxifications are for the most part done in general hospitals

but also in a few specialized clinics (often in the psychiatric ward). In the withdrawal treatment of opioid addicts, methadone and buprenorphine are, among others, temporarily used to reduce negative concomitant symptoms. Because of minimal side effects and less severe withdrawal symptoms the latter finds increasing usage. Statistical data on this type of treatment are not available in a differentiated form. However, the cases are contained in the Statistical Report on Hospital Diagnoses.

Outpatient counselling facilities are the first place of call for drug users insofar as their drug problems are not treated by primary care, i.e. generally speaking by office-based doctors. In most cases, counselling is free of charge. The facilities are mainly funded by the municipalities and *Laender* as well as by their, non-inconsiderable, own resources (donations, church taxes, etc.).

If drug problems and concomitant symptoms are too problematic, consequences too massive and the general situation for the drug addict himself and his environment too stressful, the patient will be admitted to inpatient therapy. However, the transfer from outpatient to inpatient therapy is associated with some administrative effort and it needs to be clarified who will take over the costs for inpatient therapy (generally the statutory pension insurance fund, patients without employment are subject to other regulations). In some cases, inpatient therapy does not suit the client's situation - if for example existing employment would be jeopardized or no adequate care for the children of an addicted mother can be found. The transfer from outpatient to inpatient care also has the effect of a filter mechanism. Patients in inpatient therapy do not only differ from outpatient ones in the severity of the addiction problem but also in the gender distribution.

Rehabilitation treatments are carried out by specialized clinics or therapeutic communities. In the integration and after-care phase, a varied offer specifically geared to the needs of the clients is made with regard to employment, housing and re-integration into society. All fields of work are staffed with specialists who, for a major part, have received work-field-specific supplementary training. All offers made aim at stabilizing abstinence from drugs.

Since 2001, drug-maintenance therapy is regulated in detail by the Narcotics Law and is meanwhile a medically fully recognized treatment form. Substitution therapy has been part of the standard treatment of opioid addicts for many years. This treatment offer reaches a large number of drug addicts and has proven to produce beneficial effects on the psychological and physical well-being of the patients within the framework of numerous studies (Michels et al. 2007). Gerlach & Stoeber (2005) give a good overview of the status of substitution treatment in Germany. The recently published results of a study conducted by Wittchen and colleagues (2008b) underline again the effectiveness of various types of opioid substitution treatments (OST) with methadone and buprenorphine and show a retention quote of the patients in OST that is comparable to the results of controlled clinical studies. Co-consumption (especially of cannabis and benzodiazepines as well as of opioids and cocaine) is in many cases the decisive factor for dropping out of therapy or other complications occurring during therapy. Patients in long-term substitution therapy appear furthermore to be a group of patients subject to an extremely high level of stress caused by somatic and

psychological disorders.

The state of the art in opioid substitution therapy has already been established in 2002 by the guidelines passed by the German Medical Association (BAEK). In 2010, a revised version of the guidelines was presented by the BAEK (cf. also chapters 1.2.2, 5.5.2 and chapter 11). In 2003, OST was acknowledged by the statutory health insurance without any qualification as a SHI- accredited care service to be borne by the SHI. Substances eligible for substitution therapy in Germany are levomethadone, methadone and buprenorphine. Codeine and DHC can only be prescribed in exceptional cases for this type of treatment. In July 2009, legal provisions were also passed on diamorphine-based substitution (cf. chapter 1.2.2 in the REITOX Report 2009).

The majority of patients in opioid substitution treatment are treated by office-based doctors or in specialized outpatient facilities. Doctors carrying out substitution therapy need to be qualified in addiction-medicine. If they are not, they can treat up to three patients maximum in consultancy with a qualified colleague. Meanwhile, also some inpatient facilities have started to accept patients for substitution therapy.

In the current discussion on opioid substitution therapy which is firmly established in the care system, the question as to what goals are to be pursued by drug-related therapy continues to play an important role. The success criteria diverge indeed with the perspective adopted by the viewer. The reduction of co-consumption of other psychotropic substances can be rated as much a success as the (long-term) termination of opioid dependence or the successful treatment of other (somatic and psychological) disorders.

Psychosocial care has been established as a part of OST by the Regulations on the Prescription of Narcotic Drugs and the guidelines passed by the Common Federal Committee and the National Medical Association in so far as it is regarded "necessary". As a result of diverging interpretations of psycho-social care in the *Laender* and communities, psycho-social care is at national level subject to great variations in terms of organisation, funding and treatment offer.

The revised guidelines of the German Medical Association (BAEK) of 2010 (BAEK 2010) concretize type and scope of psychosocial care noting that the provision and integration of measures suitable to eliminate psychosocial problems is mandatory for the treatment of opioid addiction. The guidelines furthermore underline the necessity of coordinating psychosocial care and medical care (see also chapter 1.2.2 and 5.5.2).

It was confirmed by a judgement of the Hamburg Administrative Court in April 2008 that there is a legal claim to the service of necessary psychosocial counselling/care for substitution patients (provided the necessary preconditions according to SGB XII are fulfilled) to be provided by the local social administration authorities.

The status of integration between general health care and special drug care nationwide is still rather dissatisfying. At regional level however, cooperation and coordination of the offers are clearly better. Any attempt to give an overview of the care situation in Germany is associated with major problems as a result of the diverging goals and the regional

differences they bring about.

### **Quality assurance**

Various professional societies and experts have worked together over the last years to develop guidelines for the treatment of drug dependence and addiction problems (see also chapter 11). These publications are a condensed summary of the current state of knowledge and provide practical guidance for carrying out treatments under consideration of the quality of the empirical basis for the individual statements. Meanwhile, guidelines have been published for the acute treatment of opioid-related disorders (Reymann et al. 2003), for the post-acute treatment of opioid addicts (Havemann-Reinecke et al. 2004), for patients with cannabis-related disorders (Bonnet et al. 2004) as well as behavioural disorders caused by cocaine, amphetamines, ecstasy and hallucinogens (Thomasius & Gouzourlis-Mayfrank 2004). In the year 2006, the Working Group of the Scientific Medical Professional Societies (Arbeitsgemeinschaft der medizinisch-wissenschaftlichen Fachgesellschaften, AWMF) published the AWMF-guidelines on the diagnostics and therapy of substance-related disorders under the title "Evidence-based addiction medicine – treatment guide for substance-related disorders" (Evidenzbasierte Suchtmedizin – Behandlungsleitlinie substanzbezogene Störungen). The evidence-based guidelines are to make treatment of drug addicts more transparent and de-emotionalize the scientific controversies over the most efficient therapy approaches (Schmidt et al. 2006).

At a consensus conference held in 2006, the guidelines of the German Society for Addiction Medicine (Deutschen Gesellschaft fuer Suchtmedizin, DGS e.V.) for the therapy of chronic hepatitis C in injecting substance users were passed (c.f. Backmund et al. 2007a). Contrary to recent practice, these guidelines recommend the treatment of hepatitis C also in opioid-addicts, in particular when they are in substitution treatment (Backmund et al. 2006).

Moreover, the revised version of the S3-Guideline of 20044 on „Prophylaxis, diagnostics and therapy of the Hepatitis-C-virus (HCV)-Infection, AWMF-Register No. 021/012" of the German Society for Digestion and Metabolic Diseases (DGVS) was published in 2010 (Sarrazin et al. 2010) (see also chapter 7.3).

Addiction therapy may only be provided by adequately skilled staff with work-field-specific supplementary training. In this context, the German Pension Insurance Fund has passed guidelines for the supplementary training of therapy staff working in individual and group therapy within the framework of medical rehabilitation of drug addicts, serving as a "recommendation for the acknowledgement" of the respective advanced training courses. As part of the restructuring of the university education system in Germany according to European standards (introduction of Master and Bachelor programmes at universities and technical colleges) work specifications for therapeutic staff in addiction aid have to be newly developed and defined. At present, a lot of university or college courses are restructured in Germany and in many other European countries. In the meantime, it has already become possible to do a post-graduate course and earn a Master's degree (Master of Science) in substance abuse and addiction counselling. In the restructuring of the courses for social

workers, psychologists and medical staff in the area of addiction aid, post-graduate education plays a very important role.

Cooperation between different professional groups from social work/education, psychology, psychiatry and other medical fields forms an integral part of the addiction treatment standards. As for outpatient offers (outpatient treatment centres and others), quality assurance and technical monitoring are mainly in the hands of the supporting organs of the facilities or respectively of the *Laender* and municipalities. The responsibility for detoxification and rehabilitation however lies with the respective insurance carriers (statutory health and pension insurance organizations). With also outpatient treatment offers being increasingly funded by social security administration, the abovementioned standards have also gained in importance in this setting, especially in the area of alcohol, but not so much with regard to drugs. In many *Laender*, cooperation between the different fields of work and organizations is promoted by *Laender*-financed institutions.

Apart from enhancing process quality through service data documentation and quality evaluation by addiction help facilities, the quality assurance measures undertaken by the Social and Pension Insurance Scheme are to be increasingly dedicated to outcome quality in the future (Beckmann et al. 2009a). It is to be investigated in how far the routinely collected data on the socio-medical course can also be used for comparing the facilities. Another development area identified by Beckmann for the upcoming months and years is the increased integration of quality assurance into outpatient fields of care. Beckmann regards quality assurance measures as an important contribution to optimize medical rehabilitation and to reduce problematic divergences between the rehabilitation facilities. The presentation of the results of the evaluation carried out within the framework of the quality assurance measures will have a stronger focus on the practical orientation for the addressees in the rehabilitation facilities and pension insurance funds in the future.

### 5.3.2 Availability and diversification of treatment

Planning of the treatment demand in the various segments of the medical and/or social help system at a national level does not match with the federal structure of the Federal Republic of Germany. Planning is done instead at *Laender* or community level. A detailed presentation of the generally available treatment forms has already been given above (see chapters 5.1, 5.2 and 5.3.1) and shall not be repeated here. With regard to the availability of treatment and help offers, there are differences to be found between the *Laender*. For example, not all *Laender* offer consumption rooms as an element of harm reduction measures. It has moreover repeatedly been reported that there are difficulties in providing region-wide care for patients who would like to undergo substitution treatment in rural areas (in particular in the eastern *Laender*), (cf. also chapter 5.5.2).

All in all, the situation with regard to the help offers made has not much changed recently. The only partially existing legal basis for the funding of outpatient services continues to lead to financing problems. The municipalities that provide the funds for most of these services are struggling with extremely tight budgets. Since the municipalities are not legally obliged to

provide funds for outpatient addiction support, a lot of offers are cut down at various locations. At the same time however, facilities have started to engage in a professionalization of their operational and technical procedures.

Data on the availability of treatments are contained in standard table 24.

Based on the data from the German statistical report on treatment centres for substance use disorders (DSHS), Hildebrand and colleagues (2009) reported estimates of the quota of drug users reached by out- and inpatient addiction help facilities. According to these estimates, the specialized addiction help system is able to reach between 45% and 60% of the estimated persons with harmful use or opioid dependence but only between approximately 4% and 8% of the cannabis users.

The offers made by counselling and treatment facilities are, especially in the inpatient setting, not exclusively limited to users of specific substance groups. The large majority of the therapy services provided by specialized drug aid facilities are related to primary alcohol problems (approximately half of the outpatient therapies documented within the framework of the DSHS and about three quarters of the treatment episodes in the inpatient setting with specialized treatment facilities). But also people with problems related to the use of illicit drugs and other disorders (e.g. eating disorders, pathological gambling, tobacco dependence) are treated. Correspondingly, most of the facilities hold offers in readiness for very different user groups, taking into account not only substance-specific aspects but also a series of psychological, social and health aspects that are – irrespective of the respective substance involved – in part associated with certain periods of life or age groups (e.g. adolescents and young adults, pregnant women and elderly users). There exist very different counselling and treatment concepts within the framework of person-centred addiction help. One task of the addiction help facilities is to define very different problem fields with the respective counselling and treatment needs together with different intervention goals. The underlying broad conception of treatment comprises various forms of intervention in very different areas and denotes the reduction or cessation of substance use and the combat against associated problems as equally valid therapy goals. Such an understanding of intervention can be transferred to the treatment of all substance-related problems and all types of addiction (DHS 2001).

Given the significant increase in the prevalences of cannabis use especially at the end of 90s of the last century (until about 2003), a series of studies and projects dedicated to the development of specific intervention concepts for cannabis users under various framework conditions were launched. Many of these projects (e.g. “realize it!”<sup>72</sup>, INCANT<sup>73</sup>, CANDIS<sup>74</sup>, CAN stop<sup>75</sup>, AVerCa<sup>76</sup> or “Quit the shit”<sup>77</sup>) were already presented in the REITOX Reports of

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<sup>72</sup> [www.realize-it.org/](http://www.realize-it.org/)

<sup>73</sup> [www.incant.eu](http://www.incant.eu)

<sup>74</sup> [www.candis-projekt.de/](http://www.candis-projekt.de/)

<sup>75</sup> [www.canstop.med.uni-rostock.de/](http://www.canstop.med.uni-rostock.de/)

<sup>76</sup> [www.averca.de/](http://www.averca.de/)

last years. Although all projects have (problematic) cannabis use as a starting point for intervention, some of them are very complex programmes whose goals go far beyond the goal of abstinence or use reduction.

The national demonstration project on heroin-assisted therapy<sup>78</sup>, addressed to the group of heavily dependent opioid users, was also a further development of an intervention that primarily defined itself over the disorder-relevant main substance, but which, at the same time, was also embedded in a pool of psychosocial and health interventions.

Even though there are fewer recent studies on specific interventions for other substance groups (e.g. stimulants, cocaine, LSD) available, addiction aid facilities do offer well-founded, professional support to these substance users as well. Treatment guidelines do not only exist for opioid and cannabis-related disorders but also for psychological and behavioural disorders caused by cocaine, amphetamines, ecstasy and hallucinogens (see also this year's selected issue on development, methods and implementation of national treatment guidelines in chapter 11). In the following, results of recent intervention studies are presented. They are grouped by subjects and give an overview of the current developments in treatment. The structuring of the presentation is not only oriented by the substance for which the intervention is carried out but also by certain target groups that are – irrespective of the individual substance used – in need of specific interventions.

### **Interventions for cannabis users**

Despite the present indications of a trend reversal in the prevalence of cannabis use of adolescents, Thomasius and colleagues (2009b) (see also chapter 2) predict a further increase in client figures for cannabis-related disorders in the years to come. In the opinion of the authors, the rapid growth of client figures in the area of cannabis-related disorders cannot exclusively be explained by an only roughly comparable strong number of intense users. The treatment facilities are therefore advised to prepare for a further growing number of especially male adolescents and young adults who seek treatment.

In 2009, the final report on the project "Implementation of treatment targeted to cannabis disorders "CANDIS" in the German outpatient addiction help system (CANDIS II)" was presented (Hoch et al. 2010). CANDIS is a modular withdrawal programme for adolescents (>= 16 years) and adults with problematic cannabis use<sup>79</sup> (see also the REITOX Reports of previous years). CANDIS II is to find out whether the approach is also applicable and effective in the setting of outpatient addiction help. Eleven addiction aid facilities from ten cities were selected to take part in CANDIS II according to defined, content-related criteria.

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<sup>77</sup> [www.drugcom.de/](http://www.drugcom.de/)

<sup>78</sup> [www.heroinstudie.de/](http://www.heroinstudie.de/)

<sup>79</sup> CANDIS is based on the modules of motivational enhancement therapy, cognitive behavioural therapy and psychosocial problem solving training. The therapy comprises 10 sessions of individual therapy over a period from 8 to 12 weeks. It was developed from 2004 to 2007 at the Institute for Clinical Psychology and Psychotherapy of the Technical University Dresden and successfully tested in a randomized-controlled study.

In order to test the effectiveness of the CANDIS therapy under real practice conditions, a multicentre, randomized-controlled intervention study was conducted. The participants with problem cannabis use were randomly assigned to an intervention group with standardized individual therapy (ST) or to a wait list control group (WCG)<sup>80</sup>. "Abstinence" was defined as a primary outcome variable, "use reduction in the last 28 days"<sup>81</sup> as a secondary variable. The ITT-analysis showed that the abstinence rates in the intervention group were significantly higher than in the wait list control group (ST: 53.3%; WCG: 25.4%)<sup>82</sup>. The number of consumption units per consumption day (pre: 6.1; post: 3.5)<sup>83</sup> and the portion of patients with an addiction diagnosis in the last four weeks also went down (pre: 55.6%; post: 12.7%). In the follow-up surveys 6 months later, 69% of the urine screenings (n=54) were negative.

The transfer of the CANDIS therapy into the outpatient addiction help system was documented within the framework of a process evaluation (by means of questionnaires filled in by all therapists taking part in the study). In this survey, the following obstacles encountered with the transfer of the programme were mentioned most frequently: a) tightly packed time frames and complex client problem fields make it difficult to work with manualized therapy, b) prejudices held by colleagues against manualized therapy, c) insufficient cooperation with regional services. As factors promoting the transfer were mentioned: a) the manualized approach provides a clear structure, a content-related concept and support for therapy documentation, b) clarified cost assumption, c) training to learn about contents and build up skills and regular case reviews. Chances were seen especially in an expansion of the existing therapy offer and in reaching new patient groups.

Dau and colleagues (2009) have analyzed an inpatient treatment programme especially developed for young adults with cannabis and party drug use. They investigated in particular communalities and differences between the user groups and tried to find an answer to the

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<sup>80</sup> During the 12-month recruitment phase running from May 2008 to April 2009, n=662 patients in 11 outpatient addiction aid facilities all over Germany were approached for a potential participation in CANDIS. A total of n=130 participants were drawn for a wait list control group (target: n=150) and n=149 (target: n=150) for an active therapy group. From all patients of the wait list control group, n=106 took part in standardized individual therapy (ST) after a waiting time of eight weeks. The random sample of the therapy participants thus comprised n=255 patients. N=166 completed therapy (retention quota: 65%). The three-month follow-ups were based on 80 urine screenings (response rate: 48%) and 135 patient interviews (response rate: 81%). For the 6-month follow-ups, 54 urine screenings (response rate: 32%) and 96 patient interviews (response rate: 58%) were available. The large majority of the participants in the CANDIS study was male (86.8%) and on average 26.3 years old (range: 16 – 63 years). At the start of therapy, 88% of the participants fulfilled the lifetime diagnosis criteria (ICD-10) of cannabis dependence and 12% of cannabis misuse. 55.6% fulfilled the addiction criteria in the period of the last 4 weeks. In general, the patients were heavy cannabis users. Cannabis use was at 21 consumption units in the last week. Regular use of other illicit drugs was prevalent in the lifetime category (64%), but less prevalent in the last 30 days (10%).

<sup>81</sup> The outcome documentation was carried out by the therapists in the first interview before the start of therapy, in the session 1 to 10, in the review session and in the three follow-ups three and six months after the end of therapy.

<sup>82</sup> The abstinence rate among those who completed therapy (N=166) was at 63.9%. In the non-abstinent patients, the number of consumption days in the last 4 weeks was significantly reduced (pre: 17.7; post: 6.3).

<sup>83</sup> The reduction of the intensity of cannabis use in the treated random sample could also be shown through the use of other instruments in the study: e.g. "Cannabis Use Problems Identification Test (CUPIT)" by Bashford et al. (in prep.); "Cannabis Problem Questionnaire (CPQ)" by Copeland et al. (2005).

question whether joint therapy offers for cannabis and party drug users are useful. The authors come to the conclusion that joint treatment offers for cannabis and party drug users are useful. They recommend orientating the offers primarily by the life period of young adults and adolescents during which anxiety and interpersonal conflicts form central topics for therapeutic therapy. The authors also point to legal and family problems that are to be taken account of in therapy planning.

In the year 2003, five European countries agreed to scientifically evaluate the effectiveness of the multidimensional family therapy (MDFT) for young cannabis users – which is an established therapy form in the USA - for the European territory within the framework of INCANT (see also the REITOX Reports of previous years). The INCANT treatment study is a multicentre randomized-controlled study that was conducted in Belgium, France, the Netherlands, Switzerland and Germany.

In Germany, the study was conducted in the “Therapieladen“ (Therapy shop) in Berlin<sup>84</sup>. For the adolescents/families treated in Berlin, the intervention (MDFT) carried out within the framework of the study, proved to be significantly superior to the control group with regard to the primary hypothesis (reduction of cannabis use) (Therapieladen Berlin, personal communication 2010). The retention quota was found to be significantly higher under MDFT and the subjective satisfaction level of the participating parents was also found to be higher. With regard to comorbid psychosocial problems of the adolescents, symptoms could be equally improved in both treatment groups. Sociodemographic client characteristics show that in the INCANT study conducted in Berlin a very young, psychologically highly distressed target group was reached (average age 16.2 years), whereas adolescents and families from socially and educationally deprived classes formed the main group of the Berlin random sample. The so far promising trends show that a very young, lowly motivated and psychosocially highly distressed client group can be successfully treated in an outpatient setting with the intensive systemic MDFT therapy approach.

However, based on the results of the Berlin INCANT study, Gantner and Spohr (2010) come to the conclusion that the transfer of MDFT into the practical work of addiction therapy or respectively youth and family therapy poses special challenges not only to the participating institutions and help systems but also to individual therapists. From the viewpoint of the authors, a critical factor that plays an important role in this, is the lacking recognition of

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<sup>84</sup> In order to evaluate the survey questions, MDFT (multi-dimensional family therapy) developed in the USA, was compared to a therapy approach that has been used in outline for many years by the counselling centre “Therapieladen“ within the framework of an outpatient youth addiction therapy. The recruitment of the adolescents/families in Germany was done in the period from October 2006 to March 2009. After a baseline screening, a total of N=120 adolescents/families in Berlin were randomized through the central data basis of the Erasmus University Rotterdam and n=60 respectively assigned to two therapy settings. During and after therapy, 3-, 6-, 9- and 12-month follow-up surveys were conducted. The scientific evaluation of the project was done at the project site in Berlin by the delphi-Society for Research, Counselling and Project Development in cooperation with the Erasmus University (Rotterdam). There are currently (summer 2010) only partial results available from the Berlin random sample, which means that results and effects of MDFT within the framework of the total INCANT survey population may still change or be differentiated in terms of subgroups. Final results of the European INCANT study are expected by autumn 2010.

systemic or respectively family therapeutic therapy concepts as addiction therapies or psycho-therapies and the difficulties resulting therefrom with regard to the integration of parents or other relevant persons of reference into therapeutic work. Also interface problems between youth welfare, addiction help and youth psychiatry are mentioned by the authors as obstacles encountered in the transfer.

### **Interventions in children, adolescents and young adults**

Alongside the physical and psychological effects and consequences of substance abuse, all functional, developmental and comorbid psychological disorders are to be taken account of in the therapy of children and adolescents with substance-related disorders (Thomasius 2009b). Therapy for these groups is to be oriented by the disorder, age and phase of life. Special importance in the initial contact phase is attached to motivation enhancement. Kuestner and colleagues (2009), too, note that measures of early intervention in children and adolescents at risk of developing addiction should be family-, development- and disorder-oriented. Reviews and meta analyses show that family therapeutic approaches are superior to individual therapy or respectively peer-related approaches in terms of effectiveness (quoted from: Kuestner et al. 2009). The retention quota, which is regarded as the best indicator for the sustainability of the therapy outcome in all addiction therapies, especially in family therapeutic programmes, which pass for the standard in the therapy of children and adolescents with substance-related disorders, is at 70-90%. At international level, the retention quota for adolescents with substance-related disorders ranges between 60-65% (quoted from: Sack et al. 2009).

Thomasius and colleagues (2009a) point out that, in addition to the often regretfully noted interface problems at the transition lines between governmental and institutional responsibilities (addiction aid, youth welfare, school, medical care), there are also some areas within the individual care systems that are insufficiently linked with each other, with the effect that potential synergies partly remain unused. The authors moreover stress how important it is to engage service providers and funding organs in a constructive dialogue within the addiction aid organisation. In many communal addiction centres, the responsibilities for risks of addiction, psychologically distressed children and adolescents as well as family welfare are separated from each other in terms of organisation and contents. The authors underline the importance of bringing these resources together in order to plan, control and implement measures of prevention and early prevention.

The findings of the study "Gender specific requirements to be met by addiction aid – gender mainstreaming in the addiction therapy of adolescents", commissioned by the Federal Ministry for Health, have been recently presented<sup>85</sup> (Schu et al. 2009). The authors conclude in their study that the therapy concepts used by the surveyed facilities hardly take account of gender specific aspects and that substantial integration of gender mainstreaming is an exception. According to the self-assessments made by the facilities, only about half of them

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<sup>85</sup> The main goal of the study was to generate empiric ideas to improve the care situation of adolescents with addiction-related problems. To this purpose, N=126 persons were interviewed by the authors.

actually work gender-oriented. The findings of the study also point to an insufficient linkage of addiction specific offers for adolescents with (general) youth welfare and child and youth psychiatry as well as to insufficient sensitivity to substance use of adolescents at school, in youth centres and health care. The authors conclude that gender skills are a central feature of professionalism in social work and that the acquisition of these skills should already start in the basic training of the facility personnel. In the opinion of the authors, the introduction and implementation of gender mainstreaming is to be assumed by management staff. According to the authors, there is a special need for the development of specific offers for boys.

Wartberg and colleagues (2009) have recently published a study conducted on a complex psychotherapeutic and psychiatric therapy for children and adolescents in special wards for substance using children and adolescents with comorbid psychological disorders in the age range 12 – 19 years. In a longitudinal analysis with four measurement points<sup>86</sup>, the data were analysed in terms of substance use and psychopathological distress. In the course of time, use prevalences were found to significantly decline especially for cannabis, methamphetamine, cocaine and heroin. Both according to the assessments made by the parents and the self-assessments, the patients presented significantly lower psychopathological distress at the fourth measurement point than at the start of the intervention. In the opinion of the authors, the results speak for the use of multimodal, cross-school, disorder-related approaches for this targeted group.

In September 2009, the LIGA-Committee “Land Centre for Addiction Problems“ in Saxony-Anhalt published guidelines for child welfare activities undertaken by non-governmental charity counselling facilities in Saxony-Anhalt. These guidelines focus on children of substance-using and addicted clients of counselling facilities. It is to be investigated in what way addiction counselling facilities can make a conceptional contribution to assuring child welfare in families with addiction problems (Landesstelle fuer Suchtfragen im Land Sachsen-Anhalt 2009).

In December 2009, the Governmental Administration for Health, Environment and Customer Protection (Senatsverwaltung fuer Gesundheit, Umwelt und Verbraucherschutz), the Governmental Administration for Education, Science and Research (Senatsverwaltung fuer Bildung, Wissenschaft und Forschung) and the League of Public Welfare (Liga der Wohlfahrtspflege) Berlin, reached a framework agreement on the protection of children from addicted parents. Goal of this contract is to optimize the network and cooperation of all actors, who are related to addicted parents, to recognize signs of child endangerment as soon as possible and protect the children against endangerments by early well-linked interventions.

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<sup>86</sup> Admission, discharge, 6 and 12 months after completion of therapy.

### **Interventions for women and pregnant drug users**

In a recently published overview, Toedte (2010) points to the high level of distress drug-using women are exposed to during pregnancy. Distress levels are particularly high when women are insufficiently embedded in social networks and when the basic situation is precarious (housing condition, financial situation, structures). The author sees an urgent need for action with regard to further education and the development of standards and quality features for the work with addicted pregnant women, women with children and for the work with children. There is a scarcity of well-founded, gender-related, specific outpatient therapeutic therapy offers for children from families with drug problems and for women and mothers suffering from post-traumatic disorders.

Barth (2010), too, points to the high levels of distress of addicted women in terms of comorbidity covering the whole psychiatric spectrum of disorders, with affective and anxiety disorders being in the foreground.

### **Interventions in migrants**

Michael and colleagues (2009) investigated the differences between migrants from Eastern Europe and Germans suffering from addiction with regard to their subjectively experienced distress, depressive symptoms, personality traits, stress and anger reactions and compared these to ones found at the end of a closed nine-month inpatient therapy. In their analysis, they found that migrants have a significantly higher subjective distress experience and that they resort to negative stress coping strategies much more often than their German counterparts. The authors infer from these findings that it is imperative for addiction therapy to deal more intensely with the high distress migrants are exposed to and their negative stress coping mechanisms.

## **5.4 Characteristics of treated clients (TDI data included)**

### **5.4.1 Outpatient treatment**

The data presented in the following are based on the detailed data of the table volumes published within the framework of the German Statistical Report on Treatment Centres for Substance Use Disorders (Deutsche Suchthilfestatistik, DSHS) of the year 2009 (Pfeiffer-Gerschel et al. 2010b; Pfeiffer-Gerschel et al. 2010e). The data used in the presentation are taken from the partial evaluation of outpatient counselling and treatment. The tables presented hereunder also contain references to the corresponding tables of the TDI. Detailed information on the variables of the treatment demand indicator (TDI) can be found in standard table 3. The presented tables include references to the relevant TDI tables. Information on clients undergoing treatment or receiving counselling while in prison and information on clients of low-threshold facilities is contained in chapters 9.6.1 and 7.2.

In the year 2009, data of a total of 316,588 therapies (without one-off contacts) carried out in N=779 outpatient facilities were collected within the frame of the DSHS. For this REITOX Report only data from clients primarily treated for illicit substance use (including

sedatives/hypnotics) were taken into account (patients treated primarily for alcohol-induced disorders accounted alone for 56% of all recorded cases in 2009).

### **Diagnostic data**

For the year 2009, the German Statistical Report on Treatment Centres for Substance Use Disorders contains data on the main diagnoses of a total of 58,163 treatments that were started or completed in outpatient psychosocial addiction support facilities because of problems with illicit drugs (portion of males: 79.9%, 2008: 79.6%). The main diagnoses are based on the diagnostic categories of the international classification system of the WHO (ICD 10) for disorders caused by psychotropic substances (harmful use or dependence).

When looking at the DSHS data and confining oneself to illicit substances, one finds that less than half of the clients (47.5%; 2008: 49.1%) sought treatment or counselling primarily for dependence on or harmful use of opioids<sup>87</sup>. The portion of persons primarily treated for disorders in connection with the use of opioids has been on a continual decline since 2007. In more than a third of the cases (35.4%; 2008: 32.8%), clients were treated for primary cannabis problems. This portion has been on continual rise since 2007. On a slight decline was the portion of clients who received counselling or treatment because of problems in connection with the use of cocaine (6.3%; 2008: 7.2%). The comparative values for stimulants (6.6%; 2008: 6.8%) and other substances practically remained unchanged in comparison with the previous year. Among the persons who underwent addiction therapy for the first time, cannabis clearly led the league of substances. Their portion also increased again (61.0%; 2008: 59.0% of all clients) and was followed at a clear distance by the portion of clients treated for opioids for the first time. Their portion continued to decline (18.3%; 2008: 19.8%), whereas the portion of users of stimulants (10.2%; 2008: 10.3%) remained stable (Table 5.1). The portion of persons with cocaine-related disorders declined also among the patients treated for the first time in comparison with the previous year (7.2%; 2008: 8.0%). The portions of all other substance groups practically remained unchanged in respect of the previous year.

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<sup>87</sup> The portions presented hereinafter were calculated on the basis of the values given by the TDI-tables 14.1.1 (all clients treated) and 14.1.2 (first clients) set up for the outpatient treatment centres for substance use disorders.

Table 5.1 Main diagnoses in outpatient therapy (DSHS outpatient data, 2009)

Main diagnosis harmful use/addiction ... (ICD10: F1x.1/F1x.2x)	All persons treated <sup>1)</sup> (%)			Persons treated for the first time (%)		
	Males <sup>2)</sup>	Females <sup>2)</sup>	Total <sup>2)</sup>	Males <sup>2)</sup>	Females <sup>2)</sup>	Total <sup>2)</sup>
Opioids	45.4	55.9	47.5	17.2	23.7	18.3
Cannabinoids	38.5	23.3	35.4	64.4	45.2	61.0
Sedatives/Hypnotics	1.2	6.3	2.2	1.1	8.2	2.4
Cocaine	6.9	4.3	6.3	7.6	5.1	7.2
Stimulants	6.3	8.1	6.6	8.9	15.9	10.2
Hallucinogenics	0.2	0.1	0.2	0.2	0.2	0.2
Volatile substances	0.0	0.2	0.1	0.1	0.5	0.2
Multiple/other substances	1.6	1.9	1.6	0.5	1.2	0.6
<b>Total (N)</b>	<b>46,403</b>	<b>11,760</b>	<b>58,163</b>	<b>11,838</b>	<b>2,568</b>	<b>14,406</b>

1) All persons treated are in this case all patients newly admitted and patients who completed therapy in the reporting year.

2) The columns correspond to the categorisation of the TDI-tables: all patients treated: 12.1.1, 13.1.1, 14.1.1, patients treated for the first time: 12.1.2, 13.1.2 and 14.1.2.

Pfeiffer-Gerschel et al. 2010b; Pfeiffer-Gerschel et al. 2010e.

It is relatively common for other addiction diagnoses to be made in addition to the main diagnosis<sup>88</sup>. In 2009, out of the clients with primary opioid-related problems about one in four also displayed an alcohol-related disorder (dependence or harmful use), or a disorder in connection with the use of cocaine (Table 5.2). Dependence or harmful use of cannabis continued to represent the most common non-opioid secondary diagnosis in these clients.

Among clients with primary cocaine-related problems cannabis<sup>89</sup>, alcohol, amphetamines and ecstasy were in the foreground of substance-related secondary diagnosis. As in previous years, almost one client in ten with a primary cocaine diagnosis additionally fulfilled the diagnostic criteria of a heroin-related disorder.

Almost one in five of the clients with primary cannabis-related problems<sup>90</sup> also displayed harmful use of or dependence on amphetamines. More than one client in ten with a cannabis-related main diagnosis showed also harmful use of or dependence on cocaine. A little less than a third of the clients with a primary disorder caused by the use of cannabinoids also fulfilled the diagnostic criteria of an alcohol-related disorder.

Seen across the board of all substances, approximately a third of the clients had a disorder caused by the use of alcohol in addition to the primary reason for treatment admission (Pfeiffer-Gerschel et al. 2010e).

<sup>88</sup> TDI-table 24.1.1; all subsequent data on clients with primary opioid-related problems refer to a total number N=19,515. A direct calculation of a total number from the TDI-tables is not possible since for the additional substance related diagnoses more entries are possible.

<sup>89</sup> TDI-table 24.1.1; refers to a total number N=2,775.

<sup>90</sup> TDI-table 24.1.1; refers to a total number N=15,655 (main diagnosis: cannabinoids).

Table 5.2 Main diagnosis and additional substance related diagnoses (DSHS outpatient data, 2009)

Single diagnosis <sup>1)</sup>	Main diagnosis				
	Opioids	Cannabinoids	Sed./Hypn.	Cocaine	Stimulants
Alcohol	27.4%	29.9%	33.5%	42.2%	32.4%
Heroin	90.0%	2.8%	5.9%	8.7%	5.1%
Methadone	39.7%	0.4%	1.0%	1.3%	0.3%
Buprenorphine	8.7%	0.2%	0.8%	0.7%	0.5%
Other opiates	6.5%	0.5%	5.4%	0.8%	0.7%
Cannabinoids	33.7%	100.0%	10.5%	48.9%	54.2%
Benzodiazepines	14.8%	1.2%	76.2%	4.7%	2.5%
Other sedatives/Hypnotics	0.5%	0.3%	20.9%	0.4%	0.4%
Cocaine	24.5%	11.3%	4.4%	97.5%	19.2%
Amphetamine	8.6%	18.1%	5.2%	22.3%	87.8%
MDMA	4.9%	8.0%	2.9%	10.5%	27.4%
Other stimulants	0.6%	1.4%	0.9%	1.2%	12.4%
LSD	3.7%	2.9%	1.8%	5.1%	6.1%
<b>Gesamt (N)</b>	<b>19,515</b>	<b>15,655</b>	<b>982</b>	<b>2,775</b>	<b>3,006</b>

1) Multiple entries possible.

Pfeiffer-Gerschel et al. 2010e.

### Socio-demographic information, consumption patterns and treatment duration

In the year 2009, 79.8%<sup>91</sup> (2008: 79.9%) of all outpatient clients N=58,163<sup>92</sup> with drug problems recorded by the German Statistical Report on Treatment Centres for Substance Use Disorders were male. 54.8% (2008: 56.1%) of all treated patients were between 15 and 30 years old<sup>93</sup>. 84.1% (2008: 83.7%) of them were of German nationality, 3.0% (2008: 2.8%) were from other countries of the European Union, 8.5% (2008: 8.8%) from non-EU countries such as Turkey or the former Soviet Union (unknown nationality: 4.5%). Since living conditions of the clients vary considerably depending on the main diagnosis or the drugs used, the characteristics presented in Table 5.3 are broken down by main drugs.

Further information can be found in standard tables 8 and 9 as well as in the TDI-tables.

<sup>91</sup> TDI-tables 12.1.1, 13.1.1 and 14.1.1.

<sup>92</sup> For whom data on the gender and on the main diagnosis were available.

<sup>93</sup> TDI-table 14.1.1.

Table 5.3 Socio-demographic data broken down by main drug (DSHS outpatient data, 2009)

Characteristics	Main diagnosis				
	Opioids	Cannabis	Cocaine	Stimulants	
Years of age when starting treatment (m) <sup>1)</sup>	33.8	24.0	31.6	26.6	
Years of age at first drug use (m) <sup>2)</sup>	21.0	15.2	21.4	18.1	
Gender (ratio males) <sup>3)</sup>	76.2%	86.7%	86.4%	75.4%	
Living alone <sup>4)</sup>	51.2%	58.4%	43.6%	52.8%	
Working situation <sup>5)</sup>	<i>Without work</i>	62.3%	37.2%	38.8%	44.1%
	<i>In school/education</i>	3.1%	28.7%	5.8%	14.0%
Homeless <sup>6)</sup>	2.6%	0.7%	1.2%	1.0%	

1) TDI-tables 6.1.1 for data on all persons (not broken down by main drug)

2) TDI- tables 23.1.1 for data on all persons (not broken down by main drug)

3) TDI- tables: 12.1.1, 13.1.1 and 14.1.1 (for corresponding data)

4) TDI- tables 7.1.1 for data on all persons (not broken down by main drug)

5) TDI- tables 9.1.1 for data on all persons (not broken down by main drug); on the day before the start of therapy

6) TDI-table 8.1.1 on the stability of the life situation (no directly corresponding data): on the day before the start of therapy

Pfeiffer-Gerschel et al. 2010e.

Table 5.4 shows the most common use pattern for various substances. Heroin continues to be mainly injected by more than half of the clients; however, intravenous use of heroin has been on the decline since 2003, yielding to smoking (in 2003, heroin was still injected in two thirds of all cases). Injecting use was also found in every fifth cocaine user. All other substances are mainly orally consumed, sniffed (especially cocaine) or smoked (especially crack). The most diversified use pattern was found for amphetamines.

Table 5.4 Drug administration routes (DSHS outpatient data, 2009)

Substance	Form of application					Total
	Injection	Smoking	Oral	Inhalation	Other	
Heroin	58.7%	26.4%	4.7%	9.8%	0.3%	18,456
Methadone	2.5%	1.2%	95.3%	0.5%	0.6%	8,312
Buprenorphine	3.8%	2.6%	86.2%	5.8%	1.6%	1,716
Other opioids	12.0%	9.0%	72.6%	4.0%	2.4%	2,014
Cocaine	19.3%	21.2%	1.1%	57.5%	0.9%	9,822
Crack	7.2%	82.3%	1.6%	9.0%	0.0%	1,155
Amphetamines	1.2%	10.3%	36.0%	50.8%	1.7%	8,003

1) Multiple entries possible.

2) TDI-table 17.1 (exception: TDI does not differentiate between buprenorphine and other opiates).

Pfeiffer-Gerschel et al. 2010e.

The DSHS also contains some basic data on the therapy intensity. The average number of contacts during therapy was the highest for opiate clients amounting to 21.3 (2008: 20.7) and

the lowest for cannabis clients amounting to 10.0<sup>94</sup> (2008: 9.6). Women who receive counselling or treatment because of substance-related problems apart from sedatives/hypnotics, generally have more contacts than men with comparable main diagnoses (Table 5.5). The average treatment duration corresponds in its distribution to the contact figures. On average, opioid clients have the longest treatment duration and cannabis clients the shortest<sup>95</sup>. Women generally have shorter (or only slightly longer<sup>96</sup>) treatment durations in all substance categories than men despite of the higher contact figures. This is an indication of a higher treatment and counselling intensity in women.

Table 5.5 Number of contacts and treatment duration (DSHS outpatient data, 2009)

Main diagnosis	Number of contacts (m)			Duration of treatment (m) <sup>1)</sup>		
	Males	Females	Total	Males	Females	Total
Opioids	20.3	24.4	21.3	47.1	52.1	48.1
Cannabinoids	9.7	12.2	10.0	25.4	26.9	25.6
Sedatives/Hypnotics	17.0	15.3	16.0	35.1	31.8	33.2
Cocaine	13.5	15.8	13.9	31.6	32.6	31.5
Stimulants	13.2	13.7	13.3	35.1	32.9	34.6
Hallucinogenics	7.7	25.6	9.7	28.8	28.3	28.7
Volatile substances	8.7	15.8	11.5	21.3	23.6	22.3
Mult./other substances	17.7	18.8	17.9	36.9	31.5	35.0

1) in weeks.

Pfeiffer-Gerschel et al. 2010e.

### 5.4.2 Inpatient treatment

In general, inpatient treatment in Germany is carried out under drug-free conditions. Since documentation standards discriminate by type of funding and not by type of treatment, all inpatient treatments carried out for persons with main diagnoses F11-F16 or F18-F19 are presented in the following, discriminating between acute hospital treatment (statistical report on hospital diagnoses) and rehabilitation therapy (statistical report of the German Statutory Health Insurance Scheme). There is moreover data available from the DSHS which gives information on some of the specialized clinics and facilities based on the Core Data Set.

#### Diagnostic data

Out of the total of 38,618 inpatients with substance-related disorders documented by the Statistical Report on Treatment Centres for Substance Use Disorders (Deutschen

<sup>94</sup> The value is even lower in clients with primary problems in connection with hallucinogens; however, since the absolute case figure of the group is very small (n=61), no comparison was made here.

<sup>95</sup> Clients with disorders caused by the use of volatile solvents are not taken into account because of the low case figure (n=43).

<sup>96</sup> Exception: opioids.

Suchthilfestatistik, DSHS) in the year 2009, 7,599 were treated for illicit substances (including sedatives/hypnotics and volatile solvents) (Pfeiffer-Gerschel et al. 2010d; Pfeiffer-Gerschel et al. 2010a). Among them were 6,063 males, this corresponds to a male portion of 79.8% (2008: 80.8%). In three quarter of the cases (74.6%), alcohol-related reasons were the primary reason for inpatient therapy (25,103 therapies; 2008: 19,752). Only completed treatments were recorded. In the inpatient setting too, the main diagnoses are based on the diagnostic categories of the international classification system of the WHO.

According to the data recorded within the framework of the DSHS, clients with a main diagnosis based on dependence on or harmful use of opioids (without main diagnosis alcohol) still represent the largest single group in the inpatient setting (40.0%; 2008: 44.0%)<sup>97</sup>. This portion has been on the decline since 2007 (48.6%). The second largest group is formed by clients with disorders caused by cannabis use (23.8%; 2008: 20.6%), whose portion has been continually increasing since 2007. Then follow patients with poly-drug use (14.9%; 2008: 12.5%). Their portion too, was found to increase over three years. Problems in connection with cocaine or stimulants were in 8.1% (2008: 8.9%) or respectively 9.0% (2008: 9.7%) of the cases the primary reason for treatment (Table 5.6).

Ahead of poly-drug use, cannabis-related disorders recorded in the DSHS have been the second common reason for therapy for three years. This is probably the expression of the increased importance of cannabis also in the inpatient setting of specialized clinics.

However, this distribution does not directly tally with data from rehabilitation and acute treatments where opioids and multiple substance use (that practically always correlates with the use of opioids) account for the large majority of the cases. In the acute setting (hospitals) about half of the drug cases (45.8%; 2007: 44.2%) were related to poly-drug use in 2008, in the statistics of the German Pension Insurance Fund (DRV) the figure even amounts to 57.5% (2007: 61.3%) of all cases in the same year. In both statistical reports however, this portion has been on a continual decline for several years. In the DSHS, the use of opioids is more often coded as the main reason for therapy<sup>98</sup>. According to the data on acute treatments (statistical report on hospital diagnoses) and the statistical data from the DRV, the shares of clients treated for cannabis use are on the decline (but still account for a significantly lower portion).

Among clients in inpatient treatment documented within the framework of the DSHS, cannabis continues to play a significantly minor role among women in comparison to men: only 15.4% (2008: 14.0%) of the women vs. 25.9% (2008: 22.2%) of the men have a cannabis diagnosis. Gender differences of this scale are to be found in the DSHS only for sedatives/hypnotics for which the ratio is reversed almost by the factor 1:5 and for cocaine,

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<sup>97</sup> The portions presented hereinafter were calculated on the basis of the values provided in the TDI-tables 14.1.1 (all patients treated) und 14.1.2 (all patients treated for the first time).

<sup>98</sup> This is partly due to the fact that the German Core Data Set, which forms the basis for the DSHS, (deliberately) provides a definition that deviates from ICD-10 for the classification of a F19 diagnosis, which leads to a lower portion of these diagnoses in the DSHS.

which is at a larger scale the main reason for therapy in men (8.9% vs. 5.2%; 2008: 10.0% vs. 4.0%).

Table 5.6 Inpatients with addiction diagnosis

Main diagnosis	Hospital	DRV	DSHS			
	2008	2008	2008	2009		
	Total	Total	Total <sup>1)</sup>	Total <sup>1)</sup>	M <sup>2)</sup>	F <sup>3)</sup>
Opioids	33.2%	22.4%	44.0%	40.0%	39.3%	42.5%
Cannabinoids	6.8%	10.7%	20.6%	23.8%	25.9%	15.4%
Sed./Hypnotics	10.0%	2.3%	3.8%	4.0%	2.2%	11.2%
Cocaine	1.5%	3.8%	8.9%	8.1%	8.9%	5.2%
Stimulants	2.0%	3.2%	9.9%	9.0%	9.0%	9.0%
Hallucinogenics	0.5%	0.1%	0.2%	0.1%	0.1%	0.1%
Vol. substances	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
Mult./other subst.	45.8%	57.5%	12.5%	14.9%	14.5%	16.5%
Total (N)	92,656	13,776	5,633	7,599	6,063	1,536

1) The data correspond with the TDI-table: 14.1.1.

2) The data correspond with the TDI-table: 12.1.1.

3) The data correspond with the TDI-table: 13.1.1.

DRV 2010; Pfeiffer-Gerschel et al. 2010d; Statistisches Bundesamt 2009a.

Intoxications caused by sedatives and hypnotics continue to be relatively common in acute treatment (Statistical Report on the Hospital Diagnoses). About one in ten addiction diagnoses in the hospital treatments is related to these substances. They play a rather minor role in rehabilitation treatments and in the DSHS (Table 5.6).

When comparing the data from the inpatient facilities participating in the DSHS to the statistics on the acute treatments carried out in hospitals and the measures paid for by the German National Statutory Pension Insurance, one gets the following picture: opioids continue to rank first among the illicit substances in all sources. If one adds the cases of multiple-substance use which, in most cases, probably involves a combination of opioid addiction and cocaine- and other drug-related addiction problems, the portion amounts to 50%-80% of the clients treated in the inpatient setting. An exception are here the cases reported within the framework of the DSHS (which shows a considerably higher portion of patients with primary cannabis-related problems). It is very likely that – apart from the treatment orientation of the participating facilities – also different coding habits can be held responsible for the differences found between the statistics.

### Socio-demographic information and treatment duration

In analogy with the presentation of the data for the clients in outpatient treatment, Table 5.7 summarizes some socio-demographic characteristics of the inpatient treatments documented within the framework of the DSHS for the main diagnostic groups. In comparison with the outpatients recorded within the framework of the DSHS (see Table 5.3), the opioid users

treated in the inpatient setting tend to be somewhat younger, cannabis users significantly older; differences between users of cocaine and stimulants tend to be minor. Indications that inpatients represent a different group of clients can be inferred from the fact that there are more unemployed and single persons among them – in comparison with outpatients. A comprehensive comparison of the two client groups would however require a careful comparative analysis of the consumption parameters which would for example give more information about the intensity of use and thus about the severity of the substance-related disorder.

