



European Monitoring Centre  
for Drugs and Drug Addiction



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**2013 national report (2012 data) to the EMCDDA  
by the Reitox National Focal Point**

**New Developments and Trends**

**GERMANY**

**Drug Situation 2012/2013**

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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' annual conferences, held at European and national levels, with a view to further harmonising and developing 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.

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## Abbreviations

Abbreviation	German	English
ADHS	Aufmerksamkeitsdefizit- /Hyperaktivitätsstörung	Attention deficit / hyperactivity disorder
AIDS	Acquired Immune Deficiency Syndrome	Acquired Immune Deficiency Syndrome
AlkopopStG	Alkopopsteuergesetz	Alcopop Tax Act
AMG	Arzneimittelgesetz	Medical Products Act
AOLG	Arbeitsgemeinschaft der Obersten Landesgesundheitsbehörden	Working Group on Addiction Help of the Supreme Federal States' Public Health Offices
APA	American Psychiatric Association	American Psychiatric Association
APAAN	$\alpha$ -Phenylacetoacetonitril	$\alpha$ -Phenylacetoacetonitril
ArbStättV	Arbeitsstättenverordnung	Workplaces Ordinance
AVerCa	Aufbau einer effektiven Versorgungsstruktur zur Früherkennung und Frühintervention jugendlichen Cannabismisbrauchs	Development of an effective care structure for the early recognition and early intervention in adolescent cannabis abuse
AWMF	Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften	Association of the Scientific Medical Societies in Germany
BADO	Hamburger Basisdokumentation im Suchtbereich	Hamburg Basic Documentation System for Addiction Issues
BÄK	Bundesärztekammer	German Medical Association
BayStVollzG	Bayerisches Strafvollzugsgesetz	Bavarian Prison Law
BAMF	Bundesamt für Migration und Flüchtlinge	Federal Agency for Migration and Refugees
BbgJVollzG	Brandenburgisches Justizvollzugsgesetz	Prison law of Brandenburg
BBBSD	Big Brothers Big Sisters Deutschland	Big Brothers Big Sisters Germany
BfArM	Bundesinstitut für Arzneimittel und Medizinprodukte	Federal Institute for Drugs and Medical Devices
BfR	Bundesinstitut für Risikobewertung	Federal Institute for Risk Assessment
BGBI	Bundesgesetzblatt	German Federal Law Gazette
BGH	Bundesgerichtshof	Federal High Court of Justice
BKA	Bundeskriminalamt	Federal Criminal Police Office
bke	Bundeskonferenz für Erziehungsberatung e.V.	Federal Conference for Educational Counselling
BKiSchG	Bundeskinderschutzgesetz	Federal Child-Protection Act
BMAS	Bundesministerium für Arbeit und Soziales	Federal Ministry for Employment and Social Affairs

BMBF	Bundesministerium für Bildung und Forschung	Federal Ministry for Education and Research
BMFSFJ	Bundesministerium für Familie, Senioren, Frauen und Jugend	Federal Ministry for Family, Senior Citizens, Women and Youth
BMG	Bundesministerium für Gesundheit	Federal Ministry for Health
BMI	Bundesministerium des Innern	Federal Ministry of the Interior
BMJFG	Bundesministerium für Jugend, Familie, Frauen und Gesundheit	Federal Ministry for Youth, Family, Women's Affairs and Health
BMK	Benzylmethylketon	Benzyl methyl ketone
BNichtrSchG	Bundesnichtraucherschutzgesetz	Federal Non-smokers' Protection Act
BtM	Betäubungsmittel	Narcotic drugs
BtMÄndV	Betäubungsmittelrechts- Änderungsverordnung	Amending regulation on narcotic drugs
BtMG	Betäubungsmittelgesetz	Narcotics Act
BtMVV	Betäubungsmittelverschreibungs- verordnung	Narcotics Prescription Regulation
buss	Der Bundesverband für stationäre Suchtkrankenhilfe e.V.	Federal Association for Inpatient Addiction Help
BZgA	Bundeszentrale für gesundheitliche Aufklärung	Federal Centre for Health Education
CaSu	Caritas Suchthilfe	Caritas Addiction Help
CAN	Swedish Council for Information on Alcohol and Other Drugs	Swedish Council for Information on Alcohol and Other Drugs
CATI	Computer Assisted Telephone Interview	Computer Assisted Telephone Interview
CDR	Centre for Drug Research	Centre for Drug Research
CND	Suchtstoffkommission der Vereinten Nationen	Commission on Narcotic Drugs of the United Nations
CPT	European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment	European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment
CRA	Community Reinforcement Approach	Community Reinforcement Approach
CTC	Communities That Care	Communities That Care
DAH	Deutsche Aidshilfe	German AIDS Service Organisation
DAS	Drogenaffinitätsstudie der BZgA	Drug Affinity Study of the Federal Centre for Health Education
DBDD	Deutsche Beobachtungsstelle für Drogen und Drogensucht	German Reference Centre for the European Monitoring Centre for Drugs and Drug Addiction
DDD	Definierte Tagesdosis (defined daily dose)	Defined Daily Dose

DeStatis	Statistisches Bundesamt Deutschland	Federal Statistics Office
DGPPN	Deutsche Gesellschaft für Psychiatrie, Psychotherapie und Nervenheilkunde	German Association of Psychiatry, Psychotherapy and Psychosomatics
DG-SPS	Deutschen Gesellschaft für Suchtpsychologie	German Association for Addiction Psychology
DG-Sucht	Deutsche Gesellschaft für Suchtforschung und Suchttherapie	German Society for Addiction Research and Treatment
DGVS	Deutsche Gesellschaft für Verdauungs- und Stoffwechselkrankheiten	German Society for Digestive and Metabolic Diseases
DGS	Deutsche Gesellschaft für Suchtmedizin	German Society for Addiction Medicine
DHC	Dihydrocodein	Dihydrocodeine
DHS	Deutsche Hauptstelle für Suchtfragen	German Centre for Addiction Issues
DISuP	Deutsches Institut für Sucht- und Präventionsforschung	German Institute for Addiction and Prevention Research
DKFZ	Deutsches Krebsforschungszentrum	German Cancer Research Centre
DmMV	Dopingmittel-Mengen-Verordnungen	Regulation on Doping Agent Amounts
Dot.sys	Dokumentationssystem für Maßnahmen der Suchtprävention	Documentation System for Drug Prevention
DPIP	Drug Prevention and Information Programme	Drug Prevention and Information Programme
DRUCK	Studie zu Drogen und chronischen Infektionskrankheiten	Drugs and Chronic Infectious Diseases
DRV	Deutsche Rentenversicherung Bund	German Pension Fund
DSHS	Deutsche Suchthilfestatistik	Statistical Report on Substance Abuse Treatment in Germany
DSM	Diagnostic and Statistical Manual of Mental Disorders	Diagnostic and Statistical Manual of Mental Disorders
DSR	Drogen- und Suchtrat	National Board on Drugs and Addiction
DZSKJ	Deutsches Zentrum für Suchtfragen des Kindes- und Jugendalters	German Centre for Addiction Research in Childhood and Adolescence
EBDD/ EMCDDA	Europäische Beobachtungsstelle für Drogen und Drogensucht	European Monitoring Centre for Drugs and Drug Addiction
ECDC	Europäisches Zentrum für die Prävention und die Kontrolle von Krankheiten	European Centre for Disease Prevention and Control
EKhD	Erstauffällige Konsumenten harter Drogen	Users of hard drugs who have come to the attention of the police for the first time
ESA	Epidemiological Survey on Addiction (früher „Bundesstudie“)	Epidemiological Survey on Addiction
ESPAD	Europäische Schülerstudie zu Alkohol und anderen Drogen	European School Survey Project on Alcohol and Other Drugs