Table 5.7 Socio-demographic data broken down by main drug (DSHS inpatient data, 2009)

Characteristics	Main diagnosis			
	Opioids	Cannabis	Cocaine	Stimulants
Years of age when starting treatment (m) <sup>1)</sup>	32.2	26.5	31.8	27.2
Year of age at first drug use (m) <sup>2)</sup>	20.4	15.1	20.5	17.8
Gender (ratio males) <sup>3)</sup>	78.5%	86.9%	87.1%	79.7%
Living alone <sup>4)</sup>	55.1%	64.4%	51.8%	59.3%
Working status <sup>5)</sup>				
<i>without work</i>	63.5%	58.1%	55.9%	60.3%
<i>in school/education</i>	1.4%	7.3%	2.2%	5.8%
Homeless <sup>6)</sup>	1.2%	0.9%	1.0%	0.6%

1) TDI-table 6.1.1 referring to all patients (without differentiation by main diagnoses)

2) TDI- table 23.1.1 referring to all patients (without differentiation by main diagnoses)

3) TDI- table: 12.1.1, 13.1.1 und 14.1.1 (for corresponding data)

4) TDI- table 7.1.1 referring to all patients (without differentiation by main diagnoses)

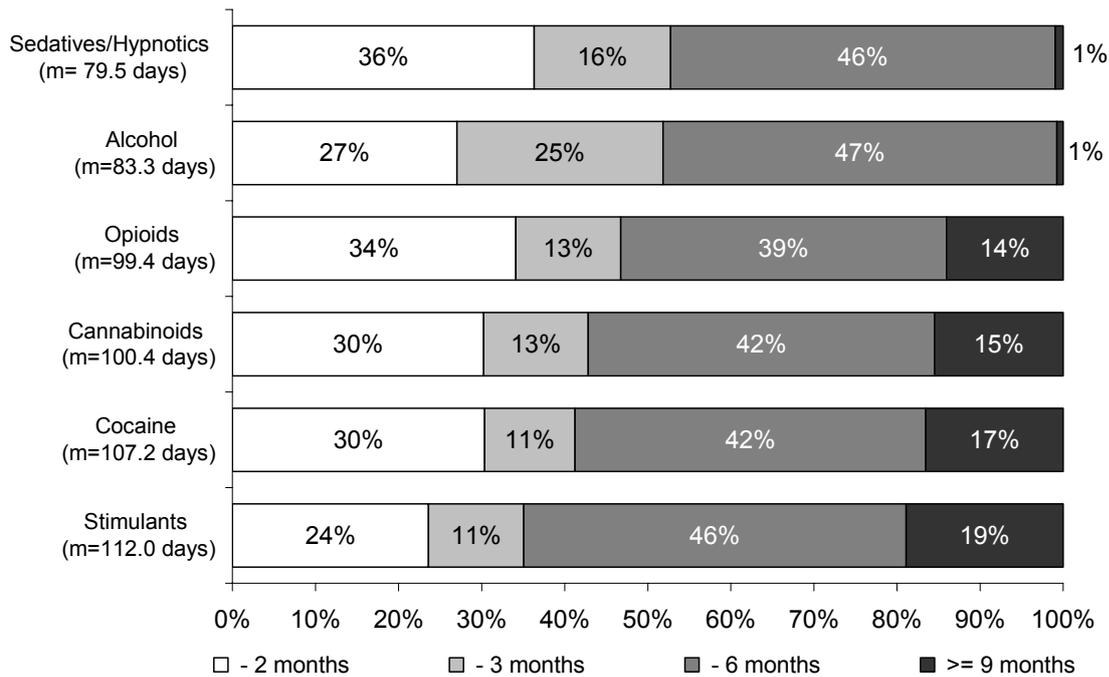
5) TDI- table 9.1.1 referring to all patients (without differentiation by main diagnoses); data entry on the day before the start of therapy

6) TDI-table 8.1.1 on the stability of the life situation (no directly corresponding data); data entry on the day before the start of therapy

Pfeiffer-Gerschel et al. 2010d.

The results from the DSHS show significant differences in the average treatment duration broken down by main diagnoses (Figure 5.1). In 2009, the average treatment duration for patients with primary disorders caused by the use of cannabis was 14.1 weeks (2008: 15.0), 16.0 weeks (2008: 15.8) for stimulants, 15.3 weeks (2008: 14.3) for cocaine, 14.2 weeks (2008: 13.7) for opioids and 11.4 weeks (2008: 12.3) for sedatives/hypnotics. The treatment duration for alcohol, given as a comparative value, is on average 11.9 weeks (2008: 12.1).

Some of the treatment durations diverge considerably. Striking is that with 14-16 weeks, the average treatment duration for disorders caused by illicit substances is on average at least two weeks longer than for alcohol and sedatives/hypnotics. This is primarily attributable to the clearly smaller portion of patients with treatment durations  $\geq 9$  months for alcohol and sedatives/hypnotics. While the average treatment duration for cannabis-related disorders has been on the decline for three years (similar to the decline in treatment duration for alcohol, which has not been that pronounced but continual), the other substance groups do not show a clear trend in the same period of time.



Pfeiffer-Gerschel et al. 2009d.

Figure 5.1 Duration of inpatient treatment broken down by substance use disorders (DSHS inpatient data, 2009)

## 5.5 Trends of clients in treatment

### 5.5.1 Developments in the outpatient and inpatient setting

All in all, disorders caused by the use of heroin continue to play a predominant role among the illicit drugs in outpatient and inpatient facilities. However, cannabis is in the first place of the treatment requests made by persons seeking outpatient therapy for the first time (first patients), whereas opioids are the reason for making contact with a treatment facility only in less than five users. Five years ago, this portion was still at about a third of the first patients. Among all the admissions to outpatient therapy, clients with disorders caused by the use of opioids still represent the largest individual population among the clients of illicit drugs, but their portion has been shrinking continually for several years. In the inpatient setting, too, (rehabilitation statistics by the RV, DSHS), cannabis users form the second largest patient group after the opioid users.

Inpatient treatment of cannabis disorders plays also an increasingly important role. This development is most clearly reflected by the DSHS data. Acute treatments for cannabis (statistical report on hospital diagnoses), by comparison, are still relatively seldom.

The total number of rehabilitation services funded by the Statutory Pension Insurance (DRV) in the addiction area increased from a total of 51,123 in 2003 by 10% to 55,963 (Figure 5.2). The largest part of the services (70.0%) is provided for alcohol-related disorders; disorders caused by the use of illicit drugs and multiple drug use account together for little less than 30% of the funded services (medical drugs: <1%). This share increased from 24.3% in 2003

by about 5%, this means that since 2004 the share of rehabilitation services funded by the Pension Insurance for the therapy of primary alcohol problems has continually been shrinking.

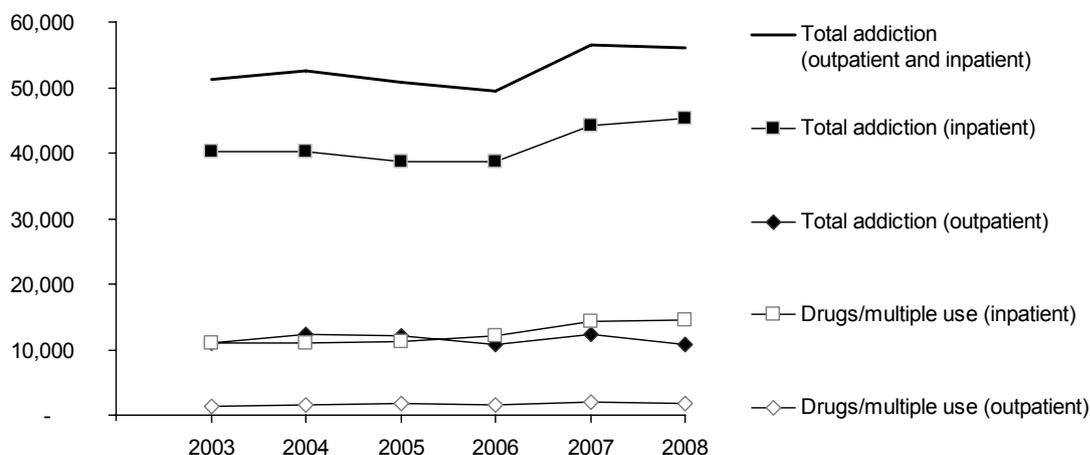


Figure 5.2 Changes in out- and inpatient rehabilitation therapies (statistical report of the DRV on rehabilitation, 2003-2008)

The ratio between inpatient and outpatient treatments is about 4:1 (across all services provided). This ratio slightly shifted between 2003 and 2008 (especially since 2005) in favour of the inpatient treatments (from 3.7:1 to 4.2:1). Looking only at the rehabilitation services funded for drugs and multiple use, one finds that the ratio between inpatient and outpatient treatment has, with 8:1, even more markedly shifted towards the inpatient treatments. However, the share of the rehabilitation services funded in the outpatient setting for drug-related problems (or multiple use) has been on the rise for several years. This is an indication that outpatient rehabilitation offers that are meanwhile firmly established for alcohol, are used and continually expanded also in the drug area (at a much smaller scale though).

The analysis of the case figures for rehabilitation therapies (RV) gives a varied picture for the total of drug patients. The number of inpatient therapies carried out for patients with drug and multiple substance use continually increased since 2004. This development is possibly attributable to the number of therapies carried out for patients with multiple substance use (Table 5.8). The number of outpatient rehabilitation therapies provided for patients with drug or multiple substance use significantly increased in comparison with 2003. However, this trend was not continuous over all the years. Between 2007 and 2008, there was a slight decrease to be observed in the number of outpatient measures. The shift towards outpatient therapy in the drug area that was to be observed for several years did not continue in the reporting year. Outpatient therapies accounted for 11.3% of the patients treated for drug or multiple substance use in 2008. This corresponds to the comparative value of 2003 (11.1%). In 2005, this portion was up at 13%. The most pronounced increase rates for rehabilitation treatments were found for treatments carried out for multiple substance use in the inpatient setting (continuous increase since 2005).

Table 5.8 Rehabilitation treatments

Main diagnosis	Inpatient				Outpatient			
	2006	2007	2008	Δ'07/'08	2006	2007	2008	Δ'07/'08
Alcohol	26,416	29,492	30,328	2.8%	9,145	10,326	8,865	-14.1%
Drugs	8,458	9,746	9,664	-0.8%	1,124	1,274	1,216	-4.6%
Pharmaceutics	297	313	305	-2.6%	67	57	44	-22.8%
Multiple use	3,541	4,518	4,894	8.3%	478	667	647	-3.0%
Total addiction	38,712	44,069	45,191	2.5%	10,814	12,324	10,772	-12.6%

DRV 2007; DRV 2010; DRV 2008.

So far, the available statistics do not show the treatments carried out in day hospital care in a discriminating manner. The attempt to take a differentiated look at the statistical data could contribute to going deeper in the analysis of changes in the reporting years to come.

The overall figure of the acute addiction or respectively drug treatments increased again between 2007 and 2008 (statistical report on the hospital diagnoses). Increases were found for the number of treatments for intoxications with stimulants (+11.7%), cannabinoids (+8.8%) and cocaine (+6.8%). The number of treatments for opioids slightly declined for the first time since 2003 (-2.7%) (Table 5.9). However, the (very large) number of acute treatments for poly drug use (which very often includes use of opioids) increased for the first time since 2005 in the reporting year 2008 (+6.7%), which considerably relativates the decline in the use of opioids alone.

It needs to be added qualifyingly that the case figures for all illicit substances (with the exception of opioids, cannabinoids and sedatives/hypnotics) are significantly smaller in comparison with alcohol and multiple substance use, which can lead very quickly to sizeable changes in percentages.

Table 5.9 Inpatient treatment of drug problems in hospitals 2005-2008

Main diagnosis	Year				Changes
	2005	2006	2007	2008	2008 vs. 2007
Alcohol	299,428	298,955	316,119	333,804	+5.6%
Opioids	28,476	29,472	31,638	30,776	-2.7%
Cannabinoids	5,789	5,932	5,790	6,297	+8.8%
Sedatives/Hypnotics	8,667	8,661	9,091	9,294	+2.2%
Cocaine	1,210	1,336	1,300	1,388	+6.8%
Stimulants	1,226	1,424	1,672	1,868	+11.7%
Hallucinogenics	518	471	532	482	-9.4%
Tobacco	278	234	236	281	+19.1%
Volatile substances	122	119	138	152	+10.1%
Multiple/other substances	42,479	40,492	39,727	42,399	+6.7%
Total addiction	388,193	387,096	406,243	426,741	+5.0%
Total drugs	88,487	87,907	89,888	92,656	+3.1%

Statistisches Bundesamt 2009a; Statistisches Bundesamt 2008.

### 5.5.2 Substitution treatment

The most recent census carried out by the substitution register permits to make inferences about the number of persons reached on a set day but not over the course of the year. The number of persons recorded on the census day of each calendar year (01.07.) increased continually since the inception of the register and increased significantly from 46,000 in the year 2002 to 74,600 in 2009 (BOPST 2010).

The as of yet insufficiently known long-term effects of OST are to be investigated by a three-year research study (see chapter 5.6 of the REITOX Report 2009 for a detailed description of the study) funded by the BMG. Results of the study<sup>99</sup> are expected for 2010.

According to the register kept by the Federal Centre for Drugs and Medical Devices, (Bundesinstitut fuer Arzneimittel und Medizinprodukte, BfArM) 7,233 (2008: 6,919) physicians were licensed to carry opioid substitution treatments in 2009. However, the actual number of medical practitioners with a respective additional qualification is presumably higher because some *Laender* have (at least temporarily) granted the qualification automatically to psychiatrists and psychotherapists without them being fully registered. From a care point of view however, is the fact that only 2,700 (2008: 2,673) physicians reported substitution treatments to the substitution register in 2009 is of much greater relevance (BOPST 2010). The number of physicians who actually do provide opioid substitution treatment stagnates since 2006 at a practically unchanged level. The results of the recently

<sup>99</sup> Study PREMOS (Long-term substitution of opioids dependents: predictors, moderators and outcome); <http://www.premos-studie.de/index.html>.

presented IMPROVE study<sup>100</sup> (Stoever 2010b), too, indicate that a considerable part of the qualified physicians does not offer OST.

In the year 2009, approximately 190 (2008: 220) double treatments could be discovered through the substitution register. The doctors in charge were informed by the register and the double treatments stopped. Looking at the relation between reported substitution patients and population figures in the individual *Laender*, the three city states Hamburg, Bremen and (at a considerable distance) Berlin are at the top of the list as expected. The lowest numbers of substituted patients per inhabitant are reported by the three eastern *Laender* Thuringia, Mecklenburg-Western Pomerania and Brandenburg. With regard to the Land Brandenburg, it is to be presumed that numerous users turn to the metropolis Berlin for substitution treatment. The number of registered patients per substitution doctor is also subject to considerable variations between the *Laender*. Whereas a substitution doctor in Hamburg treated on average 49.0 patients in 2009 (followed by Saarland with an average of 37.8 and Berlin with 32.2), the average in Brandenburg is only 7.4 (Mecklenburg –Western Pomerania: 11.9 and Thuringia: 13.3).

As regards OST, the share of substitution drugs used shifted significantly (in particular between 2002 and 2007) towards buprenorphine, which was used in approximately one in five opioid substitution treatments carried out in 2009. The share of opioid substitution treatments carried out with buprenorphine has stagnated since 2007 (Table 5.10).

Table 5.10 Type and portion of the substitution drugs reported to the substitution register (2002-2009)

Substitution drug	2002	2003	2004	2005	2006	2007	2008	2009
Methadone	72.1%	70.9%	68.3%	66.2%	64.1%	61.4%	59.7%	58.9%
Levomethadone	16.2%	14.8%	15.0%	15.8%	17.2%	19.0%	20.6%	21.8%
Buprenorphine	9.7%	12.9%	15.6%	17.2%	18.0%	18.6%	18.9%	18.6%
Dihydrocodeine	1.7%	1.2%	0.9%	0.7%	0.6%	0.5%	0.4%	0.3%
Codeine	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
Diamorphine						0.4%	0.3%	0.3%

BOPST 2010.

Generally, access to OST is differentiated regionally, particularly in rural regions in the east of Germany. Only 2.9% (N=2.195; 2008: 2,9%; N=2.562) of the registered substitution patients (cut off date: 01.10.2009) and 4.8% (N=130; 2008: 4.2%, N=111) of the substituting doctors are from the eastern *Laender* (without Berlin) (BOPST 2010). The IMPROVE-study (see above; Stoever 2010b), too, reports that the interviewed patients rate the current availability of OST especially outside of larger cities as insufficient. An alternative explanation would be that the number of opioid users in rural areas is lower than in conurbations.

<sup>100</sup> The results of the IMPROVE study are based on telephone interviews conducted with physicians qualified in addiction medicine and on questionnaires that were distributed to patients and users. All in all, 200 patients in substitution treatment, 200 opioid users in drug counselling facilities and 152 physicians were surveyed.

Apart from the above-mentioned regional differences in the availability, misuse and unauthorized distribution of medical drugs also form part of the undesired side effects of substitution treatment that were also mentioned by the physicians interviewed within the framework of the IMPROVE-study (Stoever 2010b). Among the various misuse patterns one also finds non-desired intravenous administration of substitution drugs which occurs time and again especially in patients with double diagnoses (psychological disorder in combination with substance-related disorder) but which seldom receives sufficient attention, or respectively, which is not always reported by the patients (see on this also e.g. Heß et al. 2009). In literature, also cases of injecting use of methadone are repeatedly reported. They are linked with all risks of injecting use like for example illnesses caused by injecting use or the formation of abscesses.

In a current review on the importance and role of psychosocial care in the OST of opioids dependents, Stoever and Gerlach (2010) point again to the fact that there is no differentiated research work available in Germany that could provide important planning parameters for the design, time and duration of psychosocial care. Degkwitz (2009) recently noted again that the findings of the studies on evidence-based psychosocial care that were for a large part conducted in the USA, cannot be generalized.

On 19 February 2010, the Board of the German Medical Association passed a revised version of the "Guidelines of the German Medical Association on the performance of substitution therapy of opioid dependents". (BAEK 2010; Deutsches Aerzteblatt 2010b; see also chapters 1.2.2 and 11). The revision of the guidelines passed in 2001 had become necessary as a result of changes made to the legal framework, especially the 23<sup>rd</sup> Amending Regulation on Narcotic Law and the Law on Diamorphine-based Substitution Treatment. The new guidelines stipulate that substitution treatment of opioids dependents can, in addition to gradual rehabilitation, also be used for treating serious concomitant diseases or risks occurring during pregnancy and after birth. The guidelines moreover concretize type and scope of psychosocial care noting that the provision and integration of measures suitable to eliminate psychosocial problems is mandatory for the treatment of opioid addiction. The guidelines furthermore account the specifications of the 23<sup>rd</sup> Amending Regulation on Narcotic Law and the Law on Diamorphine-based Substitution Treatment and underline the necessity of coordinating psychosocial care and medical care. The revised version of the guidelines replaces the formalized time schedules by new provisions which are oriented by the individual therapy course and which strengthen the freedom of decision of the treating doctor. This applies both to the doctor-patient contacts and the administration checks and take-home agreements. Moreover, advisory commissions that closely cooperate with the quality assurance commissions of the statutory health insurance associations are to strengthen the role of the German Medical Association in the quality assurance of substitution in the future.

Huesgen (2009) points to the fact that the continuation of substitution treatment within the framework of medical rehabilitation is until now only temporarily permitted. For this reason only very little use is made of medical rehabilitation by patients in substitution treatment in

comparison with substitution-based treatment at the costs of the medical health insurance and the potential of substitution treatment is not fully used. According to the authors, substitution treatment tends to be generally critically viewed by social insurance schemes. For example, the costs of regular psychotherapy are currently not borne by the health insurers if substitution treatment is maintained.

### **Psychotherapy in addiction**

In a study on psychotherapeutic models and treatment forms for psychological disorders, Caspar and Grosse-Holtforth (2010) conclude that it is essential in the psychotherapeutic care of substance-dependent patients to clarify the preconditions for undergoing regular psychotherapy. According to the authors, it could be that in specific individual cases and certain phases of a disorder, a solely disorder-related approach might be adequate and effective. In practical work however, a strictly manualized and disorder-specific procedure does not meet the requirements of the majority of the patients. The authors are of the opinion that important factors like comorbidity but also motivation and resources of the patients are insufficiently taken account of or respectively used.

The problems linked to undergoing regular psychotherapy while maintaining OST have already been mentioned above. The costs of regular psychotherapy are not borne by the health insurers if substitution treatment is maintained (Huesgen 2009).

In an review on the historic development and evidence-based variants of systemic therapy for substance use disorders, Schindler and colleagues (2010) arrive at the conclusion that the multitude of therapeutic concepts of systemic therapy for the treatment of substance use disorders in the German addiction aid systems are still insufficiently made use of. According to the authors, systemic therapy combined with methadone maintenance treatment, is demonstrably more effective than methadone substitution alone. Von Sydow and colleagues (2010) found in another review that systemic therapy for substance use disorders in adolescence is the worldwide best evaluated procedure.

### **Study on the controlled use of illicit substances**

While the large majority of help offers for drug users are still abstinence-oriented, Koerkel and Verthein (2010) report in a review about various use reduction programmes that are based on a self-management approach aiming at learning self-control or respectively reducing excessive or, as the case might be, problematic substance use to self-defined levels. First results of studies conducted on self-management programmes show positive effects with regard to substance use reduction. According to the authors, from this the need arises for treatment facilities to hold adequate offers for use reduction for clients who are not willing or able to abstain from heroin or cocaine in readiness.

In this context, a first report on the follow-up results of the study "Self-controlled substance use" (Kontrolle im selbstbestimmten Substanzkonsum, KISS) were presented by Verthein in 2009. The programme KISS is mainly addressed to users of illicit substances who want to

reduce their substance use<sup>101</sup>. Though positive changes in the use pattern were found, they were not very pronounced. However, the improvement of the subjective perception of the general condition and the psychological symptoms in the course of the programme outshine the outcome with regard to the change in the use patterns. Here, the differences between completers and drop-outs become particularly apparent. The first generally profit more from the intervention. Though not being very pronounced, the minor improvements in the use patterns largely persisted in the catamnestic period of 6 and 12 months (Verthein 2010). The found improvement of the psychological condition, too, stabilized in the long-term. Striking was the long-term enhancement of social and recreational activities among the participants.

### **Demonstration project on diamorphine-assisted substitution treatment – results of subgroup analyses**

Haasen and colleagues (2010) conducted a controlled study to investigate the effect of heroin-assisted treatment on the alcohol use of the patients. Based on the data of the German demonstration project on the diamorphine-assisted OST (cf. also the last REITOX reports), the study found a significant decrease in alcohol use in the group of the patients treated with diamorphine but not in the control group treated with methadone. The authors think it possible that the reduction of alcohol use was related to the higher frequency of diamorphine administration and the sobriety requested from the patients at each administration.

### **New instruments**

Buchholz and colleagues (2010) recently published a study on the reliability, validity and applicability of the German version of the instrument “Measurements in the Addictions for Triage and Evaluation (MATE)“. MATE is an interview that serves to record relevant criteria for treatment assignments and evaluation in the field of addiction. According to the results of this pilot study, MATE is a largely variable, but valid and applicable alternative to other data collection instruments in the field of addiction. Because of the small interrater reliability of the half standardized parts of MATE, the authors recommend an intensive training.

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<sup>101</sup> Two facilities in Hamburg participated in the scientific evaluation of the KISS groups. The study started in 2007. The data collection period of the current KISS-group ran until January 2009. In the period under review, N=39 clients took part in the KISS groups, out of whom half completed the KISS programme. Apart from a randomized study conducted in Frankfurt, whose results are not available yet, the present survey provides the first scientific findings on the effects of the KISS programme.

## 6 Health correlates and consequences

### 6.1 Introduction

Drug use has an influence on morbidity and mortality of the users. Data on drug-related fatalities are collected by two countrywide systems: The Drugs Data File (Falldatei Rauschgift, FDR) kept by the Federal Criminal Police Office (Bundeskriminalamt, BKA) and the General Mortality Registry of the Federal Statistics Office (Statistisches Bundesamt). There are hardly any data available on the morbidity of untreated drug addicts which could be used for epidemiological purposes. That is why, alternatively, the descriptions of the health condition of the clients at the beginning of therapy are often used as an approximation. However, as these often represent a positive selection of the total of drug users, health aspects probably tend to get underestimated.

### 6.2 Infectious diseases

According to the Infectious Diseases Control Law, effective as of 1 January 2001, data on infectious diseases, including HIV and viral hepatitis, are to be reported to the Robert Koch Institute (RKI). These data are published in regular intervals<sup>102</sup>. According to the German Regulation on Laboratory Reports and the Infectious Diseases Control Law (Infektionsschutzgesetz, IfSG) introduced in 2001, all laboratories in Germany are obliged to report confirmed HIV-antibody tests anonymously and directly to the AIDS-Centre of the Robert-Koch-Institute. These laboratory reports contain information on age, gender, place of residence of the infected individuals and routes of transmission. These data are complemented by supplementary anonymous reports of the doctors in charge, by limited clinical data and HIV-related laboratory parameters.

In addition, the AIDS-Case-Register anonymously collects epidemiological data on diagnosed AIDS-cases which are voluntarily reported by doctors in charge of the treatments. Thanks to a change in the collection of data on new HIV-diagnoses, it is now easier to avoid (formerly unrecognized) multiple data entries.

With the introduction of the Infectious Diseases Control Law in 2001, data on possible routes of transmission of hepatitis B and C (HBV and HCV) are also collected. This is done by the health authorities which investigate the case persons themselves or by the laboratories and general practitioners who pass on the information.

The updated data are published yearly by the Robert Koch Institute in Berlin in the "Yearbook – Infection epidemiology of notifiable infectious diseases" (Infektionsepidemiologisches Jahrbuch meldepflichtiger Krankheiten) (RKI 2010e) or respectively in the Epidemiological Bulletin of the RKI (RKI 2010c)

Since 2007, the German statistical report on treatment centres for substance use disorders records also data on the HBV- and HCV-status of patients in addition to the HIV-status.

<sup>102</sup> [www.rki.de](http://www.rki.de)

Since the number of facilities which report these data is very small and only patients with test results are recorded, these data require cautious interpretation.

### 6.2.1 Drug-induced deaths

#### Drugs Data File

In general, drug-induced fatalities are recorded by the Land Criminal Police Offices in the individual *Laender*. The BKA has access to the database and is responsible for data quality management and data collection. Data collection modalities and the bases for the assessment of drug-induced fatalities differ between the individual *Laender*. The portion of autopsied drug-induced deaths as a measurement for the quality of the assignment of drug-related fatalities varies (in some cases considerably) between the *Laender*. Toxicological reports on body fluids and tissue play an important role in determining the cause of death providing clarifying information on the drug status at the time of death. Reports on autopsies and toxicological reports are generally written by different institutions. Since especially toxicological reports are often made available with considerable delay, they are not sufficiently taken into account in the classification of drug-related fatalities.

In order to facilitate the recording of drug-induced deaths and reduce mistakes, the following categories for drug-related fatalities were defined in a leaflet by the Federal Criminal Police Office (BKA 1999):

- drug-induced deaths caused by unintended overdose,
- death as a result of health damage (physical decline, HIV or hepatitis C, weakness of organs) caused by long-term drug abuse (= long-term health damage),
- suicide out of despair over living conditions or under the influence of withdrawal symptoms (e.g. delusions, strong physical pain, depressive mood),
- fatal accidents under the influence of drugs.

#### General Mortality Registry<sup>103</sup>

In Germany, a death certificate is written out for every case of death, complete with personal data and information on the cause of death. The death certificate is passed on to the health office and then to the Land Statistics Office. Aggregation and evaluation at national level is done by the Federal Statistics Office. Often, this data source doesn't take account of the results of delayed toxicological reports in the classification of the drug-related deaths either.

Only cases that correspond to the definition of "direct causality" are selected from the General Mortality Registry to be reported to the EMCDDA. The goal is here to record death cases within the framework of a sensitive data collection as shortly as possible after the use of opioids, cocaine, amphetamine (derivates), hallucinogens and cannabinoids, i.e. in

<sup>103</sup> The usage of the term "General Mortality Registry" is oriented to the terminology of the EMCDDA. The data reported hereinafter is from the "Statistical report on the causes of death" ("Todesursachenstatistik") of the Federal Statistics Office.

particular after fatal intoxications. The selection is based on the specifications of EMCDDA (the so-called ICD-10 Code Selection B). As a basis for the assignment to the group of drug-induced fatalities, the assumed underlying disorder (ICD10-Codes F11-F19) or the assumed cause of death (ICD10-Codes X, T, and Y) in the case of accidents and suicides is used respectively. This means that long-term secondary diseases, accidents not directly caused by intoxications and suicides are not comprised by this definition although individual cases of this type may be included due to wrongly made out death certificates or coding errors. Especially in connection with the WHO coding guidelines, the F1x.x codes (“dependence” and “harmful use”, further psychological and behavioural disorders caused by psychotropic substances) contained in the ICD-10 code selection and valid until 2006 would have had specificity problems. The replacement of prioritized coding for “dependence” and “harmful use” by new coding guidelines for intoxications would indirectly reduce this problem. The data collected by the Federal Criminal Police Office, by contrast, explicitly set out long-term secondary diseases, suicides and accidents that have come to the knowledge of police. It is however not possible to completely isolate the registered cases of intoxication to achieve data comparability with the General Mortality Registry on the basis of the aggregated data recorded by the BKA due to the usage of not completely disjunct categories. Comparisons with other European countries should only be made on the basis of the General Mortality Registry, as this registry largely follows common standards. Due to the broader definition of the term ‘drug-induced death’, the data of the police register lead to higher estimates. The police register is of great importance for long-term comparisons of national trends but is less suitable for European-wide comparisons due to differences in the selection criteria and recorded age groups.

Neither of the two registers records the totality of drug-related fatalities. A certain number of relevant cases is not recognized, not reported or wrongly assigned – by either register. However, a long-term comparison of the two registers shows very similar developments and trends that can be seen as a kind of cross-validation of the two estimation procedures. An empirical analysis of the question as to whether the two systems record the same cases and in how far target groups overlap remains to be undertaken.

## **6.3 Drug-related infectious diseases**

### **6.3.1 HIV/AIDS and viral hepatitis**

The following figures and reports stem for the most part from the new HIV- and hepatitis C-diagnoses reported to the Robert Koch Institute in 2009 and the notifications of acute hepatitis B in Germany.

Moreover, first results of a national HIV-incidence study are reported hereunder. Data from other sources give additional insight into the problems of specific, often regional populations of drug users (e.g. consumption room users, clients of outpatient addiction aid facilities) affected by HIV and hepatitis.

Detailed data on the prevalence of hepatitis B and C and of HIV in drug users are contained in standard table 9. It needs to be noted here however, that there is a scarcity of recent and comprehensive epidemiological studies on the prevalence of hepatitis B and C and HIV as well as on determinants for the seropositivity among IDUs in Germany.

#### **HIV-data from population statistics (data reported to the RKI)**

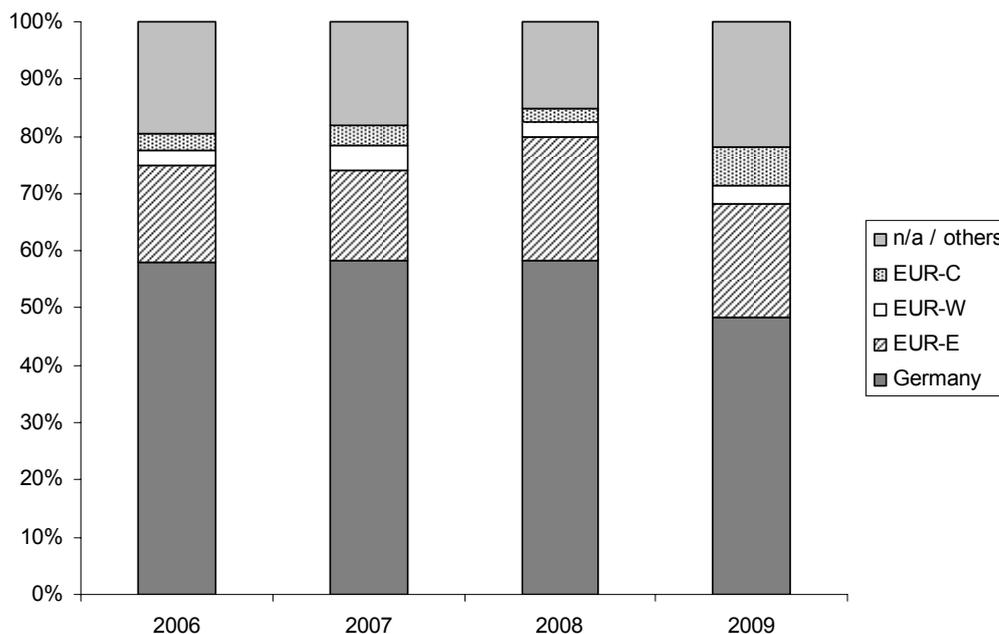
A total of 2,856 newly diagnosed HIV-infections were reported to the RKI for the year 2009 until 01.03.2010. This means that there was no significant change in the total number of new HIV-diagnoses in comparison with the year 2008 (N=2.843). The increase in new HIV-diagnoses observed in the years before, has considerably slowed down since 2007.

The number of newly diagnosed HIV-infections in injecting drug users declined by 20% (from 125 to 100).

Data on the routes of transmission was available for 86% of the newly diagnosed HIV-infections in the year 2009. The share of persons who probably contracted an HIV-infection through injecting drug use declined to 3.5%.

The number of new diagnoses in IDUs decreased again after the transient peak of 163 reported cases in the year 2006. 100 new HIV-infections were diagnosed in 2009, in total 25 less than in the previous year. Most of the new diagnoses (51 cases) were reported from North Rhine-Westphalia. Local experience with test offers made for drug users show that respective offers are made use of and that use in general is increasing. Substitution therapy should make better use of its optimal framework conditions – close contact with patients, long treatment duration - in order to offer serological tests for important diseases. It is essential to enhance the awareness of the relevance of obligatory testing of the HIV- and hepatitis status.

In most of the cases, HIV-infections in injecting drug users are diagnosed as sporadically occurring individual infections. Only few cities reported more than one HIV-infection in drug users in the year 2009. These cities were Dortmund (13), Duesseldorf (8), Frankfurt and Hamburg (4), Stuttgart, Hannover, Cologne (3), Berlin, Munich and Krefeld (2). Some of these cases are probably diagnosed at the medical exams upon admission to prison. Since the penal institution is recorded as the place of residence, there might be regional distortions. Most of the infections were reported as having been contracted in Germany. The most important foreign infection regions are Eastern Europe, where approximately 10% of the infections were contracted and Western Europe where approximately 5% of the infections were contracted. For approximately 20% of the drug users with an HIV-diagnosis, Eastern or Central Europe was recorded as the region of origin (Figure 6.1).



RKI 2010d.

Figure 6.1 WHO-regions of origin of drug users with first HIV-diagnosis, 2006-2009 (n=544)

### AIDS (AIDS case register of the RKI)

Between 01.01.2009 and 31.12.2009, a total of 489 cases of new AIDS infections were reported to the RKI. The infections reported are spread over several years. With this, the total number of persons with full blown AIDS has increased to 27,305 since the start of the epidemic. There are considerable divergences between regions to be found with regard to completeness of the reported AIDS-cases. In some regions, the number of reported AIDS cases clearly remains behind the HIV-associated deaths recorded by the mortality register<sup>104</sup>.

Among the new AIDS cases registered between 01.01.2007 and 31.12.2009, 82 % were males and 18 % females. With 55%, the ones in the male group engaging in sex with men hereby represented the largest group. For 20 % of the reported AIDS cases in men, there was no information available on the infection risk. With 11 %, infections contracted through heterosexual contacts were in second place among the known routes of infection, followed

<sup>104</sup> The reports of AIDS cases from Berlin, Hamburg and North Rhine-Westphalia were relatively complete. The number of reported cases from Schleswig-Holstein, Brandenburg, and Mecklenburg-Western Pomerania, too, largely correspond to the figures expected. Slight to significant underreporting is to be assumed from the number provided by the reports from Lower Saxony, Hesse and Rhineland Palatinate. Significant underreporting of AIDS cases is to be inferred from the figures reported from Bremen, Saxony Anhalt and Thuringia as well as from all southern *Laender* such as Bavaria, Baden-Wuerttemberg, Saarland, and Saxony – with a few local exceptions. Since 2007, an estimate of the total number (i.e. of the reported and unreported) of the AIDS cases occurred or to be expected is made for the current year as well as cumulatively since the start of the epidemic, which gives a clear picture of the extent of the structural reporting deficits. According to this estimate, the total number of AIDS cases is expected to be at 1,100 in 2009 and the cumulative figure at 36,500 since the start of the epidemic.

by drug use with 7% and origin from a country with a high HIV-prevalence in the general population (high-prevalence countries) with little less than 7%.

When looking at the females, one gets a totally different picture with regard to the risk distribution: 45 % of the AIDS cases in women were diagnosed in women coming from high-prevalence countries. Heterosexual contacts were given as the most probable risk of infection in 26% and injecting drug use in 13% of the female AIDS cases recorded in the last 36 months. For 16 % of the reported women affected by AIDS, no information was available on the route of transmission. These 16 % are distributed among injecting drug users and women who contracted the infection through heterosexual contacts, though the split between the two is unknown.

### **Preliminary results of the national HIV-incidence study of the RKI**

Since 01.03.2008, a national study is conducted in Germany with the goal to assess the portion of the recently contracted HIV-infections (within the previous 5 months) among the new HIV diagnoses. The study is running till the end of 2010, first preliminary results have already been made available for the period from 01.03.2008 to 28.02.2009 (RKI 2010d; Zimmermann et al. 2010).

The following results stem from the analysis of 1,512 samples of confirmed first diagnoses reported between 01.03.2008 and 28.02.2009. These samples are to a large extent representative for all new HIV diagnoses made in Germany. The portion of recently acquired (incident) HIV infections was 37% (26/70) in the group of injecting drug users, and thus is comparatively high.

Among the injecting drug users, the portion of incident HIV-infections was found to be very high with 53% (9/17) among the younger persons (18-29 years), 30% (14/46) among the 30- to 44-year olds and 50% (3/6) in the above 44-year olds. With this, the shares of HIV-infections contracted shortly before the date of the diagnosis, are significantly larger in younger and older injecting drug users than in other transmission groups.

### **HIV-data from other sources**

Hamburg reported data on the HIV-prevalence among patients of outpatient treatment facilities for substance disorders. HIV-prevalence among opioid clients treated by outpatient facilities was at 5.6%; among women it was somewhat higher (6,3%) than among men (5,3%). In comparison with previous years, HIV-prevalence remained stable (Martens et al. 2009).

In the Frankfurt documentation on consumption rooms (Simmedinger & Vogt 2009) 4.9% of the users of the consumption rooms reported in 2008 to be infected with the HIV-virus (males 4.3%, females 8.0%). With 2.3%, the HIV-infection quota among the new clients was significantly lower than among the medium- or long-term clients with 6.1%.

In the “Scene Survey in Germany 2008” (Thane et al. 2009) conducted in 16 drug consumption rooms in 13 cities, 4.8% of the respondents stated that they were infected with HIV.

The DSHS, too, records data on the HIV-infection status of the treated patients (Pfeiffer-Gerschel et al. 2010e). The prevalence among the tested opioid clients in outpatient facilities was 4.1% (N=215), among the patients with illicit substance use 3.3% (N=252).

### **Hepatitis B – data from the population statistics (data reported to the RKI)**

In the year 2009, a total of 1,692 cases of acute hepatitis B – 8.6% less than in 2008 – were notified (1,852; data status: 2010-03-01). Out of these, 748 cases (44%) were in line with the reference definition<sup>105</sup>. Among those, three had died of hepatitis B or secondary diseases.

The incidence in Germany was at 0.9 infections per 100,000 inhabitants. There was no seasonal variation found over the course of time.

Since 2001, a downward trend in the reported hepatitis-B infections or respectively in the yearly incidence is to be observed. This may primarily be attributable to an improved immunization protection in the population and to improved data quality – in particular the exclusion of chronic infections.

In 625 (83.6 %) of the reported cases, data (defined as at least one »yes«- or »no«-answer) was available on possible expositions before the diagnosis was made. Multiple entries were possible. The relevance of the reported expositions for establishing causal connections is however questionable. With 259 cases (41.4%), sexual contacts were the most frequently reported expositions. Injecting drug use was reported in fifth place with 10 cases (1.6 %). Out of these 10 cases, 9 (90.0 %) were males (RKI 2010c; RKI 2010e).

### **Hepatitis B – data from other sources**

In 2009, data on the hepatitis-B-infection status of clients in outpatient treatment were collected for the third time within the framework of the DSHS (Pfeiffer-Gerschel et al. 2010e). According to the statistical report, the prevalence among the tested opioid clients was at 8.7% (n=418; 2008), and among the tested patients with illicit drug problems at 6.8% (n=473; 2008) and has thus slightly declined again in comparison with the previous years.

### **Hepatitis C – data from the population statistics (data reported to the RKI)**

In the year 2009, a total of 5,412 cases of newly diagnosed hepatitis C were reported (data status: 2010-03-01). Among these, six cases had died of hepatitis C or secondary diseases. The nationwide incidence amounts to 6.6 new diagnoses per 100,000 inhabitants and thus has further declined.

For 3,938 cases (72.8%), data on previous expositions (at least one »yes«- or »no«-answer) was available. Intravenous drug use, which is, in all probability, in causal connection with

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<sup>105</sup> A total of 944 notified cases did not correspond to the reference definition because either the clinical symptoms of an acute hepatitis were not fulfilled (81.5 %) or no information was available (18.5 %).

hepatitis C, was the most frequently reported exposition with 1,342 cases (34.1% of the cases with recorded exposition). Among the 20- to 29-year old men, injecting drug use was mentioned 402 times (71.7% of the men of this age group with recorded exposition).

The interpretation of the given expositions generally requires great caution since individual expositions could be the expression of other risks, which means that causal connections between exposition and hepatitis C infection cannot be automatically assumed (RKI 2010c; RKI 2010e).

### **Hepatitis C – data from other sources**

Data on the hepatitis-C-infection status of clients of outpatient addiction facilities were also collected in 2009 within the framework of the DSHS (Pfeiffer-Gerschel et al. 2010e). According to the DSHS, the prevalence in the tested opioid clients was at 51,8% (N=3,866; 2008: 54.8%), in the tested clients with any other illicit drug problems at 40.6% (N=3,230; 2008: 43.8%) and has thus slightly declined again in comparison with the previous years.

In the “Scene survey for Germany 2008“ (Thane et al. 2009) conducted by the Institute for Interdisciplinary Addiction and Drug Research (Institut fuer interdisziplinäre Sucht- und Drogenforschung, ISD) with 791 regular consumption room users in Germany, the infection rate for HCV reported by the respondents was at 53.4%. 11.2% of those who had or had had an HCV infection (N=465), were undergoing HCV treatment at the time, 21.5% had completed or dropped out of such treatment. The values reported are based on the self-reports of the consumption room users. The unreported figures though, are presumably much higher since the infection status may not be known or underestimated or a test result may already be outdated.

The Hamburg base documentation of the outpatient addiction help facilities (BADO) 2008 continues to view infection with hepatitis C as a central health problem: almost one in two opioid user is infected (47%). It was however possible to bring down the hepatitis C infection rate further in comparison with the previous years (2006: 53%, 2007: 49%) (Martens et al. 2009).

## **6.3.2 Sexually transmissible diseases, tuberculosis and other infectious morbidity**

### **Cutaneous anthrax in injecting drug users**

After the death of a heroin user in connection with anthrax in the region of Aachen in December 2009, another heroin user took ill in the middle of March 2010. The two persons presented themselves to the emergency ward of a hospital with the clinical symptoms of a deep vein thrombosis in one leg or respectively an abscess in the region of an injection site. In the course of the disease, a strong swelling in the extremity showed and led to a compartment syndrome. The diagnosis was microbiologically verified. It is presumed that both cases contracted the infection through contaminated heroin. A direct connection between the two cases is not known (RKI 2010a; RKI 2010b).

From Scotland and England, more than 50 cases of anthrax in heroin users have been made known since December 2009<sup>106</sup>.

Comparisons between the strains of bacillus anthracis isolates of the deceased case from Aachen and Scottish cases present identical sequences for the analysed gene loci. It can therefore not be excluded that there are identical strains involved in all the analysed cases, which points to a common source of the heroin or respectively of the contamination. The occurrence of another case suggests that contaminated heroin was circulating again in Germany (Bernard et al. 2010; Radun et al. 2010)<sup>107</sup>.

There is not current data available on other infectious diseases contracted by drug users.

### **6.3.3 Behavioural data**

Within the framework of the national survey conducted among consumption room users mentioned in chapter 6.2.1 (Thane et al. 2009), data was also collected on the risk behaviour of the users. Sharing needles or respectively needle utensils is very common in this scene. 45.5% of the respondents reported multiple use of syringes in the previous 30 days, 13.8% shared needles and/or utensils, 9.8% shared drugs from another syringe. 60.2% of the crack smokers shared a crack pipe with other users. When comparing the cities, one finds large differences with regard to the risk behaviour. A comparison between the two cities Frankfurt and Hamburg, both with high crack use, shows that pipe sharing is more common in Frankfurt than in Hamburg. Contrary to Hamburg, use of crack is not possible in the Frankfurt consumption room La Strada. The worse safer use behaviour of the interviewees in Frankfurt may be explained by the inevitably poor information of the users on risks linked to shared use of crack pipes, since crack use takes place more frequently outside drug aid facilities and it is more difficult for facility staff to provide safer use tips in the field.

## **6.4 Other drug-related health correlates and consequences**

### **6.4.1 Non-fatal overdoses and drug-related emergencies**

In a cohort study conducted by Backmund and colleagues (2009), 1,049 opioid users treated in an emergency ward were interviewed upon admission to a withdrawal treatment about former overdoses. It showed that more than one in three drug users (34.7%) had already been treated in an emergency unit for overdose. Suicide attempts, no partnership with another drug user as well as daily use of barbiturates and cannabis appeared as independent risk factors in this context. The authors conclude that risk of multiple substance use should be taken into account in drug users who are treated for overdose in an

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<sup>106</sup> [www.hps.scot.nhs.uk](http://www.hps.scot.nhs.uk) and <http://www.hpa.org.uk>.

<sup>107</sup> The infection occurs for example through injection or inhalation of heroin contaminated with anthrax germs or through contact with skin lesions or mucous membrane. Human to human transmission does practically not exist. The infection risk for the general population is very low. Anthrax is a notifiable infectious disease. Since the clinical symptoms do not necessarily allow to distinguish it from other skin or soft-tissue infections, doctors have been advised to think of anthrax at an early stage and perform the relevant microbiological diagnostics. As for other application forms with regard to heroin, doctors are advised to take account of other forms of manifestation of anthrax (e.g. sepsis, meningitis).

emergency unit. Besides, they advise to use the opportunity to ask about symptoms of depressions and suicidality and to offer further support.

There are furthermore some regional data from individual addiction aid facilities available on non-fatal overdoses and drug-related emergencies.

The three Berlin drug consumption rooms (one of them being a mobile drug consumption shelter) in 2008 together report about 46 drug-related emergencies with life-threatening overdoses in a total of 1,431 users who visited the facilities 23,616 times. As risk factors were identified in 24 cases preceding phases of abstinence, four times a very bad physical condition, four times polydrug use, two times the drug had been bought from an unknown dealer and in one case the user who overdosed had had irregular use in the previous weeks. In eleven cases no risk factors could be identified (Fixpunkt e.V. 2009c; Fixpunkt e.V. 2009d).

#### **6.4.2 Other topics of interest**

##### **Somatic and psychiatric comorbidity in opioid users**

The basic documentation kept by the Hamburg outpatient addiction aid system contains data on the physical and psychological health of the patients treated in 2008 (Martens et al. 2009):

21% of the treated opioid users are rated by the outpatient drug aid staff on a five-point scale as considerably or extremely affected by health issues. Among the cannabis clients, by contrast, only 9% are considerably or extremely affected, in the group of the cocaine clients 10%. The most commonly recorded health issues in opioid clients are sleeping disorders (52%), liver damage (27%) and respiratory diseases (20%). The most frequently mentioned problem mentioned in cannabis and cocaine clients are as well sleeping disorders (cannabis: 54%, cocaine: 46%). In addition, the teeth of 42% of the opioid clients are in an extremely bad condition or require treatment, as for cannabis and cocaine clients the percentage is respectively 24%.