EU	Europäische Union	European Union
EU-DAP	European Drug Prevention Trial	European Drug Prevention Trial
EUFAS	European Federation of Addiction Societies	European Federation of Addiction Societies
FCTC	Rahmenabkommen zur Tabakkontrolle	Framework Agreement on Tobacco Control
fdr	Fachverband Drogen und Rauschmittel e.V.	Federation of Drug Help Organisations
FDR	Falldatei Rauschgift	Drugs Data File
FeV	Fahrerlaubnisverordnung	Driving Licence Regulation
fMRI	funktionelle Magnetresonanztomographie	Functional Magnetic Resonance Imaging
FreD	Frühintervention bei erstauffälligen Drogenkonsumenten	Early intervention in drug users who came to the notice of the police for the first time
GastG	Gaststättengesetz	Restaurant Licensing Act
G-BA	Gemeinsamer Bundesausschuss	Common Federal Committee
GBL	$\gamma$ -Butyrolacton	$\gamma$ -butyrolactone
GG	Grundgesetz	German Constitution
GHB	Gammahydroxybutyrat	Gamma-Hydroxybutyric Acid
GKV	Gesetzliche Krankenversicherung	SHI -Statutory Health Insurance Scheme
GVS	Gesamtverband für Suchtkrankenhilfe im Diakonischen Werk der Evangelischen Kirche in Deutschland e. V.	Association of Addiction Help Services offered by Germany's protestant churches
HBSC	Studie "Health Behaviour in School-aged Children"	Health Behaviour in School-aged Children
HBV	Hepatitis B-Virus	Hepatitis B Virus
HCV	Hepatitis C-Virus	Hepatitis C Virus
HD	Hauptdiagnose	Main Diagnosis
HDG	Horizontale Gruppe "Drogen" des Rates der Europäischen Union	Horizontal Drugs Group of the European Union
HGB	Heroin gestützte Substitutionsbehandlung	Heroin-based Substitution Treatment
HIV	Humanes Immundefizienz-Virus	Human Immunodeficiency Virus
HLS	Hessische Landesstelle für Suchtfragen	Hessian State Advisory Service for Addiction Issues
HmbStVollzG	Hamburgisches Strafvollzugsgesetz	Hamburg Prison Law
HStVollzG	Hessisches Strafvollzugsgesetz	Hessian Prison Law
HVV	Hamburger Verkehrsverbund	Hamburg Transport Association
ICD	International Classification of Diseases	International Classification of Diseases
IFT	Institut für Therapieforschung	Institute for Therapy Research

IfSG	Infektionsschutzgesetz	Infectious Diseases Protection Act
IMK	Ständige Konferenz der Innenminister und -senatoren der Länder	Standing Conference of Ministers of the Interior and Senators for the Interior of the <i>Laender</i>
INCB	Suchtstoffkontrollamt der Vereinten Nationen	International Narcotics Control Board
IPA	Instrument für Heranführungshilfe	Istrument for Pre-Accession Assistance
ISFF	Institut für Suchtforschung Frankfurt/Main	Addiction Research Institute Frankfurt/Main
ITT	Intention-to-Treat	Intention to Treat
i.v.	intravenös	Intravenous
IVD	intravenös Drogengebrauchende	Intravenous Drug User
JGG	Jugendgerichtsgesetz	Youth Courts Law
JUP	Jugendpsychotherapie	Youth Psychotherapy
JuSchG	Jugendschutzgesetz	Youth Protection Law
JVA	Justizvollzugsanstalt	Detention facility
JVollzGB	Justizvollzugsgesetzbuch	Prison Code
KBV	Kassenärztliche Bundesvereinigung	Federal Association of Statutory Health Insurance Affiliated Doctors
KBS	Koordinierungsstelle der bayerischen Suchthilfe	Coordination Office of the Bavarian Addiction Support Service
KDS	Deutscher Kerndatensatz zur Dokumentation im Bereich der Suchtkrankenhilfe	German Core Data Set for Addiction Help
KE	Konsumeinheit	Consumption Unit (CU)
KFN	Kriminologisches Forschungsinstitut Niedersachsen	Criminological Research Institute of Lower Saxony
KI	Konfidenzintervall	Confidence Interval (CI)
KiGGS	Kinder- und Jugendgesundheitssurvey	Health Interview and Examination Survey for Children and Adolescents
KKG	Gesetz zur Kooperation und Information im Kinderschutz	Act on Cooperation and Information in the area of Child Protection
KMU	Kleine und mittelständische Unternehmen	Small and Medium-Sized Enterprises
KOALA e.V.	Kinder ohne den schädlichen Einfluss von Alkohol und anderen Drogen e.V.	Children Without the Harmful Influence of Alcohol and Other Drugs - help association for children from families with addiction problems
KOLIBRI	Studie zum Konsum aller leistungsbeeinflussender Mittel in Alltag und Freizeit	Use of performance enhancing drugs for everyday and recreational purposes

KT	Kriminaltechnisches Institut	Forensic Institute
LJVollzG	Landesjustizvollzugsgesetz	Prison Law of a <i>Land</i>
LKA / LKÄ	Landeskriminalamt / Landeskriminalämter	Land Criminal Police Office/Officers
LMS	Local Monitoring System	Local Monitoring System
LSA	D-Lysergsäureamid	D-lysergic Acid Amide
LSD	Lysergsäurediethylamid	Lysergic Acid Diethylamide
LVR	Landschaftsverband Rheinland	Regional Authority of the Rhineland
LZ	Lebenszeit	Lifetime
M-CIDI	Münchener Composite International Diagnostic Interview	Munich Composite International Diagnostic Interview
m-CPP	1-(3-Chlorphenyl)-piperazin	1-(3-Chlorophenyl)-piperazine
MDA	3,4-Methylendioxyamphetamin	3,4-Methylenedioxyamphetamine
MDFT	Multidimensionale Familientherapie	Multi-Dimensional Family Therapy
MDMA	3,4-Methylendioxy-N-Methylamphetamin	3,4-Methylenedioxy-N-Methylamphetamine
MI	Motivational Interviewing	Motivational Interviewing
MODRUS IV	Vierte Studie "Moderne Drogen- und Suchtprävention"	Modern Drug and Addiction Prevention
MoSyD	Frankfurter Monitoringsystem Drogen	Frankfurt Drug Trends Monitoring System
MPH	Methylphenidat	Methylphenidate
MRV	Maßregelvollzug	Hospital Treatment Order
MSM	Männer, die Sex mit Männern haben	Men who have Sex with Men
MuSchuG	Mutterschutzgesetz	Maternity Protection Law
MVV-RL	Richtlinie „Methoden vertragsärztliche Versorgung“	“Statutory Health Insurance Approved Treatment” Guidelines
NEWIP	Nightlife Empowerment & Well-being Implementation Project	Nightlife Empowerment & Well-being Implementation Project
NJVollzG	Niedersächsisches Justizvollzugsgesetz	Lower-Saxon Prison Law
NPS	neue psychoaktive Substanzen	New Psychoactive Substances
NRW	Nordrhein-Westfalen	Lower-Saxon Prison Law
OMT	Aufrechterhaltender Substitutionsbehandlung (Opioid Maintenance Treatment)	Opioid Maintenance Treatment
OST	Opioid-Substitutionstherapie	Opioid substitution therapy
PDMP	Prescription Drug Monitoring Programme	Prescription Drug Monitoring Programme
PDU	Problem Drug Use (Epidemiologischer Schlüsselindikator der EBDD)	Problem Drug Use (epidemiological key indicator of the EMCDDA)
PHP	Public Health Programme	Public Health Programme
PKS	Polizeiliche Kriminalstatistik	Police Criminal Statistics