As for the psychological distress affecting the clients, it shows that treating or counselling staff of the facilities rate between 26% (cannabis group) and 36% (opioid group) of the clients as considerably or extremely affected by psychological distress. The affected opioid clients suffer considerably or extremely from inner nervousity or unrest (23%), depressive moods (22%) and anxiety/phobias (16%). 32% have furthermore made at least one suicide attempt in their life. The cannabis and cocaine clients show a similar pattern of psychological disorders: the three psychological problem areas mentioned most frequently for both groups by treating staff are inner nervousity and unrest (cannabis: 19%, cocaine: 23%), depressive moods (cannabis: 17%, cocaine: 16%) as well as inflated self-assessment (cannabis: 14%, cocaine: 18%).

##### **Cannabis abuse and schizophrenia**

Cannabis abuse is regarded as a risk factor for developing schizophrenia and is also associated with alterations of the brain structure. Malchow et al. (2009) investigated in their

study whether first-episode schizophrenic patients with comorbid substance use present more brain structural alterations than patients without comorbid substance use<sup>108</sup>. It showed that patients with substance abuse (mainly cannabis) were significantly younger and more frequently male and that they had a lower socio-economic status. Apart from a smaller attention deficit and increased anxiety/depression, the patients with and without substance use did not differ in terms of psychopathology nor did the analyzed brain structures show a difference in the first-episode schizophrenic patients with and without cannabis use. To summarize, substance abuse did not significantly impact the brain structure and the early onset of the disease in comorbid patients could not be explained by brain morphological alterations.

## **6.5 Drug-related deaths and mortality in drug users**

### **6.5.1 Drug-induced deaths (overdose/poisoning)**

#### **Data from the special police register on drug-induced deaths**

The reliability of information on drug-induced deaths strongly depends on the question as to whether autopsies and toxicological examinations have been used to validate the initial classification as drug-induced death or not (cf. chapter 6.1). On average, the autopsy rate in the reporting year 2009 was at 66% (2008: 62%; 2007: 62%; 2006: 67%); some *Laender* however, diverged considerably from this value (BKA 2010a).

The overall figure of drug-related fatalities dropped in 2009 to the third lowest level of the previous 10 years. In total, 1,331 people died because of the use of illicit drugs, which corresponds to a decrease of eight percent compared to the previous year (1,449). With 930 cases, overdose of heroin (including use of heroin in combination with other drugs) remains the most common cause of death (70%; 2008: 66%; 2007: 65%; 2006: 65%). The portion of drug-related deaths in which substitution substances alone or in combination with other drugs were detected, was at 13% (2008: 12%; 2007: 14%; 2006: 16%; 2005: 25%); in 2002 this portion was still at 40%. Since 2006, the BKA statistics show the detected substitution substances broken down by methadone/polamidone and buprenorphine. According to the BKA data, the majority of death cases that were exclusively attributable to a substitution substance happened in connection with methadone/polamidone (N=41; 98%). Among the

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<sup>108</sup> To this purpose, two different random samples of first episode schizophrenic patients were psychopathologically characterized in a prospective design and examined according to a standardized MRI protocol with volumetric measurement of certain brain areas like for example of the gyrus temporalis superior and hippocampus.

130 death cases, in which substitution drugs in combination with other drugs were found, there were also four cases in which buprenorphine was detected<sup>109</sup>.

Table 6.1 Drug-related deaths 2004-2009 broken down by substances

Death causes	Percentage out of total N <sup>1)</sup>						Figure <sup>1)</sup>
	2004	2005	2006	2007	2008	2009	2009
1. Overdose of:							
Heroin	34	40	38	39	42	43	571
Heroin + other drugs	22	23	27	26	24	27	359
Cocaine	2	2	2	1	1	1	14
Cocaine + other drugs	10	9	9	10	7	8	100
Amphetamines	0	1	<1	<1	1	1	13
Amphetamines + other drugs	2	2	3	2	3	2	31
Ecstasy	0	0	<1	<1	<1	<1	3
Ecstasy + other drugs	1	0	1	1	1	<1	5
Pharmaceutics/substitution drugs <sup>2)</sup>	3	6	5	4	3	3	42
- thereof: Methadone/Polamidone				3	3	3	41
- thereof: Subutex (Buprenorphine)				--	<1	<1	1
Substitution drugs + other drugs <sup>3)</sup>			12	9	9	10	130
- thereof: Methadone/Polamidone				8	8	9	126
- thereof: Subutex (Buprenorphine)				<1	<1	<1	4
Other drugs + alcohol + substitution drugs <sup>4)</sup>	22	19					
Other narcotic drugs/unknown	10	10	8	10	10	13	168
2. Suicide <sup>1)</sup>	7	8	6	6	6	4	49
3. Long term damage	12	12	11	12	17	20	265
4. Accident/other	2	2	13	12	11	8	110
5. Total (N)	1,385	1,326	1,296	1,394	1,449		1,331

1) Due to multiple entries in the categories "overdose" (different types of drugs) and "suicide", the sum of the recorded causes of death is higher than the overall number of drug-induced deaths.

2) Since 2006: substitution substance.

3) Since 2006.

4) Does not exist anymore since 2006.

BKA 2010a.

<sup>109</sup> Since the data collected by the Land Offices of Criminal Investigation for the national statistical report may contain multiple entries of the same case, it could for example be that a death case is coded both as a suicide and cocaine overdose. The sum of all overdose cases entered is already higher than the overall figure of death cases. This means that double entries are also contained in this category. Therefore, it is only possible to add up categories that do not contain any overlapping data. This is for example the case for the categories "overdose of heroin (alone)" and "overdose of heroin and other drugs". The figure of death cases caused by overdose can therefore not be calculated, but only estimated as an approximate value (cf. Table 6.1).

The number of death cases in which substitution substances played a role is still low, which can be attributed to the good qualification of treating staff and the reliability of quality assurance measures taken. Generally, it is however to be assumed that in the presentation of the involvement of substances in the recorded deaths, the number of mixed intoxications (combination categories) but also the involvement of substitution substances is underestimated due to frequently missing exact toxicological data on a death case.

### **Methodological aspects of the collection of data on drug-related mortality**

In a study published in April 2010, Zwingenberger and colleagues (2010) present their analysis of drug-related deaths that occurred in East Germany (Saxony, Thuringia, Brandenburg, Mecklenburg-Western Pomerania and Saxony-Anhalt) in the period between 1995 to 2004<sup>110</sup>. The analysis showed that only a little more than half of the drug-related deaths identified by the forensic institutes were registered by the *Land* criminal police offices. In Thuringia, 70% of the cases were recorded by the LKA, in Mecklenburg-Western Pomerania only little more than a third, in the other three new *Laender* the quota ranged between 50% and 60%. According to the authors, one reason for these large divergences among the individual data sources could be the use of different methodology in recording and registering drug-related deaths.

### **Data from the general mortality register**

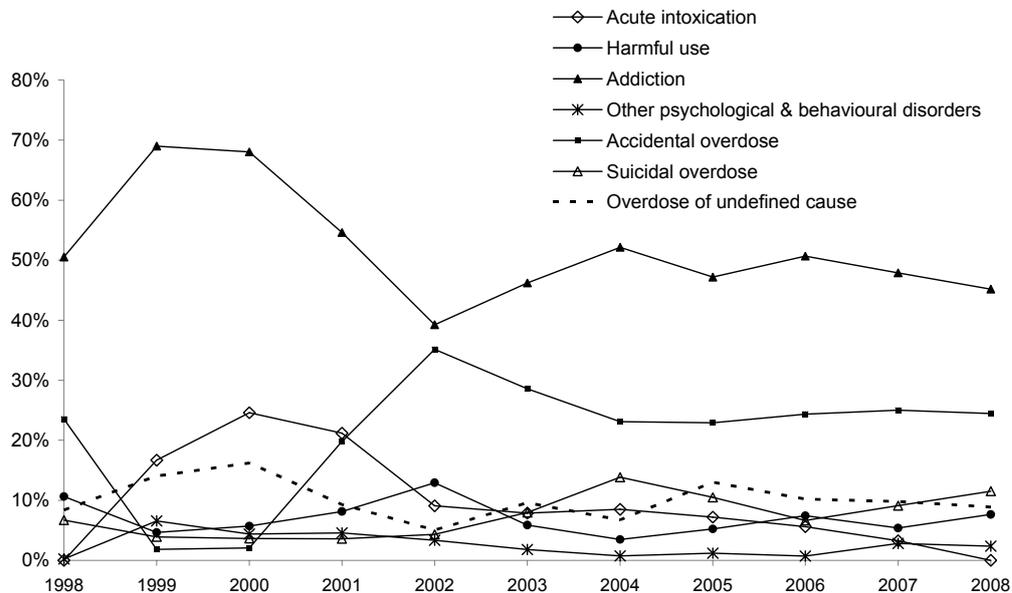
The most recent data on drug-related deaths recorded by the general mortality registry are from the year 2008. In that year, data on 1,326 persons were collected – this corresponds to an increase in cases of 3.2% compared to 2007 (N=1.284). Among these were 235 women and 1,091 men (share 17.7%) who died in connection with illicit drug use. With this, the number of death cases registered by the general mortality registry in respect of the definition of the EMCDDA has developed in parallel to the increasing number of deaths recorded by the BKA-register (+3.9%). The BKA register gives somewhat higher case figures, which may be explained by the fact that it includes also indirectly related fatalities that are difficult to separate since the category “suicides” and, as the case may be, also the category “accidents/other” does not clearly differentiate between direct and indirect cases. But even without including the clearly defined category “long-term secondary diseases” of the BKA register, the case figure for 2008 was with N=1,199 already 10.6% lower than the case figure given by the general mortality register. This means that the general mortality register includes more cases than the BKA register, partly because of the over-recording of cases of intoxication in older women (see below).

In 2008, the underlying disease (addiction, harmful drug use, other of the ICD-group F1x.x) was coded as the cause of death in 61.4% of the cases (2007: 55.1%). Since 2002, this portion has remained well above 50%. This means that the last revision of the WHO coding

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<sup>110</sup> The data of the forensic institutes on all death cases that were suspected of being in connection with illicit drugs and in which autopsies and toxicological analyses were carried out served as a basis. The drug-related deaths recorded by the Land Criminal Police Offices in the same period of time were additionally used by way of comparison.

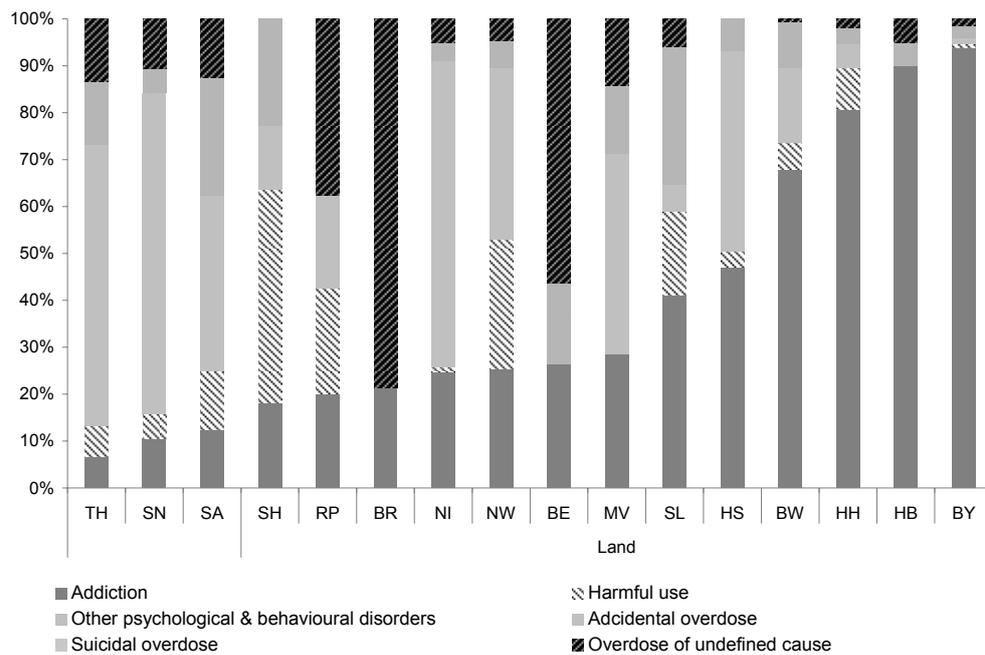
rules of the year 2006 that aimed at coding acute causes of death in form of an intoxication with underlying substances has produced no effect in Germany. The main reason for this may be that in the majority of cases the death-inducing substances are not identified due to lack of autopsies or toxicological analyses and therefore do not appear on death certificates or in autopsy reports.



Statistisches Bundesamt, special calculations.

Figure 6.2 Coding of the causes of death in the general mortality registry (1998-2008)

The coding behaviour of the *Laender* still appears to be very heterogeneous. In 2008, 90% of the cases in Bavaria were still coded under the underlying disease and only 9.3% under an ICD-code that allows to infer the actual drug-inducing substance/substance combination (X/Y- in combination with T-coding). Hamburg and Bremen, too, still coded the underlying disease in line with the F-classification in more than 80% of the cases. At the other end of the scale, one finds among others Lower Saxony, Berlin and the Eastern German *Laender* that coded more than 75% of the cases under the more specific case groups (Figure 6.3).

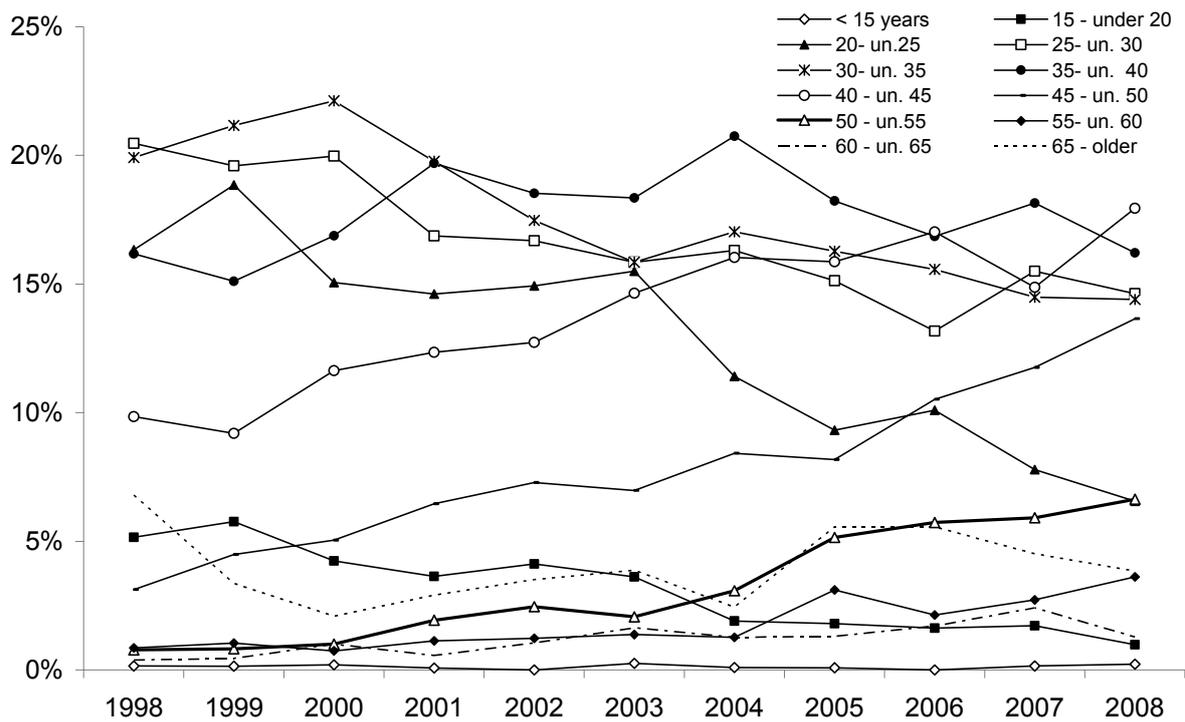


Statistisches Bundesamt, special calculations.

Figure 6.3 Coding of the causes of death in drug-related deaths, comparison of the coding behaviour between the *Laender* (2008)

The introduction of multi-causal coding of causes of deaths at national level could contribute to making better use of available information on the cause of death in the coding practice, but is still only in a test phase in Germany.

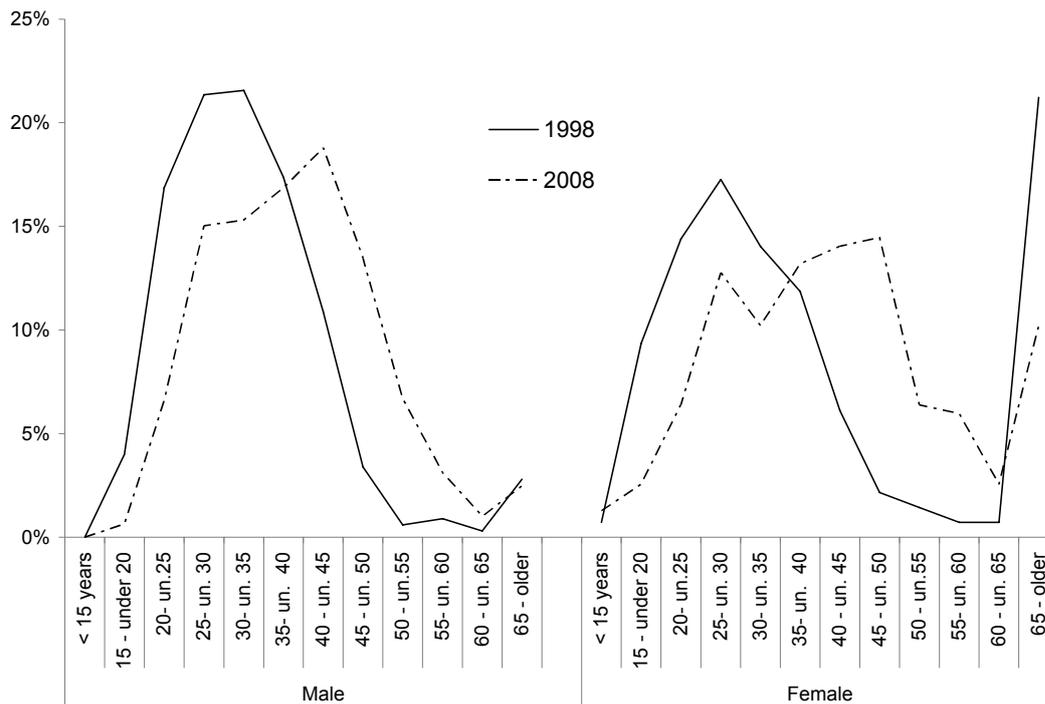
Looking at the age distribution of the drug-related deaths over the last ten years, one notices an increase in the portion of older drug users over the last few years. In 2008, the age group between 40 and 59 years reached again higher shares than ever before since the start of data collection in the year 1998. The share of younger age groups, especially of the 20- to 24-year-olds, by way of contrast, has been on the decline for several years. These changes together with the also increasing average age of opiate users in outpatient treatment observed over the last years can be taken as an indication of fewer young heroin users to follow. The age groups above 60 years are decoupled from this age cohort effect.



Statistisches Bundesamt; special calculation.

Figure 6.4 Drug-related deaths by age groups 1998-2008

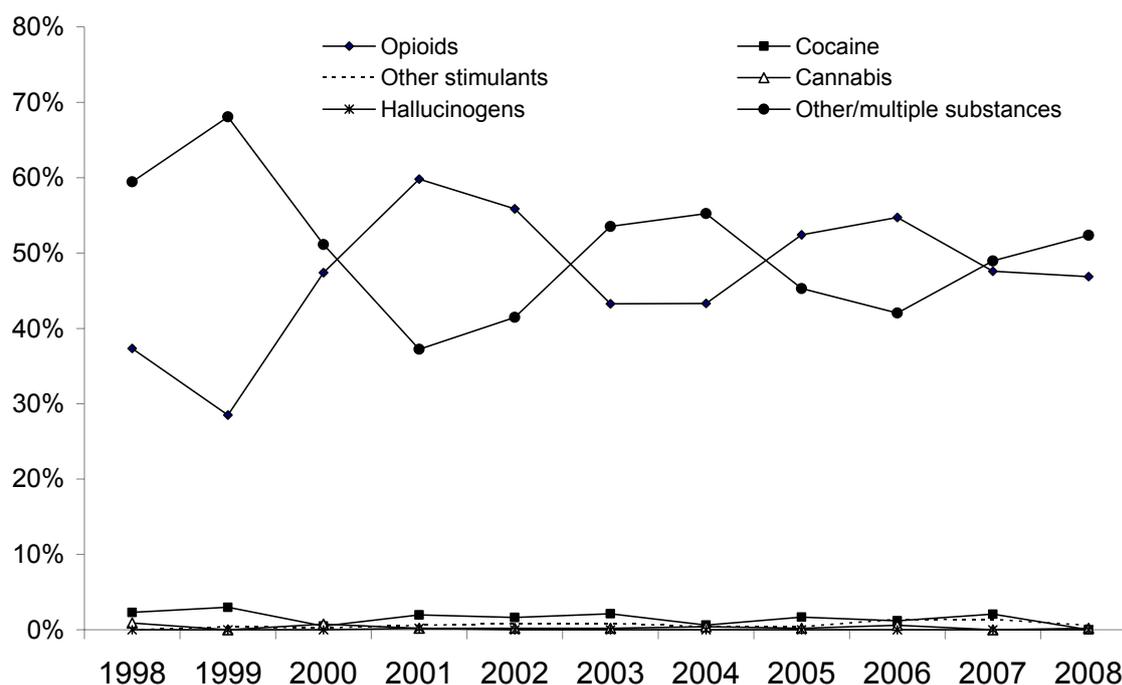
Differentiating by genders one can see that the “shift to the right“ in the comparison between 1998 and 2007 is more pronounced among women than among men. There are moreover indications of a series of coding errors for women above the age of 65 who appear in the ICD selection with medical drug intoxications that are not related to narcotic drug use.



Statistisches Bundesamt; special calculations.

Figure 6.5 Drug-related deaths broken down by gender and age groups in years 1998 and 2008

Figure 6.6 shows the substances that directly caused the death in the respective death cases based on the relevant ICD10-categories. However, this information was only available for 39% of the death cases in the year 2008. When these death cases were registered, they were coded in the ICD group X/Y as external causes of death. Apart from monovalent opioid intoxications in about 47% of the cases, ICD-codes for polydrug use were almost entirely used for the rest of the fatalities. It is of course to be assumed that opiates played the main role here leading the field of substances. Other substances like stimulating agents or hallucinogens, by contrast, were the cause of death in less than 1% of the cases in 2008. It is not exactly known how many of these classifications are actually based on the findings of chemical toxicological analyses on the spectrum of substances that caused the death.



Statistisches Bundesamt; special calculations.

Figure 6.6 Distribution of the substance categories in fatal drug overdoses 1998-2008 with ICD X/Y-coding

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

There is no survey available on the mortality of the overall population of drug users nor have there been any regional cohort studies carried out recently. It is however possible to get at least closer to the question by resorting to the data that exist on drug addicts in therapy.

According to the German Statistical Report on Treatment Centres for Substance Use Disorders (DSHS) (Pfeiffer-Gerschel et al. 2010e) for the year 2009, therapy in outpatient counselling facilities ended in 1.5% (2008: 1.2%) of the opioid clients with death (opioid clients accounted for 86% of the clients registered by the DSHS and deceased while in outpatient treatment in 2009). In order to eliminate the effect of treatment duration, which has increased on average by more than 10 weeks since 2000, a treatment duration of 12 months was mathematically assumed. The resulting mortality per year was at the levels of previous years also in 2009 (Table 6.2).

However, when looking at these data, it needs to be taken into account that the treating facilities are not always informed about the death of a client so that the actual mortality – in particular of treatment dropouts - is presumably higher than the value given here. Proceeding on the assumption that knowledge of the facilities about clients' deaths has not changed systematically over the years, it is nevertheless possible to interpret trends in the way presented.

Table 6.2 Mortality of opioid users in outpatient treatment – trend

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Death proportion among treatment outtake	1.1%	1.2%	1.2%	1.2%	1.4%	1.3%	1.4%	1.2%	1.5%
Treatment duration (Days)	263.2	280.7	282.1	297.5	305.2	301.7	314.3	321.2	336.4
Mortality p.a.	1.5%	1.6%	1.5%	1.5%	1.7%	1.6%	1.6%	1.4%	1.6%

Pfeiffer-Gerschel et al. 2010e and own calculations.

At the 11<sup>th</sup> Interdisciplinary Congress for Addiction Medicine held in July 2010, the mortality figures provided by the PREMOS study were presented for the first time (Wittchen et al. 2010). Based on the comprehensive national evaluation of substitution treatment in Germany carried out within the framework of the COBRA study with N = 2,694 substituted patients from 223 representatively selected treatment facilities between 2003-2006, PREMOS evaluates the further course of the treatment of these patients in 5- and 7-year follow-up surveys. 131 patients were deceased since the baseline data collection (2004). Related to the 1,624 follow-up patients, this corresponds to a mortality rate of 1.3% per year and in total to a share of 8.1% deceased patients. No gender differences were found for the mortality risk. The deceased patients were markedly older (MW=39.9; SD=8.6) and had a significantly higher addiction index (EuropASI) in comparison with the still living patients.

The most common causes of death were physical diseases (44.9%) and “overdose“ in connection with concomitant use of substances (42%), e.g. other non-prescribed opiates and benzodiazepines. In a quarter of all deceased patients (26%), an interaction of various physical and substance-related causes was found. Only in one case, overdose of the substitution substance was given as the cause of death. 44.3% (N=58) of the patients deceased while in substitution treatment. The majority (89.7%) were treated with methadone at the time of death. 55 of the 131 patients (42%) died while not in substitution treatment.

Although the average yearly mortality rate of approximately 1% did not decline contrary to expectation, the mortality findings of the PREMOS study lie within the range of figures reported by international and national studies as well as by the DSDH (see above) in the previous years (Wittchen et al. 2010).

Data on the mortality of drug users is contained in standard table 18.

### 6.5.3 Specific causes of mortality indirectly related to drug use

In chapter 6.3.2 some cases of death related to cutaneous anthrax in injecting drug users have been reported. Apart from that, there are no further recent data available on specific death cases that occurred in indirect connection with drug use.

Data on road accidents in connection with drug use are presented in chapter 9.



## 7 Responses to health correlates and consequences

### 7.1 Introduction

Health aspects of drug use are addressed by specific offers provided for drug users as well as within the framework of general health care. Information on the scope and type of measures is generally only available for a part of the specific measures, as these are carried out by specialized facilities or as part of a specific program.

#### General health care

Data on general health care do not provide any information that could be specifically referred to the group of drug addicts. Except for a few individual cases, there are no data available on the overall number of emergency cases due to overdose or other life-threatening conditions caused by drug use. Nor are there any data on the treatment of secondary diseases carried out in office-based practices or clinics.

#### Special offers

Outpatient services facilitate access to basic medical care that is generally provided by office-based doctors in their function as medical consultants. Dental treatments that have been put off for a long time and other medical treatments are commonly carried out during inpatient addiction therapy. Basic data hereto are available from the German Annual Statistical Report on Addiction Therapy. In a few *Laender*, specific projects on dental hygiene and infection prophylaxis are offered as part of low-threshold drug aid.

### 7.2 Prevention of drug-related emergencies and reduction of drug-related deaths

Various targeted approaches are used to prevent drug-related deaths: they range from programmes for drug emergency prophylaxis that comprise training in the use of naloxone over offers providing immediate help ("therapy now"), the provision of drug consumption shelters to the expansion of substitution therapy as the most important measure. Apart from data on substitution treatment (see chapter 5) there is also updated information available on some consumption rooms.

#### Drug consumption rooms

In view of the still highly risky use pattern linked with heroin, drug consumption rooms and low-threshold facilities play an important role in offering help for addicted people at an early stage. Drugs are brought along to drug consumption rooms by the drug users themselves. Infection prophylaxis forms systematically part of the service provided. Paraphernalia brought along to the consumption rooms may not be used. The goal of this initiative is to secure the survival and stabilization of the health conditions of the drug users as well as to attract drug users who can otherwise not be reached by the system in order to provide them with motivational offers to quit drug use. Based on §10a of the Narcotics Act, which defines

minimum requirements for the operation of these facilities, the governments of the *Laender* may pass regulations specifying the authorization criteria to be fulfilled for setting up and running drug consumption rooms.

In 6 out of 16 *Laender*, corresponding regulations have been passed. According to a survey carried out among the *Laender*, there are currently 27 drug consumption rooms with 220 consumption places attended to by 87 staff (Floeter & Pfeiffer-Gerschel 2009).

More detailed data on the use and the clients of the consumption rooms are only available for individual facilities at regional level.

The Berlin drug aid association *Fixpunkt e.V.* in cooperation with the *vista gGmbH* operates three drug aid facilities, in which drugs may be consumed: two drug consumption rooms at a fixed location and one mobile drug consumption shelter that is used at two locations. The data on the clients and drug use activities recorded by *Fixpunkt* in its yearly report are summarized in Table 7.1 (*Fixpunkt e.V.* 2009d).

Table 7.1 Data on clients and drug use activities of the three drug consumption rooms in Berlin

	Mobile Drug Consumption Shelter	Consumption room "Birkenstube"	Consumption room "SKA"
Number of clients	351	633	447
thereof new clients	172 (49.0%)	293 (46.3%)	278 (62.2%)
Drug use activities	5,122	13,521	4,973
<i>thereof only heroin</i>	1,765 (34.5%)	11,742 (86.8%)	4,240 (85.3%)
- <i>thereof inhalation</i>	- (n.s.)	5,673 (41.9%)	- (n.s.)
<i>thereof only cocaine</i>	654 (12.8%)	495 (3.7%)	293 (5.9%)
<i>thereof heroin-cocaine cocktail</i>	2,696 (52.6%)	1,281 (9.5%)	350 (7.0%)
<i>thereof amphetamines</i>	2 (0.04%)	-	67 (1.4%)
<i>thereof Methadone</i>	5 (0.1%)	3 (0.02%)	22 (0.4%)
<i>thereof Crack</i>	-	-	1 (0.02%)
Percentage of women	13.7%	16.1%	12.5%
Percentage of Germans	87.0%	79.0%	80.1%
Age			
<i>Percentage &lt; 28 years</i>	40.2%	34.6%	25.2%
<i>Percentage 28-38 years</i>	40.7%	43.0%	40.9%
<i>Percentage &gt; 38 years</i>	19.1%	22.4%	33.3%

*Fixpunkt e.V.* 2009d.

In its annual evaluation for 2008, the Frankfurt consumption room documentation (*Simmedinger & Vogt* 2009) of the four consumption rooms in Frankfurt reported 196,221 drug use activities of 4,681 consumption room users, out of whom 1,753 were new clients. In

comparison with the year 2007, the number of consumption activities increased by 15%. Among the intravenously injected drugs, heroin and crack played a dominant role in the consumption rooms. Heroin was used alone or in combination with other drugs in 78% of all drug use activities and crack in 38% (multiple responses). 16% of the consumption room users injected benzodiazepine - mostly in combination with other psychotropic substances. Intravenous use of cocaine was only reported by 2% of the users. All other psychotropic substances were mentioned only very rarely. As in the previous year, the drugs were not intravenously applied in about 4% of the drug use activities. When analysing the use patterns in a discriminating manner, one finds that heroin was the drug that was most frequently used alone (not in combination with other drugs) accounting for 47% of the records. Second came heroin with 20% in combination with crack and in third place was crack alone with 14%. When analysing the use patterns over the years, one finds a few shifts in the developments. Injecting use of heroin alone increased from originally 40% of the records in 2003 to 51% in the year 2007. In the year 2008 though, a slight decline to 47% was recorded. In the same period of time, injecting use of crack alone fell from 23% in the year 2003 to 12% (2007); in the year 2008, it slightly went up again to 14%. As in the previous years, there are clear differences to be found in the use patterns of men and women: there are relatively more users of heroin alone among men (51%) than among women (31%). More women (30%) than men (18%) prefer the combination between heroin and crack. The same applies to injecting use of crack alone (women 18%, men 13%). Similar gender specific differences in the use patterns of the users of the drug consumption rooms were already found in the previous years. The overall group of consumption room users is made up of 84% (n= 3,927) men and 16% (n= 754) women. The average age of the users of the consumption rooms is 34.2 years. With 32,4 years of age, the new clients are on average almost 3 years younger than the medium- or long-term users with 35,2 years. When comparing the average age of all users of the consumption rooms of the year 2008 (34.2 years) with the one of the year 2003 (33.3), the age difference between the users of the consumption rooms increased within a period of six years only by 0.9 years. This finding is an indication that relatively many new and comparatively young persons use the consumption rooms each year. 24% of the consumption room users only used one of the four Frankfurt consumption rooms once. This figure corresponds to the findings of the five previous years. In comparison with the previous year, the portion of those who used the consumption rooms more than twenty times rose from 25% to 28%. As in previous years, the most frequent users (>20 times) of the consumption rooms rather were persons who were socially disintegrated. These are mainly drug users from Frankfurt on the Main who are somewhat older (over 33 years), live in precarious housing conditions and are jobless. The persons who are frequently using the consumption rooms are significantly more often in medical treatment and display hepatitis C infection rates that are higher than average.

A comparison between the various reports shows that there are significant differences to be found between the facilities of different regions and also between facilities of the same town. It is for example striking that the portion of inhalational drug use activities in Frankfurt was 4% while a consumption room in Berlin reports 41.9% inhalational consumption episodes or

that use of crack is relatively common in Frankfurt whereas Berlin only reports one single crack use episode. There are currently no explanations available for such divergences since a variety of factors may be held responsible (e.g. available substances, framework conditions/structures in the consumption rooms, difference in clients).

### **Brochure “Prevention of drug-related deaths“**

In 2009, the Bavarian Academy for Addiction Issues in Research and Practice (Bayerische Akademie fuer Suchtfragen in Forschung und Praxis, BAS e.V.) published a brochure on the topic “Prevention of drug-related deaths“. Apart from presenting definitions of terms, epidemiology and a discussion on the development of the drug-related deaths in Bavaria, the brochure also shows examples of practical intervention approaches used by various facilities in Bavaria. It describes measures to prevent relapses in risk situations like discharge from prison, therapy or withdrawal treatment as well as training measures for drug counsellors and users with regard to drug-related emergency situations. The brochure furthermore presents the legal framework in which the work of addiction aid professionals is embedded. It is primarily directed to professionals working in the practical field of addiction and drug aid but the goal is also to address decision makers in institutions and authorities and to awaken political interest in order to create appropriate framework conditions that contribute to preventing drug-related deaths. The brochure can be downloaded for free from the website of the BAS<sup>111</sup> (Bayerische Akademie fuer Suchtfragen in Forschung und Praxis BAS e.V. 2009).

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

### **Prevention of drug-related infectious diseases in low-threshold work**

The prevention of drug-related infectious diseases in low-threshold drug aid is mainly based on the provision of information on infectious diseases and risks as well as on the distribution and exchange of syringes together with the distribution of safer-use articles. Distribution and exchange of syringes in low-threshold work is explicitly permitted under the Narcotics Act and is also practiced in many locations. According to the Drug and Addiction Report presented by the Federal Government Commissioner on Narcotic Drugs (Die Drogenbeauftragte der Bundesregierung 2009) at least 25% of the 1,000 recognized outpatient counselling facilities and contact shops offer syringe exchange programmes; this figure is however based on a rough estimation ventured by the experts. The German AIDS Help Organisation lists on its new website 161 syringe distribution machines in 9 *Laender* together with locations and operators under the project “Syringe distribution machines - now“<sup>112</sup>. With this, Germany has the largest number of syringe distribution machines in the world. Nevertheless, the network is far from being tightly knit, since 6 *Laender* do not have syringe distribution machines at all - only North Rhine-Westphalia with about 100 machines and Berlin with 16 machines do have an extensive network. Nationwide statistics on the

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<sup>111</sup> <http://bas-muenchen.de>

<sup>112</sup> [www.spritzenautomaten.de](http://www.spritzenautomaten.de)

exact number of other distribution locations or the number of syringes distributed do not exist.

In order to close this information gap on the offer of syringe exchange programmes and other safer use measures in Germany, the Federal Ministry for Health funds a project in 2010 that is carried out by the IFT (Institute for Therapy Research) with the view to take stock of the existing measures undertaken to prevent IDU-induced health damage.

More information can be extracted from the reports of the individual facilities or funding organs.

The Governmental Administration for Health, Environment and Customer Protection of Berlin reports for example 16 locations of syringe (sales) machines (as of: 31.12.2009, personal communication 2010). The utensils are packed in boxes with special imprints. The various imprints give information on for example "hand hygiene", "hepatitis A/B vaccination", "vein care" and "hepatitis test". Apart from the prevention messages imprinted on the packages, information is provided on how to contact the drug aid association "Fixpunkt". In the last year, Fixpunkt surveyed 33 facilities (drug and addiction aid facilities, contact centres, outreach street work projects of youth aid organisations, prostitution projects and emergency shelters), to find out whether they offer a syringe exchange programme. 15 facilities responded to this question, 13 of them reported that they exchanged used syringe material against sterile sets. The 13 respondents are made up of six low-threshold facilities and seven counselling centres. In all 13 facilities it is possible to exchange short and long needles as well as 2ml-syringes. Six facilities provide stericups and filters in exchange for used material, five facilities exchange 1ml-, 5ml- and 10ml-syringes, in four facilities it is possible to exchange used 20ml-syringes against sterile ones. On the whole, the offer for exchange is broader in low-threshold contact centres. Merely one of the seven counselling centres exchanges used filters and stericups while the offer of the other counselling centres is limited to the exchange of short/long needles and 2ml-syringes.

Table 7.2 provides an overview of more figures and information that have been made available so far. When looking at the table, one finds not only that the syringe exchange programmes take different shapes and forms but also that the granularity of the documentation of the programmes diverges considerably.

Table 7.2 Data on the distribution of syringes and other consumption utensils in various facilities in Germany

Agency/ Bundesland	Coverage	Material dispensed	Year	Mode of dispensation	Reference figures	Source
Prop e.V. Bayern	1 facility (Kontaktladen L43, Munich)	Syringe distribution: 57,020 thereof exchanged: 35,547 thereof sold: 21,473 Ascorbic acid: $\approx$ 45 kg Alcohol pads: $\approx$ 120,000 Sterile water: $\approx$ 16,000 Tea spoons: $\approx$ 21,000	2009	1:1 exchange with used syringes or dispensation with a service charge of 25 Cent	A total of 38,482 contacts, 113 people per day on average	Kontaktladen L43 2010
Caritas Mecklenburg- Vorpommern	1 facility (Kontaktladen Rostock)	2008: 9,160 syringes 1.960 hollow needles 2009: 6.743 syringes 938 hollow needles	2008/ 2009	No information	2008: a total of 2,670 clients  2009: a total of 2,581 clients	Ministry of Social Affairs and Health Mecklenburg- Vorpommern, personal communication 2010
Fixpunkt e.V. Berlin	1 syringe machine (Marzahn- Hellersdorf)	50 boxes (the machine has been installed at the end of the year)	2008	Sale of various types of boxes (short or long needles, syringes, alcohol pad, condom packages or „compi packages“) for 50 cent or 1 euro	No information	Fixpunkt e.V. 2009b
Fixpunkt e.V. Berlin	1 syringe machine (Spandau)	1.794 boxes	2008	Sale of various types of boxes (short or long needles, syringes, alcohol pad, condom packages or „compi packages“) for 50 cent or 1 euro	No information	Fixpunkt e.V. 2009a

Agency/ Bundesland	Coverage	Material dispensed	Year	Mode of dispensation	Reference figures	Source
Fixpunkt e.V. Berlin	1 project (Aufsuchende Drogenhilfe [Drug Help Finds You] in Charlottenburg- Wilmersdorf)	In the framework of the mobile prevention: 1,530 condoms 64,000 pads 1,700 creme 9,700 water 11,340 filters 4,200 stericups 2,680 syringes 1/5/10 ml 2,600 syringes 20 ml 33,780 syringes 2 ml 64,100 hollow needles	2008	Exchange for used syringes: 3,879 times; free-of-charge distribution: 141 times; distribution against a donation: 1,249 times	5,429 contacts through material dispensation (= 43% of the unit's clients)	Fixpunkt e.V. 2009c
		In the framework of the streetwork interventions: 253 times sterile syringes and hollow needles dispensed		No information		
Fixpunkt e.V. Berlin	1 facility (Druckausgleich – Contact point for drug users)	1,547 contacts for syringe exchange, thereof 620 contacts for use with methadone  Moreover 50 streetwork interventions: „The people encountered were provided with condoms and syringe kits“	2008	Exchange for used syringes	No information	Fixpunkt e.V. 2009e
Fixpunkt e.V. Berlin	2 sites (Mobilix – Aids- prevention and basic medical health care for opiate and cocaine users)	71,000 syringes thereof 7,900 „Methadone syringes“ 124.000 hollow needles 10.700 condoms	2008	No information	A total of 8,034 contacts for material dispensation	Fixpunkt e.V. 2009f

<b>Agency/ Bundesland</b>	<b>Coverage</b>	<b>Material dispensed</b>	<b>Year</b>	<b>Mode of dispensation</b>	<b>Reference figures</b>	<b>Source</b>
STEP Niedersachsen	1 facility (Café „Connection“ Hannover)	168,112 syringes	2008	No information	No information	Step 2009
STEP Niedersachsen	1 facility (Szenecafé „inkognito“ Hameln)	31,162 syringes 15,896 times dispensation of other articles for safer use (alcohol pads, ascorbic acid sterile Water, plasters, filters, condoms)	2008	No information	A total of 5,901 contacts	Step 2009
AIDS-Hilfe NRW e.V. NRW	All 54 municipalities (the whole Bundesland)	Drug help facilities: 2,133,143 syringes distributed Syringe machines: 238,276 distributed syringes 7,950 condoms 44,936 care kits	2007	No information	No information	AIDS Hilfe NRW e.V. 2010
DROBS Halle Sachsen-Anhalt	3 facilities (DROBS, AWO Addiction counselling centre, S.C.H.I.R.M. Project)	57,000 syringes 73,000 hollow needles	2006	1:1 exchange for used syringes	No information	Stadt Halle 2007
Schleswig- Holstein	5 facilities	148,310 syringes	2006	No information	No information	Ministry for Social Affairs, Health, Family, Youth and Senior Citizens of the Land of the of Schleswig-Holstein, personal communication 2007

## **Prevention and treatment of HIV and hepatitis in drug users**

### ***Revised guideline on the prevention and therapy of the hepatitis C virus infection***

In 2010, the revised S3-guideline on the “Prophylaxis, diagnostics and therapy of the hepatitis C virus (HCV) infection, AWMF-register-no. 021/012“ released in 2004 by the German Society for Indigestion and Metabolic Diseases (Deutsche Gesellschaft fuer Verdauungs- und Stoffwechselkrankheiten e.V., DGVS) was published. The goal of this S3-guideline is to establish standards in the prophylaxis, diagnostics and treatment of HCV infections with a view to reduce new infections, to make rational use of diagnostics, prevent complications of chronic hepatitis and use evidence-based antiviral therapy (Sarrazin et al. 2010). The guideline recommends to categorically test active and former injecting drug users for HCV since approximately two thirds of the new HCV infections can be assigned to the factor “drug use“ and adequate HCV diagnostics plays a crucial role also in secondary prevention. With regard to HCV treatment, the guideline establishes that drug dependency per se does not constitute a contraindication for HCV treatment. Substitution treatment is regarded as the best setting for the treatment of (former) drug users. Although antiviral therapy is generally not advisable in active drug users, the pros and cons need to be weighed in each individual case.

### ***Survey on HIV/HCV testing and hepatitis-A/B-vaccination in substituted patients***

In the period between October 2008 and October 2009, the German Aids Help Organisation conducted a national survey among patients in substitution treatment in cooperation with the countrywide JES-network and aids and drug aid facilities. The goal of the survey was to get some insight into the HIV and HCV tests carried out within the framework of substitution treatment. Questions were asked on the knowledge of the current infection status and the frequency of regular HIV and HCV tests in substituted patients with negative or unknown infection status. Additional information was collected on the current hepatitis A (HAV) and hepatitis B (HBV) vaccination status. The target group of the survey was formed by persons who were undergoing substitution treatment at the time of the survey<sup>113</sup>. With regard to the current infection status, 51.3% (n=272) of the interviewees reported HCV infection, 48.7% (n=258) reported a negative or unknown HCV status. 7.9% (n=42) said they were infected with HIV. For the evaluation of the frequency of HCV and HIV tests, only persons who reported a negative or unknown infection status, were included. Out of the 258 persons with a negative or unknown HCV status, 57% (n=147) said that they had never had an HCV test taken within the framework of the substitution treatment. An HCV test is carried out every 6 or 12 months in only 26% of the interviewees.

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<sup>113</sup> A total of 534 filled-in questionnaires could be included in the evaluation. With 70% (n=375) males and 30% (n=157) females the group of interviewees reflects the gender distribution in the scene. The large majority of the respondents was between 30 and 40 years of age (n= 234; 44%) or older (n=233; 43%). 13% (n=68) were in the age range between 18 and 29 years. Almost 50% (n=266) of the participants had been in substitution treatment for more than five years at the time of the survey, approx. 30% (n=161) 2 years or less.

As for the rest of the participants, the HCV status was established only every two years or in even longer intervals. The picture was similar for regular HIV testing. In 51.6% of the 488 persons included in the survey, no test on the HIV status had ever been carried out within the framework of the substitution treatment. With 12.7% (n=62; every six months) or respectively 15.2% (n=74; once a year), at least 30% were regularly tested in the intervals recommended for vulnerable groups. Since the HAV and HBV vaccinations are regarded as one of the most important protection measures in vulnerable groups like injecting drug users, data were additionally collected on the HAV and HBV status of all participants. 71% reported that they had no HAV immunization protection, 67% had no HBV immunization protection. The author comes to the conclusion that the existing potentials of substitution treatment are insufficiently used to detect, prevent and treat infectious diseases. According to the author, this becomes not only apparent in the insufficient detection of HCV and HIV infections through regular tests, but also shows in the insufficient prevention of HAV and HBV infections by means of vaccinations. The knowledge of the substituted patients can also be rated as insufficient. About one in six interviewees says that he does not know his current infection status. As a result of the fact that some of the tests date back a long time, the negative HCV and HIV records require cautious interpretation (Schaeffer 2010).

### ***Demonstration project on the development of hepatitis prevention measures***

First preliminary findings have been made available within the framework of a pilot project on the development and evaluation of hepatitis C prevention measures conducted by the Berlin association Fixpunkt e.V. in cooperation with the Centre for Interdisciplinary Addiction Research (Zentrum fuer interdisziplinäre Suchtforschung Hamburg, ZIS) in drug consumption rooms and contact centres (see also chapter 1) in the period between October 2008 and October 2011. The project comprises testing of several interventions, like for example first contact consultations, talks with target groups, so-called prophylactic impulses including hand washing training, hepatitis test counselling and testing. The evaluation of the first ten months of this project showed that the planned interventions could be implemented, carried out and documented already within the first project period. This means that all early intervention measures have proved to be feasible. This outcome holds special importance since all interventions that stood the test within the framework of the national demonstration project are to be taken over by other drug aid centres. The feasibility of several selected interventions is therefore currently already tested in drug consumption rooms in Frankfurt and will be soon put to the test also in Dortmund. Unfortunately, it was not possible to reach the target group in the scope envisaged for external reasons (in particular the unforeseen temporary closure of one drug consumption room). It remains to be hoped that with the provision of a new offer the situation can be improved. In the future, work within the demonstration project will be increasingly dedicated to the further differentiation of individual modules in order to significantly increase access to the interventions and the acceptance of the intervention among addiction centres (BMG, personal communication 2010).

### ***Feasibility study on HCV treatment in heavily dependent opioid users***

Schulte et al. (2010) report about the first study conducted on the feasibility of antiviral HCV treatment of a random sample of heavily dependent opioid users who were treated with diamorphine within the framework of the German heroin study. All substituted patients of the study who received standard HCV therapy with interferon and ribavirin were included. Co-use of licit and illicit drugs was tolerated as long as it did not impact the treatment. A total of 26 patients were treated for chronic HCV infection. All test instruments used to measure the severity of comorbidity indicated significant physical and psychological distress of the test persons. 21 patients (81%) could be kept in treatment, the adherence rate was 92%, 18 patients (69%) responded successfully to the treatment. With this, the outcome quota corresponds to the one of non-drug using patients and was better than in most of the studies conducted on substitution treatment with methadone. This result is especially remarkable given the significant physical and psychological comorbidity, the existing co-use of cocaine and benzodiazepines and the frequency of side effects that are regarded as obstacles to HCV treatment of opioid addicts. It shows that also heavily dependent drug users who are difficult to reach can be successfully treated for HCV in a treatment setting that is adapted to the needs of these patients (supervised heroin treatment with intensive psycho-social support and high contact frequency).