PREMOS	Predictors, Moderators and Outcomes of Substitution Treatment - Studie	Predictors, Moderators and Outcomes of Substitution Treatment - Study
ProPK	Programm Polizeiliche Kriminalprävention der Länder und des Bundes	Program Police Criminal Prevention of the <i>Laender</i> and the Federal Government
PTBS	posttraumatische Belastungsstörung	Posttraumatic Stress Disorder
RC	Research Chemicals	Research Chemicals
RCT	randomisiert-kontrollierte Studie	Randomised Controlled Trial
REITOX	Europäisches Informationsnetzwerk zu Drogen und Sucht (Réseau Européen d'Information sur les Drogues et les Toxicomanies)	REITOX- European Information Network on Drugs and Addiction
RKI	Robert Koch - Institut	Robert Koch Institute
RV	Rentenversicherung	Pension Insurance
SächsStVollzG	Sächsisches Strafvollzugsgesetz	Saxon Prison Law
SD	Standardabweichung	Standard Deviation
SGB	Sozialgesetzbuch	Social Security Codes
SKOLL	Selbstkontrolltraining	Self-control Training
SLStVollzG	Saarländisches Strafvollzugsgesetz	Prison Law of Saarland
SPIN	Sozialräumliche Prävention in Netzwerken	Social Prevention in Networks
SQ	Strukturierten Fragebögen	Standard Questionnaire
ST	Standardtabellen	Standard Table
StGB	Strafgesetzbuch	Penal Code
StMJV	Bayerisches Staatsministerium der Justiz und für Verbraucherschutz	Bavarian State Ministry of Justice and Consumer Protection
StVG	Straßenverkehrsgesetz	Road Traffic Act
StVO	Straßenverkehrsordnung	Road Traffic Regulations
StVollzG	Strafvollzugsgesetz	Prison Law
StVollzG M-V	Strafvollzugsgesetz Mecklenburg-Vorpommern	Prison Law of Mecklenburg-Vorpommern
TAU	Treatment as usual	Treatment As Usual
TDI	Treatment Demand Indicator	Treatment Demand Indicator (epidemiological key indicator of the EMCDDA)
THC	Tetrahydrocannabinol	Tetrahydrocannabinol
UdSSR	Sowjetunion	Soviet Union
UKE	Universitätsklinikum Hamburg-Eppendorf	University Clinic Hamburg-Eppendorf
UNODC	Büro der Vereinten Nationen für Drogen- und Verbrechensbekämpfung	United Nations Office on Drugs and Crime

WHO	Weltgesundheitsorganisation	World Health Organisation
ZIS	Zentrum für interdisziplinäre Suchtforschung	Centre for Interdisciplinary Addiction Research

## Introduction

One of the major tasks of the German Reference Centre for the European Monitoring Centre for Drugs and Drug Addiction (Deutsche Beobachtungsstelle für Drogen und Drogensucht, DBDD) is to report annually 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 report for the EMCDDA concentrates to a large extent on illegal drugs. The prevalence and consumption of other substances (especially alcohol and tobacco) are only considered in this context, for example, if they are consumed in combination with illegal substances. In contrast to the focus of the EMCDDA on illegal drugs, the German addiction and drug policy pursues a holistic approach, covering “addiction” in a broader sense and allowing for the relevance of other substances (especially alcohol and tobacco) and related problems (e.g. pathological gambling) (cf. also the comments on national strategy in chapter 1). Due to the European reporting requirements, this comprehensive approach is only partly reflected by the annual REITOX report.

The DBDD produced the German REITOX Report 2012/2013 in accordance with the standard European guidelines issued by the EMCDDA, taking into account the feedback from past years’ quality reports. The report is mainly based on the data from the year 2012, but also includes findings from the year 2013 to the extent they are available by the time the report is completed.

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 the requirements and updated. They describe the most important fundamentals such as methodological aspects of surveys that are carried out on a regular basis. The introductory passages are intended to place the updated information on the drug situation in context without the need for supplementary literature. These parts of the report have been marked (framed, with a grey background) so that readers who are familiar with the framework of the German reporting system can concentrate on the new developments.

The other sections of the chapters provide exclusively new data and findings from the reporting year. Older data is only used for comparative purposes where appropriate. Otherwise, the report refers the reader 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<sup>2</sup>. They can, of course, also be obtained in electronic form, on request, from the DBDD.

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

<sup>2</sup> [www.emcdda.europa.eu/stats13](http://www.emcdda.europa.eu/stats13)

This year's report contains, unlike previous years, no special chapters, in which particular topics or issues are analysed in greater detail. This form of special chapter was replaced by an interactive online report under the name, "Perspectives on Drugs", which is available at <http://www.emcdda.europa.eu/edr2013> and this year contains the topics, "Mass media campaigns", "Hepatitis C treatment", "Synthetic cannabinoids", "Preventing overdose deaths", "Trends in heroin-use", "New EU drugs strategy", "Controlling new drugs", "Frequent cannabis users", "Synthetic drug production", "Cocaine related emergencies" and "Legal supply of cannabis"

On behalf of the German Reitox Reference Centre (DBDD), 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 website of the DBDD, where you can 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 2013

Tim Pfeiffer-Gerschel

Head of the DBDD

## 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 the work performed by the German Monitoring Centre for Drugs and Drug Addiction (Deutsche Beobachtungsstelle für Drogen und Drogensucht, DBDD), in which the Institute for Therapy Research (Institut für Therapieforschung, IFT), the Federal Centre for Health Education (Bundeszentrale für gesundheitliche Aufklärung, BZgA) and the German Centre for Addiction Issues (Deutsche Hauptstelle für Suchtfragen, DHS) cooperate and join forces. The DBDD is funded by the Federal Ministry for Health and Social Affairs and the EMCDDA. The overall report is structured according to the EMCDDA guidelines and is available for download at [www.dbdd.de](http://www.dbdd.de).

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

German drug and addiction policy follows a cross-substance approach which focuses on aspects common to all psychotropic substances. In light of new challenges posed to addiction and drug policy and to current developments, the Federal Government Commissioner on Narcotic Drugs presented a “National Strategy on Drug and Addiction Policy” in 2012. The objective of the Drug and Addiction Policy continues to be the reduction of the consumption of legal and illegal addictive substances as well as the avoidance of social problems caused by drugs and addiction. The National Strategy is designed to be a healthcare guideline for a modern drug and addiction policy in Germany.

The 27<sup>th</sup> Amending Regulation on Narcotic Drugs (Betäubungsmittelrechts-Änderungsverordnung, BtMÄandV) added 26 new psychoactive substances to schedule I to III of the German Federal Narcotics Acts (Betäubungsmittelgesetz, BtMG), effective as of 17 July 2013. The substances in question included synthetic cannabinoids as well as synthetic derivatives of cathinoids, amphetamines and phencyclidines. Both of the benzodiazepines, etizolam and phenazepam, were also added to the BtMG.

On 17 January 2013 the Common Federal Committee (G-BA) agreed on the changes to the “Statutory Health Insurance Approved Treatment” guidelines (MVV-RL) for the diamorphine-assisted treatment of high-dependency opiate addicts. The new regulations provide for increased support for facilities providing diamorphine-substitution treatment in meeting space and personnel demands. Against the backdrop of the increasing importance of alcohol and prescription medication abuse in the over-60 age group, the Federal Ministry of Health has made addiction among older people a funding priority. Furthermore, again in this reporting year, numerous projects were carried out on a regional, federal or international level in the area of drugs with the cooperation, in particular, of the Federal Ministry of Health (BMG).

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

The results of the last Epidemiological Survey on Substance Abuse (ESA) carried out in 2012 were published in 2013. They show that about a quarter of the adult population in

Germany has experience with drugs, as was the case in previous studies. The proportion of adults who took drugs in the last 12 months was still at 5 %; with less than 3 % using drugs in the last 30 days. Cannabis remains by far the most commonly used illicit drug. Apart from this, only cocaine, amphetamines and ecstasy (12 month prevalence) reach noteworthy levels. The use of heroin, LSD and crack remains limited to a specific group that is clearly smaller in number. In the general adult population the lifetime prevalence for so-called “new psychoactive substances” (NPS)<sup>3</sup> is also less than one per cent and thus comparable to the prevalence for heroin.

The results of the most recent drug affinity study (DAS) of the Federal Centre for Health Education (BZgA) as well as the results of the German survey conducted as part of the European School Survey Project on Alcohol and Other Drugs (ESPAD) were already detailed in the 2012 REITOX report. In addition to the current ESA, in 2013 the results of the current school pupil survey as part of the Frankfurt Monitoring System for Drugs (MoSyD) and from the public drug scene in Frankfurt were presented. The MoSyD also made information from the trend scout panel available. Furthermore, in 2013 current data from the “Hamburg School Bus” (Hamburger Schulbus”) survey was available. This means that for the fifth time (last in 2009), in addition to the data from Frankfurt, we also have information on substance consumption among school pupils (14 to 17 year-olds) for a second, large German city. Finally, there was also data presented from a survey conducted in the Saarland at the end of the 2009/2010 school year by the Criminological Research Institute of Lower Saxony (Kriminologisches Forschungsinstitut Niedersachsen, KFN). The KFN conducted a representative study among school pupils in the fourth and ninth classes on the subject of delinquent behaviour and the factors influencing it.

## **Prevention**

As a result of combined behavioural and conditional prevention measures, smoking has been reduced to a historically low level among the German youth.

Cannabis is the most commonly consumed illegal drug amongst 12 to 25 year olds. Thus, it remains necessary to address cannabis with suitable preventative measures. Specifically, the simultaneous consumption of alcohol and an illegal drug represents a widely spread risk behaviour. Experts in addiction prevention respond to this with a large number of preventative measures related to specific substances, specifically alcohol and cannabis, in order to promote a low risk approach to alcohol and to reduce the consumption of legal and illegal addictive substances in all age groups of the population. In particular, there are plans to further support the reduction in experience with drugs, being witnessed amongst

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<sup>3</sup> In the scope of the data collection on ESA, respondents were asked about “Spice, smoke, space, bath salts, cathinones and similar substances”. This therefore produced a mixed category containing individual products and different groups of substances, some of which include so-called “legal highs” or “research chemicals” beyond the (cannabinoid based) herbal mixtures. “Spice” and similar herbal mixtures (which verifiably contain synthetic cannabinoids) largely disappeared from the market back at the beginning of 2009 as a result of changes to the law, although similar products have continued to appear in the subsequent years which are primarily distributed via the internet. Representative data is available from the Frankfurt MoSyD for the city of Frankfurt on the consumption of herbal mixtures and related products.

adolescents, in order to achieve consequent changes in young adults. The access points via so-called new media, such as the internet or social networks, are equally significant in addiction prevention as (online) information on cessation assistance or the availability of local advice centres.

In addition to substance related prevention activities, cross-substance measures, such as the promotion of health, risk and life competence as well as the creation of critical attitudes to addictive substances in Germany are approximately equally widespread.

Within the framework of universal addiction prevention, parents are, alongside children and adolescents, an important target group especially for cross-substance measures. Parents are often approached in the school setting as well as being a direct target group in respect of family based prevention. In addition to improving child-rearing and decision-making skills of parents or legal guardians and the strengthening of cohesion within the family, parents are made aware of their role model function for the substance use of their children. The area of free time and sport also represents, alongside the spheres of school, family and local community, an important area of activity for universally or selectively designed early prevention measures. The existence of sports clubs throughout the country enables a high degree of penetration also amongst socially disadvantaged groups.

### **Problem Drug Use**

In 2013 the method for estimating the number of people with problematic (i.e. risky, harmful and dependent) heroin use based on the multiplier “demand for treatment” was revised and is now based on the total number of clients registered for outpatient and inpatient treatment, the total number of outpatient and inpatient facilities, the total number of counselling facilities as well as the multiplier for reaching the target group. This method was, in part retroactively, applied to the years from 2005 to the present.

Based on figures from treatment facilities, police contacts and records of drug-related fatalities, estimates of the scale of problem drug use indicate that the number of problematic users of heroin range between 62,000 and 203,000 persons (1.1 to 3.8 persons per 1,000 inhabitants) in the age group of 15-64 years. Since 2005, the estimates for the multiplier “police contacts” are on the decline. The same applies to the multiplier “drug-related deaths” for the years since 2008. The estimates based on the multiplier “demand for treatment” fell from 2005 to 2007, then rose significantly up to 2008 and rose again slightly during 2008 and 2009. This means that no clear trend can be identified.

The findings of the MoSyD study are presented. This data shows that with regard to the share of daily consumers heroin and crack are still dominating Frankfurt’s open drug scene (65 % and 75 %). Only a small portion of the scene members presently consume non-prescribed substitution substances (30 days prevalence for methadone: 12 % and for buprenorphine: 7 %; 24 hours prevalence for methadone: 3 % and for buprenorphine: 1 %). Consumption of these substances on a frequent or daily basis continues to be limited to single cases.

Moreover, the findings of the Phar-Mon project are presented. Its aim is to record the extent of the abuse of medicines by clients of outpatient addiction and drug therapy and to contribute to the identification of trends of abuse.

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

Less than half (41.1 %; 2011: 44.9 %) of the clients who sought help from outpatient drug counselling facilities in connection with illicit drugs in 2012, had primary opioid-related problems; about a third (36.5 %; 2011: 34.7 %) suffered primarily from problems with cannabis use. Cannabis-related cases accounted for 58.4 % (2011: 56.6 %) of the patients who underwent therapy for the first time, while opioids played a minor role among this population (15.0 %; 2011: 18.1 %). In 16.6 % (2011: 15.0 %) of cases, stimulants were the reason for contacting an outpatient addiction counselling centre for the first time; among all clients beginning/ending treatment, stimulants accounted for 12.3 % (2011: 10.5 %).

In the inpatient setting, opioids continued to play the largest role in the area of illicit drugs. As for acute (hospital) treatments, amongst substance related disorders (excluding alcohol), toxicoses caused by sedatives/hypnotics were the reason for contacting the facility in about one case in ten. Cocaine was the main reason for treatment in 6.7 % (2010: 6.9 %) of the cases and stimulants in 15.5 % (2010: 12.7 %) of the cases treated in the specialist clinics that participate in the German Statistical Report on Treatment Centres for Substance Use Disorders.

After constantly rising year on year since the introduction of mandatory notification (2002) until 2010, the number of substitution treatments fell in the last two years and was 75,400 in 2012 (2011: 76,200). There are still considerable regional differences regarding the supply of and demand for substitution treatments.

### **Health correlates and consequences**

In 2012, 2,954 newly-diagnosed Human Immunodeficiency Virus (HIV) infections were reported to the Robert Koch Institute (RKI). The number has thus increases by 9,7 % compared to 2011 (2,684). This however, must partly be attributed to a better recording of first diagnoses. Persons who have likely contracted their HIV infection through intravenous drug use make up the third largest group, at 4 % (n = 90).