### ***Impact of co-use on hepatitis C treatment***

Doctors often view co-use by substitution patients as a critical point when it comes to taking a treatment decision. Therefore, the non-interventional study PRISMA is to investigate the impact of co-use on the outcome of HCV therapy under everyday conditions. 573 patients were included in the study by 59 substitution doctors between January 2006 and December 2007. The patients were in stable opioid treatment and infected with HCV<sup>114</sup>. The substitution patterns did not change under HCV therapy: 56.8% methadone, 21.8% polamidon and 17.9% buprenorphine. The distribution of the HCV genotypes (GT) was as follows: GT1 41.1%, GT2 5.6%, GT3 50.0%, GT4 3.3%. 57.7% of the patients had a high viral load. During HCV therapy, concomitant use of cocaine (2.5%), opiates (8.9%), benzodiazepine (6.7%), barbiturates (0.7%), amphetamines (0.3%) and cannabis (13,7%) was recorded on the basis of urine tests. Out of the patients with concomitant use, 70.35% (121/172) attained a "sustained viral response" (SVR), the SVR rate among patients without concomitant use, by way of contrast, was only at 43.4% (46/106) ( $p < 0.0001$ ). When looking at the co-use in a detailed manner, one finds that 70.2% of the patients with cannabis use (66/94) reach a SVR. The authors conclude that concomitant use in the surveyed patients in substitution treatment did not appear to have a negative impact on the outcome of HCV therapy. A predominant role is played by cannabis use that was most commonly identified. Concomitant use of cannabis should therefore not be regarded as an exclusion criterion for hepatitis C treatment (Walcher et al. 2009).

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<sup>114</sup> The presented interim analysis is based on the data of 302 patients who had already completed the planned programme (= standard HCV therapy + 24 weeks after care). The patients were on average 35.5 years old; 77.5% were men and the average duration of injecting drug use was 10.5 years.

### ***Individualized treatment duration of hepatitis C treatment***

On the occasion of the 10<sup>th</sup> interdisciplinary congress for addiction medicine held in 2009, the first preliminary results of the INDIV-2 study were presented that investigated individualized therapy duration of 24-72 weeks for treatment of patients with a chronic hepatitis genotype 1 infection with pegylated interferon alfa-2b plus ribavirin as a function of the baseline concentration and the initial HCV-RNA decline. The reduction of the treatment duration in patients with low viraemia as well as undetectable HCV-RNA is meanwhile approved throughout Europe, it is currently unclear however whether patients with a high initial viral load and undetectable HCV-RNA at week 4 really need to be treated for a full 48 weeks. The INDIV-2 study was to shed light on this question. Therefore, the treatment duration was individually defined and adapted to 398 therapy-naive HCV genotype 1 patients as a function of the baseline concentration and the initial HCV-RNA decline in a multi-centric randomised controlled group. 224 patients who had been treated for 48 weeks in the directly preceding study (INDIV-1 study) were recruited for the control group. First results show that in the future therapy duration can be individually adapted and reduced to 24, 30 and 36 weeks as a function of the virological response (HCV-RNA negativity), measured by means of a highly sensitive assay, and of the division into high and low initial viral load (Sarrazin 2009).

### ***Infectiological care of opiate addicts in inpatient and outpatient rehabilitation treatment***

In view of the scarcity of data on the treatment of drug-associated infectious diseases in the area of medical rehabilitation, Gansefort and colleagues (2009) conducted a study on the care situation of 793 inpatient and outpatient rehabilitation centres focussing on “drug addicts” and “poly-substance dependents”<sup>115</sup>. HAV/HBV/HCV and HIV testing is mostly done as a standard procedure. The estimated life prevalences of the opioid patients were for HAV 10.6%, for HBV 17.4%, for HCV 49.7% and for HIV 5.0%. Antiviral HBV treatment was offered in 12.4% of the facilities, antiviral HCV treatment in 32.8% and antiretroviral HIV therapy in 30.6% of the facilities. Frequently mentioned criteria for therapy exclusion are “insufficient therapy adherence”, “expected side effects” and “psychiatric comorbidity” (patient-related reasons) as well as “lacking professional qualification”, “lacking possibilities of billing” and “not integratable into the day’s schedule of the facility” (structural reasons). From the comments given by the surveyed facilities, it becomes apparent that antiviral HCV treatment is only very rarely carried out due to missing 6-month drug abstinence and too short treatment duration. The results of the study lead the authors to the conclusion that the antiviral or respectively antiretroviral therapy offer is unevenly weighed in medical rehabilitation. Despite a significantly lower HIV- and, by contrast, high HCV infection quote, the offer of antiretroviral or respectively antiviral therapy is almost identical. As a result of the requested 6-month drug abstinence before the start of treatment, a considerable part of injecting drug users is additionally excluded from treatment. The authors furthermore found

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<sup>115</sup> Out of the 186 centres included in the analysis, 60.2% were inpatient and 39.2% outpatient rehabilitation centres. The facilities provided on average 22.7 therapy slots for injecting drug users and 66.9 for drug-addicted patients per year.

billing issues and pointed to the need for further training measures and specific concepts for the treatment centres.

### ***Re-Therapy of chronic hepatitis C***

Backmund (2009) describes in an article that the chances of success of hepatitis C therapy are nowadays very high. He therefore recommends verifying the indications for a re-therapy also in patients who were treated without success in the past. According to the author, substitution therapy is regarded as an ideal setting for re-therapy. The author moreover gives the following list of indication criteria for re-therapy:

- Genotype 2 or 3
- Relapse patients
- Patients with advanced fibrosis
- Patients with monotherapy as first therapy
- Patients with genotype 1 and interferon-  $\alpha$  2a/b and ribavirin as initial therapy
- Patients with non-optimal first therapy (missing documentation)
- Patients whose side effects could be treated more optimally

Backmund shows on the example of a case with two re-therapies that these criteria can be successfully used in the treatment of chronic hepatitis C in opioid addicts.

### ***HCV-therapy in psychotic drug users***

Certain psychiatric diseases like for example psychoses are regarded to this day as a contraindication for the treatment with interferon- $\alpha$ . Especially among HCV-infected drug users one finds 6-24% psychotic patients who are a priori excluded from treatment of their HCV infection. Goelz and Krausz (2009) therefore published an article based on case reports in which they show how interferon therapy can also be offered to such patients by carefully weighing risks and benefits and including neuroleptic treatment. The authors conclude that severe psychotic episodes do not appear to occur as long as the psychotic patients are selected according to certain safety criteria and are prophylactically treated in neuroleptic therapy. Cases in which interferon treatment needs to be stopped for psychiatric disorders are very rare. According to the authors, adherence, too, does not differ from normal collectives. Goelz and Krausz endorse the view of other authors on this topic and only advocate the exclusion of patients with severe morphological alterations of the brain and active alcohol and drug dependents from HCV therapy. The authors claim that in all other cases, the patients could be stabilized in an adequate psychiatric therapy in such a way that interferon therapy could be carried out without great dangers.

## **7.4 Responses to other health correlates among drug users**

In an analysis of a sub-sample of the patients included in the German demonstration project on diamorphine therapy, Schaefer and colleagues (2009) arrive at the conclusion that also

patients with an existing psychiatric disorder profit more strongly from heroin-assisted treatment than the persons treated with methadone in the control group. Based on the results of the study, the authors recommend rating the presence of psychiatric comorbidity in persons with opioid dependence as an inclusion criterion for diamorphine-assisted treatment. Further information on health correlates can be found in chapter 5 (in the passages on substitution treatment).

## 8 Social correlates and social reintegration

### 8.1 Introduction

Drug use is often linked with difficult family and personal life circumstances. While it may be a consequence of these circumstances, it can also aggravate the situation and worsen the drug users' outlook for the future. The social framework conditions under which drug use takes place illustrate the marginalization especially of individuals with intensive drug use.

Some indication of the aggravated general living conditions of drug users can be gleaned from socio-demographic data of treatment documentation. Opioid-addicted members of the open drug scene are affected the most. Insight into the situation can be gained from data provided by the German statistical report on treatment centres for substance use disorders, the short reports of the *Laender* and the regional monitoring systems used for example in Hannover and Hamburg.

### 8.2 Social exclusion and drug use

#### 8.2.1 Social exclusion among drug users

According to the DSHS data, almost every fifth client of outpatient therapy facilities with primary opioid problems (17.7%) and about every sixth client with primary cocaine-related problems (18.0%) and about a quarter of the cannabis clients (24.0%) does not have any school leaving qualification at the start of therapy. Almost two thirds of the clients with primary opioid-related problems (62.3%) are without a job at the start of therapy and so are a bit more than a third of the clients with primary cannabis- and cocaine-related problems (37.2% resp. 38.8%) (Table 8.1). In general, this situation practically does not change until the end of therapy. While as for cannabis clients, this may be simply due to the relatively young age, the rest (in particular opioid addicts) are mostly early school leavers (Pfeiffer-Gerschel et al. 2010e). In the year 2008, a total of 5,089 opioid clients (2007: 4,809) who made use of outpatient addiction help were registered within the framework of the status report of the Hamburg basic documentation system (Martens et al. 2009). Out of these, 82% (2007: 80%) lived in stable housing conditions, but 69% (2007: 70%) were out of job or without gainful activity. A total of 87% (2007: 88%) had at least a lower secondary school leaving qualification.

Since 2007, there are also data available within the framework of the DSHS based on evaluations carried out by low-threshold facilities (2009: N=22) themselves. According to these evaluations, the socio-economic conditions of the clients who sought help from low-threshold facilities in 2009 are even worse than those found in other help areas. As can be seen in Table 8.1, the figures for missing school leaving qualifications, unemployment and homelessness are for all substances higher than in clients in outpatient therapy. However, the figures can only be interpreted with limitations since out of the total of 24 low-threshold facilities taken account of in the DSHS, only a maximum of twelve provided data on the

school leaving qualifications, 13 on the economic situation and 16 on the housing situation and the absolute figures of clients with illicit drug problems (there are 681 valid entries on the school leaving qualifications, 765 on the economic situation and 1144 on the housing situation) are relatively low (Pfeiffer-Gerschel et al. 2010c). Moreover, the total number of low-threshold facilities participating in the DSHS represents with N=24 only a small fraction of all treatment offers made in Germany (cf. chapter 5.2) and there is no information provided on the representativeness of the sample.

Table 8.1 Social situation of persons in outpatient therapy and low-threshold facilities broken down by main drug (2009)

Main diagnosis	Outpatient treatment			Low threshold facilities		
	Without graduation <sup>1)</sup>	Unemployed <sup>2)</sup>	Homeless <sup>2)</sup>	Without graduation <sup>1)</sup>	Unemployed <sup>2)</sup>	Homeless <sup>2)</sup>
	%			%		
Alcohol	6.3	42.5	0.5	10.4	68.3	13.4
Opioids	17.7	62.3	2.6	27.4	76.8	6.7
Cannabinoids	24.0	37.2	0.7	43.5	43.1	1.8
Sedatives/Hypnotics	5.6	34.4	0.5	33.3	80.0	0.0
Cocaine	18.0	38.8	1.2	27.6	75.9	2.6
Stimulants	14.0	44.1	1.0	10.5	47.4	4.5
Hallucinogenics	19.0	42.2	2.9	50.0	50.0	0.0
Tobacco	16.7	16.3	0.3	42.9	42.9	14.3
Volatile substances	44.4	24.3	2.6	0.0	0.0	0.0
Mult./other subst.	18.1	50.4	2.7	0.0	0.0	0.0

1) Or still in school.

2) On the day before the start of treatment.

Pfeiffer-Gerschel et al. 2010e; Pfeiffer-Gerschel et al. 2010c.

### 8.2.2 Drug use among socially excluded groups

Since the middle of the 1990s, the topic addiction and migration has been receiving increased attention by expert circles and scientific studies although meanwhile almost a fifth (19%) of the population has a migration background in Germany according to the Federal Statistical Office (DeStatis)<sup>116</sup>. As regards the various forms of addiction, several studies have found higher incidences among people with a migration background.

In a group of approximately 150 adolescents and young adults, use of tilidine is very common. The effects of the substance and the withdrawal symptoms correspond to those of other opiates (Fixpunkt e.V., personal communication 2009). Information and support for tilidine dependents (among others through flyers in Russian, Turkish, Serbian) is offered by

<sup>116</sup> <http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/Internet/DE/Navigation/Statistiken/Bevoelkerung/MigrationIntegration/MigrationIntegration.psm1>

the project "Transit" (see also chapter 1.3.2) that is dedicated to the topics youth, migration and addiction (transcultural and culture-specific addiction work with adolescents) since June 2009 <sup>117</sup>.

A survey recently conducted among counselling centres in Thuringia shows that – related to the quantifiable client figures in Thuringia - there are currently no specific strategies used or approaches made in particular with regard to migrants that would go beyond the existing work approaches and structures of addiction aid or prevention. Related to the total number of new admissions (N=4,431), the number of clients with migration background (N=83) appears to be at a very low level with 1.9% (Ministerium fuer Soziales, Familie und Gesundheit, personal communication 2010).

### 8.3 Social reintegration

Last years' revision of the German Social Security Codes has created a series of preconditions for an improvement of the social reintegration also of people with substance-related disorders. More details on this can be found in the REITOX-reports of the years 2005, 2007 and 2008.

The "Law on the further development of the basic social assistance for people in search of work" effective as of August 2006, has laid down comprehensive regulations for the status of persons in inpatient facilities with regard to their right to basic social government care.

In connection with the health reform, which entered into effect on 1 April 2007, not only parent-child-cures and geriatric rehabilitation, but also medical rehabilitation for addicted individuals were included in the catalogue of standard insurance benefits. Information on day hospital care and social therapy can be found in the REITOX Report 2009.

#### 8.3.1 Housing

There is a series of offers available for drug addicts to tide them over homelessness. Statistical material on this is contained in the *Laender* short reports for the reference year 2008 that are presented in the REITOX Report 2009.

#### 8.3.2 Education, training

In the last few years, a series of measures to improve integration of jobless people with handicaps into the labour market has been tested. Generally, these measures have not been specifically developed for people with substance-related problems, but they are commonly found among the target group of these activities. Parts of the test results have been taken into account of in the revision of the Social Security Codes II, III and XII.

Many facilities complement therapy by offering promotional programs for drug addicts to support educational attainment and vocational training or to provide orientation for their professional life. Drug addicts are also given the opportunity to catch up on missing school

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<sup>117</sup> <http://www.gangway.de/>

leaving qualifications within the framework of external school projects. Vocational training is made possible through close cooperation between craft and industry. However, in view of the high unemployment figures and the rather declining financial resources allotted to this area, an improvement of the situation is not in sight.

Former drug addicts, people at risk of becoming addicted or addicts undergoing substitution therapy can earn a lower-level secondary school qualification (course duration: 1 year) and a middle-level secondary school qualification (course duration: two years) in a second-chance course offered by the STEP-Therapy-School in Hanover. In the year 2008, 26 out of a total of 98 course participants were under 20 years of age, 44 were between 21 and 25 years, 18 between 26 and 30 years and ten over 30 years of age. Corresponding to the age of the participants, 23% of the costs of the courses were borne by youth aid agencies (§§ 35 a, 41 Social Security Codes VII) and 75% by the social security administration (§§ 53 ff Social Security Codes VII). Out of the 42 course participants who terminated the measure in the year 2008, 26 completed the course with a regular school leaving qualification, 12 of them with a middle-level secondary school leaving certificate. Two students were relegated and 14 had dropped out before the end of the course (Step 2009).

The Federal Ministry of Health funded a study conducted by the Institute SPI-Research until the end of 2009, which analyzed in four facilities on medical rehabilitation and two external facilities on school qualification for former drug addicts the effectiveness of school qualification and mostly the compatibility of school qualification and therapy provided in parallel. The presented results show that the parallel school education does not affect the therapeutic effect.

### 8.3.3 Employment

The anyway tense situation on the labour market makes it difficult for substance dependent people to reintegrate into professional and social life. The unemployment quota among drug addicts is extremely high – depending on the severity of the problem up to 80%. Studies show however that social and professional integration is a crucial indicator for sustained abstinence.

The integrative approach adopted by the Social Security Codes II (SGB II) enables socio-integrative services to be provided in addition to the instruments of employment promotion. An integral part of these supporting integration services is addiction counselling (§ 16a SGB II).

Addiction counselling as a service to be provided in respect of SGB II falls – like the other socio-integrative integration services - under the organisational and financial responsibility of the municipalities. The Federal Ministry for Employment and Social Affairs assumes supervisory functions defined by SGB II insofar as the Federal Employment Agency is the service provider but not with regard to services provided by the municipalities. These are placed under the supervision of the *Laender*. This is the reason why the Federal Government currently does not have any computed data at hand on specific measures or activities carried

out with regard to drugs and addiction in the area of basic social care.

In a special evaluation of the Hamburg Basic Documentation (BADO), the authors report that the persons who are referred to an addiction help facility in Hamburg by the ARGE (working group formed between the municipality and the employment agencies), represent a special circle of clients. They are socially less integrated, have very low education and frequently report about debts. They often spent their childhood in orphanages or lived with parents afflicted by addiction problems. They often report about violence – experienced either as the victim or the perpetrator – and aggressions. Moreover, they are more strongly affected by health and psychological problems than clients who find their way into an addiction help centre without obligatory referral. When looking at the above-mentioned individual results, one gets the picture of a highly distressed group of addicted persons who are in urgent need of help. The comparatively low treatment experience indicates that this group of clients has so far been reached only insufficiently by the addiction aid system. Therefore, the ARGE centres assume an important role as a referring intermediary. They make it possible for addiction aid to get access to the clients and provide them with the help they urgently need. The data on the ways how therapies were terminated illustrate the high drop out quotas of ARGE-clients and make clear at the same time that it is not enough to merely hold established help measures in readiness. It is to be assumed that persons who have been obliged by an institution to present to a counselling facility, only have very little motivation to actively engage in the counselling process. The long-term adherence of this group of clients to the help system will not be possible without a particularly intensive and long-term commitment on the part of the counselling centres. That this commitment is however worth the effort, is shown - despite the high drop out quotas – by the remarkable reduction of intensive alcohol consumption and the improvement of the health and psychological situation also in the clients referred by the ARGE (Martens et al. 2009).

The results of the project “Survey on good practice approaches for the integration of addicted people into working life under the Social Security Codes II (SGB II)” (cf. chapter 1.3.2) show a great heterogeneity as regards the concrete work procedures used in the care provided for addicted people in line with the SGB II. In each phase – starting with the detection of the addiction problem, the care and promotion to the integration into working life – practical work approaches used by the social security agencies diverge considerably. Basic social care providers who have cooperation agreements with local addiction centres tend to better comply with good practice criteria that are controversially discussed by experts. According to social security administration, crucial factors of success are: a close cooperation with the addiction help system, a broad offer of complementing social services that are also available at short notice as well as qualified professionals with sufficient time resources. The results of the survey show that staff of social security administration are in many cases still insufficiently trained and time resources rather limited as a result of the high care provider to patient ratio. Staff specifically dedicated to the planning and coordination of the promotion and counselling of people with addiction problems only exist in approximately half of the basic social security agencies. A positive aspect is however that the majority of the social

security agencies have a broad enough spectrum of offers and counselling services. It shows in practical work however, that major problems exist in reliably detecting addiction problems in counselling. Addiction counselling services are for a large part only called in if the addiction is seen as an obstacle to the job placement or if the client wishes to be referred. From the viewpoint of the social security administration, the integration into the labour market is in many cases unrealistic. Not all social security agencies sufficiently use labour market policy measures to take account of the specific needs of this group of persons (Henke et al. 2010)<sup>118</sup>.

The counselling activities and project work undertaken by the Agency for labour market integration and reintegration of addicted people FAIRE (cf. chapter 1.3.2) led to the implementation of concrete measures of labour market integration. Practice-oriented guidelines for the professionals working in the interface area between rehabilitation and labour market integration have been developed from the practical project work and made available to staff in the form of work tools and brochures. The "Models of adequate technical cooperation between agencies of labour market integration and addiction help facilities" have been developed on the basis of the current (2009) "4-Phase-Model of Integration Work" by the ARGE (working group formed between the municipalities and the employment agencies). The work tool provided to staff picks up requests made by professionals of the ARGE and the agencies for labour market integration and gives well-founded and practice-oriented answers to questions on the problems of addiction. The results of the surveys conducted on the co-operation between addiction aid system and the providers of basic social security in the years 2006 to 2009 showed that co-operation has significantly improved. For the year 2005, only 20% of the ARGE reported regular cooperation with the addiction help system, in 2009 an encouraging percentage of 73% did so. The nationwide interest is also shown by the fact that expert meetings and conferences have been held with success within the framework of the transfer project "Trans-FAIRE" in Lower Saxony, Saxony Anhalt, Thuringia and Mecklenburg Western-Pomerania. The results show that cooperation could sustainably be improved in the action fields of addiction help and labour market integration during the project duration of the national and regional demonstration projects "*jobwaerts*" (*jobwards*) and FAIRE<sup>119</sup>.

Given the existing limitations in terms of school qualifications or professional skills, it is a success for most of the persons to complete a promotional programme as scheduled. In 2008, a total of 91 persons took part in the labour market integration projects "*spring board*" run by STEP Hannover (guarding bicycle shelters, moving, maintaining landscaped areas and similar tasks – mainly workfare programmes like the so-called *one-Euro-jobs* according to the Social Security Codes II § 16d). Out of the total of 91 persons, four participants managed to transfer from the workfare programme to regular occupation or a job-creation scheme (Step 2009).

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<sup>118</sup> The final report is available at: [www.drogenbeauftragte.de](http://www.drogenbeauftragte.de).

<sup>119</sup> Available at: [www.fachstelle-faire.de](http://www.fachstelle-faire.de)

There are approximately ten job creation and employment programmes in Thuringia available to integrate addicted people without employment into the labour market. The target groups are alcohol dependents and users of illicit drugs. The projects were launched by self-help organisations founded by former addicts and have been used for many years with great success in the occupational and social integration of these groups of persons. Funding of these offers is based on the provisions of the Social Security Codes II (SGB II), but also on communal promotion schemes, on the European Social Fund and donations (Ministerium fuer Soziales, Familie und Gesundheit, personal communication 2010).

Thanks to these measures it was possible in 2006 and 2007 to offer intense, individual and more target-oriented help for the occupational integration of selected patients of the specialized clinic Elbingerode/Harz in the transfer phase from medical rehabilitation to post-rehabilitative stabilization for an independent, abstinent way of life. This brought about a significantly improved abstinence and employment quota that was still measurable in the one-year follow-up survey (Stopp 2010).

### **Promotion by the German National Statutory Pension Insurance**

Within the framework of the content-related and structural further development of existing rehabilitation offers, the targeted promotion of employment opportunities of jobless rehabilitants by the Pension Insurances has become an integral part of the therapy for persons with addiction-related illnesses. It comprises for example indicative groups with regard to unemployment and trainings for job application. From the viewpoint of the social security administration, the central goal of addiction therapy is to restore the working capacity. Apart from somatic aspects also psychological factors – i.e. personal and social competences of the clients – are taken into account to prepare clients for working life.

Persons with drug-related problems do not seldom form part of the target groups of specific programs offered by employment agencies to promote reintegration of long-term unemployed people on the labour market. However, in general, the available statistical material does not provide specific data on this sub-group, so that measures undertaken and results achieved for this group cannot be presented separately in this report.

On the one hand, the insured have a legal claim to rehabilitation, but on the other, they also have the obligation to participate<sup>120</sup>. Social benefits may be retained if they do not fulfil their obligations to participate, which may impact or not improve their ability to work or engage in gainful activity. Nevertheless, almost a third (29.5%) of the outpatient and a quarter (24.2%) of the inpatient treatments for drug dependence were not made use of in the region of Middle Germany in 2005 (Retzlaff et al. 2010).

A therapy model offered by the Pension Insurance Central Germany is the so-called “Magdeburger Weg“ (Magdeburg Path) that is also used in Thuringia. In order to give people dependent on alcohol, pharmaceuticals and drugs the possibility to quickly undergo rehabilitation therapy, application procedures have been shortened and made more efficient.

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<sup>120</sup> §§ 62 und 65 SGB I.

Patients in acute therapy are offered the possibility to skip the so far obligatory motivational phase provided by the counselling facilities if they decide to undergo medical rehabilitation. Thanks to an early therapy start, a deterioration of addiction and consequential damages can be counteracted and motivation built up to lead a drug-free life. The procedure known as the "Magdeburger Weg" has meanwhile been taken over not only by all clinics specialized in addiction therapy in central Germany but has also been put into practice in cooperation with the working groups formed between the municipalities and employment agencies (ARGEn) in Saxony, Saxony-Anhalt and Thuringia. This means that a doctor at the employment agency can directly apply for withdrawal treatment after he has medically established the existence of an addiction problem in the recipient of unemployment benefits (Ministerium fuer Soziales, Familie und Gesundheit, personal communication 2010).

Forschner (2009) reports from the experience he made in the "Medinet-AG Alte OElmuehle", a clinic specialized for dependence illnesses, with the fast-track procedure of the "Magdeburger Weg" (Magdeburg Path), drawing a largely positive conclusion: it was possible to motivate unemployed addicts to undergo therapy at an earlier point of time and to bring some of them into employment. Thanks to the referral to rehabilitation therapy, diagnostics could be carried out, information on the course of the illness gathered, abstinence motivation promoted and clinical treatment provided to counteract further chronification of addiction and sequelae. Direct referral – without interruption – from withdrawal to therapy makes sense. No differences were found in the treatment results in comparison with the patients who obtained access to rehabilitation via regular procedures.

Kulick (2009) presents three innovative project elements (case guidance, combination treatment and BORIS) for the rehabilitation and integration of addicted patients. All three projects are oriented to the goals of the pension insurance (occupational integration and maintenance of existing employment). Cooperation (company integration management), joint use of resources (BORIS) as well as close cross-sector networking (combination treatment) and cross-interface support for self-management of the addicts (case guidance) produce synergies and keep otherwise unnecessary additional expense limited.

### **Social assistance and welfare benefits**

People suffering from addiction are entitled to the same social assistance services and welfare benefits from the government, employment agencies and social insurance funds as other indigent groups. Outreach services do form part of these. Discriminating statistical material is however not available.

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

### 9.1 Introduction

Since the possession of drugs is illegal, penal sanctions form part of the most important negative consequences of drug use not only in the EU-member states. The Federal Criminal Police Office (Bundeskriminalamt, BKA) distinguishes in its statistics on drug-related crimes between punishable acts in terms of violations of the Narcotics Act (BtMG) and cases of direct economic compulsive crime. Punishable acts of the first group are recorded according to following four categories:

- General offences in terms of §29 BtMG (especially possession, purchase and distribution, so-called consumption-related offences)
- Dealing/trafficking in and smuggling of narcotic drugs in terms of §29 BtMG,
- Illegal import of narcotic drugs in non negligible quantities in terms of § 30 BtMG
- Other offences against the BtMG

Prosecution of economic compulsive crimes is mainly related to theft and robbery.

### 9.2 Drug-related crime

#### 9.2.1 Drug law offences

In the year 2009, a total of 235,842 drug law offences were recorded (2008: 239,951), out of these around 170,000 were general offences committed against the Narcotics Act and about 51,000 drug dealing/trafficking offences. With this, the number of drug related offences decreased in total by 1.7% compared to the previous year (BMI 2010).

#### Direct economic compulsive crimes

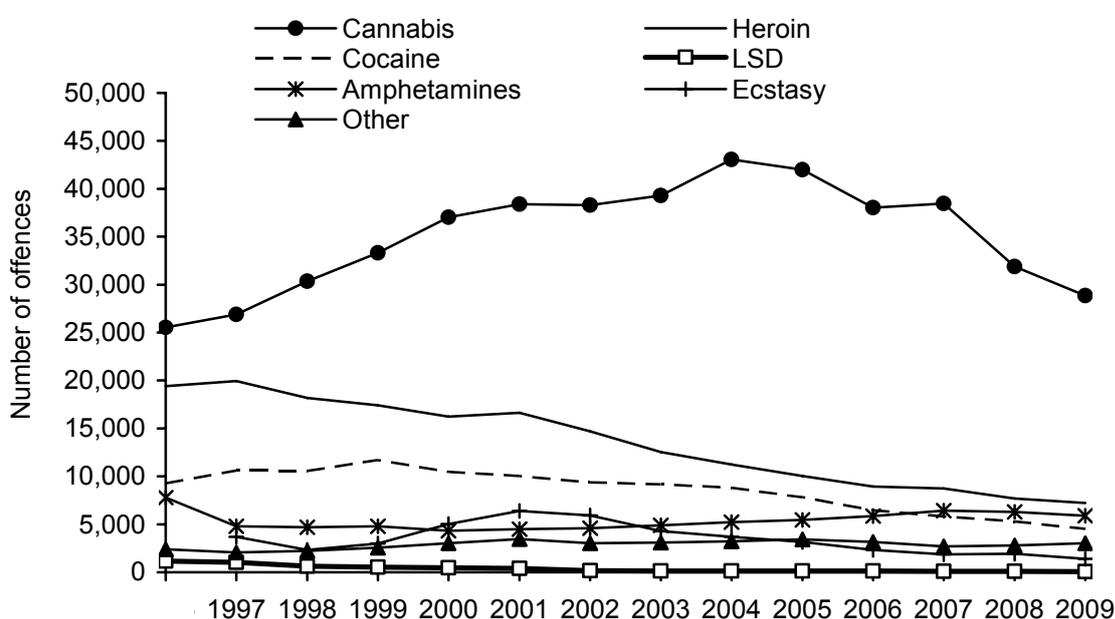
Direct economic compulsive crimes are taken as referring to all criminal offences that are committed in order to obtain narcotic drugs, substitute or alternative drugs. In 2009, 2,479 cases (2008: 2,698) of direct economic compulsive crimes were recorded by the Police Criminal Statistics (Polizeilichen Kriminalstatistik, PKS), which corresponds to a decrease of 7.9% compared to the previous year. With this, the number of this type of offences fell again below the level of the year 2007 after having increased in the last two years. Almost three quarters (72.7%) of these offences are related to forgery of prescriptions or theft of prescription forms to get access to narcotic substances (BMI 2010).

#### Drug dealing/trafficking crimes

These crimes are related to offences committed in connection with commercial/professional dealing in narcotic drugs or smuggling of larger quantities of narcotic drugs. All drug

dealing/trafficking crimes recorded by police are - just as consumption-related crimes taken account of in this report irrespective of the outcome of later legal proceedings.

Both in terms of portions and absolute figures, 2009 cannabis played the most important role in offences related to dealing/trafficking (28,867 offences, 56.6% of all offences; 2008: 31,868 offences, 57.0%), followed – at a great distance – by heroin (7,205, 14.1%; 2008: 7,687, 13.8%) (Figure 9.1). The number and portion of trafficking crimes in connection with cocaine (4,522, 8.9%; 2008: 5,278, 9.4%; 2007: 5,822, 9.1%) have slightly declined over the last years. Since 2000, the portion of trafficking crimes involving amphetamines has continually increased, although the case figure of the last two years has slightly declined. In 2009, the portion of amphetamine offences of all trafficking offences had a share of 11.5% (5,870 offences; 2008: 6,282, 11.2%) in all trafficking crimes ranking third on this list as in the two last years (BMI 2010).



BMI 2010.

Figure 9.1 Development of trafficking crimes

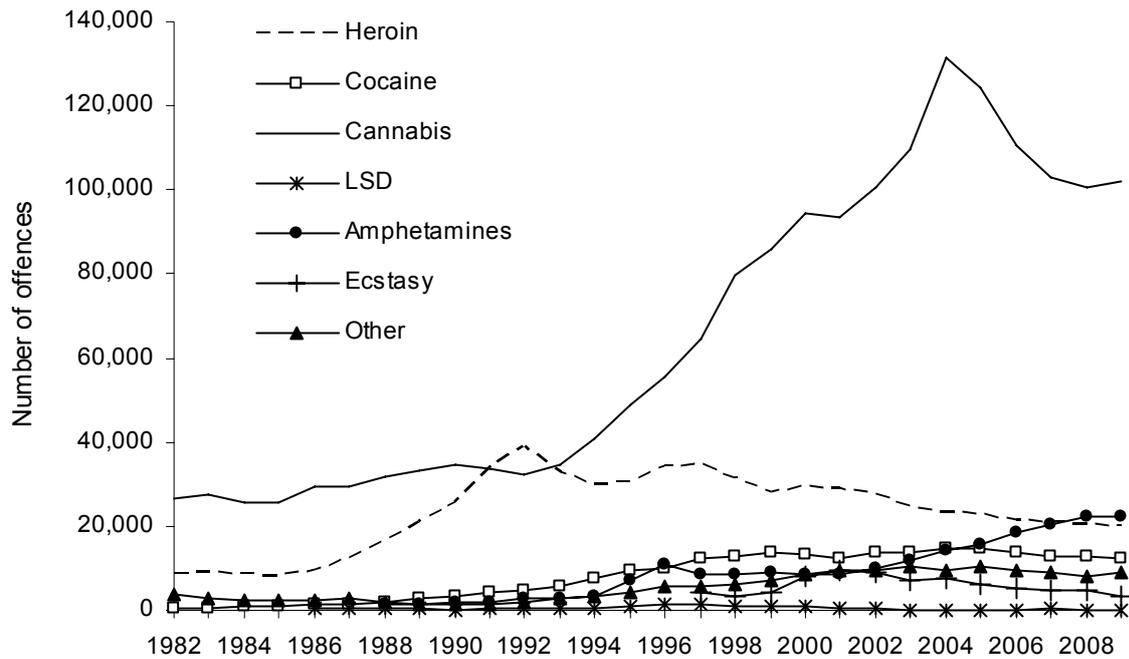
### Consumption-related offences<sup>121</sup>

This section is about drug offences that are - due to the frame conditions (quantity, persons involved) - classified by police as “general offences” and are therefore taken as referring to consumption-related offences.

The police criminal statistics (BMI 2010) show that in this category of offences cannabis also plays a predominant role accounting for about 60.2% of all respective cases in 2009. Heroin

<sup>121</sup> The term "consumption-related offences" is used to describe general offences committed against the Narcotics Act (Beteubungsmittelgesetz, BtMG). The offences committed in violation of § 29 BtMG comprise possession, purchase and distribution of narcotic drugs and similar offences.

(11.9%), amphetamines (13.2%) and cocaine (7.3%) make together 32.3% of the recorded cases. The remaining portions are split between ecstasy, LSD and other drugs. The total number practically remained unchanged in comparison with the previous year (2009: 169,689; 2008: 169,386) similar to the categorization by drug types where changes were minimal. Since the middle of the 1990s, the figure of consumption-related offences involving amphetamines did not continue to increase for the first time (2009: 22,387; 2008: 22,509) (Figure 9.2).



BMI 2010.

Figure 9.2 Development of consumption-related offences

### Users of hard drugs who have come to the notice of the police for the first time

Alongside data on drug-related offences, the Federal Criminal Police Office also publishes statistics on persons who have come to the notice of the police for the first time in connection with hard drugs. These statistics represent a kind of incidence measuring. However, the entries made on these persons have to be erased after a certain legally defined period of time provided no new offences have been committed in the meantime (generally, the data are stored for a period of ten years for adults, for a period of five years for adolescents and for two years for children; in cases of minor importance, the periods may be shortened respectively). In this way, an unknown number of repeat offenders is wrongly classified as "having come to the notice of police for the first time" and the measured incidence overestimates the actual value.

When analyzing the trends, it needs to be taken into account that the number of those coming to police notice for the first time, also depends on the intensity of criminal prosecution. Drug-related crimes are control crimes, i.e. the higher the control, the higher the

number of detected crimes. Through triangulation, a comparison with trends in other recorded areas, e.g. the number of treated cases, can help to evaluate trends more reliably.

The overall figure of users of hard drugs, who have come to the notice of the police for the first time, has been on a slight decline from year to year since 2004 (with the exception of one increase from year 2007 to year 2008). A total of 18,139 persons were registered in 2009 (2008: 19,203; -5.5%). Slight declines were found for heroin (2009: 3,592; 2008: 3,900; -7.9%) and cocaine (2009: 3,591; 2008: 3,970; -9.5%). The number of users of ecstasy who came to the attention of the police for the first time strongly declined (2009: 1,357; 2008: 2,174; -37.6%) so did the numbers for methamphetamine ("crystal" 2009: 364; 2008: 443; -17.8%), crack (2009: 181; 2008: 350; -48.3%) and LSD (2009: 127; 2008: 158; -19.6%) – though at very low total figures. The number of users of other hard drugs who came to the attention of the police for the first time increased from 2008 (286 cases) to 2009 (321 cases) by 12.2%. The number of users of amphetamines who have come to the attention of the police for the first time<sup>122</sup> reached in 2009 the highest level ever recorded with 10,679 persons (2008: 10,631; +0.5%).

The number of users of amphetamines who have come to the attention of the police for the first time account for more than half (58.9%) of the total of users who have come to the notice of the police for the first time (heroin: 19.8%; cocaine: 19.8%, ecstasy: 7.5%, crack: 1.0% and others including LSD: 2.5%)<sup>123</sup>. In these statistics cannabis users are not taken account of, since only so-called hard drugs are recorded (BKA 2010a).

### **Convictions under the Narcotics Act and custody sentences<sup>124</sup>**

According to the sentencing statistics of the Federal Statistical Office (special series 10, part 3) 61,256 persons (2007: 57,116) were convicted in 2008 for offences committed against the Narcotics Act (data for 2009 are not available yet). 53,334 convictions were rendered under the general criminal law relating to adults (2007: 48,363) and 7,922 (2007: 8,753) relating to juvenile offenders. As for the convictions rendered in respect of the general criminal law, 18,195 (2007: 18,341) custody sentences – out of these 11,627 (2007: 11,708) were

<sup>122</sup> Including users of methamphetamine who have come to the attention of the police for the first time.

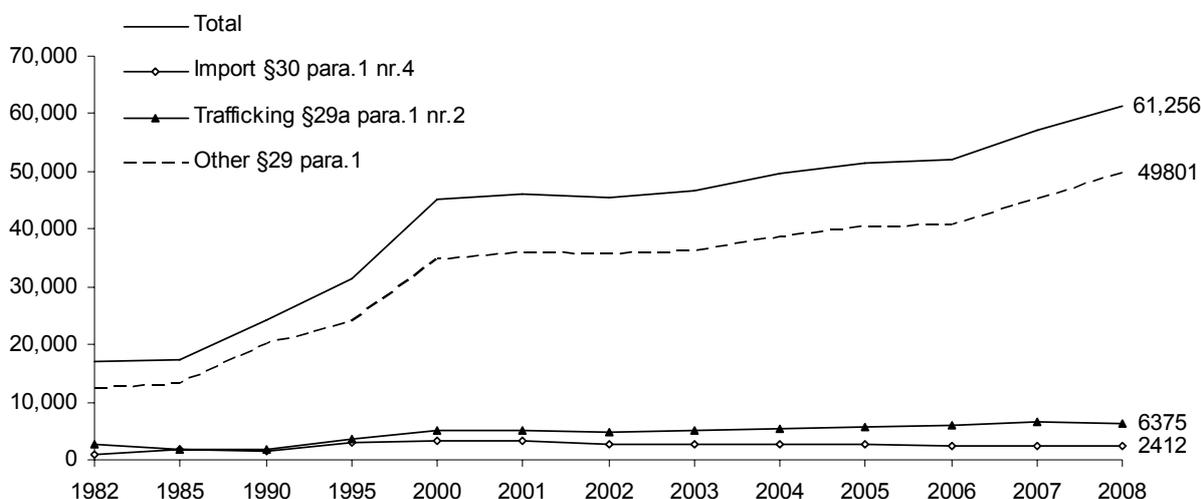
<sup>123</sup> Each person is only counted once in the overall figure under the acronym "EKHD" (Erstauffälliger Konsument harter Drogen - first-time offender using hard drugs). However, to shed some light on the polytoxicomaniac use behaviour, it is possible, to count one person several times for several drug types so that the percental breakdown by drug type exceeds 100%.

<sup>124</sup> Convicts are accused persons receiving orders of punishment resp. criminal procedure after opening of the main proceedings or abandonment of action have been finished with legal capacity. The figure is composed of persons accused and persons against whom other judgments (amongst others acquittal) have been delivered. When sentencing accused persons who have violated several penal provisions in concurrence of offences (§ 52 StGB) or multiplicity of offences (§ 53 StGB), only one element of offence is recorded statistically, namely the one which is fined with the most severe legal punishment. Especially with regard to imposed cumulative sentences for a multiplicity of committed offences the degree of penalty can be higher than it would be according to the criminal law provision for the most severe offence recorded statistically. If several offences of the same person are condemned in different proceedings, the accused will be counted for each criminal case separately.

suspended on probation - and 35,139 (2007: 30,022) fines were imposed (Statistisches Bundesamt 2009b).

The overall figure of convictions was up 7.2% on the previous year (2006-2007: +9.5%). The rise is exclusively attributable to the increase in adult offenders. The figures for young adults<sup>125</sup> and juveniles<sup>126</sup>, by contrast, went slightly down. With regard to the type of crime, the total increase is mainly attributable to the increase in unspecific consumption-related offences (§29 para.1 BtMG) of 10.1% to 49,801 cases (2007: 45,249). The number of drug dealing/trafficking crimes (-3.1%) and the offences in respect of §30 para.1 no.4 (-3.8%), by contrast, slightly declined in comparison with the year 2007 (Figure 9.3).

Convictions rendered for violations of the Narcotics Act accounted for 7.0% (2007: 6,4%) of all convictions imposed in 2008. The portion of male offenders was about double as high as the one of female offenders (7.7% vs. 3.9%). Referred to juveniles, the share of convictions imposed for violations of the Narcotics Act was 3.5% while young adults aged between 18 and 21 years had a considerable higher share at 9,8%. As a result, drug-related offences committed by this age group have an above-average share in the overall crime rate. 62.7% of those convicted for offences committed against the Narcotics Act, have already been sentenced at least once before (men: 64.0%, women: 51.2%); in 61,0% of the cases, the crimes were committed by repeat offenders who had been sentenced at least three times before (Statistisches Bundesamt 2009b).



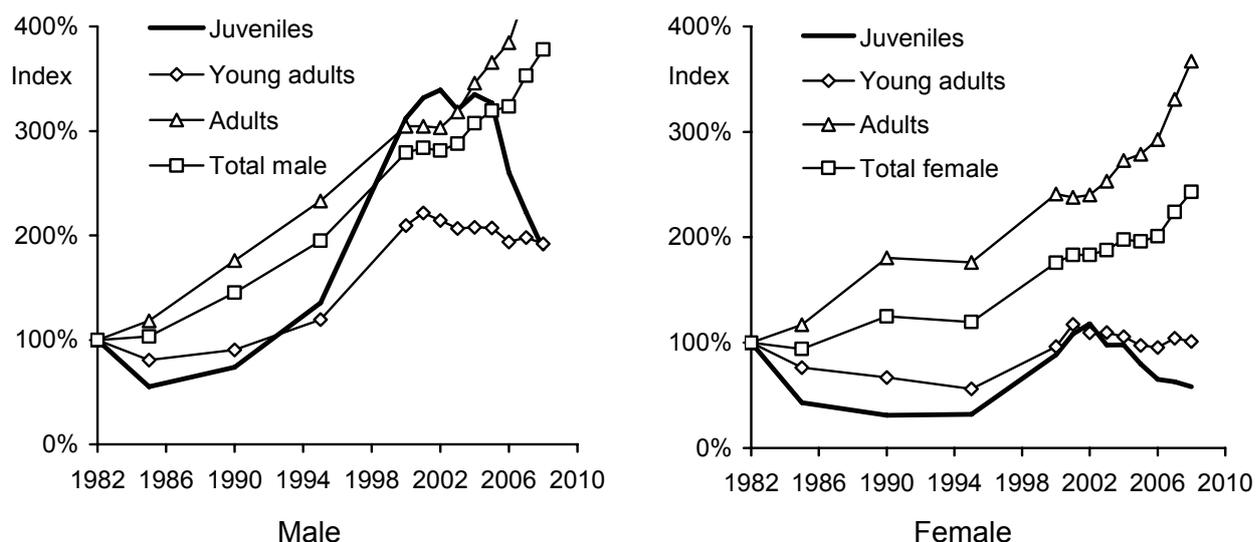
Statistisches Bundesamt 2009b.

Figure 9.3 Convictions rendered under the Narcotics Act

<sup>125</sup> Young adults means persons who are aged 18 through 20 years at the time of the offence (§ 1 JGG). They can either be adjudicated according to the general criminal law or the criminal law relating to young offenders.

<sup>126</sup> Juveniles means individuals who are 14 through 17 years of age at the time of the offence (§ 1 JGG). They are adjudicated under the criminal law relating to juvenile offenders.

As in the previous years, about nine times more men than women were convicted for violations of the Narcotics Act in the year in 2008 (males: 55,036; females: 6,220). As in the previous years, about nine times more men than women were convicted for violations of the Narcotics Act in the year 2007 (men: 51,371; women: 5,745). The development trends of the last 26 years also show marked differences. Using the figures of 1982 as an index (=100%), the number of convictions of men almost quadrupled while the one of women more than doubled until 2008. Significant differences were found between juveniles and young adults. While for juvenile and young adult women the number of convictions in 2008 remained below or at the same level as the figures of 1982, the number of convictions of male juveniles and young adults doubled. This enormous increase in the convictions of male juveniles and young adults mainly happened between the years 1995 and 2000. Between the years 2000 and 2005, no further increases were found for these two groups. From 2005 to 2008, figures for juveniles significantly declined (male juveniles: -42.8%; female juveniles: -27.2%), whereas those for young adults changed only slightly (male young adults: -7.4, female young adults: +3.8%) (Figure 9.4).



Statistisches Bundesamt 2009b.

Figure 9.4 Trends in the convictions rendered under the Narcotics Act

Information on violations of the Narcotics Act can be found in standard table 11.

## 9.2.2 Other drug-related crime

### Drug use and road accidents

Since 2003, the Statistical Report on Road Accidents published by the Federal Statistical Office has been providing information on the question as to whether the operator of a motor vehicle involved in an accident was under the influence of intoxicating substances other than alcohol. Since 1998, driving under the influence of drugs has been legally classified as a regulatory offence. This also applies to cases where unfitness to drive could not be proven.

According to a Supreme Court decision, a THC-content of below 1.0 ng/ml in the blood cannot be taken as constituting an acute impairment of the fitness to drive (Bundesverfassungsgericht 2004).

In the year 2009, police-registered accidents on German roads totalled 310,667 cases with damage to persons and with 472,239 operators of vehicles being involved (Table 9.1). Out of these, 16,500 (5.3%) were under the influence of drugs, 1,281 (0.3%) under the influence of "other intoxicating substances" (Statistisches Bundesamt 2010b). This means that the downward trend observed since 2003 also continued in 2009 and that total the number of accidents with damage to people and accidents under the influence of alcohol declined in comparison with the previous year.

In 2009, the number of accidents under the influence of other intoxicating substances was somewhat below the levels of previous years. However, since alcohol is easier to detect than drugs, it is still to be assumed that drug-related cases are underrepresented in German road traffic statistics.

Table 9.1 Drug use and road traffic accidents – person-related causes

Year	Accidents with damage to persons	Person-related causes	Drivers under the influence of...	
			alcohol	other intoxicating substances
2005	336,619	413,942	20,663	1,343
2006	327,984	403,886	19,405	1,320
2007	335,845	410,496	19,456	1,356
2008	320,641	388,181	18,383	1,440
2009 <sup>1)</sup>	310,667	377,371	16,500	1,281

1) Preliminary data.

Statistisches Bundesamt 2010b.

Werse et al. (2010) report from Frankfurt/M that with regard to the demand for counselling and therapy, requests for medical psychological examinations (MPE) in connection with drug and alcohol use, have been increasing for several years, which was, among others, attributed to the improved detection methods used by police in road traffic control.

Hummel and colleagues (2009) could show in a small sample drawn for a survey (N=69) that patients in levomethadone- and methadone-assisted substitution therapy are capable of passing the MPE to get back their driving licence at the first go.

According to drug aid organisation Fixpunkt (personal communication 2009), the main reason for prosecution of members of the open drug scene in Berlin is (repeated) fare dodging in local public transport. Talks are held between Fixpunkt e.V., the Governmental Administration of Berlin for Health, Environment and Customer Protection and the Berlin Transport Society to find a pragmatic solution.