In addition, a total of 4,982 cases of newly diagnosed hepatitis C were reported to the RKI for 2012. The incidence of first diagnosis (6.1 per 100,000 population) was thus lower than the median of the years 2007 to 2011 (6.7). Intravenous drug use, which has a high probability of being causally related to the hepatitis C discovered, was reported for 1,202 cases (87 % of the cases with valid information as to the mode of transmission).

In 2012, 944 people died as a result of the use of illegal drugs. This represented a further reduction in comparison to the previous year (986) and is the lowest number of drug-related deaths in the past 24 years. For a breakdown of the causes of death, a revised table was used in 2012 for the first time, which reduces multiple counting and itemises more substances. Due to this change in data recording, comparability with previous years is partly



limited. However, it can be concluded that overdosing on heroin/morphine (including the consumption of heroin/morphine in connection with other drugs), amounting to 427 cases, was once more the most common cause of death (45 %).

### **Responses to health correlates and consequences**

A variety of measures are intended to help avoid drug-related emergencies and deaths and prevent infectious diseases. Currently in Germany there are a total of 23 in-patient drug consumption rooms in 15 cities in six *Laender* and a mobile drug consumption unit. Needles can be exchanged in many drug support facilities, and there are also over 160 needle dispensing machines, which are form part of the harm reduction measures for injecting drug users. There are a variety of facilities and projects that use offers of low-threshold testing and other prevention and safer-use programmes to raise awareness of infectious diseases among their clientele and to motivate them to engage in health promoting behaviour. The treatment of infectious diseases, in particular hepatitis C, has become an issue among drug users in recent years, and studies show time and again that under certain conditions these populations can and should also be effectively treated.

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

The social situation of many patients in the help system, especially in low-threshold facilities, is still precarious. The life of many addicts continues to be strongly marked by homelessness, lack of regular employment and low income that is not least caused by a low level of education.

Several regional model projects are designed in particular to tackle the problem of unemployment and promote cooperation between addiction support, rehabilitation clinics and the working groups formed by the employment agencies and the municipalities (the so-called Jobcentern). Their aim is to help unemployed addicts into therapy at an early stage and to support their (re-)integration into the world of work.

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

In 2012, a total of about 237,000 drugs offences were recorded, of which around 173,000 were general breaches of the Narcotics Act (BtMG) and about 45,000 were for dealing in drugs. Overall, this means that drugs offences remained stable in comparison to the previous year (+0.3 %), which is on one hand due to a clear decrease in dealing offences (-6.7 %), and on the other hand is the result of a clear rise in both illegal importation offences (-5.1 %) and other offences (+4.9 %).

The number of prosecutions under the BtMG remained stable from 2010 (55,391) to 2011 (55,391). This stability is evident across all age groups. The stability of the total number can be traced back to a combination of a slight increase in the number of cases of non-specific consumption offences (§ 29, Para. 1, BtMG) and of offences against § 30, Para. 1 (4) with a simultaneous, slight fall in dealing offences.

The number of persons imprisoned due to BtMG related offences fell by 8.1 % from 2011 to 2012 which means that people imprisoned due to offences under the BtMG make up 14.0 % of all prisoners.

### **Drug Markets**

All in all, there was little change in the development of purity, prices and number of seizures of illicit drugs between 2011 and 2012.

Comparing 2011 and 2012, the quantities of crystal methamphetamine (crystal), LSD, hashish, magic mushrooms and marijuana seized increased markedly, whereas seized quantities of crack, heroin, ecstasy, cocaine and amphetamine fell by a similar amount. While the amounts of crystal seized have continually increased for a number of years and point to a “real” trend, the annual seizures of hashish and marijuana have at times fluctuated strongly due to large individual seizures that markedly increase the numbers or falls in comparison to previous years.

The total number of seizures of heroin, opium, cocaine, crack amphetamine, crystal, ecstasy, cannabis products and LSD in 2012 was 3.2 % higher than the 2011 levels. The increasing seizure numbers for crack, crystal, ecstasy, cannabis plants and marijuana have had an important influence on the overall increase in drug seizures. There were marked decreases in seizures of heroin and hashish from 2011 to 2012.

As far as drug prices are concerned there were almost no significant changes between 2011 and 2012. The street prices for cocaine, heroin, marijuana, crystal, hashish, ecstasy, amphetamine and LSD were almost unchanged. At a wholesale level, the prices for cocaine volumes from 0.5 to < 10 kg fell. There were decreases in the price for amphetamine for quantities from 0.5 to < 1.5 kg, ecstasy quantities from 1.5 to < 10 kg and amphetamine and marijuana quantities from 10 to < 100 kg. All other wholesale prices were either unchanged in comparison to the previous year or rose.

The average purity of amphetamine and cannabis products has also changed little in the last five years. This had previously also applied to street-level cocaine; however there was an increase in purity for this product of almost 20 percent in the last year. These were by far the highest purity values of the last 10 years. The active ingredient content in heroin has been relatively unchanged and comparatively low for the last two to three years (at the street and wholesale level respectively).

## PART A: NEW DEVELOPMENTS AND TRENDS

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

#### 1.1 Introduction

##### 1.1.1 Definitions

Until the end of the last century, the term “drug policy” referred solely to illegal drugs that were at the centre of political interest. There was no comparable concept either for an alcohol or tobacco policy or for an “addiction”<sup>4</sup> policy, comprising the whole range of addictive substances. In recent years however, disorders resulting from legal psychotropic substances (e.g. alcohol, tobacco and medication misuse) and cross-substance aspects (e.g. in universal prevention or in patients with multiple abuse) as well as non substance-related forms of addiction<sup>5</sup> (e.g. pathological gambling) have increasingly moved into the focus of political interest. This is the reason why the terms “drug and addiction policy” or “addiction policy” are found more frequently, gradually replacing the term “drug policy”. As a result of the differences in the policy aims pursued and strategies deployed in the area of legal and illegal substances, the term “drug and addiction policy” finds preferred usage in Germany.

Moreover, the range of topics addressed has expanded, from the original main focus on substance-related addiction, to include risky and harmful usage behaviour and thus to a broader understanding of a 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 the (insufficient) term of “addiction policy” continues to be used. As a consequence, legal substances and common strategies for both legal and illegal substances have to be taken into account in the annual reports of the German Reference Centre for the European Monitoring Centre for Drugs and Drug Addiction DBDD. In many cases, it is no longer possible 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.

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

The drug and addiction policy in Germany is coordinated by the Federal Government Commissioner on Narcotic Drugs. The basis of the national drug and addiction policy is formed by the following four “pillars”:

<sup>4</sup> The term “addiction” here comprises risky, harmful and addictive consumption.

<sup>5</sup> There is still scientific controversy over the question of 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 has been reached on this. The non-uniform use of terms in this Reitox Report does not constitute a preference for either of the concepts.

- Prevention
- Counselling and treatment, cessation assistance

- Measures for harm reduction
- Repression

The intention is to create a balance between measures undertaken to reduce both demand and supply. The Federal Government's addiction policy comprises legal psychotropic substances and associated risks, taking into account European and international development. The "National strategy of the drug and addiction policy" from 2012 describes in detail the current focus issues and challenges for Germany. This was finalised by the Federal Cabinet on 15 February 2012 (see chapter 1.3.1.). In line with the broad concept of the World Health Organisation (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 fundamental role in the addiction policy. It aims at preventing or at least significantly reducing risky consumption, harmful use and substance dependence. Existing measures and treatments are to be further complemented and their quality secured.

### 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 the legal framework for its drug policy and prescribed 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 responsibilities, especially with regard to counselling, care and general prevention activities, to the municipalities 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 agencies**

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 usually 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 treatments.