### Crime experienced by drug users themselves

In the period between 2006 -2008, a separate analysis was carried out within the framework of the Hamburg Basic Documentation System BADO on the persons who received unemployment benefits (ALGII) and who made use of the Hamburg addiction help system. This subgroup was split again into two groups: persons who were referred to the addiction aid system by the ARGE (working group formed between municipality and employment agency) were assigned to group one (n=1.015) and persons without referral to group two (n=16.305). Both groups were asked among others about violence experienced by themselves (life time prevalence). Two thirds of the female and 57% of the male clients referred by the ARGE report physical violence experienced in the course of their lives. With this, the shares are six or respectively seven percent points higher than the ones of the persons who found their way into the drug counselling facilities without referral. Breaking down the male clients by main substance, one finds among the users of cannabis products a considerable divergence between the two groups under review. While 35% of the clients without referral report experience of physical violence, the corresponding share of clients with referral by the ARGE is almost double as high (69%). In the group of the opiate users, by contrast, the males referred by the ARGE appeared to have less experience with physical violence (59%) than the clients without referral (63%) (Martens et al. 2009).

### 9.3 Prevention of drug-related crime

Apart from consequent repression, multifarious measures of criminal prevention are also required to combat crime successfully. Therefore, police has set a particular focus on prevention measures at a national level with the programme "Police criminal prevention of the *Laender* and the Federal Government". The goal of this programme is to inform the population, multipliers, media and other groups who are active in prevention about different forms of crime and possibilities of preventing them. This is done, among others, by criminal preventive PR-work and the development and publication of media, measures and concepts that support the local police offices in their preventive activities.

Loebmann and Verthein (2009) investigated the criminal activity of 1,015 participants of the heroin study who were randomly assigned to one group treated with methadone and another treated with diamorphine. It could be shown on the basis of self-reports and police data that twelve months after the start of the treatment the criminal activity of the patients in substitution declined more strongly than the one of treatment dropouts and that the patients treated with diamorphine engaged in fewer criminal activities than the ones treated with methadone. The results suggest that these effects are attributable to the decline in illicit drug use and the dissociation from the drug scene.

At the end of September 2009, the 9th international congress was held by the national drug help association akzept in Frankfurt/Main on the topic: "From state control to self-responsibility: alternatives to a prohibitive, repressive control policy"<sup>127</sup>. The lecturers covered

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<sup>127</sup> Lectures for download at: [http://www.akzept.org/pro\\_kongress.html](http://www.akzept.org/pro_kongress.html).

the whole spectrum of drug work reaching from police work to drug checking for users. In his statement, the Chief of Police, Mr. Wimber from Muenster, drew the audience's attention to the legal problem posed to police by the principle of legality in terms of § 31a BtMG (cf. chapter 9.4.1). With the legalisation of drug consumption rooms, § 31a BtMG was complemented by the provision that the department of public prosecution is to discontinue prosecution in the case of possession of minor quantities of drugs in a drug consumption room. It is incumbent on the department of general prosecution and not on police to discontinue prosecution – depending on the interpretation of the wording of the law as a directory or discretionary provision. The fact that, on the one hand, the police are obliged – without any exception – to prosecute any even minor offence and that, on the other, the operation of drug consumption rooms is not to be made impossible by proactive control, observation and repression measures by the police leaves the police in a predicament. Wimber made the following proposals to solve this dilemma:

- Amendment of BtMG in § 31a to expand the responsibility for discontinuing prosecution to police
- Amendment of § 29 BtMG to exempt the possession of small quantities of narcotic substances of drug consumption room users from prosecution or
- Granting licenses according to § 3 BtM to drug consumption room users

In the context of the development of instruments for detecting amphetamines researchers succeeded for the first time in determining the doses of amphetamines from exhaled air. Olof Beck and colleagues examined twelve patients who were admitted to an emergency ward for showing symptoms of overdose of amphetamines or methamphetamine. The emergency patients had to exhale for ten minutes into a machine that can filter and record narcotic substances from the air. The researches then determined the drug content by means of liquid chromatography and spectrometry. This procedure offers considerable advantages in comparison with the methods used for testing urine or blood. It is quick and reliable and works without blood sample. The working group now wants to expand its screening techniques and develop the device further so that it can be used for diagnosing other drugs (Deutsches Aerzteblatt 2010a).

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

### **9.4.1 Alternatives to prison**

The Narcotics Act (BtMG) allows the suspension of proceedings in cases of minor guilt or lack of public interest in prosecution (§31a BtMG). This applies mainly to consumption-related offences, in particular when they occur for the first time and third parties are not involved. These regulations are subject to different regional application as shown by a study carried out by Schaefer & Paoli (2006). With regard to the prosecution of consumption-related offences involving cannabis, there has recently been a move to greater convergence of the definitions of limit values for “small quantities” in the Laender in line with the guidelines passed by the Federal Constitutional Court. Further details can be found in

### chapter 1.2.2.

It is moreover possible to defer a prison sentence of up to two years to provide the drug addict with the chance to undergo therapy (“therapy instead of punishment“, §35 BtMG).

Based on 86 social reports on inmates of penal institutions in Saxony-Anhalt, the respective funding organisations gave the promise to bear the costs of therapy in 71 cases. In 59 cases, the prison inmates could be referred to inpatient or day care withdrawal therapy. After the rest of the sentence was suspended on probation in line with § 57 of the criminal law in 36 cases, the start of therapy was turned into an obligation imposed by a judge or a condition of probation (Ministerium fuer Gesundheit und Soziales des Landes Sachsen-Anhalt, personal communication 2010).

## 9.4.2 Other interventions in the criminal justice system

There are possibilities, under certain circumstances, to cease criminal proceedings at all levels. Often, a few hours of community service are a first response of authorities to deal with problematic behaviour in connection with drugs.

There is a series of other possibilities available to curb drug crime and also economic compulsive crimes. Many cities have created legal possibilities to ban drug users from certain places to prevent the formation of open drug scenes.

At public prosecution level, it is possible to stop prosecution of crimes committed by adolescents<sup>128</sup> and young adults<sup>129</sup> who fall under the juvenile law or to discontinue proceedings in respect of the Juvenile Offenders Act (JGG, §§ 45 und 47). This is mostly applied in cases involving only small quantities.

In nearly all Laender, local prevention measures like for example the widely spread programme “Early Intervention in First-Offence Drug Consumers – FreD“ is used as a possibility to intervene without starting criminal proceedings right away. The programme addresses 14- to 18-year-olds but also young adults up to 25 years who have come to the notice of the police for the first time due to their consumption of illegal drugs (for more information on the programme FreD see also the REITOX Reports of the years 2007 and 2008 as well as chapter 1).

## 9.5 Drug use and problem drug use in prisons

According to the data of the Federal Statistical Office (Statistisches Bundesamt 2010a), the number of those sentenced to a term of imprisonment for having violated the Narcotics Act totalled 9,283 (2008: 9,540) in 2009. This corresponds to a portion of 15.0% of the overall prison population. With 16.2% (2008: 16.3%), the portion remained stable among male

<sup>128</sup> Adolescents are taken as referring to individuals aged 14 to under 18 years at the time of the offence (§ 1 JGG). They are adjudicated under the criminal law relating to adolescent offenders.

<sup>129</sup> Young adults are taken as referring to individuals who are aged 18 to under 21 years at the time of the offence (§ 1 JGG). They can either be adjudicated according to the general criminal law or the criminal law relating to young offenders.

inmates in comparison with the previous year. With 17.0%, the portion of women detained for violating the Narcotics Act was slightly below the value of the previous year (18.9%). Among the juveniles, the portion of those detained for violations of the Narcotics Act in 2009 was at 5.1% (males) and 10.5% respectively (females) (2008: 6.7% and 9.8% respectively). The number of those detained for having committed drug offences declined again from 2008 to 2009 – just as it did from 2007 to 2008. However, their portion in the overall sentenced population hardly changed since 2003. As in the previous year, women only accounted for 6% of those detained for violating the Narcotics Act. The portion of drug-related cases among the female detainees has ranged slightly above the comparative values for men since 2003 (2%-5%) (Table 9.2).

Table 9.2 Number of detainees and drug-related crimes

Year		Detainees and persons under preventive detention			Adults detainees		Juveniles detainees		Preventive detention
		Total	M	F	M	F	M	F	
2009	Detainees N	61,878	58,566	3,312	51,971	3,072	6,107	237	491
	BtMG N	9,283	8,737	546	8,421	521	314	25	2
	BtMG %	15	14.9	16.5	16.2	17	5.1	10.5	0.4
2008	BtMG %	15.3	15.1	18.2	16.3	18.9	6.7	9.8	0.7
2007	BtMG %	14.9	14.8	17.4	16.2	15	6.2	8.9	0.2
2006	BtMG %	14.8	14.7	18.2	15.7	18.8	6.8	11.4	0
2005	BtMG %	14.6	14.4	19.2	15.4	20.1	7.3	10.2	0

Note: "BtMG N": Number of persons detained for offences committed against the BtMG, "BtMG %": share of persons detained for offences against the BtMG.

Statistisches Bundesamt 2010a.

Drugs controls are carried out in prisons on a regular basis. The extensive control system comprises urine tests but also large-scale searches with police forces and tracker dogs. However, there are no new data on drug seizures in prisons available from the Laender.

At the cut off date 31.03.2008, the Federal Ministry for Justice presented the data collected from the individual Laender and thus from 195 prisons (total first admissions 2008: 105.545) for the indicators bank of the World Health Organisation (WHO) and the European Network on Drugs and Infections Prevention in Prison (ENDIPP) (Bundesministerium der Justiz 2009). A strong qualification attached to this report is that the data were only available from some Laender and cannot always be clearly assigned to them. As a result, the reference values for the reported figures are largely missing. Extrapolations are not a solution to the problem either since the (few) data stem from very small or very large Laender and divergences would be too strong.

In the reference year 2007/2008, 84,036 drug tests were carried out in seven Laender with 41,292 detainees on average<sup>130</sup>. In five Laender with an average of 35,636 prisoners, 8,452 detainees tested positive. 2,850 of 18,956 tested prisoners in four Laender had a positive test result. Data on the use of illicit substance use upon commencement of the prison sentence are based on estimates in eight Laender and on self-reports in one Land (Table 9.3). In five Laender, the portion of prisoners who use drugs while in detention was estimated (current prevalence). The estimated values in the individual Laender are 10%, 11-30%, 31%, 40% and 56.7%. The divergence between the given values is in part quite large and the figures cannot be assigned to the individual Laender nor can they be related to the overall population. Nevertheless are the values found for cannabis (15-50%) and opioids (apart from one Land at least 8%) an indicator for the high drug affinity of the prison inmates.

Table 9.3 Substance use at the commencement of the prison sentence

Substance	Number of Laender								
	8	5	4	3	2	1	1	1	1
Cannabinoids		15-30%	39-50%						
Opioids			20-30%		10%	1%	8%	10-15%	
Cocaine/Crack	1-10%					20%			
Amphetamines			1-2%	6-10%		10-20%	22%		
Ecstasy			5-10%	1-2%	18-20%				
Mushrooms						0.6%			
Sedatives						5%			
Other						4%			
All illegal drugs						8.74%	26%	30%	36.2%

Bundesministerium der Justiz 2009.

In summer 2008, Thane and colleagues (2009a) conducted a scene survey among the users of 16 drug aid facilities with consumption rooms in 13 German cities (N=791). 604 interviewees (78.3%) had already served a prison sentence and had been detained for 51 months on average. Less than a third of the interviewees (29.5%) who had already served a prison sentence, reported that they had undergone substitution treatment in prison (long-term substitution, no withdrawal). More than a quarter of those who had already been in prison, reported use of heroin while in detention (ever: 26.7%; several times: 25.9%). The only figures coming close to these values are the ones found for alcohol (ever: 22.2%; several times: 14.7%). Other substances were used only by a small portion of the interviewees during detention. It needs to be added here that unprescribed substitution drugs (subutex: ever: 13.7%; several times: 9.4%; methadone: ever: 9.5%; several times: 3.8%) play a more important role in prison than cocaine – contrary to use outside of prison walls (ever: 12.1%; several times: 5.8%) or crack (ever: 4.9%; several times: 1.6%).

<sup>130</sup> No data were available from the missing Laender.

The highest value was given by Stoever (2010a) who estimates that at least 50% of the IDUs in prison continue substance use with high-risk use patterns and that 5%-25% of all detainees make their first experience with (especially injecting) drug use in prison.

Data on drug use in prisons is contained in standard table 12.

## 9.6 Responses to drug-related health issues in prisons

### 9.6.1 Drug treatment

Opiate substitution treatment (OST) in prison follows the principle of equivalence, this means that medical care in prison needs to be equivalent to the care provided outside of prison in the respective *Land* (see also Keppler et al. 2010). In the revised guidelines passed by the German Medical Association on the performance of substitution treatment of opiate addicts (BAEK 2010), it is explicitly stated that “in case of hospitalization, transfer to rehabilitation therapy, imprisonment or any other form of inpatient placement, the continuity of the treatment is to be guaranteed by the service provider” and that “in founded individual cases substitution therapy according to ICD F11.21 (opiate dependence, currently abstinent, but in a sheltered environment – like for example hospital, therapeutic community) may be started“ (see also Stoever 2010a).

Table 9.4. gives an overview of the possibilities of drug treatment in the prisons of the *Laender*. According to the Federal Ministry of Justice (2009b), 1,361 inmates of penal institutions were in OST in March 2008 in eleven *Laender*<sup>131</sup>. In eight *Laender*, OST is available for all detainees and in four *Laender* it is only available for prisoners who were already in OST before they commenced the prison sentence. OST is used in twelve *Laender* for acute withdrawal and in eleven *Laender* for prisoners who were already in substitution treatment before they commenced the prison sentence, with and without time limitation (several responses possible). Psychosocial counselling is offered in addition to OST in six *Laender* in all cases, in six further *Laender* in >50% of the cases, in one *Land* in <50% of the cases and in three *Laender* not at all<sup>132</sup>. External drug help organisations offer their services in all penal institutions in eleven *Laender*.

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<sup>131</sup> There were no data available from the missing *Laender*.

<sup>132</sup> These three *Laender* provide medical care in all cases and special services in individual cases or physician's services and other supporting medical services.

Table 9.4 Types of drug treatment in prison

	<b>In all penal institutions</b>	<b>Number of penal institutions</b>	<b>No</b>	<b>Banned by law</b>
Brief detoxification with medication (< 10 days)	In 14 Laender	5 in 1 Land 3 in 1 Land		
Brief detoxification without medication (cold detox.)	In 7 Laender	5 in 1 Land	In 5 Laender	
Abstinence-oriented treatment with psychosocial support <sup>1)</sup>	In 11 Laender	1 in 1 Land	In 3 Laender	
Treatment with antagonists (e.g. naltrexone)	In 4 Laender		In 10 Laender	
Substitution treatment <sup>2)</sup>	In 9 Laender	1 in 1 Land Individual cases in 4 Laender 5/3/1/6 respectively		

1) Abstinence-oriented treatment means treatment without agonists and antagonists, but other medical drugs may be administered. The goal is to achieve abstinence from drugs.

2) Substitution treatment means treatment with agonists (e.g. methadone or buprenorphine).

Bundesministerium der Justiz 2009.

Schulte and colleagues (2009) have analysed the data of physicians working in 31 German prisons with 14,537 detainees. The portion of injecting drug users in the overall prison population was 21.9%; OST was available in 74.2% of the prisons. In the period under review, a total of 1,137 OSTs with different therapy goals were offered per year.

Stoever & Michels (2010) conclude in their review that access to and quality of OST are substantially worse in prison than outside prison walls. In view of the higher risks for specific diseases the authors demand that the therapeutic modalities in prison need to be at least equivalent to the ones provided for non-prisoners. The authors additionally conducted various studies on OST in prison to investigate clinical and cost-effective drug treatment strategies. The results show on the one hand why treatment efforts for drug users in prison are lower than for non-prison populations and on the other that not only the prisoners profit from the implementation of OST programmes (as shown among others by the decline of intravenous drug use, risk behaviour and needle sharing) but also prison staff (among others security in prison) and the community as a whole (also in terms of costs) (cf. Stoever 2009).

Detailed information on 15 of the 16 Laender for the year 2008 are contained in the REITOX Report 2009 Floeter & Pfeiffer-Gerschel (2009). For the year 2009, recent data are available on internal and external counselling/treatment services offered in prison from the Laender Bremen, Berlin, North-Rhine Westphalia, Saxony Anhalt and Saxony as well as in the table volume of the German Statistical Report on Treatment Centres for substance use disorders for external ambulatory counselling services offered in prisons (Pfeiffer-Gerschel et al. 2010f).

## **Information from the individual *Laender***

### ***Bremen***

Kraft (2009) reports about the experience he made in a penal institution in Bremen. In 2009, 29% of the prisoners were treated with methadone or buprenorphine. Since there was no needle exchange programme available, the IDUs often shared the syringe utensils in groups. In order to prevent infectious diseases, the prison offered HBV vaccinations, free condoms, a counselling service and information in school lessons.

### ***Berlin***

The OST in prisons of Berlin is performed in compliance with the guidelines passed by the German Medical Association on substitution treatment and other legal provisions on a case-by-case basis and after indication by the treating prison doctor. Indicators are especially drug dependence that has existed for many years and severe comorbidity that requires treatment. Other prerequisites are among others that no other illicit narcotic drugs are used and that urine tests are voluntarily performed to rule out by-consumption. The most commonly used substitution drug is methadone, in a few individual cases L-polamidone or subutex are used. The distribution and administration of the substitution drug to the detainees always takes place under the supervision of health care personnel. On 1 June 2008, a methadone distribution machine was set up in the penal institution Moabit as part of a one-year pilot project. The health care personnel rated the distribution positively since the machine allowed better dosing and facilitated work procedures. Methadone distribution machines are currently installed in the medical units of the prisons Moabit and Tegel. The medical units in the prisons of Berlin are responsible for the general medical ambulatory care of the prisoners. In this respect they do not represent specialized practices for addiction medicine although the doctors working there have ample experience with substance-dependent individuals.

In May 2010, the substitution ward of the prison Tegel moved from building II to building VI. With the move, the number of regular treatment slots increased from 18 to 30. In addition, there are more substitution slots available in other prisons, if needed. Apart from an increase in space, the move to building VI – a reconstruction of a building of the 1980s - also brought about the advantage of being better equipped with regard to rooms (like for example rooms for group events and leisure time activities).

Syringe distribution machines are only available in the prison for females in Berlin-Lichtenberg. A demonstration project carried out in closed prison wings for male detainees in Berlin had as a result not to implement the syringe distribution programme in closed prison wings for males.

A working group (drug and addiction work) composed of prison staff working in the areas drugs and addiction and the commissioners for drug and addiction work of the Berlin Government Administration for Justice, is currently working on the development of joint recommendations for drug and addiction work in the prisons of Berlin. The recommendations are to present the various treatment concepts and approaches used by the individual penal

institutions and are to answer questions and provide help for special problem situations. The recommendations are expected to be passed by the end of 2010. For years, the Berlin penal institutions have set themselves the task of offering adequate treatment to prisoners with drug problems and manifest dependence syndromes within the framework of the possibilities of the penal system. In this respect, the prisons assume the task of preparing the inmates for therapy after prison, establishing contacts with drug counselling facilities, creating problem awareness and last but not least offering medical support to drug dependents, who are often in a very bad general physical condition at the commencement of the prison sentence, in order to improve their health and enhance their quality of life. However, given their original task of justice enforcement and their limited possibilities, prisons cannot conceive themselves as addiction treatment facilities in the proper meaning of the word (Senatsverwaltung fuer Gesundheit, Umwelt und Verbraucherschutz Berlin, personal communications 2010).

### ***North Rhine-Westphalia***

The basic provisions for the counselling, care and treatment of drug dependent inmates in prison have been established by a joint circular order by the Ministry of Justice and the Ministry of Employment, Health and Social Affairs as well as by the guidelines on counselling services in prisons passed by the Ministry of Justice in 1998. Revised framework conditions for addiction and drug counselling in prisons of the *Land* have made it necessary to newly adjust the care approach used in prison and to partly shift the focus as regards the question of how to deal with addiction in prison. In this connection, the rehabilitative-oriented counselling offer has been restructured at the beginning of the year 2007. In addition, preventive and palliative-oriented counselling approaches have been newly defined or respectively existing offers intensified (Ministerien fuer Inneres und Kommunales sowie Ministerium fuer Arbeit, Gesundheit und Soziales des Landes Nordrhein-Westfalen, personal communication 2010).

One central element of the palliative-oriented care approach is the OST. Opioid substitution treatment provided in prison offers the advantage of positively influencing the course of the disease and of promoting the goals of justice enforcement. Approximately 35 % of the 17,500 detainees are regarded as dependent on illicit drugs. The majority of them are addicted to heroin. This means that, according to a rather conservative estimate, 2,500 to 3,500 heroin addicts are detained daily in the prisons of North Rhine-Westphalia. Out of these, only 139 are in substitution therapy as is shown by a census conducted on 30.06.2008 (Husmann 2010).

### ***Restructuring of the rehabilitative-oriented counselling service***

Rehabilitative-oriented drug work in prison is primarily performed by prison staff (trained addiction counsellors and social service staff). In this connection, external counselling services play an important complementary role.

Since the shift of focus addiction and drug work in prison is based on the following model:

- Provision of basic information for all detainees (e.g. flyers, counselling during intake).
- Basic counselling for every interested detainee with drug problems (only illicit drugs) based on an application.
- Selection of detainees “who are worth being treated” and who show serious interest in participating and have good chances of success by an addiction counsellor.
- Intensive counselling (e.g. individual counselling measure, admission to a special ward in preparation for therapy) for the detainees selected by the addiction counsellor with the goal to refer the detainee to an external therapy facility and, if this is not possible, to initiate concrete alternative measures with a more palliative approach (e.g. admission to an internal abstinence-oriented ward).

The main difference between the old and new procedure lies in the implementation of a selective element in the assistance provided for the detainees. The admission of an addicted detainee to an intensive resource-consuming counselling process is linked to the performance shown by the detainee. Basic counselling is offered to every prisoner upon request. An intensive support process in which intensive, goal-oriented and centrally controlled care services are warranted may follow initial counselling. The control and warranty function is assumed by the social services of the prisons. They are also responsible for the integration of external counselling facilities into the intensive care process and for the coordination of available resources.

#### *Particularities of the criminal justice system with regard to juvenile and young offenders*

The integration of a detainee into an intensive counselling process presupposes the general suitability that is to be tested, and the readiness of the detainee to participate. With this, the principle of “outreach social work” is not abandoned but the offer is given a higher threshold. However, as for juveniles and young adults, who probably serve their first prison sentence, a low-threshold offer remains the maxim of the care offer. Here, the principle of outreach social work remains the measure of all things.

#### *Preventive- and palliative-oriented care approaches in drug addicts*

The referral to an external abstinence-oriented therapy measure is an important result of addiction work performed in prison but not its exclusive concern. It is however important that offers are also made below this threshold for those drug dependent prison populations that do not want to/cannot yet or not any more profit from the classical offers – motivation, counselling, referral to an abstinence-oriented therapy measure. Therefore, it was imperative to intensify both the preventive offers made but also the palliative measures performed in prison.

There is a high prevalence of offenders at risk of developing addiction among sentenced juvenile and young adult populations, The approach to be taken with regard to the problem areas drugs, substance use and addiction under consideration of preventive aspects is of crucial importance for the further societal integration and the criminal prognosis for this group

of persons, which is particularly emphasized by the law on the criminal justice procedures to be applied for young offenders in North Rhine-Westphalia. In this connection, the following offers are made:

- Individual counselling within the framework of care measures to promote reflection on drug-related behaviour,
- support in dealing with addictive substances below the therapeutic threshold in the sense of addiction medicine,
- development of structures with a view to network counselling services in and outside of prison,
- integration of the medical services into somatic prevention measures (e.g. vaccinations)

Addiction and drug counselling services in prison as well as further relevant specialised services have a control function and initialization task. External counselling and assistance services are integrated in form of in-kind contributions.

The target expansion by a palliative-oriented care approach for drug addicts is abreast of the circumstance that many drug-addicted prisoners are not or not any more eligible for an external therapy measure (e.g. because of repeated failure). The detainees with addiction problems do however also need appropriate treatment and assistance in prison.

*The goals of drug care in prison are in particular*

- detoxification,
- abstinence during detention,
- successful stay in an abstinence-oriented ward or in an open ward,
- start of continuation of substitution therapy,
- release into stable conditions,
- development of structures to link help offers in and outside of prisons.

In this context, the special wards dedicated to the problem fields of drugs and addiction in prisons assume an increasingly important role. The large majority of the prisons already have set up so-called drug wards that have however a very diverging work orientation. Most of them promote abstinence-oriented behaviour in prison or a rehabilitative approach, i.e. their goal is to prepare for external therapy. There is however an increasing demand for wards that realize the above-mentioned goals without pursuing a therapeutic approach in its proper – i.e. addiction medicine-related - sense.

With regard to the performance of OST in prison, medical guidelines for the medical treatment of opioid dependents in prison were developed and approved by the medical associations in North Rhine-Westphalia and the Ministry for Employment, Health and Social Affairs. These guidelines were submitted to the prisons by order dd. 15.01.2010.

A concept has been developed on the topic of “Transfer management for addicted prisoners”. It is to be handed over to the field of practice after a framework agreement with the relevant institutions has been concluded. As for drug dependent detainees whose therapy continuation is not guaranteed after prison release, a case-management is to be performed on the basis of a care contract concluded between the relevant penal institution and an external addiction help facility (Ministerien fuer Inneres und Kommunales sowie Ministerium fuer Arbeit, Gesundheit und Soziales des Landes Nordrhein-Westfalen, personal communication 2010).

### **Saxony-Anhalt**

Eight prisons of the Land Saxony–Anhalt provide internal treatment and care services for detainees at risk of addiction and substance dependents. Only the prison Burg has recently tasked external professionals with setting up an addiction counselling service<sup>133</sup>.

Each penal institution currently has one drug commissioner. The commissioner is generally from the higher social service and he is supported by general prison service staff trained in addiction help. In the year 2009, a total of 794 inmates had contact with internal addiction counselling services. These were first contacts during which more than one piece of information was given on addiction work. Addiction work forms an integral part of the re-socialization efforts undertaken by the prisons and complements the necessary health protection measures provided for the detainees. Core elements of addiction counselling are information and motivation of detainees who are willing to be treated. The detainees are to be made aware of and informed about the health-related, offence-related and social consequences of substance use. The goal is to refer detainees while they are still in detention to inpatient and outpatient rehabilitation services and create the necessary legal, organisational and financial conditions. Internal addiction services of prisons cooperate with specialized clinics and are functionally on equal footing with external addiction help services (Ministerium fuer Gesundheit und Soziales des Landes Sachsen-Anhalt, personal communication 2010).

The number of persons with drug problems (licit and illicit drugs) detained in Saxon prisons is estimated to range between 20% and 70%. Addiction problems are increasingly observed in prisons for women or juvenile detention centres. Saxon prisons generally provide addiction-specific counselling services in the form of external addiction counselling. These services are provided by state-recognized addiction counselling and treatment centres. In the year 2009, more than 2,000 clients received counselling and assistance in more than 8,600 counselling sessions. The portion of women is approximately 11%, out of which 42% are below 25 years of age. A total of 293 detainees underwent inpatient rehabilitation treatment for illicit drugs. 17% of these drug therapies were completed as scheduled (Saechsische Landesstelle gegen die Suchtgefahren e.V., personal communication 2010).

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<sup>133</sup> The relevant provisions on internal addiction work performed in prison in Saxony-Anhalt can be looked up in the implementing regulation of the Minister of Justice dd. 06.10.2006 – 4558 -305. – (MBI. LSA part B no. 47; page 349).

## DSHS

The DSHS contains a separate table volume on external ambulatory counselling in prison since 2008 (Pfeiffer-Gerschel et al. 2010f). Since this table volume only comprises seven penal institutions and since it cannot be excluded either that individual results were only provided or influenced by one or two institutions, the figures require very cautious interpretation. There is no information available on the selection mechanisms for the participating institutions nor can there be any inferences drawn on the representativeness of the participating prisons.

The average age of men with illicit drug use problems who made use of outpatient help in prison in 2009 was 30.2 years (N=447) (2008: 29.2 years; 2007: 28.3); the average age of women was 29.9 years (N=17) (2008: 28.4 years; 2007: 26.9). With this, the average age in men increased in the last two years by one year respectively and in women by 1.5 years respectively.

Particularly striking is the finding that 82.4% (2008: 70.0%) of the detained women who were in treatment for drug problems, were treated for primary opioid-related problems, whereas the portion of men was only at 28.2% (2008: 37%).

In prison, the portion of men in treatment with the main diagnoses cocaine (10.5%) and stimulants (37.1%) is significantly higher than among the outpatients treated in freedom. Primary cannabis-related problems (22.6%), by contrast, play a minor role in the treatment in prison than in outpatient treatment outside of prison walls. For women no case has been documented (Table 9.5).

Table 9.5 Outpatient treatment of drug problems in prison

Main diagnosis	Males		Females		Total	
	N	%	N	%	N	%
Opioids	126	28.2%	14	82.4%	140	30.2%
Cocaine	47	10.5%	1	5.9%	48	10.3%
Stimulants	166	37.1%	0	0.0%	166	35.8%
Hypnotics/Sedatives	5	1.1%	2	11.8%	7	1.5%
Hallucinogenics	0	0.0%	0	0.0%	0	0.0%
Cannabinoids	101	22.6%	0	0.0%	101	21.8%
Mult./other substances	2	0.4%	0	0.0%	2	0.4%
Total	447	100.0%	17	100.0%	464	100.0%

Pfeiffer-Gerschel et al. 2010f.

### 9.6.2 Prevention and reduction of drug-related harm

Schaub et al. (2010) compared voluntary and quasi-compulsory drug treatment (QCT) of a total of 845 drug dependent offenders from Italy (N=300), Austria (N=150), Germany

(N=153), Switzerland (N=85) and Great Britain (N=157). The findings show that in both groups substance use and crime equally declined after six, twelve and 18 months and that health conditions and social integration improved. QCT is thus as effective as voluntary treatment.

### 9.6.3 Prevention, treatment and care of infectious diseases

In the reference year 2007/2008, all offenders had to do a compulsory HIV, HBV and HCV test upon admittance to prison in one *Land* and in another all IDUs had to do a compulsory HCV test. In the penal institutions of 13 *Laender* (HIV) or respectively eleven *Laender* the tests were voluntary. In four *Laender* all detainees were tested for HIV and in three *Laender* all detainees were tested for HBV and HCV. In three (HIV) or respectively six *Laender* (HBV and HCV) only risk groups were tested or no tests were done at all<sup>134</sup>. Upon release from prison, seven (HIV) or respectively six (HBV and HCV) *Laender* offered voluntary tests. In the prisons of ten *Laender* with 75,337 new admissions, a total of 62,318 prisoners were tested for HIV; five *Laender* reported 27,907 HBV tests and 27,156 HCV tests in 33,638 newly admitted detainees. In 13 *Laender* (with an average number of 63,194 detainees) 502 prisoners tested HIV-positive (216 first HIV diagnoses in seven *Laender* with an average number of 52,298 prisoners), in six *Laender* (with an average number of 28,300 prisoners) 1,136 tested HBV-positive (274 new HBV diagnoses in seven *Laender* with an average number of 30,798 prisoners) and in eight *Laender* (with an average number of 31,668 prisoners) 3,854 tested HCV-positive (981 new HCV diagnoses in seven *Laender* with an average number of 29,113 prisoners).

In one *Land*, 37 HIV, 31 HBV and 42 HCV tests were carried out upon release from prison. In eleven *Laender*, counselling before and after the HIV test was compulsory. As for preventive measures, the prison for women in Berlin-Lichtenberg offered a syringe exchange programme and all prisons of twelve *Laender* provided condoms (in most cases for free). Disinfectants for cleaning syringes were not provided. Information material on the prevention of drug-related damage and/or infectious diseases is available to all detainees in the prisons of 15 *Laender*; drug counselling is offered by trained personnel and/or medical professionals in all prisons in 14 *Laender*. Peer education programmes were provided in seven and safer use training in eight out of 29 penal institutions in two *Laender*. 15 *Laender* offered the possibility of a free HBV vaccination. Three of these made this offer to all detainees upon admission to prison and 12 only to risk groups. A total of 451 detainees in seven *Laender* were vaccinated against HBV. Antiviral therapy for HCV was offered in 14 *Laender*. In March 2008, 118 HCV positive detainees received antiviral treatment in seven *Laender*. Antiretroviral therapy for HIV was offered in all prisons in 13 *Laender*. On the census day, 142 HIV-positive detainees received antiretroviral treatment in six *Laender* (Bundesministerium der Justiz 2009).

In their analysis of 31 prisons with 14,537 detainees, Schulte and colleagues (2009) report an HCV prevalence of 14.3% and an HIV prevalence of 1.2%. Approximately 5.5% of the

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<sup>134</sup> There were no data available from the respectively missing *Laender*.

HCV-infected and 86.5% of the HIV-positive detainees were in antiviral or respectively antiretroviral therapy. The authors summarize that substitution treatment as well as HCV and HIV tests are generally available. As a result of the abstinence-oriented therapy goals pursued in prison, substitution treatment tends to be rather seldom and treatment of HIV and HCV is largely limited to patients who have already received treatment before imprisonment (cf. Reimer et al. 2009).

#### 9.6.4 Prevention of overdose risk upon prison release

In its action plan on the implementation of the HIV/AIDS strategy, the Federal Government established that prisons represent a setting that requires specific health care measures to be undertaken. Therefore, talks are being held with representatives of the ministries for justice of the *Laender* with a view to promote substitution therapy in prison. In particular the transition from prison to life in freedom carries a special risk of overdose

Given the high mortality risk of IDUs after prison release, the revised guidelines passed by the German Medical Association on the OST (BAEK 2010) explicitly allow the start of an OST for currently abstinent dependents.

As part of the special measures undertaken to prepare detainees for release with regard to drugs, all prisons in ten *Laender*<sup>135</sup> provide information, one Land provides referral to outpatient and inpatient rehabilitation therapy, 15 *Laender* offer counselling on the increased overdose risk after prison release and on prevention, four *Laender* offer the start and ten *Laender* the continuation of an OST. Referral to external drug help services is provided in all prisons of 12 *Laender* and continuing care by the same services in six *Laender* (Bundesministerium der Justiz 2009).

#### 9.7 Reintegration of drug users after release from prison

With regard to the preparation of the release of detainees from prison, the legal framework establishes that detainees are to receive assistance upon prison release (§ 74 Penal Code in connection with § 15 Penal Code) with a view to promote societal integration after prison. In order to reach this goal prison services are to cooperate at inter-departmental level (§ 154 Penal Code).

Moreover, providers of social security services are to form networks and cooperate with the competent agencies to complement each other in the pursuit of the same goal (§ 68 paragraph 3 Social Code XII and § 16 paragraph 2 Social Code II). Corresponding strategies and measures are developed and implemented under the term transition management. On the one hand, it is tried to facilitate a smooth transition from prison to freedom with integration into training, work and employment, on the other, to tackle problems linked with detention and criminal careers. The main task of transition management is to improve the situation of the clients by offering them counselling and care but also possibilities of professional qualification and training as well as job placement.

<sup>135</sup> There were no data available from the respectively missing *Laender*.

Although from an historic viewpoint there have been corresponding efforts undertaken already 150 years ago with the introduction of the assistance for offenders and the introduction of the probation service in the 1950s, the discussion and the implementation of a transition management still require further development.

The prison in Fuhlsbuettel introduced a national innovation in the year 2008 by setting up a special ward dedicated to the preparation of drug addicted and drug abusing detainees upon admission to prison. The two main goals of the ward are to pursue therapeutic contents and, on the other, to motivate the detainees to continue therapy after release from prison, which is to be achieved through a complex system of measures. In this context, a so-called skills training in the sense of the dialectic behavioural therapy (DBT) was developed and introduced by the Ministry of Justice in Hamburg in cooperation with the German Centre for Addiction Research in Childhood and Adolescence (Deutsches Zentrum fuer Suchtfragen des Kindes- und Jugendalters, DZSKJ). Individual modules and the ward are scientifically evaluated in order to assess the effectiveness and to continually develop the concept further. The evaluation runs until 2011<sup>136</sup>.

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<sup>136</sup> See also <http://www.uke.de/zentren/suchtfragen-kinder-jugend/index.php>.



## 10 Drug markets

### 10.1 Introduction

Indicators of the situation on the illicit drug market are, apart from the perceived availability and supply of illicit substances, also the number and size of seizures, prices and levels of active ingredients or purity of the substances respectively. The attempt to get a grasp of new drugs, their structure and effects, is associated with considerable expense in the form of complex chemical analyses. Such analyses are carried out for example by the Forensic Science Institute of the Federal Criminal Police Office (BKA). Information on seizures is also available from the BKA or the Land Criminal Police Offices (Landeskriminalaemter, LKAe).

#### Availability and supply

Availability and supply are two different perspectives of the drug market: the perspective adopted by the buyer on the one hand and by the supplier on the other. The availability of illicit substances as perceived by the population or the users can be assessed by means of statements made in surveys on how 'easy' or 'very easy' they are to obtain during a certain period of time. In Germany, these data are regularly collected by the Epidemiological Survey on Addiction (ESA) (not in 2006), the Drug Affinity Study (DAS) carried out by the BZgA and within the framework of regional monitoring systems (e.g. MoSyD Frankfurt). The perceived availability reflects the situation on local and regional drug markets but also personal opinions. Other aspects of availability are indicators like the price, purity and seizures. Seen from the perspective of the suppliers, the market situation is reflected by the number, quantity, price and quality of seized drugs.

#### Seizures

In Germany, in particular at the borders with neighbouring countries and at airports, large quantities of narcotic drugs are regularly seized. For some of the seized substances, police and customs authorities identify the country of departure, origin or transit. The BKA statistics presented in the following contain all data on the seizures made by the police offices of the *Laender*, the BKA and the customs offices.

#### Price

At the end of the year 2002, the Land Criminal Police Offices (Landeskriminalaemter, LKAe) and the Federal Criminal Police Office (BKA) agreed on an expanded collection of data on domestic drug prices. Since then, apart from the highest and lowest prices, the so-called "predominant market prices" at street and wholesale level have been recorded, with a differentiation being made for the latter between trade volumes from 1-10 kg and above 10kg. In order to guarantee a maximum of representativeness of the price survey, data are generally collected at four to six locations in the *Laender* (by police offices in urban and rural areas) and then transferred to the respective LKA. The Land Criminal Police Offices join the

data from the measuring locations and further available information in a standardized table and transfer the current market prices of drugs in their Land to the BKA once a year. Based on these data, the BKA calculates the average drug prices for Germany.

The thus established drug prices can only be interpreted as rough approximate values, particularly since differences in purity and quality categories are not taken into account in establishing the prices. Furthermore, things are rendered even more difficult by the fact that prices only get known in connection with a few incidents, so that random effects may substantially alter these figures.

In 2010, the EMCDDA published a manual with guidelines on the collection of data on drug prices at street-level. Apart from describing methodological difficulties like for example geographic coverage, representativeness and weighting, the manual also gives examples of drug price calculations from several European countries. In France, Norway or the Netherlands for example, expert groups from the health area and criminal prosecution or respectively from various "scenes" give estimates of current drug prices (EMCDDA 2010).

Currently an international group of experts under the direction of the EMCDDA is engaged in the harmonization of the data collecting procedure for wholesale drug prices on European level.

Also surveys by trendscoouts and interviews among the drug scene carried out within the framework of MoSyD Frankfurt provide estimated values for the prices of various drugs.

### **Purity**

Apart from establishing prices, the Federal Office of Criminal Investigation also ascertains the purity of different drugs on the market. Samples taken from drug seizures serve as a basis for the analysis of purity and content of active substances. For better comparability the contents of psychotropic ingredients are related to the chemical form of the base, irrespective of the form in which the illicit preparation of the substance is found. All figures given may only be interpreted as rough values because large differences in purity levels of the individual substances seized may lead to marked random effects. As the distribution of values diverges considerably from the normal distribution, median values are used instead of arithmetic means.

The presentations are based on data provided by the BKA upon request of the DBDD. The active ingredients of the seized substances are quantified and broken down into three levels: street trafficking (< 1g), retail (1g to <1,000g) and wholesale ( $\geq$  1000g). Results are presented in a discriminating manner, insofar as considerable differences in purity levels at wholesale and street trafficking level were found. The reason for this is that active substances are increasingly diluted from the wholesale to the street trafficking level for profit maximization. Apart from the data on active ingredients, the most frequently found additives are reported. Insofar as these are pharmacologically effective, they are categorized as adulterants (e.g. caffeine) or otherwise as diluents or fillers (e.g. sugar).

## 10.2 Availability and supply

### 10.2.1 Perceived availability of drugs, exposure, access to drugs

Information on the perceived availability of drugs is contained in the REITOX Report of the year 2005. The DAS 2008 currently only has data on the offer of illicit drugs and on the readiness to try or reject drugs. More detailed information will follow in the REITOX Report 2011.

Out of the 12- to 25-year old adolescents and young adults surveyed within the framework of the DAS 2008, 47.0 percent have already been offered illicit drugs and 28.9 percent have already used illicit drugs. This means that a considerable part of those who have been offered drugs, reject drug consumption. The readiness to try individual drugs or to reject drugs indicates whether the attitudes towards individual drugs have changed. The readiness to try drugs can thus be regarded as an early indicator of possible future consumption trends. In the year 2008, two thirds of the adolescents (62.8%) said one should never try drugs. A bit more than a third (35.1%) said that one could perhaps try drugs. The readiness to try any drug considerably increased in the period from 1993 to 2004 from 19.5 percent (1993) to 47.6 percent (2004). Currently, the readiness to try drugs is on the decline. In 2008, it was at 35.1 percent. This decline is exclusively attributable to the readiness to try cannabis. Cannabis is nevertheless the by far most likely illicit substance to be tried by adolescents. Currently, 71.2 percent of the adolescents categorically reject using cannabis and 27.9 percent of the adolescents can imagine trying cannabis. For all other substances the readiness to try consumption has remained stable in the last decade, though at a significantly lower level. This means that the majority of illicit drugs is rejected by approximately nine tenths of the adolescents (BZgA 2010).

From the school survey contained in the annual report of the monitoring system drug trends (MoSyD) Frankfurt/M. (Werse et al. 2009) and from the trend scout panel for various Frankfurt scenes (defined according to leisure time or nightlife activities) information can be gleaned on the availability of illicit drugs. According to that the number of young people who has been offered cannabis once has slightly increased for the first time in 2009 after a continuous decrease since 2002. The proportion of those who have been offered other illicit drugs has again slightly increased. (cf. REITOX-Report 2009).

The so-called research chemicals (RC) or legal highs (cf. chapter 10.4.2) are a relatively new phenomenon. „RC“ is the abbreviation used in circles of experimental drug users for synthetic psychoactive substances of different substance categories (e.g. piperazine, cathinone or also cannabinomimetic substances) that have not (yet) been placed under the Narcotics Law and that have in part similar effects like the more known drugs (e.g. amphetamines, ecstasy, cannabis). Declared as “bath salts“, “fertilizer tablets“, “air fresheners“ or similar things, such substances are legally available on the retail market or from online shops and head shops (without indication of the concrete ingredients) (Werse et al. 2010). In order to get an overview of the phenomenon of online trading with potentially illicit drugs, the BKA carried out an Internet monitoring that however only allowed to gain

information on consumption-related offences (cf. chapter 9.2.1), reports on use experience and trade with (still) licit products (Kipke 2010).

### **10.2.2 Drugs origin: national production versus imported**

According to the Federal Criminal Police Office (BKA 2010a), illicit drugs, apart from cannabis (cf. Kipke & Floeter 2009) are almost exclusively imported from abroad. The trade routes are described in chapter 10.2.3.

In the year 2009, cannabis was again extensively cultivated outdoors and indoors, although the number of detected and seized outdoor plantations sank from 102 to 67 (-34%) and the number of indoor plantations from 415 to 342 (-18%). Among the 67 outdoor plantations were two professional plantations (cultivation capacity of more than 1,000 plants), nine large plantations (100-999 plants) and 56 small plantations (20-99 plants) with a total of 5,324 seized cannabis plants. The 342 indoor plantations are composed of 26 professional plantations, 98 large and 218 small plantations with a total of 91,310 impounded cannabis plants. Most of the outdoor plantations were recorded in Bavaria (24%) and most of the indoor plantations in North Rhine-Westphalia (22%). The professional indoor and large indoor plantations were especially concentrated in the area of North Rhine-Westphalia (31%).

Representatives of the judiciary from Frankfurt/M. report increased preoccupation with the topic cannabis especially with respect to the more frequent seizure of indoor plantations. This has largely to do with the fact that the police have started to take more notice of the domestic production of marijuana products and to prosecute it more intensely – in part with new methods. In cases of suspicion, the police also make inquiries with electricity suppliers (indoor plantations have a comparatively high electricity consumption) (Werse et al. 2010).

### **10.2.3 Trafficking patterns, national and international flows, routes, modi operandi and organisation of domestic drug markets**

The overall number of registered seizures of narcotic drugs declined in the year 2009. Almost all types of drugs followed this trend. A large number of cases were, as usual, related to the smuggling of relatively small quantities of drugs that were imported within the framework of drugs runs by users or retailers from the Netherlands to Germany. Apart from being smuggled overland, narcotic drugs were also transported by flight messengers or as airmail to Germany at high frequency. The drugs were often bound for other European countries but seldom for countries outside of Europe. Seaborne smuggling remained an exception although in the few cases that were detected large quantities were transported. In connection with seizures, German nationals were identified as suspects in more than half of the cases involving nearly all types of narcotic drugs. Their portion was particularly high in seizures of synthetic drugs and cannabis plants. Only in connection with seizures of raw opium and khat, German nationals appeared as suspects in less than half of the cases respectively (BKA 2010a).

After drug trafficking in Berlin had moved into the suburban and underground railway system, the police set up a special unit to prosecute drug trafficking in the local public transport system. This led to a further decentralization of drug trafficking (Fixpunkt e.V., personal communication 2009). Similar trends have also been reported by the MoSyD in Frankfurt since several years.

### **Cannabis**

Seizures of cannabis products showed a declining trend in the year 2009. Hashish entered Germany mainly from the Netherlands but also via Belgium and France. In a large number of cases, the origin of the smuggled drugs could be traced back to the European distribution source in Spain. Marijuana was mostly smuggled in smaller quantities, but at a high frequency from Austria, Switzerland and the Czech Republic to Germany. Among the non-German nationals who were identified in connection with seizures of cannabis products, Turkish nationals played a predominant role (BKA 2010a).

### **Heroin**

The origin of larger quantities of heroin seized in Germany was mainly traced back to Bulgaria and Turkey. Several deliveries of heroin were intended for other European countries, especially the Netherlands. Among the non-German nationals identified in connection with heroin seizures in Germany, Turkish nationals dominated the scene (BKA 2010a).

### **Cocaine**

In contrast with the previous year, much larger individual quantities were seized in 2009, which led to a great increase of the total seized amount. In a container shipped from Honduras to Belgium and from there transported further by truck to Germany, approximately 200 kg cocaine was found. Furthermore, 122kg cocaine was seized in a ship container from Uruguay, 108 kg in a container from Ecuador bound for Nepal and 63 kg in a caravan that was shipped from Peru to the Netherlands. Airborne smuggling from South America to Germany takes place at a high frequency, with Brazil and Argentina being the main countries of origin or transit. In many cases, the cocaine seized in Germany was meant for distribution within Europe. Often, transport was planned especially to Spain, Great Britain and the Netherlands. Italy, too, was identified as an important destination, though in fewer cases but with comparatively high individual quantities being involved. Several airmails with smaller quantities were in transit into the direction of China or South Africa. Among the non-German suspects identified in the seizure cases, mainly Turkish nationals were involved followed by Italians. Large seizures led to a significant increase in the overall quantity of seized cocaine (BKA 2010a).

On 2010/07/16, Spiegelonline<sup>137</sup> reported on the largest seizure of cocaine to date on 2010/04/12 in the port of Hamburg. A group of drug smugglers wanted to import 1.33 tons of cocaine integrated in wood briquettes on a container ship from Paraguay.

As in the previous years, the by far largest part of the total quantity of crack seized was impounded in Hamburg. In connection with seizures of crack, Turkish nationals dominated the scene among the non-German suspects (BKA 2010a).

### **Amphetamines**

Approximately 64% of the seized quantities of amphetamines were seized in Saxony and Bavaria. As in the previous years, numerous seizures were also registered in Thuringia with significantly lower individual quantities though. The large majority of amphetamines were verifiably smuggled from the Netherlands to Germany; in several cases the drugs entered the country via Belgium or Poland. In addition, the Czech Republic was identified quite frequently as the country of origin for amphetamine and also methamphetamine seized in Germany – though in comparatively low quantities. In connection with seizures of amphetamines and methamphetamines, especially Turkish but also Polish nationals were identified as suspects among the non-German nationals. As in the previous years, the phenomenon “Crystal” appeared mainly in the regions close to the Czech Republic (BKA 2010a).

### **Ecstasy**

The large majority of the seized ecstasy tablets, whose origin could be traced back, came from the Netherlands. In a few individual cases, it was found that large quantities of packages with four tablets were destined for further transport to Austria, Italy, Switzerland, but also for Poland and other countries in Eastern and South-East Europe. Among the non-German suspects who appeared in connection with the seizures of ecstasy, Turkish and Dutch Nationals played a predominant role (BKA 2010a).

## **10.3 Seizures**

### **10.3.1 Quantities and numbers of seizures of all illicit drugs**

When comparing the years 2008 and 2009, one finds that the seized quantities of heroin, cocaine and LSD have strongly and the ones of amphetamines slightly increased, while the seized quantities of hashish, marijuana, crack (with comparatively low numbers for the total quantity), mushrooms, ecstasy and khat strongly declined. The main reason for these fluctuations are large individual seizures. As regards hashish and marijuana, the seized quantities declined in 2009 as a result of the absence of seizures of the scale of the previous year (2008: one seizure of hashish of approximately 4,000 kg and one seizure of marijuana of 5,470 kg). The increase in the total quantity of seized heroin (+50.8%) is mainly attributable to a considerable increase in seized quantities in the two-digit kilogram range, whereas 2008 did not see any large individual seizures of heroin. The situation is similar for

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<sup>137</sup> Available at: <http://www.spiegel.de/panorama/justiz/0,1518,706178,00.html>.

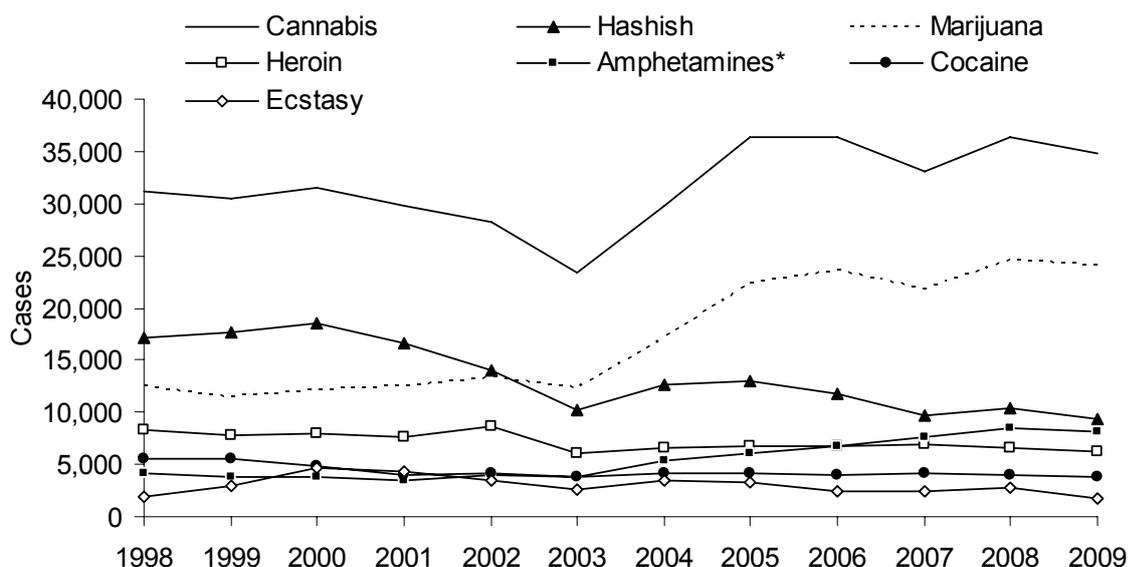
the quantities of seized cocaine that strongly increased (59.7%) between 2008 and 2009 as a result of several seizures in the three-digit kilogram range. The seized quantity of amphetamines continued to increase (+7.8%) for the eighth consecutive year. The largest individual seizure of amphetamines ever made in Germany with 284 kg in the year 2008, was beaten in 2009 by the seizure of 360 kg in Lower Saxony (BKA 2010a). Table 10.1 gives an overview of the illicit drugs seized in Germany in the years 2008 and 2009.

Table 10.1 Seized quantities of illicit drugs in Germany 2008 and 2009

<b>Substance</b>	<b>2008</b>	<b>2009</b>	<b>Change</b>
Heroin	502.8 kg	758.4 kg	+50.8 %
Cocaine	1,068.6 kg	1,707.0 kg	+59.7 %
Crack	8.2 kg	4.6 kg	-43.9 %
Amphetamines (thereof Crystal)	1283.2 kg (4.2 kg)	1,382.7 kg (7.2 kg)	+ 7.8 % (+71.4 %)
Ecstasy	751,431 units	521,272 units	-30.6 %
Hashish	7,632.3 kg	2,220.0 kg	-70.9 %
Marijuana	8,932.2 kg	4,298.0 kg	-51.9 %
LSD	12,875 units	20,705 units	+60.8 %
Khat	29,488.6 kg	24,004.5 kg	-18.6 %
Mushrooms	17.6 kg	12.2 kg	-30.7 %

BKA 2010a.

A precise indicator for (short-term) trends is the number of seizure cases (Figure 10.1). The total number of seizures of heroin, opium, cocaine, crack, amphetamines, crystal, ecstasy, cannabis and LSD was in 2009 (54,728 cases) 6.6% below that of 2008 (58,567). The decline is mainly attributable to the lower case figure found for cannabis seizures (hashish: -9.9%; marijuana: -1.9%); but also the case figures of heroin (-6.9%), cocaine (-2.5%), amphetamines (-4.1%) and khat (-4.0%) have slightly decreased and the ones of mushrooms (-47.5%) and ecstasy (-34.7%) have dropped strongly. Methamphetamine ("crystal") is the only type of narcotic drug for which an increase in the case figure (+25.3%) was found – it needs to be added though that the absolute case figure is comparatively low (BKA 2010a).



The category amphetamines also contains seizures of "crystal", which was recorded separately for the first time in 2006. \*)

BKA 2010a.

Figure 10.1 Number of seizures of narcotic drugs in the Federal Republic of Germany from 1998 to 2009

When looking at the seized quantities and the number of seizures, one can see that figures have increased since 2000 especially for amphetamines (+410% and +117% respectively) and declined for ecstasy (-68% and -62% respectively) (Table 10.2). Despite the strong decrease found in the quantities seized, the case figures recorded for heroin and cocaine in 2009 hardly differed from the ones of the year 2008 (see above) and declined by approximately 20% in respect of the year 2000 (BKA 2010a).

Table 10.2 Changes in number and quantity of seizures

	2009 vs.	Heroin	Cocaine	Amphe- tamines	Ecstasy	Can- nabis	Mush- rooms	Khat
Cases	2008	-7%	-2%	-4%	-35%	-5%	-48%	-4%
Amount	2008	+51%	+60%	+8%	-31%	-61%	-31%	-19%
Cases	2000	-23%	-20%	+117%	-62%	+10%		
Amount	2000	-5%	+87%	+410%	-68%	-55%		

Note: Increases >10% are marked by framed fields and declines >10% by shaded fields.

BKA 2010a.

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

In the year 2009, 127,718 cannabis plants were seized in 1,359 cases (Table 10.3), which corresponds to a slight increase in seized plants (+5.0%) and a slight decline in the case

figure (10.9%). If one includes the year 2007, one finds that the figures currently appear to stabilize at a high level (BKA 2010a).

Table 10.3 Seizure of cannabis plants

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amount <sup>1)</sup>	168,833	25,277	68,698	29,352	35,863	68,133	93,936	190,241	135,252	121,663	127,718
Cases	1,254	1,048	785	887	750	1,008	1,035	1,121	1,463	1,526	1,359

1) In units.

BKA 2010a.

In addition to the basic material and chemicals (cf.10.3.3) seized in 2009 in illicit drug laboratories, 100.0 l BMK, 215.65 kgs ephedrine, 78.0 kgs pseudo-ephedrine in tablets or powder, 1,440 tablets with pharmaceuticals containing pseudo-ephedrine and 15,000 phials with totally 22.5 l GBL were also seized since these basic material and chemicals were obviously destined for the manufacture of illicit drugs (BKA 2010b).

Information on seizures of precursor chemicals used for the manufacture of other illicit drugs is not available. The BKA (cf. 10.2.1) detected in an Internet monitoring several individual cases of trade with precursor chemicals or additives (among others acetic anhydride, GBL, ephedrine, lidocaine, additives for herbal mixtures) that could be ordered from foreign online shops, which however cannot be prosecuted in Germany (Kipke 2010).

### 10.3.3 Number of illicit laboratories and other production sites dismantled; and precise type of illicit drugs manufactured there

In the year 2009, 24 illicit drug laboratories were uncovered, which corresponds to the level of the previous year (25 laboratories). As in the previous year, the detected production sites were mainly small laboratories that produced methamphetamines to meet the operators' private demands or to supply a limited circle of buyers (BKA 2010a). On the whole 0.17 kgs amphetamines and 1.99 kgs methamphetamines were seized in the uncovered laboratories (BKA 2010b).

An overview of the recent seizures can be found in standard table 13.

## 10.4 Price / Purity

### 10.4.1 Price of illicit drugs at retail level

The drug prices reported by the BKA (Table 10.4) only changed little from 2007 to 2008. Retail prices for heroin (+2%), cocaine (+1%), marijuana (+0%) and ecstasy (-1%) practically remained stable. On average, prices of hashish (+15%) and crack (+9%) slightly increased whereas prices of amphetamines (-15%) and LSD (-7%) declined. In the year 2009, the average street price for one gram crystal was at 71.3 € (2008: 59,3 €; 2007: 50,6 €) and, as in the previous year, strongly increased again (2008-2009: +20%). At wholesale level, only the price of amphetamines slightly declined (-6%), whereas cocaine (+12%),

marijuana (+9%), hashish (+8%), heroin (+7%) and ecstasy (+1%) became somewhat more expensive (BKA SO 51, personal communication 2010).

The overview of current drug prices is contained in standard table 16.

Table 10.4 Drug prices between 2008 and 2009 (all prices in €)

		Heroin	Cocaine	Crack	Ecstasy	Amphetamines	Marijuana	Cannabis resin	LSD
Small quantities <sup>1)</sup>	2009	36.9	62.4	58.3	6.6	10.5	7.9	6.8	8.4
	2008	36.2	61.6	53.3	6.7	12.3	7.9	5.9	9.0
Change		2%	1%	9%	-1%	-15%	0%	15%	-7%
Large quantities <sup>2)</sup>	2009	19,214	41,115	--	1,936	4,040	3,702	2,654	--
	2008	18,011	36,818	--	1,909	4,307	3,400	2,453	--
Change		7%	12%	--	1%	-6%	9%	8%	--

1) Price per gram.

2) Price per kilogram.

BKA SO 51, personal communication 2010.

After having shown a clear trend towards an increase in importance in the open drug scene in the last few years, heroin use appeared to stagnate according to experts' opinion at a comparatively high level. Heroin continues to be available in Frankfurt at a comparatively high quality and relatively low price. This circumstance is favoured by the fact that the heroin trade is still dominated by Macedonian-Bulgarian dealers. These continue to offer the drug at a comparatively high quality – concentrations of active ingredients of over 20% were measured – contrary to previous years during which purity used to range from below 5% to a maximum of 10% (these are also the levels currently found in other cities). The price of heroin appears to have stagnated at a low level. The police still report an average price of 20 Euro (it needs to be added here that the price for small and very small quantities can indeed be much higher, cf. among others Werse et al. 2009). Since prices appear to be lower in Frankfurt than in any other urban or regional scene, an increasing number of people come from other *Laender* to cover their own needs or to buy drugs for resale. The group of Macedonian dealers, who appear to be relatively friendly towards their clients, are basically unrivalled since they seem to largely limit their activities to the area of Frankfurt/Offenbach. Although quite a few members of this group were arrested in the year 2009, this did not appear to noticeably impact the trade volume or the heroin price (Werse et al. 2010).

### Profits from the sale of marijuana

According to the knowledge of the forensic institute of the Land Criminal Police Office in North Rhine-Westphalia, it is possible to obtain at least 25 g consumable marijuana from the appropriate cultivation of a full-grown cannabis plant. The average value of about 50 cannabis plantations with plants ready for harvesting or harvested plants respectively has been slightly higher than 40 g of consumable dried marijuana in North Rhine-Westphalia. Professional plantations even reach 50 g. The average value assumed for the profit and loss

calculation is rounded down to 40 g. For the calculation of the proceeds of an indoor cannabis plantation, the minimum and average value are established by multiplying the number of plants by the minimum quantity (25 g) or respectively the average quantity (40 g) of potentially consumable marijuana. The calculated weight is then multiplied by the current street price (2009: 7,90 €/g) or by the wholesale price respectively (2009: 3,702 €/kg). From these values the costs for the plants (one cutting costs for example 2,50 € in the Netherlands) and the pro-rata re-usable technical equipment to the total amount of 10 € per plant are then deducted. The costs for the energy supply are not included in the calculation here since the electricity needed for the operation of an indoor plantation was illegally branched off in the large majority of seizure cases. To summarize, 1000 cannabis plants yield profits at retail level ranging between 187,500 € and 306,000 € and at wholesale level between 82,550 € and 138,080 €. For the year 2009, this means a non-realized profit from 127,718 seized plants ranging between 9.6 million € and 16.1 million € in the wholesale and between 23.9 Mio. € and 39.1 million € in the street sale (BKA SO 22, personal communication 2010 and own calculations).

#### **10.4.2 Purity / Potency of illicit drugs<sup>138</sup>**

##### **Composition of illicit drugs and drug tablets**

The figures presented on the active substances contained in amphetamines, cannabis, ecstasy, heroin and cocaine are based on the forensic data provided by the BKA upon request by the DBDD. Table 10.5 gives an overview of the development of the levels of active substances in amphetamines, cocaine and heroin since 1999. After having been on a continual decline since 2003, the potency of amphetamines hardly reaches half of the value found in 1997 (10.0%). The potency of cocaine at wholesale level was relatively stable for the last ten years, but reached its minimum level in 2009. The concentration of active ingredients in street cocaine also declined in 2009 in comparison with the previous year, but still lies in the range of the last 11 years. Apart from a few outliers, the level of active ingredients in heroin significantly increased at wholesale level and slightly at retail level. The concentration of active ingredients of heroin at street level has levelled off at approximately 20%.

The most recent values are given in standard tables 15 and 16.

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<sup>138</sup> If not labelled differently, the figures on the concentrations of active ingredients stem from personal communications of the forensic department of the BKA (KT 34). The data were interpreted by the DBDD.

Table 10.5 Concentration of active ingredients in various drugs from 1998 to 2008 (median) in percent

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amphetamines	7.0	3.3	5.0	6.0	7.5	7.9	7.7	7.1	6.2	5.4	4.8
Cocaine street trafficking	49.4	35.5	42.6	38.5	32.0	34.5	34.2	24.6	32.0	40.4	33.8
Cocaine wholesale	69.1	69.1	73.8	73.9	76.7	75.0	68.8	72.2	75.8	70.6	66.7
Heroin street trafficking	14.7	20.4	19.5	14.5	16.0	19.9	15.0	15.6	20.3	18.2	21.7
Heroin wholesale	29.2	35.1	45.8	27.0	7.3	48.8	36.5	38.1	46.5	51.1	60.3

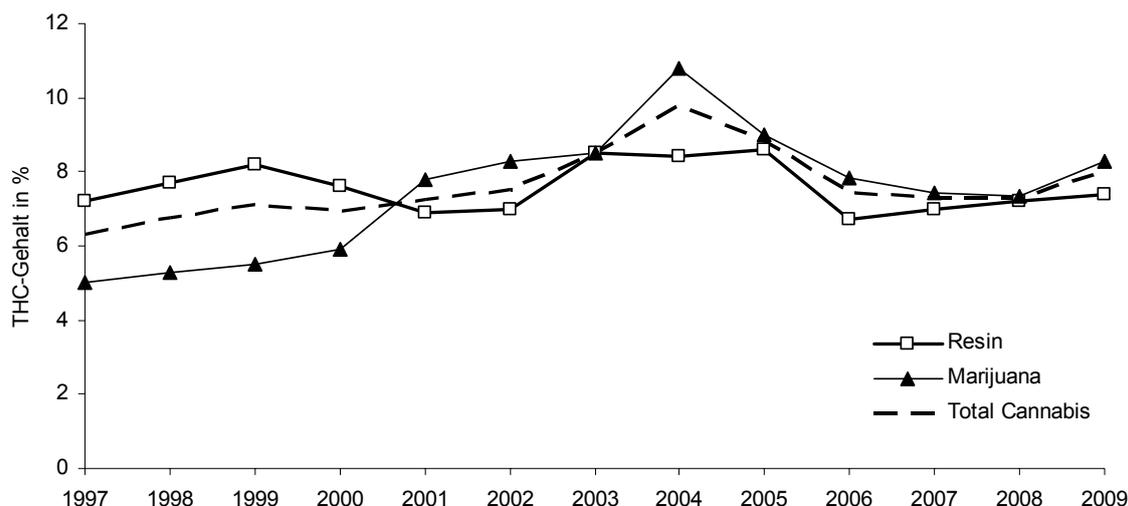
Source: see footnote 138.

### **Cannabis**

The contents of active substance<sup>139</sup> are separately recorded and evaluated for each cannabis preparation. In 2009, the THC content was established on the basis of the seizures of 2,062 samples of herbal cannabis, 4,388 samples of sinsemilla and 2,800 samples hashish resin by the BKA, LKAE and customs authorities' laboratories. Since 2006, all participating laboratories have been reporting their data differentiating between herbal cannabis and sinsemilla, since the more potent flowering tops without the leaves have increasingly been emerging on the illicit drug market.

In 2009, the content of active ingredient in sinsemilla was 11.2% (2008: 10.5%) and in herbal cannabis 2.1% (2008: 2.0%). For the calculation of the concentration of active substance in marijuana, the percentages found for herbal cannabis and sinsemilla were taken into account in relation to the respective number of samples. The median THC-content of marijuana continually declined from 2004 (10.8%) to 2007 (7.4%). No changes were found between 2007 and 2008. In 2009 it slightly increased again to 8.3%. After having strongly declined between 2005 (8.4%) and 2006, falling to the lowest level of the last ten years at 6.7%, the median THC-content of hashish increased again in the last two years reaching 7.2% in 2008 (Figure 10.2). In the comparison with the data of 1997 only minor changes are to be found with slight declines in the potency of cannabis resin and slight increases in the concentration of active substance in marijuana.

<sup>139</sup> In the reported concentrations of active substances, tetrahydrocannabinol (THC) additionally formed under thermal load is also taken account of.



Source: see footnote 138.

Figure 10.2 Content of active ingredient in cannabis

### **Ecstasy**

In the year 2009, a total of 208,000 tablets and capsules (2008: 541,727) – in the following referred to as consumption units – were analyzed. 98.6 % (204,991) of all consumption units (2008: 99.65 %) contained one psychotropic agent (monopreparations), while in 1.4 % (3009 consumption units) two addictive substances (combination preparations) were detected (2008: 0.35 %). Among the monopreparations, 1-(3-chlorophenyl)-piperazine (mCPP) plays a dominant role with 65.2 %. It is followed by 3,4-methylenedioxy-N-methyl-amphetamine (MDMA) with 31.8 %, amphetamine with 2.7 % and methamphetamine with 0.3 %. Until 2008, the only psychoactive substance contained in ecstasy was exclusively MDMA (2008: 96.8% monopreparations). As described above, in 2009, almost two thirds of all monopreparations contained mCPP as a psychoactive substance and less than a third contained MDMA.

Combination preparations only account for a very small portion of the overall quantity. The concentrations of active substances calculated as base for the individual substances of the monopreparations is shown in Table 10.6. As can be seen from the table, the median potency of MDMA slightly decreased in 2008 (51mg/consumption unit) and again in 2009 (50mg/consumption unit) after having increased between 2006 (48 mg/consumption unit) and 2007 (55 mg/consumption unit). The concentration of mCPP practically remained unchanged in comparison with the previous year (2009: 27 mg/consumption units; 2008: 28 mg/consumption units) after having declined relatively strongly from 2007 (39 mg/consumption units) to 2008.

The most commonly used additives found in the mono- and combination preparations were caffeine, lactose and cellulose.

Table 10.6 Concentration of active substance in ecstasy in mg/consumption unit

Active substance	Quantity				Median			
	2006	2007	2008	2009	2006	2007	2008	2009
MDA	0.6-30	27 <sup>1)</sup>	9.9 <sup>1)</sup>		17	27 <sup>1)</sup>	9.9 <sup>1)</sup>	
MDE	11 <sup>1)</sup>				11 <sup>1)</sup>			
MDMA	0.8-141	0.5-215	0.2 - 168	0.6 - 170	48	55	51	50
Amphetamines	0.6-51	3-33	0.5 - 20	0.2 - 37	15	13	0.8	2
Methamphetamine		27 <sup>1)</sup>	0.4 - 26	0.1 - 15		27 <sup>1)</sup>	13	0.5
m-CPP (1(-3-Chlorphenyl)-piperazin)		26-76	0.7 - 43	2.7 - 53		39	28	27

1) Only one seizure.

Note: Concentrations of active substance were calculated as base.

It needs to be noted especially for ecstasy tablets that the data collection within the framework of the Drugs Data File (Falldatei Rauschgift, FDR) does not necessarily prescribe the recording of the active ingredient (as a result, active ingredients can only be researched via a search item that can be optionally entered into a non-obligatory field). It needs moreover to be taken into account that the results of forensic analyses are often recorded with some delay or not all. Therefore it cannot be excluded that the data presented in the table only reflect parts of the actual case figures.

Source: see footnote 138.

The reported new trend that ecstasy tablets rarely contain the “original” substance MDMA, was confirmed by the experts of the MoSyD Frankfurt in the second half of the year 2009. Besides mCPP other substances like 2-CB and 4-fluoramphetamine/4-FA (substances from the same substance class as amphetamine or MDMA) were reported. Some of these substances have not (yet) been placed under the Narcotics Act. Consumers know the change in active ingredients from the effect that is partly different from MDMA and that is described as less emotional (entactogenic/empathogenic) but more psychedelic. There are two possible explanations for this development: on the one hand, it is to be presumed that the chemical precursors for the manufacture of MDMA are difficult to obtain for various reasons whereas for example mCPP is relatively easy to synthesize. On the other hand, the police have recently discovered and seized several MDMA laboratories in the Netherlands; the tablets from these laboratories probably covered the majority of the demand in Germany. As far as the still legal substances (like for example 4-FA) are concerned, it can be assumed furthermore that these can be relatively easily and cheaply ordered as RCs from abroad, which means that in these cases no own laboratories for manufacture would be required. It remains to be seen whether and how this development continues and if there are any impacts on the use pattern and perception of the drug by users (Werse et al. 2010).

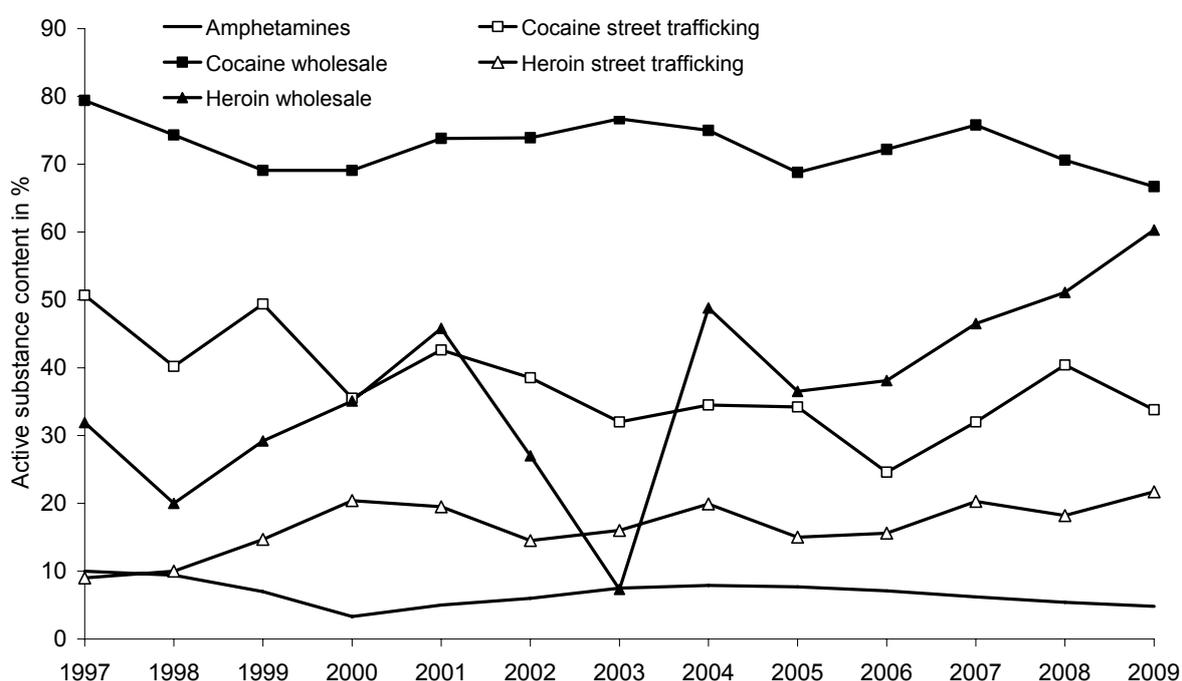
### ***Heroin, cocaine and amphetamines***

For 2009, 4,304 (2008: 4,364) heroin samples were analyzed for their content of active substance (Figure 10.3). While the concentration of active ingredient in seizures at wholesale level considerably fluctuated between 1999 and 2004 (with the min. 7.3% in 2003 and max. 48.8% in 2004), it has been on a continual rise since 2005 reaching the highest level ever in 2009 at 60.3%. At street level, the concentration of active ingredient ranged between 15% and 20% between 1999 and 2008, but also reached a new peak in 2009 at 21.7%. As in

previous years, caffeine and paracetamol were the most commonly found adulterants and lactose was the most commonly added diluent.

In the year 2009, 3,060 (2008: 3,256) cocaine samples were analyzed for their concentration of active substance. Cocaine is mainly offered as hydrochloride on the market. In the following, no differentiation is made between cocaine hydrochloride and cocaine base. At street level, the concentration of active ingredient was at 40% in the period from 2000 to 2005 with a slightly declining tendency. After the median had reached its lowest value since 1997 at 24.6% in 2006, the median concentration of active substance increased again to 40.4% in 2008 and was at 33.8% in 2009. At wholesale level, the concentration of active ingredient declined slightly since 1997 in undulations and reached a value of only 66.7% (2008: 70.6%) (Figure 10.3) in 2009. The most common adulterants found in 2009 were phenacetin, tetramisol/levamisol and lidocaine. Lactose was the most commonly admixed diluent.

In the year 2009, a total of 2,825 (2008: 2,866) amphetamine samples were analyzed for their concentration of active substance that was on average at 4.8% (Figure 10.3). Since the level of active ingredients in amphetamines does not depend on the size of the seized quantity, no differentiation was made between street and wholesale level. The most commonly admixed adulterant was caffeine; lactose and creatinine were the most commonly found diluents.



Source: see footnote 138.

Figure 10.3 Concentration of active substance in heroin, cocaine and amphetamines



## **PART B: SELECTED ISSUES**

### **11 History, methods and implementation of national treatment guidelines**

In Germany there are guidelines from various institutions, organisations and scientific medical societies. Problems in demarcating the borderlines between terms such as standards, guidelines and regulations/rules, overlapping of the actual content and differences in bindingness and relevance to the field of practice all combine to produce a very heterogeneous overall picture when it comes to “guidelines”.

The guidelines examined in this chapter can be broken down into three types. (I) guidelines are developed by scientific medical societies in accordance with the definition of treatment guidelines which is also used by the EMCBDDA. Work began on the preparation of treatment guidelines for substance-related disorders in 2000 under the umbrella of the Association of the Scientific Medical Societies in Germany (Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften - AWMF). The treatment guidelines of the Association of Scientific Medical Societies in Germany are developed in a standardised procedure based on the scientific state of knowledge. (II) In addition to these treatment guidelines, there have been regulations and rules on substitution treatment from the German Medical Association (BAEK) since 2001. Among other things, these are intended for the purpose of helping achieve a manageable implementation of different legal prerequisites (from the Narcotics Act, the Amending Regulation on the Prescription of Narcotic Drugs und the Medical Products Act). As regulations and rules these have a greater binding effect and are of considerable relevance to the field of practice in Germany. In terms of their actual content, they overlap with the treatment guidelines of the Association of the Scientific Medical Societies in Germany. (III) The German Statutory Pension Service (DRV) developed “Guidelines on Rehabilitation Needs in Cases of Dependency-Related Illnesses” (Leitlinien zur Rehabilitationsbeduerftigkeit bei Abhaengigkeitserkrankungen) for the first time in 2003. They are highly relevant to the field of practice in terms of quality assurance for rehabilitation services which are financed by Statutory Pension Insurance.

The three types are first of all presented in this chapter. In 11.1 the institutional background to the respective histories of guidelines past and present are discussed. The discussion within the community of informed persons and specialists who have supported the development of guidelines is also briefly outlined. A description of the guidelines themselves is provided in 11.2 along with several comments on the further development of existing guidelines. Finally, 11.3 addresses implementation, implementation strategies and impediments. By the same token, it will be taken into account in what contexts the respective guidelines bear relevance to areas of actual practice.

## 11.1 History and overall framework

### 11.1.1 Guidelines of the Association of the Scientific Medical Societies in Germany (AWMF)

The Association of the Scientific Medical Societies in Germany (AWMF) was founded as a non-profit association in 1962 by 16 societies at the time. The area of tasks of the Association of the Scientific Medical Societies in Germany, which has 153 scientific societies as members at present, includes tasks such as quality assurance the profession of physician or the electronic publication of scientific literature. Upon the instigation of the “Sachverstaendigenrats fuer die Konzertierte Aktion im Gesundheitswesen“ (“Council of Experts for Concerted Action in the Health Sector”), the Association of the Scientific Medical Societies in Germany has been coordinating the guidelines for diagnostics and therapy through the individual scientific medical societies since 1995<sup>140</sup>.

Guidelines are understood to mean “systematically developed statements to support decision-making by physicians and if need be by other health professions and patients to promote an appropriate approach to existing health problems” (AWMF & AEZQ 2008). Together with the AErztliche Zentralstelle fuer Qualitaetssicherung (AEZQ – “Physicians’ Central Office for Quality Assurance”), the Association of the Scientific Medical Societies in Germany has developed the “German Instrument for Methodical Assessment of guidelines (DELBI)”, which was published for the first time in 2005 and replaced the checklist “Methodical Quality of Guidelines (“Methodische Qualitaet von guidelines”) from 2000. On top of additional manuals of the Association of the Scientific Medical Societies in Germany for the development of guidelines, the instrument is intended to support quality assurance in the development of guidelines (AWMF & AEZQ 2008; AWMF Online: <http://www.awmf-online.de/>).

Under the umbrella of the Association of the Scientific Medical Societies in Germany, treatment guidelines for substance-related problems have been developed since September 2000, with the two scientific medical societies “The German Society for Research on Addictions” (DG-Sucht) and “Deutsche Gesellschaft fuer Psychiatrie, Psychotherapie und Nervenheilkunde e.V. (DGPPN – “The German Society for Psychiatry, Psychotherapy and Neuropsychiatry”) in charge. Depending on the subject of the guidelines, additional scientific societies and experts are included in the development process.

Guidelines of the Association of the Scientific Medical Societies in Germany are developed in a 3-stage procedure in accordance with “methodical standards for the development of evidence-based guidelines in Germany”. Guidelines based on an informal consensus of an expert group are described as development level S1 guidelines. Non-systematic summarisation work which is based on a formal consensus procedure and which members of several groups are involved in are described as development level S2 guidelines. A systematic research of evidence is labelled development level S3 (Helou et al. 2000; Schmidt & Gastpar 2006).

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<sup>140</sup> See AWMF Online: <http://www.awmf-online.de/>

The current status of substance-related treatment was published in 2006 (Schmidt & Gastpar 2006). The guidelines have the development status of level 2 (on the further development of the guidelines at present, see chapter 11.2.8). In addition to the substance-related treatment guidelines on “Cannabis-related disorders”, “opioid-related disorders” (acute treatment and post-acute treatment), “physical and behavioural disorders due to cocaine, amphetamine, ecstasy and hallucinogens” and “medication dependency (sedatives, hypnotics, analgesics and psycho-stimulants)”, the publications also contain treatment guidelines on the substances of alcohol and tobacco.

The guidelines of the Association of the Scientific Medical Societies in Germany have a limited period of validity. The applicability of the Guidelines on the Treatment of Substance-Related Disorders expired at the beginning of 2010. The revision of the guidelines had not yet been completed at the time when this report was compiled. No point in time has been set for their completion (on the further development of the guidelines see chapter 11.2.8). In this special chapter, the most recent guidelines of the scientific medical societies, which were valid until the beginning of the year, are nevertheless taken into account in the national reporting to the EMCDDA.

### **11.1.2 Substitution regulations and rules of the German Medical Association**

In its capacity as peak organisation of the system of physicians’ self-administration, the German Medical Association (BAEK) represents the professional interests of physicians in the Federal Republic of Germany. A majority of substitution treatments in Germany are performed by physicians in private practice<sup>141</sup>.

The German Medical Association was assigned by lawmakers the task of drafting rules and regulations for substitution treatment in accordance with the generally recognised state of medical knowledge for the first time in 2001 through the 15<sup>th</sup> Amending Regulation on Narcotic Law (Betaeubungsmittelrechtsaenderungsverordnung, BtMAEndV). The “Rules and Regulations on the Performance of Substitution-Supported Treatment of Opiate Addicts” was submitted for the first time in 2002. The latest revision from 2010 takes into account the statutory foundations, which changed in 2009 as a result of the 23<sup>rd</sup> BtMAEndV) and the Act on Diamorphine-Supported Substitution Treatment (BAEK 2010).

In this case, the guidelines are not treatment **guidelines**, but rather **rules and regulations** of the German Medical Association. Because these are of tremendous importance to the treatments in the field of practice, however, they are nevertheless examined in this special chapter.

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<sup>141</sup> Under statutory provisions, substitution treatment can only be performed by physicians who comply with the minimum requirements applying to addiction therapy qualifications, see chapter 11.2.3.

### 11.1.3 History of the guidelines of German Statutory Pension Insurance (DRV)

Under German social security law<sup>142</sup>, German Statutory Pension Insurance (DRV) finances rehabilitation measures for people suffering from substance abuse disorders. The reason for the responsibility of Statutory Pension Insurance is that rehabilitation measures help enable people to return to work and thus aim to return people insured under statutory pension schemes to employment. Because this insurance is mandatory, every employee has pension insurance. The rehabilitation measures carried out for addicts, in particular alcoholics, accounted for 6% (56,393 rehabilitations for people with addiction illnesses) of all payments for medical rehabilitation (903,257) by Statutory Pension Insurance in 2007, while costs related to rehabilitation of addicts accounted for 18% (EUR 469 m. out of EUR 2,675 m.) of total costs of medical benefits from Statutory Pension Insurance (Beckmann et al. 2009b).

Statutory Pension Insurance<sup>143</sup> commenced projects to develop rehabilitation process guidelines in 1998. In this context guidelines are understood as “systematically developed decision-making aids for care providers and patients on the proper procedure in the case of special health problems” (Brueggemann et al. 2004; Brueggemann & Klosterhuis 2005).

Guidelines were developed in four phases, beginning with an analysis of the literature. This was followed by a comparison of the actual with the current situation in order to determine needs (the so-called “KTL-Analyse”<sup>144</sup>), the development of process guidelines and implementation. The first version of the “guidelines on the need for rehabilitation in the case of persons suffering from addiction illnesses” was developed in 2003. The current version was issued in 2005 (on the current further development of the rehabilitation guidelines of German Statutory Pension Insurance see 11.2.8).

As process guidelines, the rehabilitation guidelines are of major importance to the field of practice. In spite of the same term – “guidelines” – being used, a distinction needs to be made between these process guidelines and the treatment guidelines of the Association of the Scientific Medical Societies in Germany (Koch 2006). The guidelines are orientated towards rehabilitation clinics and treatment facilities, setting out the framework conditions for them. Actors involved in treatment (for example, medical personnel, therapists and social workers) are thus the target group/users of these guidelines. The guidelines stipulate what elements of treatment are to be granted in what scope to what percentage of patients. This thus places the focus on adherence to minimum standards at institutions.

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<sup>142</sup> The Pensions Regulatory Authority is responsible for substance abuse treatment if the prerequisites for §§ 9 – 11 Social Code VI have been met. If the requirements set out in §§ 27 and 40 Social Code V have been met, the health insurance schemes are responsible for substance abuse treatment (DRV 2005).

<sup>143</sup> The Federal Pension System for Employees (Bundesversicherungsanstalt fuer Angestellte - BfA), which started up the guidelines programme in 1997, was merged with the Verband Deutscher Rentenversicherungstraeger (VDR) in 2005 to form German National Statutory Pension Insurance (Deutsche Rentenversicherung Bund - DRV).

<sup>144</sup> KTL-Analyse: The classification of therapeutic services is a directory of therapeutic services compiled by the BfA (now the German National Statutory Pension Insurance - DRV) which can be performed in medical rehabilitation. The results of literature research, formulated as an evidence-based therapy module, are compared as treatment target with the actual condition (illustrated in the approval reports which have been submitted to the Bundesversicherungsanstalt fuer Angestellte (now German Statutory Pension Insurance)).

#### **11.1.4 Discussion on the development of guidelines**

The development of guidelines which relate to the treatment of substance-abuse illnesses in Germany is accompanied by discussions by the informed public and experts over aspects such as the demarcation between the terms “guidelines”, “standards” and “rules and regulations” (Flenker & Bredehoeft 2002), methods for developing guidelines, the applicability of guidelines and generally speaking quality assurance in the area of treatment of substance abuse disorders (see Kuhlmann 2006; Schmidt & Gastpar 2002; Weissinger & Schneider 2006). The limits of application possibilities for evidence-based medicine for everyday practice, the degree to which studies conducted in countries with different health-care structures can be applied to Germany, the degree to which findings from selected populations in studies and studies settings can be applied to patients in everyday practice and the advantages of guidelines as systematically developed aids in decision-making for care providers with regard to an appropriate mode of procedure with the given problems are topics which are discussed. In this context it is frequently pointed out that the development of guidelines also has to involve a consensus among experts, at least as a low level of evidence (Schmidt et al. 2006; Fleischmann 2006; Koch 2006; Kuhlmann 2006; see. Lindenmeyer 2006; Weissinger & Schneider 2006).

The relevance of guidelines to the field of practice will probably become a subject of discussion once again as a result of the further development<sup>145</sup> of the guidelines of the Association of the Scientific Medical Societies in Germany at the development level with the highest degree of evidence “S3”. It would thus appear, for example, that certain criteria for excluding study populations in clinical studies (for example comorbidity) are more the rule than they are the exception in the field of practice. On the other hand, these study results are a basic prerequisite for basing guidelines on a high level of evidence (German Centre for Addiction Issues (DHS), personal communication 2010).

### **11.2 Existing guidelines: narrative description of existing guidelines**

#### **11.2.1 Opioid-related disorders: acute treatment**

The latest guidelines of the Association of the Scientific Medical Societies in Germany on acute treatment in cases involving opioid-related disorders were published in 2006 in “Evidenzbasierte Suchtmedizin” (“Evidence-Based Addiction Medicine”) (Reymann & Gastpar 2006). These guidelines were first published in 2002 in the journal “Sucht” (Reymann et al. 2002).

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<sup>145</sup> See chapter 11.2.8.

### **Definition and aims**

The objective in the treatment of treating opioid-related disorders is to ensure survival, the prevention of long-term damage to health, permanent abstinence from the use of illegal opioids and overcoming possible disorders which the addiction might be based on.

The acute treatment of opioid problems ranges over the following medical measures: the treatment of acute intoxication (detoxification), the treatment of physical withdrawal symptoms (withdrawal treatment) in reducing or discontinuing the substance, the encouragement of motivation to become abstinent, support of the motivation to make use of post-acute treatments, the termination of other possible dependencies, including medication or alcohol and the diagnostics and treatment of secondary psychiatric and somatic illnesses and the containment of negative social effects as a result of the addiction. The guidelines lay down an 8-week period of treatment.

### **Diagnostics**

With regard to diagnostics, the guidelines contain recommendations for the case history (for example the recording of the history and pattern of consumption as well as consumption of other substances and concomitant illnesses), psychiatric examinations (in particular a record of symptoms from intoxication, withdrawal and delirium), the physical examination (e.g. examination for injection track marks, abscesses and dermatological infections), the diagnosis of withdrawal syndrome and for laboratory examinations (a comprehensive drug screening is recommended as well as testing for hepatitis viruses and HIV).

### **The treatment setting**

Acute treatment can be provided on an outpatient basis or in day clinic addiction medicine settings. Reasons against an outpatient treatment include, for example, complications in withdrawal, suicidal tendencies, polytoxicomania as well as reasons relating to the social environment or the prior addiction history of the patient. If such reasons are present, fully inpatient treatment is performed.

### **Need for and planning of treatment**

In the case of an acute, severe opiate intoxication, emergency medical measures should be taken. It is recommended that naloxone be used to antagonise a respiratory depression. In addition to the diagnosis of somatic and psychiatric comorbidity, collateral social damage and legal aspects should be included in the treatment planning. This necessitates a setting with support from social workers. In order to ensure the success of treatment, the motivation and in some circumstances the motivation of the patient is important. Post-acute treatment should follow upon acute treatment directly.

### **Pharmacotherapy of the withdrawal syndrome**

Withdrawal without the administration of medication is only appropriate if the patient himself desires this. Treatment with the support of medication is generally administered with an  $\mu$ -

opiate receptor antagonists, with dosages then being reduced gradually.<sup>146</sup> Generally speaking it is recommended that D,L methadone be taken orally. If there is evidence that the patient does not tolerate this, levomethadone can be used. Buprenorphine can also be used to treat opioid withdrawal syndrome and is superior to methadone in cases involving severe depression. Clonidine can be used in Germany in inpatient treatment of withdrawal. If it is administered in combination with methadone, treatment is only supposed to occur after withdrawal from methadone. Deepen can also be used, but has considerable side-effects. It cannot be used at the same time with Clonidine.

The treatment of withdrawal symptoms with opiate antagonists (naloxone and naltrexone) is only recommended if the patient is under general anaesthesia or deep sedation or this treatment is expressly desired or several conventional attempts at withdrawal have failed. This treatment should generally speaking not be used, as withdrawal symptoms and problems with the general well-being can be long-lasting and low compliance for a follow-up treatment is to be expected.

### **Dosage and period of application**

The guidelines contain recommendations on the dosage and how long it is to be applied. With opioid-supported withdrawal using methadone or buprenorphine, the initial dosage is first determined. The dosage is reduced step by step or digressively in the course of the withdrawal treatment. The treatment of the withdrawal syndrome with medication being gradually reduced can last several weeks in an outpatient setting, while in an inpatient setting only 10 days can already be sufficient.

Withdrawal with the support of Clonidine can be used after the opiate effect tapers off or following methadone substitution in order to treat withdrawal symptoms. Following the withdrawal phase, a naltrexone treatment can be used in order to support the abstinence of the patient.

### **Information of patients and psychotherapy**

It is recommended that patients be informed about risks and dangers during the treatment. Patients should be informed that a loss of opiate tolerance increases the risk of overdose if they consume opiates again. Patients should be informed about health and infection risks associated with intravenous consumption, as they should about possible vaccinations against hepatitis B and the treatment of hepatitis C. The patients should be encouraged to avoid consumption of alcohol or taking benzodiazepines prior to an injection and the reasons for this communicated. Self-help groups are also recommended. Psychotherapy in acute treatment *inter alia* helps reinforce or encourage motivation to undergo treatment and spell out treatment goals which are addressed in the post-acute treatment. Other forms of psychotherapy (e.g. cognitive therapy, behavioural theory and others) are generally considered to be helpful.

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<sup>146</sup> The statutory framework conditions are set out in the Narcotics Act and the Narcotics Prescription Regulation (see chapter 1).

## **Sociotherapy**

Sociotherapy is an indispensable part of the overall treatment. It helps patients reduce the negative effects of a financial and legal nature and eases their social situation. Often sociotherapy makes treatment for addiction possible in the first place, putting patients in a position to make use of longer-term treatment. If the patient agrees, the social environment of the patient should also be included in the sociotherapy.

Movement therapy procedures, which can benefit patients especially when performed in a group, are also recommended. Ergotherapy and art therapy can also be commenced during the acute treatment.

In an inpatient setting, nursing care is assigned the tasks of establishing a continuous professional relationship between the providers of treatment and care to the patient and creating a drug-free environment as the foundation for the treatment. A comprehensive assessment of the course of the treatment is performed, covering not only vital parameters and withdrawal symptoms, but also behaviour, affect and motivation.

## **Comorbidity**

To treat hepatitis B, C and HIV, the authors cite international and national regulations and guidelines addressing this topic.<sup>147</sup> Because opiate addicts frequently consume additional psychotropic substances, it is recommended that the degree of consumption be determined in the screening and the patient motivated to avoid consumption of other drugs. In particular, the (gradual) elimination of alcohol and benzodiazepine consumption should take place prior to opioid withdrawal.

## **Neonatal withdrawal syndrome**

In Germany, neonatal withdrawal syndrome is usually treated with trinctura opil or phenobarbital. The authors point out that there is a need for additional research with regard to neonatal opioid withdrawal syndrome.

### **11.2.2 Opioid-related disorders: post-acute treatment**

The most current guidelines of the Association of the Scientific Medical Societies in Germany on post-acute treatment in the case of opioid-related disorders were published in 2006 (Havemann-Reinicke et al. 2006). These guidelines were first published in 2004 (Havemann-Reinicke et al. 2004).

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<sup>147</sup> See Reymann & Gastpar, 2006: pp. 184 et seq. In this connection the guidelines "Therapy for chronic hepatitis C in the case of intravenous drug users" (Backmund et al. 2006) and the consensus text "HIV infection in the case of intravenous drug addicts (IVDA)" (Deutsche Gesellschaft fuer Suchtmedizin (DGS e.V.) et al. 2008), which have been issued in the meantime, should also be cited. Both documents are available at the Internet site of the Deutsche Gesellschaft fuer Suchtmedizin (German Society for Addiction Medicine): <http://www.dgsuchtmedizin.de/ueber-uns/leitlinien/>

### **Objective in post-acute treatment**

Acute treatment is followed by post-acute treatment. The target groups are primarily opioid addicts (ICD 10: F11.2, F11.5-9) and persons with multiple addictions with clinical addiction to opioids predominating. Post-acute treatment aims at helping patients stop using addictive substances and minimising negative effects in all areas of life. If it is not possible for patients to completely discontinue use of addictive substances, the focal point is on minimising the negative effects (e.g. ensuring survival, partial withdrawal from other addictive substances, reduction in the risk of infection with HIV and HCV, stabilisation of health and the psychosocial situation, occupational rehabilitation and social reintegration).

### **Forms of treatment, indication and diagnostics**

Post-acute treatment can be abstinence-orientated or substitution-supported. There are outpatient, day hospital care and inpatient forms of treatment with and without medication (e.g. psychopharmaceuticals). Psychosocial counselling and treatment definitely plays an important role here.<sup>148</sup>

Comprehensive diagnostics are part of the post-acute treatment. These include among other things a physical examination, clinical-chemical laboratory examinations, drug screening, psychiatric, neuropsychological and psychosocial diagnostics. The aim is to achieve an overall picture of the physical and psychological condition of the patient by means of the various examinations in order to be able to create as broad a foundation as possible for fine-tuned treatment decisions (and forms of treatment).

### **Therapies: abstinence treatment**

The indication for the selection of the form of treatment and the selection of the setting is determined by the individual situation of the patient at the outset. Abstinence therapy is for patients with a high level of motivation and willingness to abstain from drug consumption, for patients with shorter periods of addiction (less than 2 years) and for younger patients (under 18). The decision of the patient determines whether an abstinence-orientated therapy is performed in an outpatient, day hospital or inpatient setting. There are no empirically validated indication criteria, but experience shows, for example, that inpatient treatment should be recommended for patients with additional psychological or psychiatric disorders.