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

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 with guaranteeing outpatient medical care. Private charity organisations in particular, organise 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. In only a few cases (e.g. counselling facilities run by public health offices or psychiatric clinics), the Federal Government itself provides special treatment and services for persons with addiction problems. Youth welfare relies on the joint work of governmental and non-governmental institutions (Social Security Code VIII, SGB (Sozialgesetzbuch) VIII).

A general outline of the institutional framework and policies can be found in the structured questionnaire 32 of the EMCDDA which can be obtained from the DBDD.

## **1.2 Legal Framework**

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

#### **The Narcotics Act**

The Narcotics Act (Betäubungsmittelgesetz, BtMG) as well as the legal regulations enacted on the basis of the BtMG, such as the important Narcotics Prescription Regulation (Betäubungsmittelverschreibungs-Veordnung (BtMVV), contain all the important regulations on how to deal with these substances, taking into account the respective UN-conventions on addictive substances. Substances that 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 prescriptions (e.g. MDMA, heroin, psilocybin).
- Schedule II: narcotics eligible for trade but not for medical prescriptions, (e.g. meprobamate, methamphetamine).

- Schedule III: narcotics eligible for trade and medical prescriptions (e.g. amphetamine, 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 and requires, for example, the use of special prescription forms.

### **Social Security Codes**

The German Social Security Code (SGB) defines the framework for the financing of addiction therapy. The costs of drug addiction therapy (rehabilitation) are mainly borne by the pension insurance funds (SGB VI). Physical withdrawal (detoxification) and substitution therapy are paid for by the health insurance funds (SGB V). Other funding organs are the local or supra-local social welfare providers (SGB XII) and communities as supporting organs of youth welfare (SGB VIII).

With the fusion of unemployment aid and social aid in 2005 ("Hartz IV"), the social security codes (in particular SGB II and SGB III) have become even more important for people with drug problems. The central goal of the reform being to improve the procurement of work, efforts are undertaken to work more intensely on the removal of obstacles hindering 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 employment agencies or working groups formed between municipalities and employment agencies, as well as the so-called "opting municipalities", are responsible for granting aid.

### **Other laws**

Other important 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 the inclusion of criminals with substance addiction in forensic psychiatric hospitals (Maßregelvollzug) and
- Driving Licence Regulation (Fahrerlaubnisverordnung, FeV), which deals with the conditions for driving, doubts about the qualification for driving and the revocation of driving licences for example because of an existing dependence on narcotic drugs.

### 1.2.2 Implementation of laws

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**

Section 31a of the German Narcotics Act (Betäubungsmittelgesetz, BtMG) 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. Körner et al. 2012; Schäfer & 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) of cannabis. The limits set by the individual *Laender* are guideline values from which public prosecutors and judges may diverge in individual cases. It is important to note that there exists, also in respect of these regulations, no legal claim whereby in the relevant cases the prosecution of the possession of small quantities of drugs shall be discontinued. If a sentence is not handed down, this 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 German Court of Justice (Bundesgerichtshof, BGH) 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 BGH fixed the threshold value not to five gram methamphetamine hydrochloride but to methamphetamine base (for more details see also Patzak 2009). With its ruling of 17 November 2011, the BGH stipulated the non-small amount of racemic methamphetamine as 10 g of the effect-inducing base. Upwards of this amount, the offender is no longer merely committing a misdemeanour as per Sec. 29 Par. 1 BtMG, which provides as possible sanctions monetary fines or imprisonment up to five years, rather he would be facing imprisonment of no less than one or two years.

Back in April 2007, the Federal Court of Justice (BGH) 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 that 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.

Only a few federal states have explicitly defined regulations for discontinuing prosecution in connection with other narcotic drugs. They provide for the possibility to discontinue prosecution in the case of heroin (1 g), cocaine (depending on the federal state: 0.5 - 3 g), amphetamines (0.5 - 3 g) and ecstasy (between 3 and less than 20 tablets) (Patzak & Bohnen 2011).

### **Act on diamorphine-assisted substitution therapy<sup>6</sup>**

With the “Act on diamorphine-assisted substitution therapy“, which came into effect on 21 July 2009 (German Federal Law Gazette, BGBl., I of 20 July 2009, p. 1801) the legal preconditions were created for a transfer of the diamorphine-assisted therapy from the German national model project into regular care by changing the Narcotics Act (BtMG), the Medical Products Act (AMG) and the Regulation on the Prescription of Narcotic Drugs (BtMVV). The act stipulates primarily that diamorphine (pharmaceutically produced heroin, provided it is approved as a medicinal product for substitution purposes under pharmaceuticals law) becomes eligible for prescription – under strict conditions – for the substitution treatment of heavily dependent opioid addicts (cf. REITOX reports 2007 and 2008).

Government funding for the *Laender* and municipalities which originally participated in the clinical pharmaceuticals study funded by the Ministry for Health (“Heroin Study“) expired at the end of February 2008. The Federal Government funded the documentation and monitoring of the diamorphine assisted therapy in Germany until 2011 in order to ensure continuous monitoring was undertaken for the purpose of quality assurance, which included the therapy standards and effects.

### **Spring Symposium of the Ministry of the Interior**

In the context of their Spring Symposium in May 2013, the Standing Conference of Ministers of the Interior and Senators for the Interior of the *Laender* (Ständige Konferenz der Innenminister und -senatoren der Länder, IMK) formally noted that it will be possible from 1 January 2014 to record offences associated with the narcotics “amphetamine“ and “methamphetamine“ (in particular in the form of “crystal“) within the police criminal statistics, which could form the basis for developing a definitive picture of the current state of narcotics offences. The IMK assigned the task of developing such a “state of the nation“ picture as soon as convincing data was available to Working Group II (“Internal Security“) as well as the respective department leaders of the interior departments at Land and federal level, the

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<sup>6</sup> German Federal Law Gazette (2009). Part I No. 41, Bonn: 20.07.2009.



president of the Federal Criminal Police (Bundeskriminalamt) and the German police training colleges<sup>7</sup>.

### **Diamorphine-assisted treatment**

On 17 January 2013 the Common Federal Committee (G-BA) agreed on the changes to the “Statutory Health Insurance Approved Treatment” guidelines (MVV-RL) for the diamorphine-assisted treatment of high-dependency opiate addicts. The new regulations anticipate increased support for facilities providing diamorphine-substitution treatment in meeting space and personnel demands. It is no longer necessary to have doctor-staffing levels equivalent to three full-time positions per facility. It is sufficient to have an appropriate number of doctors and qualified staff members present within the 12-hour period when the drugs are administered and during the post-administration observation period, who are additionally available on call. Furthermore, the requirement for strict spatial separation between waiting areas, issuing areas and observation areas was removed. Legislators had already created the legal basis for the inclusion of diamorphine-assisted treatment in the standard list of treatments in 2009. In line with this, the Common Federal Committee amended the corresponding guidelines. However, the preconditions contained within this constituted such significant hurdles for the facilities that it has not been possible to set up any new diamorphine-substitution facilities to date (press release of the Federal Government Commissioner on Narcotic Drugs, 17 January 2013<sup>8</sup>). In this way, both some of the existing facilities and the potentially planned facilities could only fulfil the requirements of personnel and space from the “old” Common Federal Committee guidelines at great effort and expense (or not at all). Planned, new facilities failed or were delayed, however, for other reasons also, e.g. the high investment costs of security for the building (safe/strongroom, alarm system etc.).