Individual therapies are recommended at first in the case of outpatient therapy. Group therapies are only advisable after patients have achieved a certain stability, as possible relapses could jeopardise other members of the group. Group settings are fixed elements of the treatment, on the other hand, in the case of inpatient forms of treatment.

Abstinence-orientated outpatient care usually lasts one year, with less intensity in the second half of the year. Inpatient post-acute treatment generally lasts six to nine months, with a regular termination after this time producing the highest abstinence rates following treatment.

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<sup>148</sup> For additional information on the treatment system, see chapter 5.

Medication therapy is used as a supportive measure within the framework of abstinence-oriented post-acute treatment in order to maintain abstinence which has already been achieved and avoid relapses.

To prevent relapses, opiate antagonists, which achieve their prophylactic effect through the blockage of opiate receptors, can be used. Naltrexon (Nemexin) is used in Germany to support withdrawal treatment following detoxification. The guidelines recommend that treatment be commenced at the end of the inpatient acute treatment and that it also be continued in outpatient post-acute treatment. A high willingness to become abstinent and compliance are needed for treatment with Naltrexon. Patients should have discontinued consumption of opioids before the medication is administered (the length of time of the interval depends on the type of opioid used). The guidelines contain recommendations on the dosage of the medication. Severe liver insufficiency is considered to be a contraindication for the administration of Naltrexon as well as is acute hepatitis, the use of opioids, withdrawal reactions to Naloxon, unsuccessful withdrawal, acute Opioid withdrawal symptoms and if patients are under 18 years of age. The administration of Naltrexon is also contraindicated for older drug addicts.

### **Therapies: substitution treatment**

Substitution-supported treatments are indicated as part of a comprehensive therapy strategy if the aim of discontinuing consumption of substances appears unattainable over the short or medium term in cases of lengthy addictions, attempts to achieve abstinence under the supervision of a physician have not been successful, a substitution-supported therapy has greater prospects of success or is to be used as a transition to an abstinence-orientated treatment. It can be performed in an outpatient, day hospital or inpatient setting. The overwhelming number of substitution treatments in Germany are carried out in an outpatient setting. Drug counselling and therapy facilities, physicians at private practices, psychiatric and other clinics and in some cases chemists as well refer patients to substitution treatments.

In addition to substitution in the narrower sense of the word, general medicine, psychiatric, psychotherapeutic and psychosocial treatment measures are part of the overall strategy for a substitution treatment. The overall treatment plan must be coordinated with all the actors providing treatment (e.g. the substituting physician, therapist and social worker).

The substitution treatment can take place over a longer period of time, frequently several years. If a patient achieves a certain stability (e.g. one year without any consumption of other substances) and shows motivation towards abstinence, a phase-out of the substitution should be reviewed and planned.

In Germany substances admitted for oral substitution are levomethadone (e.g. L-Polamidone), methadone (D,L methadone), buprenorphine and in justified cases of exception codein/dihydrocodein (if there is a demonstrated incompatibility of methadone and buprenorphine). The synthetic opioid LAAM was licensed for substitution in Germany in 1998,

but is no longer licensed as a result of massive side effects<sup>149</sup>. For parenteral substitution of severe opioid addicts a diamorphine-containing commercial pharmaceutical product is licensed since October 2009.

An initial dosage is determined in a search-and-find phase in order establish a suitable dosage for the substituted patients; the so-called maintenance dosage is given during the substitution phase. The medication – apart from diamorphine- is administered orally as a preparation (e.g. dissolved in orange juice) and cannot be injected.

A substitution can also take place during pregnancy if drug consumption which has been substituted in some other manner or withdrawal would pose a health risk to mother and child. An improved health condition of mother and child and a stable pregnancy can be achieved through methadone treatment with low dosages. Psychiatric treatment of the mother is urgently recommended.

Buprenorphine (Subutex<sup>®</sup>) was licensed for substitution treatment in Germany at the beginning of 2000. Buprenorphine is suited for an initial substitution therapy over a brief period of time if the addiction illness is not yet that severe. Two metaanalyses (highest degree of evidence) describe a slight tendency towards a greater effectiveness of methadone compared to buprenorphine (see Havemann-Reinicke et al. 2006, p. 216).

A legal arrangement in the Amending Regulation on the Prescription of Narcotic Drugs (§ 5 para. 8, “Take home”) stipulates that the physician providing the substitution can prescribe the required quantity of the substitute (methadone, levomethadone or buprenorphine) for 7 days and the patient can take this under his own responsibility<sup>150</sup>.

### **Psychotherapy and psychosocial therapy**

Psychotherapy and psychosocial therapy have high priority in the overall treatment strategy. In post-acute therapy, psychosocial therapy has proven to be effective as an abstinence therapy. It should also be part of the treatment strategy in any substitution treatment and support it. A discontinuation of therapy is generally considered to be a negative predictor of treatment success.

Different psychotherapy procedures (e.g. behavioural analysis and cognitive intervention or activity, social, communications and relapse prevention training) seek to prepare patients for a drug-free situation after the therapy as do psychosocial therapy (e.g. work and ergotherapy, occupational therapy, leisure time/experience pedagogic, sports and movement therapy, creative therapy and sociotherapy).

The guidelines stipulate that “standard psychosocial treatment” should take place during substitution on a weekly basis during the first 6 to 12 months and thereafter every 14 days.

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<sup>149</sup> Diamorphine was not yet licensed at the point in time these guidelines were issued. See chapter 11.2.3. Combination preparations of buprenorphine and Naloxon (suboxene) have also been licensed in Germany (since 2006).

<sup>150</sup> For the prerequisites and underlying conditions under which this “take-home substitute “ is possible, see chapter 11.2.3.

The key elements are motivating discussions and case management (coordination and referral to other psychosocial helpers), furthermore social security (dwelling, financial support), crisis intervention, drug self-management, motivation development, the solution of interpersonal problems and leisure programmes helping participants structure their everyday lives and occupational rehabilitation in the form of counselling and work projects.

It is possible to provide intensive psychosocial treatment and this should be taken advantage of if standard treatment does not suffice (any longer). The crucial parameters are comorbid disorders and pronounced problems in various areas of life. In the case of intensive psychosocial therapies, two appointments per week are offered – one individual and one in a group setting. Especially interventions and prevention of relapse are important components in intensive treatment. Psychological reference persons and family members should be involved in efforts to cope with interpersonal problems.<sup>151</sup>

### **Sociotherapy**

Sociotherapy is an integral and indispensable component in abstinence and substitution treatments. Both the degree of success and the maintenance rate are increased by it. Special attention should in particular be devoted to occupational reintegration, as stable employment is a predictor of the success of a therapy.

The aim of psychotherapy is the social reintegration and the establishment of functional relationships. The patient should be prepared for a life without drugs and, to achieve this, also receive comprehensive help and support in everyday life involving the social environment. The general objectives must be spelled out in detail individually in accordance with the living situation.

Measures to solidify daily structures are a boon particularly for unemployed persons. Ergotherapy and work therapy can help integrate people in gainful employment, while work and training programmes help restore, maintain and improve employability (“occupational rehabilitation” under Social Code IX: benefits to help participate in working life). This includes, for example, counselling, job placement, initial and continuous training programmes or internships.

The strategy of assisting living helps secure the living situation and make it possible to run one’s own household. Social isolation can be countered through assisted living.

Patients should be offered counselling and support in various areas of life. These may be everyday chores which are related to filling out forms for government authorities (e.g. in the case of claims to unemployment benefits, housing subsidies, sickness allowances, but also criminal and civil law procedures such as the termination of an apartment lease or job, issues involving child custody or debt-handling advice).

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<sup>151</sup> As a result of different financing models and funding agencies for treatment in the 16 German *Laender*, the performance of the treatment varies in practice.

### **Comorbid disorders**

With drug addicts, frequently occurring comorbid disorders require consistent psychiatric-psychotherapeutic co-treatment. For treatment purposes, the use of psychopharmaceuticals are recommended as well as psychotherapeutic procedures. The guidelines contain a translation of the basic treatment principles for treating comorbid disorders of the American Society of Addiction Medicine in the annex.

The treatment of depressive disorders, psychotic disorders and personality disorders should also be handled within the framework of integrative overall treatment. This also goes for the treatment of general medical comorbid disorders, in particular types of hepatitis and HIV infections.

### **Incarceration and hospital treatment order**

Under German law, incarcerated persons and as a rule persons undergoing hospital treatment by court order (in accordance with § 64 of the Criminal Code) are treated in an abstinence-orientated manner. The authors of the guidelines state that a substitution treatment can also be successful at these facilities if the patients meet the prerequisites for such.

### **After-care**

Follow-up care following an abstinence or substitution treatment helps stabilise the continued motivation for abstinence, social and occupational integration, psychological stability and prevention of relapse. After-care is carried out under supervision within the framework of self-help or professionally (for example, assisted living after treatment).

#### **11.2.3 Rules and regulations of the German Medical Association on the performance of substitution-supported treatment of opiate addicts**

As a result of the revision of the Amending Regulation on the Prescription of Narcotic Drugs in 2001, § 5, section 11 assigns the German Medical Association the task of setting out the generally recognised state of medical knowledge pursuant to compliance with the prerequisites for the licensing of substitution treatment under § 5, section 2, nos. 1, 2, 4 letter c. The German Medical Association appointed a joint experts commission with the Association of Statutory Health Care Physicians (Kassenaerztliche Bundesvereinigung) in the autumn of 2001 in order to prepare rules and regulations on substitution-supported treatment of opiate addicts. The rules and regulations on the Performance of Substitution-Supported Treatment of Opiate Addicts was adopted by the German Medical Association on 22 March 2002 and published in the *Deutsches Aerzteblatt* on 24 May 2002. The current, revised version of the rules and regulations was issued by the Board of the German Medical Association on 19 February 2010 (BAEK 2010).

## Legal foundations

In addition to the Amending Regulation on the Prescription of Narcotic Drugs, the *Betaeubungsmittelgesetz* (Narcotics Act) and the *Arzneimittelgesetz* (Medical Products Act) set out the legal foundations for substitution treatment.

The physician providing treatment must meet the minimum requirements with respect to addiction-therapy qualifications and have a substitution license in order to be able to begin performing diagnostics and determining indications with the substitution<sup>152</sup>. These minimum requirements are set by the medical associations. Patients may not undergo substitution treatment with another physician at the same time.

## Definition and objectives

As a scientifically evaluated form of therapy for manifest opiate dependency, substitution treatment requires a comprehensive overall strategy. It seeks to ensure survival, reduce the use of opiates and other narcotic substances and achieve abstinence from addictive substances, to stabilise the health situation and treat secondary illnesses, to reduce risks during pregnancy and after birth and to help the patients participate in society and working life once again.

Manifest opiate dependency (in accordance with ICD-10 F11.2) justifies the indication of a substitution-supported treatment. It should be used after weighing out whether it would be preferable to an abstinence-orientated treatment. If the substitution treatment offers a greater chance for success, then this is indicated. In the case of younger patients who have only recently become addicts, a substitution treatment should only be considered as a transitional solution. Substitution helps reduce risks particularly in the case of pregnant women.

## Therapy

The overall strategy in substitution therapy also includes identifying additional somatic and psychological illnesses and if need be the initiation of co-treatment of these. The therapy strategy also covers assistance in arranging psychosocial measures. The involvement of the professional system of aid for substance abuse disorders and psychosocial assistance help achieve the identified therapy objectives. The scope and type of measures are based on the respective individual situations. The physician providing treatment should motivate the patient to initiate contact with the respective institutions and facilities. The physician providing treatment and the facility should act in consultation to determine the individual treatment needs. The progress of both treatment elements should be coordinated and reviewed on an ongoing basis.

Before the substitution is initiated it is up to the physician to perform a host of precautionary measures. A detailed examination of the patient should be performed and communication take place with actors who have provided treatment in the past. It must be ensured that there

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<sup>152</sup> The exceptions (such as for example medical staff to fill in for the physicians providing substitution when they are on holiday) are set out in the Amending Regulation on the Prescription of Narcotic Drugs (BtMVV) and are contained in the regulation/rule.

is no multiple substitution. The physician is obligated to submit a notice to the Substitution Register in codified form.<sup>153</sup>

The physician is required to obtain the permission of the patient for the therapy measures, and a written agreement should be concluded over the most important arrangements. This relates, for example, to the selection of the substitution substance and informing the patient about the effect, side effects and interactions. This also goes for modalities of ingestion under supervision, the daily administration, weekend arrangements and possible take-home arrangements. Abstaining from the consumption of other substances and checks and controls on adherence should be agreed upon as should the objectives of the therapy, criteria for breaking off the therapy and the required psychosocial assistance. The patient must release the physician providing treatment from the non-disclosure obligation (e.g. vis-à-vis the psychosocial counselling office, the Medical Association or chemists) and allow the notification of the treatment to the Substitution Register in coded form.

The regulation/rule refers to applicable provisions of the Amending Regulation on the Prescription of Narcotic Drugs with regard to the selection of the substitution substance; the physician is required to take into account the effect and side-effect profile in the planning of the therapy strategy. The initial dose shall be selected so as to ensure that an overdose can be ruled out including in the case of low opiate tolerance. The oral administration of the substitution substance should be personally supervised by the physician providing treatment. The regulation/rule contains specific arrangements for exceptions (such as, for example, filling in for a physician on holiday). The patient receives the substitution substance from the physician (or whoever is filling in for the physician) or (if allowed by law) by the chemist or medical personnel commissioned by the chemist. Agreements should be made by the physician and the chemist to ensure a smooth supply of substances.

Under some conditions in the take-home arrangements, patients can be subscribed the substitution substance to take under their own responsibility. The preconditions for this are that the phase of determining the right dosage of the substitution substance has been completed. The treatment must lead to a clinical stabilisation of the patient and the patient must not be consuming any additional substances. Moreover, it must be possible to rule out any hazards for the patient or other persons as a result, the patient must have maintained the contact to the physician and PSB and psychosocial reintegration must have reached an advanced stage. Under the Amending Regulation on the Prescription of Narcotic Drugs, the period of time is limited to seven days. The patient receives the substance from the chemists, no substances available at the practice may be provided.

The physician is in charge of checking and controlling the treatment. This includes checking whether the substitution substance has been taken properly and controls on abstinence from other addictive substances. The ongoing monitoring also primarily serves the purpose of

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<sup>153</sup> The notes contained in the rules and regulations e.g. on examinations and drug screening correspond to a great extent to the recommendations set out in the guideline "Opoide-Related Disorders: post-acute treatment" of the Association of the Scientific Medical Societies in Germany (AWMF), see pursuant hereto chapter 11.2.2, Therapies: substitution treatment.

deciding on “take-home prescriptions” and the initiation of measures in the case of dangerous consumption of additional substances (e.g. reducing the dose or initiating inpatient withdrawal). In looking for the cause with respect to consumption of other substances, it should be checked whether the patient is experiencing a destabilisation in living conditions, the wrong dosage has been selected or there is a comorbid disorder or somatic illness.

### **Termination and discontinuation**

A substitution can be regularly terminated in consultation between the physician and patient if it is no longer necessary or the patient no longer desires such. It is to be terminated by the physician if it no longer appears to be suitable, or if it is determined that there is an ongoing problematic consumption of other substances. The termination of substitution is to be avoided, as one must assume it to be associated with a high potential risk. All intervention possibilities (e.g. optimisation of therapy, adjustment of the dosage, a change in the facility) should be reviewed before treatment is discontinued. Only if the patient repeatedly violates agreements (e.g. does not come to appointments, refuses to undergo checks and controls) or other misconduct (e.g. use of violence against staff of the facility or endangering other persons by passing substances on to them) and a consideration of possible damage and benefits should treatment be discontinued. If it is discontinued, the patient should be provided the possibility of a regimented withdrawal, if need be in an inpatient setting.

### **Quality assurance**

It is recommended that a manual be issued for internal quality assurance. Arrangements laid down by the regional medical associations and associations of national health care physicians apply to external quality assurance.

### **Diamorphine**

The regulation was expanded in the version from 19 February 2010. In its new form it also covers the substitution of diamorphine, for which special arrangements exist. In order to perform treatment with diamorphine the patient has to have turned 23 and have been dependent on opiates for at least five years and currently consume opiates primarily intravenously. Serious somatic and psychological disorders must be present and the patient must have unsuccessfully undergone two prior treatments for dependency, of which in at least one oral substitution substance was provided for at least six months.

Accompanying psychosocial treatment is mandatory during the first six months. With substitution treatment, special requirements apply to informing the patient about the effect and dangers as well as the type of intravenous application. The administration of the substitution substance and the injection as well as return of the injection instruments must be provided under the supervision of a physician; a take-home prescription is not possible and is punishable as a criminal offence. The special aspects of the substance (rapid flow and a shorter half-life) are to be taken into account in setting the dosage. Diamorphine can only be

administered at facilities licensed for such by the respective regional authorities. Special requirements apply to the qualification requirements for the physician.

#### **11.2.4 Cannabis-related disorders**

The current Association of the Scientific Medical Societies in Germany guidelines on cannabis-related disorders were published in 2006 (Bonnet et al. 2006). These guidelines were first published in 2004 (Bonnet et al. 2004).

##### **Diagnostics**

Looking at the medical history of cannabis consumers, no somatic symptoms are generally evident aside from respiratory problems. Indications of increased consumption of other substances can be determined in the special addiction anamnesis. A discriminating social anamnesis is important, as many cannabis consumers are very young patients.

Indications of consumption and regular consumption can be found through urine and blood tests. A hair analysis can provide additional information on consumption e.g. the exact point in time of consumption. It is recommended to search for other substances (alcohol and illegal drugs) in the urine and blood tests.

Diagnoses are performed in accordance with the current international classification of illnesses (ICD-10) or DSM IV.

##### **Treatment**

For young patients, who have often begun consuming cannabis at a young age and also exhibit greater psychiatric comorbidity, individual treatment plans are necessary. Brief interventions with motivation-boosting goals are effective. Environment and family therapy interventions also have a major effect on adolescents.

The guidelines contain brief interventions combining motivation-strengthening and cognitive-behavioural elements of therapy along with individual counselling work along the lines of case management in accordance with current research findings<sup>154</sup>. Programmes for self-help groups which are based on the 12-step programme of Alcoholics Anonymous are also an effective approach, as is cognitive behavioural therapy.

Thus far there have not been any pharmaco-therapeutic strategies for preventing relapse and reducing consumption. The authors mention, however, that a recently developed antagonist (CB1 Cannabinoid Receptor Antagonist [SR141716]) could open up the possibility of treatment, similar to relapse prevention for opium addicts.

Generally the treatment of a single cannabis dependency is performed in an outpatient setting. Depending upon the severity of the withdrawal syndrome, the danger of relapse or outpatient therapy resistance and the severity of comorbid disorders, inpatient treatment may be indicated. In particular it is recommended that children and adolescents be treated as

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<sup>154</sup> The guidelines provide a summary of reviewed strategies for the psychotherapeutic treatment of cannabis addicts from the U.S. and Australia. See Bonnet et al. 2006 p.156.

inpatients in order to be able to take into account the frequently serious psychological and social dimension of the addiction.

The treatment should comprise acute treatment (withdrawal treatment) and medical rehabilitation (rehabilitation). Treatment of an uncomplicated intoxication generally does not require any interventional measures going beyond supportive assistance. Patients with complicated intoxications associated with panic attacks (F12.02) react to “down-talking” or, if the patient does not respond, to the administration of benzodiazepines. Benzodiazepine can also be used for transient psychotic episodes (F12.04). The use of benzodiazepines and anti-psychotics is also an option in the treatment of longer-lasting psychotic episodes (F12.50) and possible delirious syndromes.

The treatment of symptoms accompanying the withdrawal syndrome usually do not require any pharmacological treatment. Patients profit from general physical and nursing measures in a qualified withdrawal syndrome treatment.

In serious cases, sleep disturbances can be treated with hypnotics and inner agitation and irritability with low-potency neuroleptics or sedative anticonvulsants. In the case of prominent vegetative withdrawal symptoms, clonidine can be used. Benzodiazepine should be avoided as a result of its high potential for causing dependency, but may be administered for up to 3 weeks if other substances are not sufficient. Secondary psychological and somatic illnesses should be treated individually depending upon the specific disorder.

With regard to the therapeutic relevance of cannabinoids, the guidelines address the fact that in Germany synthetic cannabinoids are licensed as category III sedatives (eligible for commercial trade and sedatives subject to prescription requirements). The psychoactive cannabinoids dronabinol and nabilone, for example, are used during chemotherapy to treat nausea and vomiting. Dronabinol is moreover used to treat the “AIDS-wasting” syndrome.

#### **11.2.5 Psychological and behavioural disorders resulting from cocaine, amphetamines, ecstasy and hallucinogens**

The latest guidelines of the Association of the Scientific Medical Societies in Germany on “psychological and behavioural disorders resulting from cocaine, amphetamines, ecstasy and hallucinogens” were published in 2006 (Thomasius & Gouzoulis-Mayfrank 2006). These guidelines were first published in 2004 (Thomasius & Gouzoulis-Mayfrank 2004).

As a result of the unsatisfactory data situation, these guidelines are more based on a consensus of experts. The authors emphasise that one special feature of the guidelines is that they are characterised by a lower level of substance specificity.

#### **Diagnostics**

Comprehensive diagnostic measures to achieve as precise a picture of the patient as possible forms the basis for a treatment. These include psychodiagnostics (identification of substance-related disorders in accordance with ICD-10), addiction anamnesis, psychopathological findings and assessment of treatment motivation and establishment of comorbid psychiatric disorders (also in accordance with ICD-10) and somatic and socio-

diagnostics. At the same time, special aspects of the substances and substance-related disorders need to be cleared up.

### Treatment

The guidelines cover both acute treatment as well as post-acute treatment. Different recommendations are made regarding the withdrawal/detoxification treatment for the various substances in the case of acute intoxication. In addition to the treatment of withdrawal syndromes, the respective treatment of secondary illnesses and medical emergencies, psychological-psychiatric diagnostics and measures to promote the use of an abstinence therapy and supportive measures in the social area are the goals in acute treatment.

Table 11.1 Treatment of acute, substance-related disorders with medication

Substance	Type of disorder	Treatment
Cocaine	Psychotic intoxication, nervous agitation	Temporary benzodiazepine
	Withdrawal symptoms	Motivation-boosting tricyclic anti-depressives, amantadine
Amphetamines	Psychotic intoxication, induced psychological disorders	Temporary benzodiazepine and neuroleptics
	Withdrawal with rebound phenomenon	Tricyclic anti-depressives
Ecstasy	Psychotic intoxication, strong post-effects	Temporary benzodiazepine; caveat: no neuroleptics or anti-depressives antidepressants
Hallucinogens	Psychotic intoxication	Temporary benzodiazepine; caveat: no neuroleptics

Thomasius & Gouzoulis-Mayfrank 2006.

The goal in post-acute treatment is the treatment of disorders in psychological functions, treatment of physical effects, secondary and follow-up illnesses and treatment of the interactional, psychosocial and development-related disorders. Abstinence and reduction of substance consumption are partial goals of the treatment, which should ultimately make it possible for patients to run their own lives autonomously.

Post-acute treatment is possible both in an outpatient setting (in 80 to 120 individual or group meetings – with the inclusion of important reference persons – within a period of 18 months) and as short-term or long-term inpatient therapies (3 to 6 or 7 to 10 months). Additional treatment possibilities exist in the area of inpatient psychiatrics and psychotherapy and in specialised addiction departments in child and adolescent psychiatry and psychotherapy.

In addition to basic medical care, support should also be provided in dealing with social affairs.

The selection of the treatment setting is based on the clinical features of the substance-related disorder, the motivation of the patient for a certain procedure and the regional availability of treatment possibilities. A stable social environment can be a reason to opt for an outpatient form of treatment, while inpatient treatment is recommended in the absence of stable social and/or everyday structures. Inpatient treatment lasting more than 90 days is recommended for patients with fluctuating motivation and who especially consume cocaine through inhalation or intravenously.

Psychotherapeutic treatment is assigned a key importance in the post-acute treatment of cocaine, stimulants and hallucinogenic disorders.

Behavioural therapy/cognitive therapy, supportive therapy, psychodynamic therapy and family therapy can be applied in individual and group meetings.

Patients addicted to cocaine with several psychosocial and psychiatric disorders profit from procedures aimed at avoiding relapse more than other approaches. Family therapy approaches are recommended for adolescents. Psychological education and motivational intervention should be used as additional support in the post-acute treatment.

The authors recommend a sociotherapy which enables patients to cope with everyday problems. Patients are supposed to receive support with regard to their occupational situation, financial issues (debts), legal and bureaucratic matters and the avoidance of destabilising factors in their social environment. Easy-access programmes are helpful especially to people consuming intravenously (cocaine) or who are threatened by impoverishment (cocaine consumers, crack consumers and polytoxicomaniacs). The authors recommend the continuation of socio-therapeutic assistance through outpatient or inpatient therapy.

No general recommendations can be derived for substances with respect to pharmacological treatment in post-acute treatment as a result of the state of the art in research. If a substance-induced psychosis has been ruled out in the post-acute treatment, schizophrenia in the form of psychiatric comorbidity should be treated with neuroleptics.

Mothers who are dependent on cocaine and pregnant women must receive special attention. In addition to paediatric care, new-born children should receive child-psychiatric and intensive psychosocial assistance. The mothers should be assisted by youth and family aid institutions. The care functions of mothers require professional support in order to ensure that their children are cared for.

#### **11.2.6 Medication dependency (sedatives, hypnotics, analgesics, psychostimulants)**

The latest guidelines on “medication dependency” from the Association of the Scientific Medical Societies in Germany were published in 2006 (Poser et al. 2006).

The guidelines are broken down into three chapters on hypnotics/sedatives, analgesics and psychostimulants.

## Hypnotics/sedatives

The guidelines understand hypnotics/sedatives to mean the substance groups or substances of benzodiazepine, Zolpidem/Zopiclon/Zaleplon, Clomethiazol (substances similar to barbiturates),  $\gamma$ -Hydroxybutyrat (GHB) and  $\gamma$ -Butyrolacton.

Aside from the therapeutic administration of medication, consumption of these can according to ICD-10 also cause an acute intoxication (F13.0), constitute harmful use (F13.1) or a dependency syndrome (F13.2). Of all the hypnotics/sedatives, benzodiazepine is prescribed most often as a result of its therapeutic effect. While harmful use of these substances is rather rare, dependency requiring treatment occurs relatively frequently. Abuse in the meaning of DSM-IV occurs more frequently within the framework of polytoxicomania, especially in connection with illegal drugs.

There is a need for treatment when a diagnosis is made according to ICD-10 or DSM-IV. A diagnosis is a special challenge in the case of medication dependency or abuse. On the one hand, the medications are usually prescribed for therapeutic purposes, while on the other illegal acquisition and uncontrolled consumption (especially of benzodiazepines) occur as well, frequently as additional consumption of illegal drugs. If a dependency is salient in such a case e.g. of opioids, the respective guidelines should also be taken into account. A low-dosage dependency can occur with benzodiazepines prescribed by a physician if the prescribed dosage is taken over a lengthy period of time.

In the case of acute intoxications, it should be checked whether a harmful use of other substances or a dependency is present. Patients can be monitored on an outpatient basis; while in the case of severe intoxications the patient should be placed in a hospital for observation.

In the case of harmful use without dependency, the discontinuation of the medication by the therapist is possible as a form of early intervention. The physician providing treatment or the addiction therapist should win the patient over to a life without sedatives and the avoidance of long-term effects with the aid of therapeutical talks ("motivational discussions"). In the case of dependency, hypnotics/sedatives definitely must not be discontinued suddenly. They are to be phased down in a controlled, gradual manner by the physician treating the patient.

If there is a low-dosage dependency (e.g. in the case of long-term treatment with benzodiazepines), withdrawal is not generally recommended, and is, rather, dependent on a risk-benefit assessment. The execution of so-called long-term outpatient withdrawal can take place in family physicians' practices or with general practitioners. Specialised clinics are recommended in complicated cases. The gradual reduction of dosages may take between 4 and 10 weeks in the case of long-term outpatient withdrawal.

Patients with a high-dosage dependency should be treated within the framework of a "fast inpatient withdrawal" which is performed within a period of 3 to 6 weeks in psychiatric clinics. Withdrawal takes place through a controlled reduction in the dosage.

Benzodiazepine dependency is frequently accompanied by alcohol dependency and polytoxicomania. In the case of alcohol dependency, the dosage of benzodiazepine is reduced

after the alcohol withdrawal has been completed. In withdrawal from benzodiazepine, very high dosages may initially be necessary in the case of multiple dependencies. If there are multiple dependencies it is recommended that the respective guidelines on the consumed substances be taken into account.

Withdrawal treatment is urgently recommended in the case of pregnant women, as withdrawal treatment of new-born children is extremely complicated.

Treating withdrawal from benzodiazepine with medication (which can involve, for example, the administration of sedating tricyclic antidepressives against agitation and sleep disorders or anticonvulsives for seizure prophylaxis) should begin before the withdrawal so as to prevent withdrawal symptoms.

Psychological support should vary according to individual needs and can range from brief supportive interventions all the way to more cognitive or behavioural therapeutic techniques to manage anxiety and stress. Psychological education for specific addictions is particularly important with regard to dependency syndrome, risks of relapse and harmful effects. Individual meetings are recommended, as these are more effective than group meetings in these cases.

In treating comorbid illnesses, it must be taken into account whether the psychological illness (frequently anxiety and depression-related disorders, borderline personality disorders, post-traumatic stress disorders and ADHS) existed prior to the dependence on hypnotics/sedatives. Such pre-existing illnesses often continue to exist during and after the dependency and require separate treatment. On the one hand, a dependency on medication can for its part set additional processes in motion which persist as follow-up illnesses following withdrawal and also justify a need for treatment.

### **Analgetics**

Opioids and non-opioid analgetics are used as pain-killers. The authors of the guidelines state that, in spite of the inadequate data available in Germany, it can be assumed that harmful or non-intended use takes place on a relevant clinical scale. Persons who have had a previous addictive illness, particularly relating to opiates, are particularly at risk of developing a dependency on medication.

The guidelines describe signs of harmful or non-intended use (e.g. forged prescriptions, refusal to disclose sources from which such are obtained, opposition to changes in opioid therapy) and describe the special role which physicians are assigned in prevention (risks to be avoided; e.g. patients not being provided sufficient information, monodisciplinary indication, unclear therapy objectives or therapy objectives which have not been mutually agreed upon, continued prescription of opioids in spite of insufficient prospects of success for the therapy).

### **Psychostimulants**

The guidelines describe the harmful use and dependency on psychostimulants (such as, for example methylphenidate [e.g. Ritalin<sup>®</sup>]). Because abusive consumption prevents use of

psychostimulants, but these are not supposed to be withheld in the case of indicated treatment of patients (e.g. children with ADHS), the authors draw attention to the respective guidelines of the Society for Children and Psychiatric Treatment and Psychotherapy for Adolescents.

### **11.2.7 German Statutory Pension Insurance (DRV): guidelines on rehabilitation needs in the case of dependency-related illnesses**

The 2nd version of the “Guidelines on Rehabilitation Needs in the Case of Dependency-Related Illnesses“ from German Statutory Pension Insurance comes from 2005. It replaces the 1<sup>st</sup> version from 2003 (DRV 2005).

The guidelines refer to dependency-related illnesses in general terms. Statements and recommendations are made for special substance-related aspects in sub-chapters of the guidelines. Pathological gambling and behavioural disorders resulting from intensive use of computers and the Internet are taken into account as non-substance-related disorders.

#### **Need for rehabilitation**

In general there is a need for rehabilitation if a substance abuse disorder is present and the following preconditions have been met: a withdrawal treatment must have been completed, the person must be capable of undergoing rehabilitation and it must be possible for the rehabilitation to return the patient to gainful employment.

A dependency illness is considered to be present if the person is incapable of abstinence or has lost self-control or if these two systems occur periodically. ICD-10 and DSM-IV are used as the diagnosis criteria for diagnosing a dependency syndrome.

#### **Rehabilitation programmes and benefits**

Rehabilitation can be carried out on an outpatient or inpatient basis. The guidelines refer to an agreement between the health insurance schemes and Statutory Pension Insurance which sets out the criteria which apply to the facilities (e.g. with respect to personnel, funding agency, space, therapy offers and places) (DRV 2005, "Substance Abuse Disorder Agreement" in the annex to the guidelines). What measures are suitable for the patients must be decided on an individual basis. The most important criteria are, for example, the social and occupational integration of the patient, the living situation, capability of abstinence and active cooperation in the therapy or the degree of possible psychosocial disorders.

In the case of inpatient treatment, the therapy may last up to 26 weeks, with shorter therapies lasting between 12 and 16 weeks. Outpatient rehabilitation for addictions may last up to 18 months, in which a maximum of 120 individual or group therapy meetings can take place as well as up to twelve therapeutic discussions with important reference persons.

In the after-care, services can be provided by outpatient after-care if joining a self-help group is not enough. 20 individual or group therapy meetings are held within a period of half a year. The system of benefits also covers an adaptation phase which can follow rehabilitation. In the phase lasting up to 16 weeks patients are stabilised in their everyday lives, while the

performance capability and capacities of the insured party to deal with stress are to be improved.

Aid in reintegration in working life is of central importance to rehabilitation, which is aimed at restoring the capability to work as a more general objective from the perspective of the Statutory Pension Insurance. Aid and benefits to help reintegrate insured persons help promote motivation for addiction rehabilitation and should be provided as early on as possible. A successful reintegration has a positive impact on abstinence and psychological stability.

### **11.2.8 Further development of guidelines**

At present the guidelines of the Association of Scientific Medical Societies in Germany at development level S2 are being further developed under the auspices of the German Society for Research on Addictions (DG-Sucht) and the German Association for Psychiatry and Psychotherapy (DGPPN). The consensus process has not yet been completed, nor can it be predicted when the guidelines will be published (Fleischmann, personal communication). Work is taking place at present on a non-substance-related development of guidelines on the topic "psychosocial therapy". Even though experts emphasise that "addiction" should be a topic in this development process, it has thus far been ignored in the drafting of this report (Fleischmann, personal communication).

The rehabilitation guidelines of German Statutory Pension Insurance are currently being revised and the publication of the new version in 2010 is considered to be probable. The Statutory Pension Insurance is endeavouring to also involve the relevant specialised societies (e.g. German Association for Psychiatry and Psychotherapy and the German Society for Research on Addictions (DG-Sucht)) in the process of developing the guidelines. The guidelines are to be brought in line with the procedures developed in the guidelines of the Association of the Scientific Medical Societies in Germany, as this procedure enjoys broad general acceptance in the science community.

### **11.3 Implementation process**

Gastpar and Schmidt (2006) point out that studies have yet to be conducted on the applicability and use of the guidelines in practice. A review of the relevance of guidelines in everyday practice should also provide a basis to assess the needs for improvement of guidelines with regard to their viability in practice.

The guidelines of the Association of the Scientific Medical Societies in Germany drafted in Germany are supposed to contribute to an improvement in quality in addiction aid through their application. The most important preconditions for the application of guidelines are the dissemination, availability and acceptance of them by professions providing treatment. With the publication of the guidelines of the Association of the Scientific Medical Societies in Germany and their free availability in the Internet it can be assumed that the degree of awareness of the guidelines is high among the relevant groups of professions. To date no

data which can be validated is available; just as little is known about the use and application of the guidelines in actual practice.

Because the development of the guidelines has to be supported by a broad consensus among experts, it must be assumed that they meet with a high level of acceptance among the relevant professional groups in spite of the discussion over applicability and viability in the state of practice (see Koch 2006; Schmidt 2006 and chapter 11.1.4).

Because the guidelines of the Association of the Scientific Medical Societies in Germany are not regulations, it is left up to clinics and treatment facilities what internal standards they want to base their treatments on. Clinics must set out in their quality management systems, however, which guidelines their treatments are based on in order to achieve certification through an external auditor. It can thus be assumed that the guidelines of the Association of the Scientific Medical Societies in Germany are applied on a broad scale at the level of the clinics. (Fleischmann, personal communication).

The guidelines of German Statutory Pension Service are implemented at the level of rehabilitation facilities by the agreement on “Dependency-Related Illnesses” between the Statutory Pension Insurance and health insurance schemes contained in the annex defining the requirements applying to facilities with regard to the performance of outpatient and inpatient treatment measures and laying down the criteria for decisions on outpatient and inpatient treatment (DRV 2005)

The guidelines of German Statutory Pension Insurance are of decisive importance in the performance of rehabilitation measures, the reason being that they stipulate what can be paid for by the Statutory Pension Insurance (or the health insurance schemes). The Evidence-based Therapy Model (ETM) which is formulated therein is made available to facilities. The Classification-of-Therapeutic-Benefits (KTL) analysis<sup>155</sup> determines to what extent the Evidence-based Therapy Model can be applied. An improvement in the supply of rehabilitation in actual practice is supposed to be achieved through feedback to the facilities and institutions (Brueggemann et al. 2004).

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<sup>155</sup> KTL analysis: The Classification of Therapeutic Benefits (KTL) is a directory of therapeutic benefits drafted by the BfA (now German Statutory Health Insurance) which can be carried out during a medical rehabilitation. The results of a research of the literature, formulated as an evidence-based therapy module (ETM) are compared as treatment targets with the actual situation (as reflected in the release reports of the BfA (now the German Statutory Health Insurance) (see 11.1.3).



## 12 Costs of Drug-Related Treatment

### 12.1 Funding sources

The financing of aid for substance abuse disorders in Germany is marked by a bewildering variety of competencies and domains of responsibility. In describing funding mechanisms, one can distinguish between various funding organisations (the Federal government, the *Laender*, local governments, health insurance schemes, the statutory pension insurance schemes, the welfare associations), various measures/benefits (general health care, counselling and advice, therapy/medical rehabilitation/treatment, transitional programmes/after-care, minimisation of damage) or between the various providers of these measures (addiction counselling offices, specialised clinics, general hospitals/psychiatric clinics, practicing physicians and psychotherapists, adaptation facilities, low-threshold facilities).

#### 12.1.1 Funding organisations

The **health and pension insurance schemes** play a key role in the treatment of drug-related disorders. They are autonomous, self-administrating organisations as codified in respective laws (in particular the Social Code) which bear direct responsibility for the persons insured with them. There are several organisations in both areas which are organised as non-public, non-profit or public institutions. The health insurance schemes are responsible for benefits provided in connection with (secondary) illnesses resulting from drug consumption and physical detoxification, while the statutory pension insurance schemes predominantly are in charge of medical rehabilitation (restoration of ability to engage in gainful employment). There are statutory pension insurance schemes at the level of the *Laender* and regions as well as for certain occupations. These schemes have data on expenditures which fall in the category of the German National Statutory Pension Insurance. The funds involved always come from the premiums paid by insured persons.

For patients who have no insurance coverage from health or pension insurance, social aid agencies assume the costs of treating drug dependence – these are generally the **local communities** (counties, independent cities) or regional organisations (e.g. regional associations). These also contribute to a majority of the non-medical and social programmes for these patients (e.g. counselling for addictions). The resources provided by social aid agencies or public grants are financed by tax revenue.

As an alternative or as a supplement to public funding agencies, confessional and non-confessional **statutory welfare agencies** (especially for counselling programmes and social measures) also participate in the care system. Although public financial recourses are made available for them to perform their activities, these institutions also make their own contribution – for example using church tax revenue.

Financial responsibility for a large share of programmes for drug-related treatment does not lie in the hands of the Federal Government in Germany. Under the Constitution of the Federal Republic, the health care of the *Laender* and local communities are important.

In connection with drug-related treatment, the **Federal level** only provides resources for model projects and the promotion of research.

The **Laender** are responsible for the public health system. Expenditures on drug-related treatment are thus to be found in the budgets of all 16 Federal *Laender*. In some German *Laender* local governments are being assigned greater responsibility, especially in the areas of counselling and assistance.

**Local governments** have to support citizens whose individual income or social insurance does not provide them a certain minimum standard of living. The benefits provided by social aid are at the same time used for activities aimed at helping addicts.

The interplay between the various organisations is dynamic. Responsibilities in connection with drug-related treatment can for this reason definitely change. Certain benefits can be paid for by various funding organisations, but there are clear priority rules. Thus social aid funded by local communities only assumes the costs of treatment if there is no social insurance.

### 12.1.2 Measures

#### General health care

Drug consumers are not only cared for in specialised facilities, but rather also within the framework of general health care. The reason for treatment is at the same time frequently not the addiction problem, but rather its direct and indirect effects, e.g. injuries due to accidents during the intoxication. Services are provided by general hospitals, psychiatrists or practicing physicians and are paid for by the health insurance schemes.

#### Minimisation of damage

Programmes to help minimise damage are available at special low-threshold facilities or in affiliation with addiction counselling offices. They are largely funded by local government and *Laender* financial resources.

#### Specialised treatment

Specialised treatment for drug consumers with the aim of abstinence from drugs is strategically speaking split up into four phases, for which different funding agencies and thus also different funding systems are responsible: (1) the contact and motivation phase, (2) the withdrawal phase, (3) the rehabilitation phase and (4) the integration and after-care phase. Above and beyond this there are forms of specialised treatment which do not necessarily pursue the objective of abstinence, or only do so long-term. These include above all substitution treatment<sup>156</sup>.

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<sup>156</sup> See also chapter 5 for the phases of treatment and the structures of the scheme.

**Contact and motivation phase / counselling**

Measures in the contact and motivation phase take place especially in addiction counselling centres or social-psychiatric services. They are primarily funded with public financial resources, i.e. grants from local governments and the *Laender* as well as the funding agencies' own funds. Funding from local governments and the *Laender* is voluntary – there is no legal claim to this support.

**Withdrawal and rehabilitation phase / treatment / therapy**

Withdrawal treatments, which usually take place as an acute treatment in the hospital, are usually provided under the auspices of (statutory or private) health insurance. With rehabilitation treatment (medical rehabilitation), on the other hand, which depending upon the facility and indication is offered at both stationary (specialised clinics) and in an outpatient setting, statutory social and pension insurance is in charge, funding this treatment to restore the patient to gainful employment with their benefits. Furthermore, the health insurance schemes assume the costs of treatment of addicts by practicing physicians and psychotherapists. Social-psychiatric services also provide psychotherapy services, in some cases settling the costs of these with the health insurance schemes (authorisations), and other cases funding these with local community resources. Substitution treatment is also a benefit covered by the health insurance schemes.

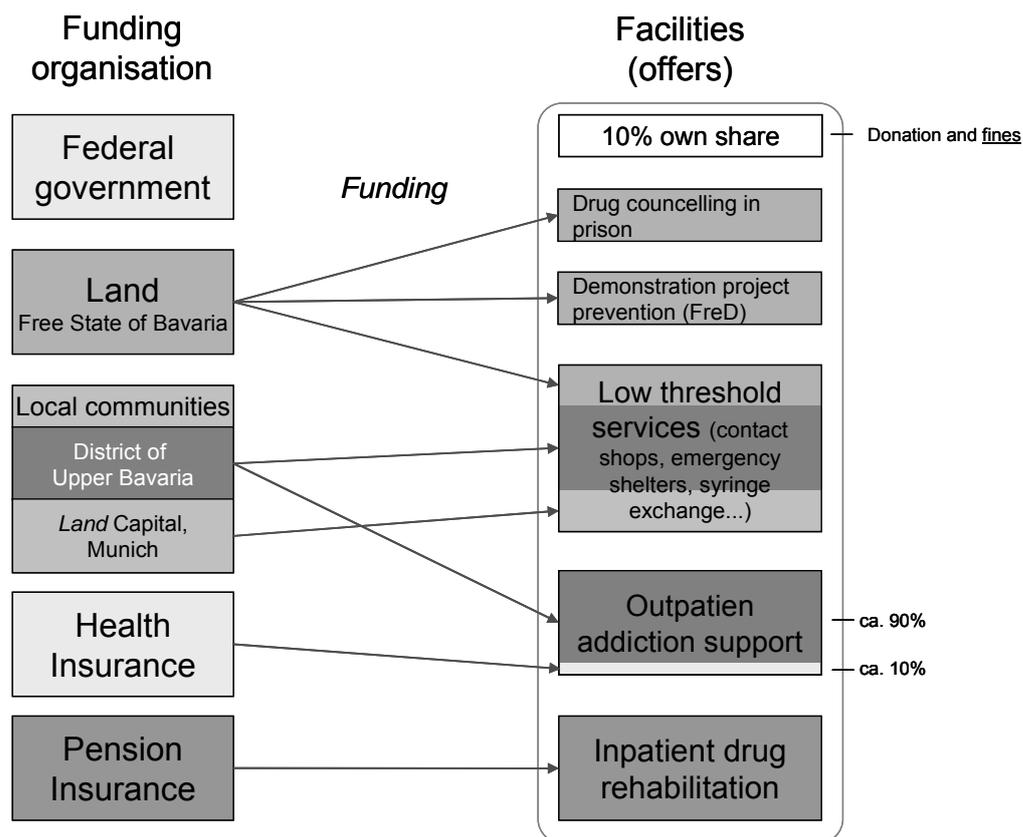
**Integration and after-care phase**

Outpatient or inpatient after-care measures following upon these upstream treatments are to a large extent paid for by the statutory social and pension insurance.

**12.1.3 Providers**

Because the existing funding mechanisms have already been described in the two preceding paragraphs, the different providers of measures need not be listed off here once again. It should be noted, however, that agencies offering help for addicts frequently offer different measures and are hence also funded by different sources. The complex structure of funding channels is illustrated in the following.

Figure 12.1 shows once again an example of services on offer and the funding of these at an institution offering aid for persons with substance abuse disorders in Bavaria. The percentage accounted for by the different sources of funding can vary both between institutions as well as within a single institution over time, as in particular outpatient addiction counselling and low-threshold services are voluntary services of local communities and the *Laender* for which new agreements must be made every year and which depend on the current budget situation.



IFT, own description.

Figure 12.1 Example for the funding of an individual institution for persons with substance abuse disorders

#### 12.1.4 Individual cost statements for drug-related treatment in Germany

Cost information which is available for drug-related treatment in Germany is presented in the following. This does not mean a systematic list of all costs, as it were, but rather individual bits of information from different sources which were available at the time this report was drafted. These do not provide an overall picture of costs in connection with the treatment of consumers of drugs and as a result of methodological differences cannot be added up to an aggregate sum. Moreover, it must be noted that in examining the political development in Germany, which is moving in the direction of a comprehensive consideration of the topic of "addiction" (see also chapter 1), scarcely any distinction is made between legal and illegal drugs. This approach makes it difficult to break down the costs which arise, especially with respect to public budgets. This and additional caveats will be noted with respect to the various information on costs.

## Expenditures by the Federal Government and *Laender*

### ***Budget plans***

Systematic research was conducted on all budget plans of the Federal Government and the *Laender* in 2009 with the aid of a full-text search for relevant data to determine the costs of drug-related treatment at the Federal and *Laender* levels.<sup>157</sup>

The results are presented in Table 12.1 and Table 12.2. At the same time it must be taken into account that the *Laender* are autonomous in their budgetary planning and independent of one another and as a result the budgets pursue different systems and are not broken down into details to the same degree. Nevertheless, one or more budgetary items were found in each *Land* containing expenditures for the treatment of drug consumers. Frequently the budgets listed contained information which does not fall in the areas of interest here, however, e.g. expenditures on preventions measures, for psychiatry in general or for legal drugs. It was not possible to determine the percentage accounted for by illegal drugs in these cases. Thus the budget data can only provide a rough idea of what costs arise for public budgets in connection with drug-related treatment.

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<sup>157</sup> The search terms used were: "Sucht" ("addiction"), "Droge" ("drugs"), "Rauschgift" (drugs), "Betaeubungsmittel" ("narcotics"), "Substitution" ("substitution").

Table 12.1 Federal budget apportionment 2009 with reference to drug-related treatment

Ministry	Budget item	Total (€)	Notes
Federal Ministry of Health	1502 General apportionments Budget item 06 <b>Measures in the area of drug abuse and abuse of addictive substances</b>	16,312,000	Of this amount: <ul style="list-style-type: none"> <li>- Information campaigns in the area of drug and addictive substance abuse (resources are primarily allocated to the BZgA(Head Federal Office for Information on Health): <b>9,236,000</b></li> <li>- Grants to central facilities and associations (German Centre for Addiction Issues (DHS) and DHS project promotion): <b>1,207,000</b></li> <li>- Model projects in the area of abuse of drugs and addictive substances: <b>3,769,000</b> (of this amount 1. Individual projects implementing the Action Plan for Drugs and Addiction for the Area of Legal Drugs, in particular alcohol: <b>1,260,000</b>; 2. Individual projects implementing the Action Plan for Drugs and Addiction for the Area of Illegal Drugs, in particular cannabis: <b>1,260,000</b>; 3. Individual projects implementing the Action Plan for Drugs and Addiction for the Area of Tobacco: <b>1,249,000</b>)</li> <li>- Promotion of national information focal points in the area of addiction (basic documentation and REITOX Focal point): <b>800,000</b></li> <li>- Grants to defray the costs of research and development projects in the area of drug and addictive substance abuse: <b>1,300,000</b></li> </ul>

Table 12.2 Apportionments in *Laender* budgets 2009 with reference to drug-related treatment

Land/Ministry	Budget item	Total (€)	Notes
Thuringia / Ministry for Social Affairs, Families and Health	08 29 Health-care system and psychiatric institutions / budget item 8 Other expenditures on investments and investment promotion measures / 893 02 Other investments in the health-care sector <b>→ Establishment and expansion of facilities for preventing addiction and treatment of substance use disorders</b>	<b>742,000</b>	
	08 29 Health care system and psychiatric institutions / budget item 71 Health promotion, health protection and health aid / 684 71 Measures in the area of health promotion, protection of health and health aid <b>→ Measures relating to prevention of addiction and aid for persons with substance abuse disorders</b>	<b>881,700</b>	This includes EUR 200,000 for measures for the prevention, aid and research of pathological gambling
Schleswig-Holstein / Ministry for Social Affairs, Families, Youth and Senior Citizens	10 02 Health/ 684 04 Grants for the purpose of outpatient aid for addicts and decentralised psychiatry <b>→ Outpatient aid for addicts</b>	<b>1,671,000</b>	The task areas of counselling (including prevention), psychosocial support substitution and assistance and specific aid for persons addicted to substances in agglomeration areas (including low-threshold contact possibilities) are promoted within the framework of regional outpatient aid for addicts. In order to achieve the objectives set, target agreements are concluded each year with the individual associations, a reporting system is set up, controlling meetings are held and if need be adjustments made.
	10 02 Health/ 61 <b>Combating abuse of addictive substances</b>	<b>1,284,600</b>	Of this amount: Experts: <b>30,000</b> - Material costs in connection with combating abuse of addictive substances (the percentage of S-Hs in the Substitution Register and material costs for campaigns are apportioned): <b>14,600</b> - Combating the abuse of addictive substances (subject of promotion:

Land/Ministry	Budget item	Total (€)	Notes
			prevention, reach-out work in the penal system, specific projects for a limited term, <i>Land</i> associations for self-help by addicts, <i>Land</i> Office for Addiction Issues, Women, Treatment of Addiction and Counselling donna clara e.V.): <b>1,240,000</b>
Saxony-Anhalt / Ministry of Health and Social Affairs	05 02 General apportionments / 61 counselling programmes → <b>Addiction counselling</b>	<b>1,496,400</b>	Drug and addiction counselling offices: addiction counselling offices in the <i>Land</i> of Saxony-Anhalt are subsidised in accordance with the Regulation on the Provision of Grants for the Subsidisation of Counselling and Outpatient Treatment Offices for Addicts (circular from the Ministry of Social Affairs from 8th July 1993).
	05 13 Health-care system/ 73 <b>Prevention of additional and aid for addicts</b>	<b>278,200</b>	Of this amount: Grants for the <i>Land</i> Office for Addiction Issues: <b>92,500</b> - Grants for ongoing purposes to public facilities (promotion of general measures throughout the <i>Land</i> to secure broad aid for addicts and prevention of addiction, in particular measures of organisations and institutions which are not affiliated with the non-statutory welfare care and for this reason also require subsidisation): <b>185,700</b>
Saxony / State Ministry for Social Affairs	08 07 Health-care system/ TG 54 <b>Measures, services and facilities in the area of prevention of addiction and aid for addicts</b>	<b>4,820,000</b>	Of this amount: - Grants for ongoing measures to prevent addiction and aid for addicts to social and similar facilities (not including public facilities; estimated are grants for: 1. Special offices for prevention of addictions (235,000), 2. Saxony <i>Land</i> Office against Dangers of Addiction (66,000), 3. Special offers (21,000), 4. Schoolchildren Multipliers/prevention projects (30,000), 5. <i>Land</i> Working Group for the Support of Treatment of substance use disorders (32,000), 6. Material and human resource costs of working projects (56,000), 7. Encounter centres (30,000)): <b>470,000</b> - Grants for ongoing purposes to prevent addiction and provide aid to addicts to public facilities (promotion of addiction counselling and treatment centres (SBB)): <b>3,550,000</b> - Grants for investments in other items (estimated here are grants for investment costs in creating special places in social therapeutic residential centres for persons suffering from chronic multiple damage from addictions (e.g. closed residency, double diagnoses), for the creation of external residential groups and the funding or working projects): <b>800,000</b>
Saarland/ Ministry of Justice, Labour, Health	05 21 Health-care system / item group 71: <b>Measures for treatment of</b>	<b>967,400</b>	Of this amount: - Expenditures on studies programmes, conferences, studies trips,

Land/Ministry	Budget item	Total (€)	Notes
and Social Affairs	<b>substance use disorders</b>		exhibitions, etc., within the framework of treatment of substance use disorders (this item also includes estimates of resources for training working groups and strengthening community prevention of addiction): <b>3,400</b> - Grants for aid for treatment of substance abuse disorders (estimate includes resources for facilities providing treatment of substance abuse disorders): <b>964,000</b>
Rhineland-Palatinate / Ministry of Labour, Social Affairs, Health, Families and Women's Affairs	06 02 General apportionments / 684 28 <b>Grants for measures for persons at risk of addiction and with substance abuse disorders</b>	<b>4,304,000</b>	Of this amount: - Measures at addiction counselling offices and for the prevention of addictions: <b>2,716,000</b> - Transitional facilities and projects for social and occupational integration: <b>515,000</b> - Measures for reach-out social work and psycho-social assistance: <b>1,013,000</b> - Other: <b>60,000</b> Local community measures can also be subsidised with these resources as can the Ministry's own measures.
	06 12 Women/ 684 03 Grants for measures for women in dire psycho-social and health-related situations <b>→ Addiction projects specific to women</b>	<b>161,800</b>	
NRW/ Ministry for Labour, Health and Social Affairs	11 080 Measures for the Health System / item group 71 <b>Combating the danger of addictions</b>	<b>9,787,200</b>	Of this amount: - Costs of experts and investigatory projects: <b>25,000</b> - Public-relations work (prevention): <b>297,400</b> - Other transfers to the Federal level (participation in costs relating to the Substitution Register): <b>70,000</b> - Allocations for ongoing purposes to communities and community associations: <b>9,394,800</b> (of this amount 9,369,800 "subject-related lump sums" and 25,000 "aid") The resources apportioned under "subject-related lump sums" are made available to the districts and independent cities for them to use as they see fit. The target and impact-oriented use of <i>Land</i> resources is supported by a

Land/Ministry	Budget item	Total (€)	Notes
			<p>framework agreement concluded by the NRW Ministry of Labour, Health and Social Affairs, the local peak associations and the peak associations of non-statutory welfare care. The lump sums are used to perform the following tasks:</p> <ul style="list-style-type: none"> <li>○ Prevention and aid programmes for people at risk of addiction and suffering from substance use disorders and their family members</li> <li>○ Programmes for psychosocial assistance of drug addicts using substitutes</li> <li>○ Low-threshold medical and psychosocial aid offers for drug addicts</li> <li>○ Programmes to strengthen self-help</li> </ul>
Lower Saxony / ministry of Social Affairs, Women, Family and Health	0540 Health care administration and the health care system / budget item 88 <b>Measures for combating addiction</b>	<b>7,199,000</b>	<p>Of this amount:</p> <ol style="list-style-type: none"> <li>1. Special offices for addiction and prevention of addiction: <b>4,106,000</b></li> <li>2. Preventive measures: <b>460,000</b></li> <li>3. Psychosocial assistance measures for persons using substitutes: <b>2,045,000</b></li> <li>4. Support for self-help activities: <b>65,000</b></li> <li>5. <i>Land</i> office for issues relating to addictions: <b>330,000</b></li> <li>6. Lower Saxony Addiction Conference: <b>7,000</b></li> <li>7. Continuation of the former heroin model project in Hanover: <b>186,000</b></li> </ol> <p>Average amount of funding: <i>85,000</i></p>
Mecklenburg-Western Pomerania / Ministry of Social Affairs and Health	1002 Public health system / MG 05 <b>Combating drugs, addiction and AIDS</b> (resources for AIDS listed separately > not contained in the subtotal)	<b>2,050,000</b>	<p>Of this amount:</p> <ul style="list-style-type: none"> <li>- Continued training of specialised personnel and public-relations work in connection with drugs and addictions (e.g. prevention campaigns, drafting and production of information material): <b>5,000</b></li> <li>- Expenditures based on works agreements and other forms of contracts (estimated for the execution of studies on the effectiveness of addiction prevention and trends in the development of addiction): <b>25,000</b></li> <li>- Allocations to communal funding agencies for prevention of addictions and combating abuse of addictive substances (estimated for the funding of Addiction Counselling Offices): <b>1,660,000</b></li> <li>- Grant to the <i>Land</i> Coordinating Office: <b>270,000</b> (expenditures on human resources: 220,000; material expenses: 50,000)</li> </ul>

Land/Ministry	Budget item	Total (€)	Notes
			<ul style="list-style-type: none"> <li>- Grants to non-statutory funding agencies for the prevention of addictions and combating abuse of addictive substances: <b>90,000</b> (promoting projects for combating addictions: 40,000; Land Office against Addiction Dangers: 50,000)</li> </ul>
Hesse	Promotional product no. 26: <b>Measures for the treatment of substance use disorders</b>	<b>1,264,000</b>	<p>The budgetary resources are earmarked for the Hesse Land Office for Addiction-Related Issues, prevention work, counselling, self-help groups, work projects, data analysis, publications, model programmes, studies and investment. The resources first of all serve as knock-on financing while secondly they subsidise the ongoing work of various projects.</p> <p>Recipients: non-statutory funding agencies for treatment of substance use disorders, local communities and community associations and research institutions (approximately 22 measures).</p>
Hamburg/ Agency for Social and Family Affairs, Health and Consumer Protection	Chapter 4930 Health/ Z62 <b>Drugs and addiction</b>	<b>27,716,000</b>	<p>Of this amount:</p> <ul style="list-style-type: none"> <li>- Other material expenditures: <b>108,000</b></li> <li>- Re-integration aid for disabled persons – aid for people with substance disorders and at risk of substance abuse: <b>9,270,000</b></li> </ul> <p>(estimates are for expenditures on statutory services for re-integration aid for people suffering from substance abuse disorders. This covers measures in the area of social rehabilitation in overnight shelters and crisis residencies and in after-care facilities for those cases in which the costs can be paid with resources earmarked for social aid, as no other funding agencies with higher priority assume these. Addicts who want to overcome their addiction with the aid of additional medical and therapeutic programmes at specialised clinics and in therapeutic residential communities are admitted to the health care and transitional facilities, but who require a (partial) inpatient framework as a result of their particular social situation to prepare for these measures. These after-care facilities assist the persons suffering from substance abuse disorders after they complete medical rehabilitation in re-integrating them in the social environment.)</p> <ul style="list-style-type: none"> <li>- Grants to associations and similar (broken down in the budget plan according to facilities/projects): <b>17,009,000</b></li> <li>- National trial testing of heroin administered by physicians: <b>1,329,000</b></li> </ul>
Bremen	Product plan 41 Youth and Social Affairs / Product area 41.07 Aid for	<b>736,000</b>	The services for persons with substance abuse disorders are provided by the Contact and Counselling Centre for Persons suffering from Substance Abuse

Land/Ministry	Budget item	Total (€)	Notes
	addiction, drugs and psych. illnesses / product group 41.07.01 <b>Benefits for people with substance abuse disorders</b>		Disorders – Health Care Centre with low threshold services: meals, exchange of syringes, changing rooms and basic medical care including substitution programmes (EMP) by the funding agency (comeback gGmbH) and the Drug-Counselling Centres Central and North (funding agency: Ambulante Drogenhilfe gGmbH). The aforementioned service package is controlled in product group 51.01.04. Only human resources from the Office for Social Services are provided to the funding agency in this product group.
	Product plan 51 Health / product area: 51.01 Health promotion, protection and aid / product group 51.01.04 <b>Outpatient treatment for drug and substance use disorders</b>	<b>1,242, 000</b>	Services for persons with substance abuse disorders are provided by the Contact and Counselling Centre for Persons suffering from Substance Abuse Disorders – Health Care Centre with low-threshold services by the funding agency comeback gGmbH and the Drug Counselling Services Central and North by the funding agency Ambulante Drogenhilfe Bremen gGmbH. Additional projects aiding persons with substance abuse disorders are funded with allocations, primarily in the area of self-help.
Brandenburg / Ministry of Labour, Social Affairs, Health and Families	07 040 Health/ TGr. 86 <b>Psychiatric aid and aid for people with substance abuse disorders</b>	<b>2,075,300</b>	<b>Incl. psychiatry!</b> <ul style="list-style-type: none"> <li>- Experts, court and similar costs (conference costs of the Psychiatric Voluntary Council, conference costs relating to psychiatric care in districts and independent cities and the funding agencies for psychiatric/psychosocial care, costs of the visiting commissions in accordance with the administrative provision, costs of expertises and workshops for the implementation of the Brandenburg Act on Psychologically Ill Persons, conference costs of the <i>Land</i> Conference on Addictions): <b>23,000</b></li> <li>- Allocations to the districts and independent cities (resources for the promotion of human resources and material costs of contact and counselling for persons with psychological disorders and the outpatient counselling and treatment centres for persons with substance abuse disorders (project promotion)): <b>1,566,600</b></li> <li>- Grants to social and similar facilities (grants for human resources and material costs in the area of national aid for persons suffering from substance abuse disorders (Brandenburg <i>Land</i> Office against the Danger of Addiction) and prevention of addiction and costs of projects for the further development of psychiatric/psycho-social health-care structures (project promotion)): <b>485,700</b></li> </ul>
Berlin / Senate Administration for	Health / 54010 Services	<b>138,990</b>	

Land/Ministry	Budget item	Total (€)	Notes
Health, the Environment and Consumer Protection	<b>→ Drug-control examinations and other services in the area of treatment of substance use disorders</b>		
	Health/ 54053 events	<b>10,600</b>	
	<b>→ Measures against drug and alcohol abuse</b>		
	Health/ 63107 <b>Compensation of the Federal government for expenditures</b>	<b>16,300</b>	Of this amount: <ul style="list-style-type: none"> <li>- Share of the <i>Land</i> of Berlin for the Substitution Register at the Federal Institute for Drugs and Medical Devices (BfArM): <b>14,800</b></li> <li>- Share of the <i>Land</i> of Berlin in the national network of experts Prevnet: <b>1,500</b></li> </ul>
	Health / 68406 Grants to social and similar facilities <b>→ Integrated health agreement</b>	<b>10,897,390</b>	Includes the action fields of chronic illnesses, HIV (including AIDS, sexually transmitted illnesses and hepatitis) and drugs and addiction (including basic outpatient care, complementary health care, integration, self-aid and drug-consumption rooms)
MG 02 <b>Land Drug Commissioner / Drug and Substance Use Disorders</b>	<b>3,113,200</b>	Of this amount: <ul style="list-style-type: none"> <li>- Appraisals (including for the evaluations by the Special Office for Prevention of Addiction and the International ESPAD Study): <b>25,600</b></li> <li>- Transfer payments to the Special Office for Addiction Prevention (for the development and execution of measures to prevent addiction in the <i>Land</i> of Berlin on the basis of a service agreement): <b>497,000</b></li> <li>- Other administrative expenditures from ESF resources (resources for the award of technical aid in the execution of ESF job-promotion projects, training and counselling for persons with addiction problems): <b>44,100</b></li> <li>- Awards, prizes (for competitions on the topic of addiction, drugs and tobacco): <b>500</b></li> <li>- Other grants for independent youth welfare (for projects combating drug and alcohol abuse. Secondary-prevention measures are implemented in the projects of Karuna e.V. and in the ecstasy project of the funding agency Way &amp; Sun. Both projects supplement the work of the Special Office for the Prevention of Addictions): <b>407,000</b> (Karuna e.V.: 331,700; Way &amp; Sun: 75,300)</li> <li>- Grants to drug counselling offices (grants for the Federal model Cannabis</li> </ul>	

Land/Ministry	Budget item	Total (€)	Notes
			<p>(cooperation model) and the innovation project "Sustain". The grants estimated for drug-consumption rooms to date under this item (400,000) have been subsumed under the integrated health agreement): <b>137,000</b></p> <ul style="list-style-type: none"> <li>- Grants to social or similar facilities from allocations (expenditures on measures for the prevention of gambling and aid for gambling addicts): <b>250,000</b></li> <li>- Grants to social or similar facilities from ESF resources (for measures and projects relating to occupational training, qualification and counselling of persons with addiction problems): <b>1,380,000</b></li> <li>- Grants to independent youth welfare facilities for standard adjustments (investments): <b>372,000</b> (for the renovation of facilities in Ruhwaldpark: 92,000; for the establishment and furnishing of a training centre for the execution of diamorphine treatments: 280,000)</li> </ul>
Bavaria / State Ministry for the Environment and Health	12 08 Special tasks – Health and veterinary system / budget item 92 <b>Support for combating addictions and drug therapy</b>	<b>7.553.900</b>	<p>Of this amount:</p> <ol style="list-style-type: none"> <li>1. Public-relations work, measures to inform people: <b>221,800</b></li> <li>2. Event-related costs, costs of examinations: <b>683,800</b></li> <li>3. Measures for combating addiction to gambling: <b>2,000,000</b></li> <li>4. Costs of the Substitution Register: <b>58,300</b></li> <li>5. Other allocations to local governments and community associations: <b>147,100</b></li> <li>6. Grants for ongoing purposes to social and similar facilities: <b>4,318,900</b></li> <li>7. Grants for investments in communities and community associations (grants for the establishment of rehabilitation and re-socialisation facilities for persons especially at risk and dependent persons): <b>124,000</b></li> </ol> <p><b>Other reports on resources</b> from 1., 2., 4., 5. and 6. (in sum total: 5,429,900):</p> <ul style="list-style-type: none"> <li>- Information campaign measures, prevention, publications, documentation: <b>859,900</b></li> <li>- Grants for projects and prevention specialists: <b>1,320,000</b></li> <li>- Low-threshold services and assistance for addicts: <b>400,000</b></li> <li>- Promotion of self-help groups: <b>50,000</b></li> <li>- Assistance for prisoners with substance abuse disorders and at risk of addiction in the Bavarian juvenile prisons through external specialists:</li> </ul>

Land/Ministry	Budget item	Total (€)	Notes
			<b>2,800,000</b>
Baden Wuerttemberg/ Ministry for Labour and Social Affairs <sup>158</sup>	0922 Health care / budget item 75 <b>Promotion of measures for the treatment of substance use disorders prevention of addiction</b>	<b>9,313,900</b>	Of this amount: <ul style="list-style-type: none"> <li>- Other material expenditures (in particular for events, epidemiological examinations, etc.): <b>30,000</b></li> <li>- Grants to local communities and community associations (municipalities and districts for the commissioners for prevention of addiction: 511,300; psycho-social counselling and outpatient treatment centres and low-threshold facilities for drug users: 613,500; specialised practices and other measures: 332,400): <b>1,457,200</b></li> <li>- Grants to organisations which work in the field of prevention of addictions (for 1. The associations affiliated in the <i>Land</i> Office for Addiction Issues Providing Aid for Persons with Substance Abuse Disorders in Baden-Wuerttemberg, the League of Non-Statutory Welfare Care in Baden-Wuerttemberg and the Baden <i>Land</i> Association for Prevention and Rehabilitation: 400,600; 2. Self-help groups: 253,100; 3. Psycho-social counselling and outpatient treatment centres and low-threshold facilities for drug users: 5,896,000; 4. Funding agencies of facilities for inpatient aid in the area of treatment of substance use disorders: 0; 5. Other measures (resources for other measures for the treatment of substance use disorders, Treatment of substance use disorders coordination and addiction prevention and the model pilot testing and prorated financing of projects): 77,000; 6. Measures according to §1, section 2 of the Act Implementing the Gambling Treaty: 1,200,000): <b>7,826,700</b></li> </ul>

Quellen: Haushaltsplaene der Laender, verfuegbar auf den jeweiligen Websites der Landesfinanzministerien.

<sup>158</sup> In addition to the expenditures identified here there is still another title in the household of the Ministry of Justice of Baden-Wuerttemberg which includes external drug counselling in prison. The corresponding entry amounted to 703,502 € in the financial year 2002 (BMG, personal information).



### ***Additional information from the individual countries***

In the annual reporting, the drug commissioners of the *Laender* are also written to and requested to report on new information, data and projects in the area of illegal drugs at the *Laender* level. This year they were also asked about information available on the costs of drug-related treatment. The answers from individual German *Laender* to this query are presented in the following. This information supplements the figures from the budget plans by adding a few details, e.g. the annual costs of a full-time position at an addiction counselling office (Baden-Wuerttemberg) or the principle of co-financing of counselling offices by the *Laender* and local communities (Baden-Wuerttemberg and Saarland). On the whole, it would appear that there is a tremendous heterogeneity among the *Laender* and that there are many “hidden” expenditures or information on expenditures which cannot be found in publicly available documents or can only be found with difficulty. The list here can thus not make any claim to completeness. In addition, the denoted amounts are not comparable with each other, since costs exclusive of illicit drugs are only reported in a few cases (Berlin, Mecklenburg-Western Pomerania). In the reports of the other *Laender* costs for licit drugs are included.

#### ***Baden-Wuerttemberg***

There are approximately 400 psychosocial counselling and outpatient treatment centres (PSB) in Baden-Wuerttemberg. *Land* subsidies for the 450 specialists working in this field amount to up to € 16,900 per year per full-time position. The recipients of the subsidies are municipalities and districts (counties) which have to contribute an amount at least as much as the *Land* subsidies to the funding of expenditures on human resources. In addition, the *Land* of Baden-Wuerttemberg provides € 17,900 per full-time position per year for the positions of local community addiction commissioners/commissioners for prevention of addiction. These positions have been established in all 44 municipalities and districts of Baden-Wuerttemberg. A total of € 9.5 million is earmarked in the state budget plan for *Land* promotion (formally voluntary) in the treatment of substance use disorders and addiction prevention.

#### ***Bavaria***

The districts are primarily responsible for the funding of treatment of substance use disorders or drug-related treatment in Bavaria. The Bavarian districts spent approximately € 28 million in 2009 on the promotion of psychosocial addiction counselling offices. Data on the costs incurred by the *Land* or communities in connection with drug-related treatment on the whole are not available as a result of the different domains of responsibility.

#### ***Berlin***

The foundation for the funding of projects in the area of illegal drugs in Berlin is provided by the Integrated Health Agreement. Projects totalling € 6,316,072 in *Land* resources are

available for projects under the Integrated Health Agreement in the budget year 2010. Of this amount:

- € 3,986,799 is earmarked for basic outpatient care (14 drug-counselling offices, 2 low-threshold contact programmes and 3 drug-consumption rooms)
- € 828,752 for complementary care
- € 1,136,404 for occupational integration
- € 364,117 for self-help

In addition, psychosocial assistance for substitutes as re-integration aid measures in accordance with §§ 53 et seqq. Social Code XII is funded by the districts (community level). The scope of costs at this level is not known.

#### *Mecklenburg-Western Pomerania*

The *Land* of Mecklenburg-Western Pomerania subsidises 25 counselling and treatment offices for people with substance abuse disorders and at risk of addiction on a voluntary basis every year with approximately € 1.7 million for 81 specialists for approximately 1.7 million inhabitants. The actual expenditures which solely relate to illegal drugs can only be estimated as a percentage of this sum. One can assume on the basis of the treatment documentation that the portion for illegal drugs in 2009 was around € 250,000.

#### *Lower Saxony*

Co-financing of substance-use disorders of the Land Lower Saxony aims at sustainability. It is defined by the institutional promotion of non-governmental or non-church-affiliated facilities specialized to a large extent on the treatment of various substance-use disorders (special facilities for the treatment and prevention of addiction). At present there exist 76 facilities of this type plus any subsidiaries.

These special facilities receive a grant from the Land of more than 4,089,000 € within the framework of a basic allocation. In recognition of the urgent need of putting the emphasis on the field of prevention and work with drug addicts (psychosocial monitoring) the Land additionally supports the facilities with 460,000 € (prevention) or rather 2,045,000 € (psychosocial monitoring).

The Centre for Addiction Issues of the Land Lower Saxony receives a grant of 362,000 €.

For the most severe addicts participating in the former heroin model project in the capital city Hannover the Land Lower Saxony spends 172,000 € in 2010 for their further treatment with diamorphine.

#### *Saarland*

The funding of the special offices for prevention, counselling, referral and outpatient care in the case of consumption of addictive substances comes from *Land* and local community resources. The volume of subsidisation from the *Land* is approximately € 1.4 million. The share from communities varies for the different facilities. Co-financing of € 600,000 is

provided for psychosocial counselling offices for addiction issues by the districts (counties). On top of this, the local communities also provide their share of funding for the psychosocial counselling offices.

### ***Information from the German statistical report on treatment centres for substance use disorders***

Information is also collected on the funding of participating institutions in the German statistical report on treatment centres for substance use disorders (DSHS). Because this information is voluntary, data is only actually available on some of the facilities, which restricts the representativeness of the data considerably. Because the data is moreover aggregate, it is difficult to make any meaningful statements on actual funding percentages.

In 2009 37 out of the 157 participating inpatient facilities (most of them rehabilitation clinics) stated one remuneration rate per day of care. This amount is € 247 on the average. Only 13 facilities have data on funding agencies. The pension insurance schemes are the most frequently named funding agency, following by the health insurance schemes. On average an inpatient facility has € 1,349,391 available (Pfeiffer-Gerschel et al. 2010d).

At outpatient facilities, on the other hand, the response rate is somewhat higher: of the 779 participating facilities, data on funding is available for 291 (37%). The average annual budget per facility in 2009 was accordingly € 326,997. A large portion of these state that their funding comes from local community resources (n=272; 93.5% of the facilities) and from *Land* resources (n=238; 81.8% of the facilities). Statutory Pension Insurance Schemes, non-public agencies own resources and “other resources” were stated by approximately 50% of the facilities as sources of funding. On top of this, resources from health insurance schemes, reimbursements by clients, human resource funds in the labour administration and scattered Federal resources are listed (Pfeiffer-Gerschel et al. 2010e).

## **12.2 Cost studies**

Because a comprehensive overview of the government expenditures on the entire area of “illegal drugs” was lacking until recently, a project was carried out by IFT Munich and funded by the Federal Ministry of Health in 2008 which for the first time attempted to make an estimate of direct expenditures relating to abuse of and dependence on illegal drugs for 2006 (Mostardt et al. 2009). The expenditures of statutory health care and statutory pension schemes determined by this project are presented in the following to the extent that these relate to the treatment of drug consumers<sup>159</sup>. The results are present in Table 12.3.

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<sup>159</sup> The study was conducted in the form of a written survey. The German National Statutory Pension Insurance was surveyed using a standardised questionnaire on the amount of expenditures for medical rehabilitation (outpatient and inpatient) of all 16 German Statutory Pension Insurance Schemes. The 40 largest statutory health insurance schemes were also surveyed using standardised questionnaires about their expenditures on medication, stays in hospitals, rehabilitation, contacts to physicians offering substitution, contacts to other physicians, emergency cases, remedies and auxiliary resources, sickness benefits, stays in psychiatric facilities and socio-therapy in connection with illegal drugs. The information provided by the participating health insurance schemes was finally aggregated by using the number of insured persons in the entire statutory health-insurance scheme.

Table 12.3 Expenditures on statutory pension and health insurance schemes in connection with drug-related treatment in Germany in 2006

<b>Scheme making expenditure</b>	<b>Type of expenditure</b>	<b>Amount of expenditures determined</b>
Pension insurance schemes	Medical rehabilitation outpatient (11,678 cases)	€ 112,275,400
	Medical rehabilitation inpatient (350 cases)	€ 366,670
	<b>Subtotal for pension insurance schemes</b>	<b>€ 112,642,070</b>
Health-care schemes	Hospital stays (not including psychiatry)	€ 6,406,000
	Psychiatry	€ 232,760,000
	Medication (methadone, buprenorphine...)	€ 55,173,000
	Outpatient contacts with physicians	€ 167,002,000
	Contacts to physicians prov. substitution	€ 742,000,000
	Medical rehabilitation (inpatient)	€ 27,740,000
	Emergency cases	€ 4,751,000
	Sickness benefits	€ 25,701,000
	Sociotherapy	€ 580,000
	Remedies	€ 33,543,000
	Auxiliary resources	€ 106,000,000
	<b>Subtotal health insurance schemes</b>	<b>€ 1,401,656,000</b>

Mostardt et al. 2009.

It must be kept in mind that these results are based on estimates which are in turn based on various assumptions. On the whole, one can assume that actual expenditures tend to be underestimated, as most of the amounts are based on conservative estimates.

### 12.3 Full economic evaluations

Studies on cost effectiveness have scarcely been carried out in Germany in the area of illegal drugs. The only comprehensive economic evaluation which we are currently aware of took place within the framework of the German model project for the heroin-supported treatment of opiate addicts<sup>160</sup> as a secondary research project on the health economy (v. d. Schulenburg, M. & Claes 2006). It addresses the costs and effects of heroin-supported treatment in comparison with methadone treatment in the project and covers the first twelve months of the study.

<sup>160</sup> The Federal German model project on the administration of heroin is a scientific pharmaceutical review study which took place in seven cities with a total of 1,015 participants from 2002 to 2004 and within the framework of which severely addicted persons received injectable heroin as medication. A parallel control group received methadone.

*Results of the secondary health economy research*

The clinical study showed that both study treatments are cost effective from the perspective of funding agencies as well as the societal perspective, as both forms of therapy improved the health-related quality of life of the participants in the study. The analysis of sensitivity and scenario analysis performed in the health economy valuation provides legitimate reason to assume that the execution of the study treatment with a regular supply saves on costs both with the heroin-supported treatment as well as methadone substitution from a societal perspective over the medium term.

*Costs of heroin-supported treatment*

Data was evaluated on 1,015 participants in the study. The costs of the study treatment were determined using the cost-bearer estimation method, i.e. both investment (e.g. initial equipment and if need be construction of new heroin outpatient clinics) and ongoing operating costs were included. The ongoing operating costs break down into human-resource costs, medication, expendable medical material, laboratory costs, space costs, general administrative costs and depreciation for wear and tear on capital goods. If the treatment costs are assigned to all the participants included in the study, the heroin-supported treatment cost € 14,331 per participant in the first twelve months of the study, while the figure for methadone was € 3,314.

As a result of the different retention rates in the two treatment groups, i.e. a higher retention rate in the heroin group, it was also estimated how much the treatment of every participant cost who continued the study treatment over the entire twelve month period. The average annual costs were € 18,060 per participant in the heroin-supported treatment and about € 6,147 in the methadone treatment (see Table 12.4).

As expected, the greatest portion of expenses was the area of human resource costs, which with 59% of the costs in the heroin group and 63% in the methadone group are an additional significant cost item, even if this was largely due to the need to keep records for the study. The costs of the substitution medication in the methadone group, on the other hand, € 160, is probably underestimated. The authors stated that Goelz (2006; unpublished manuscript) estimates the annual costs of methadone in Germany in a range from € 648 and € 1,716 per preparation and daily dosage, which means average annual medication costs of around € 867. Taking into account that approximately 15% of the patients receiving substitutes in Germany were given buprenorphine, the average costs of medication were € 1,033 per year. The greater expenses for heroin-supported treatment in comparison to methadone substitution is especially due to longer opening hours, stricter security measures and injection under the supervision of physicians. A model estimate for an "ideal heroin outpatient clinic" indicates that with a regular supply costs can be expected which are approximately € 2,000 less per patient per year.

Table 12.4 Average annual costs of the study treatment per participant within the framework of the model project on the administration of heroin (2002-2004)

	Heroin prescription		Methadone treatment	
	(n=346)	percentage	(n=200)	percentage
Medical staff (physicians)	€ 4,040	22%	€ 1,372	22%
Psychosocial assistance	€ 1,951	11%	€ 1,888	31%
Specialised medical personnel	€ 4,694	26%	€ 589	10%
Testing substances	€ 2,253	12%	€ 160	3%
Expendable medical material	€ 524	3%	€ 14	0%
Laboratory costs	€ 2,006	11%	€ 1,627	26%
Costs of rooms and space	€ 621	3%	€ 128	2%
General administration	€ 1,320	7%	€ 290	5%
Depreciation for wear and tear	€ 651	4%	€ 78	1%
Subtotal	€ 18,060		€ 6,147	

v. d. Schulenburg, M. & Claes 2006.

#### *Cost savings with respect to other illness-related costs*

It was examined whether the study treatment allowed costs to be saved in other areas of health care. The medication provided to both treatment groups was not significantly different from that of the previous year of treatment. The use of drug therapies and outpatient and inpatient treatment (acute and psychiatric care) did change, however. In comparison to the previous period, the heroin-support treatment helped save € 3,777, while the methadone therapy reduced costs by € 1,134.

From the perspective of the statutory health insurance schemes, the heroin-supported treatment as well as methadone substitution are associated with high costs and neither therapy helps save on costs. Nor is this changed by the funding of psychosocial assistance, which is at present paid for with local community or *Laender* resources. From a health economy perspective, a cost-saving effect is only to be expected if all the costs and benefits are included, i.e. including valuation from a societal perspective.

#### *Cost savings in the area of delinquency, legal action before court and gains in macro-economic productivity*

The comparison of the first year of the study with the previous year reveals that the cost savings from a societal perspective in heroin-supported treatment are greater than with the methadone treatment. While in the first year of treatment the damage caused by delinquency in the heroin-supported group declined by € 3,251, the damage caused by delinquency within the framework of the methadone-supported treatment dropped by € 752. Costs also declined more with respect to arrests for the heroin-supported group than the methadone-treatment group (heroin: - € 1,209; methadone: - € 826).

The comparison of costs relating to legal action before courts indicated an increase in both treatment groups (heroin: € 2,342; methadone: € 3,519). This could be due to a steadier lifestyle (e.g. fixed residence) having made it easier for police investigations to find the participants. Moreover, legal action before a court for offences committed before the treatment could take place during the treatment.

The study showed a lower increase in gainful economic activity in the first year of the study. The gain in macro-economic productivity in the heroin-supported treatment was € 163, and in the methadone treatment € 187 per participant in the study and per year (approximately 2 working days per year on average).

In sum total, taking the costs of sickness, costs relating to delinquency, arrest and court costs all together, the participants in the study in the heroin group generated savings of € 5,966 per year, while the methadone group caused € 2,069 in additional costs.

#### *Cost-benefit analysis*

The cost-benefit analysis compares the improvement in the quality of life through the therapies (measured with a preference-based index instrument specific to an illness, the EQ-4D) with the costs generated. The cost-benefit ratio shows that less expenditures are necessary for the heroin-supported treatment in order to achieve an increase in a quality-adjusted life year (QALY) than in the case of methadone substitution (heroin: € 154,907 per QALY; methadone: € 170,835 per QALY). When the cost-benefit ratio of those participants in the study who underwent treatment over the entire twelve month period is examined, the methadone treatment shows itself to be significantly superior to the heroin-supported treatment. If one takes into account the participants who dropped out of the study, however, the cost-benefit ratio for the methadone drop-outs is significantly lower. The success of methadone treatment is apparently completely eliminated when participants drop out. Just like the clinical results of the main study, this demonstrates that heroin-supported treatment is a good idea and cost-effective if patients are treated who would not profit from the methadone therapy.

#### *Additional data on the costs of treatment*

In addition to the specific results on cost effectiveness of the two treatment conditions, the economic evaluation furnished general information on costs of treatment.

Table 12.5 below shows the costs of drug therapies, outpatient and inpatient (psychiatric) treatments per week. These can in principle be projected above and beyond the project to the system for the treatment of substance abuse disorders as a whole. Most of the information is by the same token based on estimates or calculations using secondary data (e.g. German Statistical Report on Treatment Centres for Substance Use Disorders), the Federal Working Group for Funding Agencies for Psychiatric Hospitals). Percentage breakdowns for human resource or material costs could not be estimated.

Table 12.5 Costs of different therapies per week

	<b>Therapy costs per week</b>
Outpatient detoxification	€ 32
Inpatient detoxification	€ 2,469
Outpatient substitution (excluding the substitute costs)	€ 32
Psychosocial assistance (supportive)	€ 37
Outpatient drug-free therapy	€ 52
Inpatient drug-free therapy	€ 3,047
Therapeutic community residence (supportive)	€ 700
Day clinic	€ 700
Psychiatric clinic	€ 1,048
Outpatient psychiatric treatment (supportive)	€ 50
Other clinic / ward	€ 3,047
Other treatment	€ 700

v. d. Schulenburg, M. & Claes 2006.

The annual costs of therapy per participant in the study in the first 12 months prior to the commencement of the project averaged € 8,913.

## PART C: BIBLIOGRAPHY AND ANNEXES

### 13 Bibliography

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## 13.2 Websites

Apart from the websites of the most important bodies and organizations, the table contains a selection of some innovative initiatives carried out in the area of demand reduction. The list is an extract of the myriad of addresses that exist in this field.

### Important institutions

Website	Content
<a href="http://www.bmg.bund.de">www.bmg.bund.de</a>	Bundesministerium fuer Gesundheit (BMG) Federal Ministry for Health
<a href="http://www.bzga.de">www.bzga.de</a>	Bundeszentrale fuer gesundheitliche Aufklaerung (BZgA) Federal Centre for Health Education (FCHE)
<a href="http://www.dbdd.de">www.dbdd.de</a>	Deutsche Referenzstelle fuer die Europaeische Beobachtungsstelle fuer Drogen und Drogensucht (DBDD) German Reference Centre for the European Monitoring Centre for Drugs and Drug Addiction
<a href="http://www.dhs.de">www.dhs.de</a>	Deutsche Hauptstelle fuer Suchtfragen (DHS) German Centre for Addiction Issues
<a href="http://www.drogenbeauftragte.de">www.drogenbeauftragte.de</a>	Drogenbeauftragte der Bundesregierung Commissioner of the Federal Government on Narcotic Drugs
<a href="http://www.drugcom.de">www.drugcom.de</a>	BZgA Informationen fuer junge Leute und Partygaenger FCHE information for young people and party goers
<a href="http://www.drugscouts.de">www.drugscouts.de</a>	Landesprojekt in Sachsen fuer junge Leute Land project in Saxony for young people
<a href="http://www.emcdda.europa.eu">www.emcdda.europa.eu</a>	European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) Europaeische Beobachtungsstelle fuer Drogen und Drogensucht (EBDD)
<a href="http://www.prevnet.de">www.prevnet.de</a>	Das Fachportal „PrevNet“ dient der Vernetzung zwischen den Beteiligten im Feld Praevention und erleichtert den Zugang zu vielen Informationen und Materialien “PrevNet“ serves as a network between persons involved in drug prevention and facilitates access to information and material
<a href="http://www.rki.de">www.rki.de</a>	Robert Koch-Institute (RKI), Berlin

### Websites of research institutions

Further information on individual research projects, network structures and cooperation partners as well as research reports and literature references can be found at the websites of the research associations:

Website	Content
<a href="http://www.bw-suchtweb.de/">www.bw-suchtweb.de/</a>	Suchtforschungsverbund Baden-Wuerttemberg Addiction Research Association of Baden-Wuerttemberg
<a href="http://www.psychologie.tu-dresden.de/asat/">www.psychologie.tu-dresden.de/asat/</a>	Suchtforschungsverbund Bayern/Sachsen Addiction Research Association of Bavaria/Saxony
<a href="http://www.suchtforschungsverbund-nrw.de/">www.suchtforschungsverbund-nrw.de/</a>	Suchtforschungsverbund Nordrhein-Westfalen Addiction Research Association of North Rhine-Westphalia
<a href="http://www.medizin.uni-greifwald.de/epidem/forschung/intervention/earlint_koord.html">www.medizin.uni-greifwald.de/epidem/forschung/intervention/earlint_koord.html</a>	Suchtforschungsverbund Nord-Ost, "Fruehintervention bei substanzbezogenen Stoerungen" (EARLINT) Addiction Research Association North-East, "Early intervention on substance-related disorders" (EARLINT)
<a href="http://www.dg-sucht.de">www.dg-sucht.de</a>	Deutsche Gesellschaft fuer Sucht German Association for Addiction
<a href="http://www.heroinstudie.de">www.heroinstudie.de</a>	Deutsche Heroinstudie German Heroin Study
<a href="http://www.premos-studie.de">www.premos-studie.de</a>	Premos-Studie Premos-Study
<a href="http://www.gesundheitsforschung-bmbf.de/de/137.php">http://www.gesundheitsforschung-bmbf.de/de/137.php</a>	Suchtforschung gefoerdert vom Bundesministerium fuer Bildung und Forschung Addiction research funded by the Ministry for Education and Research
<a href="http://www.uni-frankfurt.de/fb/fb04/forschung/cdr/index.html">www.uni-frankfurt.de/fb/fb04/forschung/cdr/index.html</a>	Goethe Universitaet Frankfurt am Main Centre For Drug Research (CDR)
<a href="http://www.psychologie.tu-dresden.de">www.psychologie.tu-dresden.de</a>	Technische Universitaet Dresden Institut fuer Klinische Psychologie und Psychotherapie Technical University Dresden Institute for Clinical Psychology and Psychotherapy
<a href="http://www.uke.de/zentren/suchtfragen-kinder-jugend/index.php">www.uke.de/zentren/suchtfragen-kinder-jugend/index.php</a>	Universitaetsklinikum Hamburg Eppendorf Deutsches Zentrum fuer Suchtfragen des Kindes- und Jugendalters (DZSKJ) University Clinic Hamburg Eppendorf German Centre for Addiction Problems among Children and Adolescents
<a href="http://www.zis-hamburg.de">www.zis-hamburg.de</a>	Zentrum fuer interdisziplinaere Suchtforschung Hamburg Centre for Interdisciplinary Addiction Research
<a href="http://www.uni-frankfurt.de/fb/fb04/forschung/cdr/index.html">www.uni-frankfurt.de/fb/fb04/forschung/cdr/index.html</a>	Zentrum fuer Drogenforschung der Johann Wolfgang von Goethe-Universitaet Frankfurt/M. Centre for Drug Research at the Johann Wolfgang von Goethe University Frankfurt/M

<b>Website</b>	<b>Content</b>
www.zi-mannheim.de	Zentralinstitut fuer seelische Gesundheit Mannheim Central Institute for Mental Health Mannheim
www.fh-frankfurt.de/de/forschung_transfer/institute/isff.html	Institut fuer Suchtforschung der Fachhochschule Frankfurt/Main Institute for Addiction Research of the Technical College Frankfurt/Main
www.addiction.de	Kompetenzplattform Suchtforschung an der katholischen Fachhochschule NRW Competence Platform for Addiction Research at the Catholic University of Applied Sciences in North Rhine-Westphalia
www.suchtforschungsverbund.de	Suchtforschungsverbund an Fachhochschulen (SFFH) mit den Standorten Frankfurt/M., Koeln, Aachen und Mainz Addiction Research Association at Universities of Applied Sciences in Frankfurt/Main, Cologne, Aachen and Mainz
www.ift.de	Institut fuer Therapieforschung Muenchen Institute for Therapy Research Munich

#### **Websites of other relevant institutions/working groups**

<b>Website</b>	<b>Content</b>
www.fachstelle-faire.de	Fachstelle fuer Arbeitsmarktintegration und Reintegration Suchtkranker Department for Labour Market Integration and Reintegration of Addicts
www.indro-online.de	Institut zur Foerderung qualitativer Drogenforschung, akzeptierender Drogenarbeit und rationaler Drogenpolitik Muenster Institute for the Promotion of High Quality Drug Research, Addiction Work and Rational Drug Policy in Muenster
www.iss-ffm.de	Institut fuer Sozialarbeit und Sozialpaedagogik Frankfurt/M. Institute for Social Work and Social Education in Frankfurt/Main
www.500Fragen.de	Forum fuer Substitution und Recht mit dem Ziel, die rechtlichen Aspekte der Behandlung unter rein praktischen Gesichtspunkten aufzuarbeiten und den taeglich in der Substitution taetigen Therapeuten eine Hilfe an die Hand zu geben, damit sie sich in Kenntnis der Begebenheiten auf das reine therapeutische Verhaeltnis konzentrieren koennen Forum for substitution and law dealing with legal aspects of treatment from a practical point of view. Therapists working in substitution therapy receive valuable information on the legal situation that forms the background for their daily work.
www.suchthh.de	Hamburgische Landesstelle fuer Suchtfragen e.V. Buero fuer Suchtpraevention

Website	Content
	Hamburg Land Centre for Addiction Problems Department for Addiction Prevention
<a href="http://www.konsumraum.de/">http://www.konsumraum.de/</a>	Informationsplattform fuer Personal in Drogen-therapeutischen Ambulanzen und Konsumraeumen Information platform for staff of outpatient drug treatment facilities and consumption rooms
<a href="http://www.gangway.de/">http://www.gangway.de/</a>	Transit - Projekt fuer transkulturelle Suchtarbeit Transit – Project for transcultural addiction work

### Specific cannabis projects

Website	Content
<a href="http://www.dhs.de/web/projekte/cannabis.php">www.dhs.de/web/projekte/cannabis.php</a>	Projekt „AVerCa“, das sich den Aufbau einer effektiven Versorgungsstruktur zur Frueherkennung und Fruehintervention jugendlichen Cannabismisbrauchs zum Ziel gesetzt hat  The goal of the project “AVerCa“ is to set up an effective care service for the early detection and intervention in cannabis misuse among young people
<a href="http://www.candis-projekt.de/">www.candis-projekt.de/</a>	Modulare Therapie von cannabisbedingten Stoerungen Modular therapy of cannabis-related disorders
<a href="http://www.bmg.bund.de/cln_160/nn_1351270/SharedDocs/Standardartikel/DE/AZ/D/Glossar-Drogenbeauftragte/Projekt_20Can_20Stop.html">www.bmg.bund.de/cln_160/nn_1351270/SharedDocs/Standardartikel/DE/AZ/D/Glossar-Drogenbeauftragte/Projekt_20Can_20Stop.html</a>	Gruppentraining „Can Stop“ wurde im Auftrag des BMG vom Deutschen Zentrum fuer Suchtfragen des Kindes- und Jugendalters (DZSKJ) entwickelt. Hierbei handelt es sich um ein manualisiertes Behandlungsprogramm fuer junge Menschen mit Cannabiskonsum  The group training programme “Can Stop“ was developed on behalf of the German Ministry of Health by the German Centre for Addiction among Children and Young People (DZSKJ). “Can stop” is a manual treatment programme for young people with cannabis disorders.
<a href="http://www.drugcom.de">www.drugcom.de</a>	Das Cannabisausstiegsprogramm „Quit the Shit“ ist seit 2004 online unter <a href="http://www.drugcom.de">www.drugcom.de</a> . nutzbar und richtet sich an Menschen mit regelmaeßigem Cannabiskonsum  Available since 2004 at <a href="http://www.drugcom.de">www.drugcom.de</a> , the cannabis cessation programme “Quit the Shit” addresses people with regular cannabis use.
<a href="http://www.incant.de">www.incant.de</a>	International Cannabis Need of Treatment Study
<a href="http://www.realize-it.org">www.realize-it.org</a>	Beratungsobjekt bei Cannabiskonsum, durchgefuehrt in Deutschland und der Schweiz  Counselling service for cannabis use, offered in Germany and Switzerland
<a href="http://www.be-u-online.de">www.be-u-online.de</a>	Cannabiskampagne der Stadt Frankfurt Cannabis campaign of the city of Frankfurt

## Party projects

Website	Content
www.partypack.de	Drogenhilfe Koeln e.V. Drug Aid Cologne
www.drugscouts.de	SZL Suchtzentrum gGmbH Leipzig Addiction Centre Leipzig
www.eve-rave.net	Verein zur Foerderung der Partykultur und Minderung der Drogenproblematik e.V. Berlin Association for the promotion of party culture and the reduction of drug problems in Berlin
www.party-project.de	Party Project e.V. Bremen Party Project in Bremen
www.chill-out.de	chill-out - gemeinnuetziger Verein zur Foerderung der Kommunikationskultur e.V. Aachen chill-out – non-profit association for the promotion of communication culture in Aachen
www.alice-project.de	Alice Project - Frankfurt
www.drobs-hannover.de	Jugend- und Suchtberatungszentrum/ Psychosoziale Beratungs- und Behandlungsstelle Hannover Centre for young people with addiction problems / psychosocial counselling and treatment centre in Hannover



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