### **Inquiries regarding licences to grow cannabis for research purposes and the setting up of a cannabis agency**

The federal government is not currently planning to set up a cannabis agency. In an answer (Bundestagdrucksache [BT] 17/10328 of the parliamentary group Bündnis 90/Die Grünen) to a parliamentary question (BT 17/10232), the government indicated that “setting up a cannabis agency [...] is currently not a priority from the perspective of the Federal Government”. A plan of this nature would furthermore need to be agreed through a law. At the same time, the government stated that they welcomed research into cannabinoids for medical and therapeutic purposes. However, the growing of cannabis in Germany was not “urgently necessary” for research into these cannabinoids, according to the government.

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<sup>7</sup> Decision by the Ministry of the Interior:  
[http://www.imk2013.niedersachsen.de/download/78186/Statistik\\_PKS\\_Massnahmen\\_zur\\_Bekaempfung\\_der\\_Crystal-Problematik.pdf](http://www.imk2013.niedersachsen.de/download/78186/Statistik_PKS_Massnahmen_zur_Bekaempfung_der_Crystal-Problematik.pdf) (Last retrieved on: 21.08.2013)

<sup>8</sup> <http://drogenbeauftragte.de/presse/pressemitteilungen/2013-01/gba-aenderungen.html>  
(Last retrieved on: 20.08.2013)

Plant material obtained from abroad could, in principle, be used for research purposes (heute im bundestag 2012).

### **Hearing in the Committee on Health on dealing with cannabis, crystal meth and so-called “legal highs”**

In the middle of April 2013, the Health Committee of the Bundestag devoted substantial attention to cannabis, crystal meth and so-called legal highs in the context of an expert hearing. Due to the heterogeneity of the substances addressed, the hearing did not reach any overarching conclusion. However, the hearing underlined the political relevance of the issues addressed. The potential risks associated with the increased availability and consumption of methamphetamine and new psychoactive substances were emphasised, as was the lack of sufficient data in a number of areas to objectively assess the risks associated with these substances (epidemiological, health, criminal) (heute im bundestag 2013).

### **27<sup>th</sup> Amending Regulation on Narcotic Drugs (27. BtMÄndV)**

On 22 May 2013 the cabinet approved the 27<sup>th</sup> Amending Regulation on Narcotic Drugs, which came into force following approval of the Bundesrat on 17 July 2013. This regulation added 26 new psychoactive substances to schedule I to III of the Narcotics Act (Betäubungsmittelgesetzes, BtMG), in order to restrict their misuse, to protect the health of individuals and the population and to ease prosecutions (Bundesgesetzblatt 2013 No. 37 of 16 July 2013).

The substances in question included synthetic cannabinoids and synthetic derivatives of cathinoids, amphetamines and phencyclidines. The two benzodiazepines, etizolam and phenazepam, were also added to the BtMG, as well as the prescription drug lisdexamphetamine, which was recently introduced to Germany as a treatment for ADHD and which had a corresponding potential for abuse and addiction<sup>9</sup>.

### **Legal status of new psychoactive substances (“designer drugs”)**

In her annual report, the Drug Commissioner (Drogenbeauftragte der Bundesregierung) indicated that the term “legal highs” was misleading (Die Drogenbeauftragte der Bundesregierung 2013). The Federal High Court of Justice (Bundesgerichtshof, BGH) already ruled 15 years ago that designer drugs could be medicines in accordance with the German Medicines Act (Arzneimittelgesetz, AMG) and therefore the statutory offences listed in §§ 96 (4) and 95 (1) of the AMG could be applied (Judgement Ref. No.2 StR 270/97 of the BGH of 3 December 1997). The AMG therefore has a catch-all function. New psychoactive substances are questionable as medications. It is an offence to trade in them without a licence under § 95 Para. 1 (1). In particularly serious cases, sentences of up to 10 years may apply. This legal assessment was confirmed in 2011 by a number of judgements, most recently by a judgement of the Higher Regional Court in Nuremberg on 10 December 2012.

<sup>9</sup> [http://www.bgbl.de/Xaver/start.xav?startbk=Bundesanzeiger\\_BGBI&jumpTo=bgbl113s2274.pdf#\\_Bundesanzeiger\\_BGBI\\_\\_%2F%2F\\*%5B%40attr\\_id%3D'bgbl113s2274.pdf'%5D\\_\\_1377016249837](http://www.bgbl.de/Xaver/start.xav?startbk=Bundesanzeiger_BGBI&jumpTo=bgbl113s2274.pdf#_Bundesanzeiger_BGBI__%2F%2F*%5B%40attr_id%3D'bgbl113s2274.pdf'%5D__1377016249837)  
(Last retrieved: 20.08.2013)

With a decision of 28 May 2013, the BGH referred the question for preliminary ruling to the ECJ of whether new psychoactive substances fall under the definition of a medicinal product under the European Medicinal Products Directive.

### **Fentanyl screening tests – 116<sup>th</sup> German Physicians Conference**

As part of its 116<sup>th</sup> session, held in May 2013, the German Physicians Conference called on the insurers and the Federal Association of Statutory Health Insurance Affiliated Doctors (Kassenärztliche Bundesvereinigung, KBV) to add fentanyl, tilidine and tramadol to the screening tests for opiate addicts. The reason for this was that these substances are not picked up by normal screening tests and that their frequent consumption by opiate addicts makes it urgently necessary to detect these substances in patients receiving substitution treatment. Fentanyl in particular was said to have become a frequently consumed substitute drug for opiate-dependent patients<sup>10</sup>.

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

### **1.3.1 National Strategy**

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. The implementation of this action plan was accompanied from 2005 by the National Board on Drugs and Addiction (DSR).

The DSR is appointed by the federal government’s Commissioner on Narcotic Drugs and supports her in her work. It is composed of representatives of socially relevant groups and institutions that are involved in the prevention and reduction of addiction-related problems and in the provision of help for addicts. The areas of focus of the DSR until 2008 were evaluated through representative surveys performed by the BZgA (for the findings of this evaluation, see the REITOX reports 2009 and 2010).

The DSR of the 17th legislative period began work in its constitutive session on 10 November 2012. The DSR remains an advisory committee of the federal government’s Commissioner on Narcotic Drugs and comprises experts and specialists from science, politics, administration, associations and health system facilities. The chairperson of the DSR is the federal government’s Commissioner on Narcotic Drugs. The members and rules of procedure of the DSR can be found on the website [www.drogenbeauftragte.de](http://www.drogenbeauftragte.de).

On 15 February 2012, the “National Strategy on Drug and Addiction Policy” was passed by the Federal Cabinet (Bundeskabinett) (see also REITOX Reports 2011 and 2012). This policy replaces the “Action Plan Drug and Addiction” from 2003. The goals of the National Strategy Drug and Addiction Policy is a part of the prevention strategy, which the Federal Government is currently preparing to tackle drug and addiction related problems in society.

<sup>10</sup> [http://116daet.baek.de/dev\\_baek\\_public/data/media/EVI64.pdf?t=1370026491](http://116daet.baek.de/dev_baek_public/data/media/EVI64.pdf?t=1370026491) (Last retrieved: 20.08.2013)

Both strategies emphasise the high significance of health promotion and prevention for a successful health care policy.

The strategies include quality and efficiency assured measures to secure and improve sustained health and quality of life as well as to meet the present challenges caused by demographic changes in a society which is constantly growing older. This means that prevention is in the focus in addition to the existing offerings for counselling and treatment, drug scene drop-out support, damage reduction measures and repression.

The Federal Government continues to follow an integrative approach in its addiction policy. Unlike in other European countries, legal and illegal addictive substances are addressed together. Particular consideration is given, due to their wide popularity, to the legal addictive substances alcohol, tobacco and psychotropic pharmaceuticals when further developing addiction prevention and the assistance system. The National Strategy directs particular attention to new challenges in drug and addiction politics which arise from, amongst other things, demographic change, societal changes, old and new addiction forms and addictive substances (e.g. pathological gambling and so-called online/media addiction) and the resulting consumption trends. Now, more than in the past, it is not only addiction which is focused on but also risky use behaviour, which is harmful to health and limits personal development even if it does not necessarily lead to an addiction.

### **1.3.2 Implementation and evaluation of the National Strategy**

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

In 2001, addiction research was initiated as a focal area of Germany's drug and addiction policy that was continued in the second funding period until 2008. In four research networks, funded by the Federal Ministry for Education and Research (BMBF), scientists from different fields 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, the formed networks continue to carry out common research activities and identify new funding possibilities.

#### **Addiction among the elderly**

As part of their annual conference "Independent in Old Age – Addiction among the elderly" held on 19 July 2013, the Federal Drug Commissioner (Drogenbeauftragte der Bundesregierung) pointed to the increasing importance of alcohol and prescription medication abuse in the over-60s. She pointed more specifically to the loss of independence of the individual due to substance consumption and the danger of serious injuries due to acute intoxication as well as decreased memory capacity. These demands pointed to a need for better preventative measures and support services, closer cooperation between doctors, pharmacists, statutory health insurers and municipal as well as church facilities. An estimated 14 % of older people who receive outpatient care or care in homes are affected by

alcohol or prescription medication abuse. In the opinion of the Drug Commissioner, doctors and care personnel must be made aware of the problem and trained in dealing with older people with alcohol and drug problems. Old-age care facilities and addiction facilities must also work more closely together to ensure that the affected populations are reached. The Federal Ministry of Health has therefore made addiction among older people a funding priority in order to promote training of specialist personnel and networking between the various fields (press release, Drogenbeauftragten der Bundesregierung, 19 June 2013<sup>11</sup>).

### Further model programmes and research projects funded by the Federal Ministry of Health

An overview of the model programs and research projects funded by the federal government are shown below in tabular form in Table 1.1. The table is ordered according to the arrangement of the REITOX report. Each proposal is examined in greater detail, where necessary, in the respective individual chapters (provided they have not already been covered in previous REITOX reports).

Table 1.1 Model programmes and research projects funded by the federal government

Funded Projects	Project Period	Notes
<b>Prevention</b>		
Focus: Innovative prevention concepts in pregnancy, plus evaluation	03/11 - 02/13 07/12 - 07/14 07/12 - 09/14	7 model projects in first phase; 3 model projects in second phase; Evaluation project
Prevention and reduction of substance use amongst students	04/13 - 10/15	3 projects
Preventative and promotional factors for the implementation of addiction preventing approaches in small and medium sized enterprises (SME)	03/12 - 02/13	Development of concepts for counselling and intervention of affected persons in the area of SME
<b>Drug use in the population and in specific subgroups</b>		
Schulbus	02/12 - 12/13	Development, testing and preparation of tablet PC based school and teacher surveys on approaches to addictive substances
FRED Strafverfolgung model project	05/13 - 02/14	Early intervention among first-time drug offenders
Spice II Plus	03/13 - 02/15	Co-financed EU project
Alcohol and drugs as risk factors for a successful completion of education	04/12 - 03/15	Representative survey

<sup>11</sup> <http://drogenbeauftragte.de/presse/pressemitteilungen/2013-02/unabhaengigkeit-im-alter.html> (Last retrieved on 20.08.2013)

Table 1.1 (continued)

<b>Funded Projects</b>	<b>Project Period</b>	<b>Notes</b>
<b>Drug-related treatment</b>		
Funding priority addiction among older people, 2nd phase	01/13 - 12/13	7 model projects for better cooperation between addiction and old-age care facilities (extension)
Funding priority addition in old age, evaluation	03/13 - 05/14	Cross-project analysis of the funding priority
<b>Other projects funded by the BMG which are related to drugs</b>		
Self-control training (Selbstkontrolltraining, SKOLL) – early interventions for risky drug users of psychotropic substances, quality assurance	05/13 - 01/14	
Web-based parental advisory	05/12 - 10/13	Development of an internet-based advice programme for parents of children and young people at risk of addiction
Further training of house doctors in individual practices	10/10 - 12/12	Early identification of elderly addicts
Further training of house doctors in individual practices, follow-on project	05/13 - 01/14	Early identification of elderly addicts
National transfer of MDFT as a family-based early intervention in youth addiction prevention	09/12 - 12/13	Implementation of multi-dimensional family therapy (MDFT)

BMG 2013, personal correspondence.

### **Projects and research projects funded by the European Commission**

German experts participate in a series of international projects and research projects in the area of drugs and addiction that are (co-)funded by the European Commission within the framework of various funding programmes. The REITOX Report 2011 contained an overview of projects related to illegal drugs in which German partners were involved or active as coordinators in 2010/2011. Many of these projects were continued into the period related to this report (see REITOX Report 2011, information on project periods).

The basis for this overview was a brochure of the European Commission which listed a summary of all projects which had a connection to drugs from the three grant programmes of the European Commission<sup>12</sup> for which an updated version was not available. The brochure, which also contains short descriptions of the projects (as well as descriptions of older and

<sup>12</sup> Drug Prevention and Information Programme (DPIP) (DG Just); Public Health Programme (PHP) (DG SANCO); Seventh Framework Programme (FP7) (DG Research).

completed projects), can, for example, be downloaded from the EMCDDA website<sup>13</sup>. Current new involvements of German partners can be found, for example, in the project ALICE-RAP<sup>14</sup> (7<sup>th</sup> Research Framework Program, DG Research and Innovation).

### **Activities undertaken by the Federal Centre for Health Education (Bundeszentrale für gesundheitliche Aufklärung, BZgA)**

The addiction prevention work of the BZgA is aimed at motivating potential and actual consumers of addiction-inducing substances to reflect critically on their consumption behaviour and to achieve low risk consumption patterns or to cease consumption. The prevention activities of the BZgA are primarily directed towards legal addictive substances such as alcohol, tobacco and medication abuse but also to illegal drugs. Further prevention areas are “combating pathological gambling”<sup>15</sup> and “pathological internet and computer game use”<sup>16</sup> as well as campaigns to promote life competence and early addiction prevention<sup>17</sup>.

The coordinated internet portal for addiction prophylaxis, PrevNet<sup>18</sup>, has, since its launch in 2004, utilised the resources of the existing regional networks and links educational measures for addiction prevention of the Federal and *Land* governments with one another. A relaunch was undertaken in July 2012. Since then, PrevNet has been available to experts with a simplified navigation structure, new design and extended interaction and communication possibilities.

### **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, different guidelines and rules as well as different drug and addiction programmes exist in the 16 *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 along these lines – e.g. the development of guidelines and programmes for quality assurance – are, however, adopted at a technical level by professional and scientific associations, as well as by the funding agencies. Compliance with and application of these guidelines are, however, not mandatory. 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*.

<sup>13</sup> [www.emcdda.europa.eu/themes/research](http://www.emcdda.europa.eu/themes/research)

<sup>14</sup> [www.alicerap.eu](http://www.alicerap.eu)

<sup>15</sup> [www.check-dein-spiel.de](http://www.check-dein-spiel.de)

<sup>16</sup> [www.ins-netz-gehen.de](http://www.ins-netz-gehen.de)

<sup>17</sup> [www.kinderstarkmachen.de](http://www.kinderstarkmachen.de)

<sup>18</sup> [www.prevnet.de](http://www.prevnet.de)

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 nationwide services available 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) and other specific services (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 (legal and illegal 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 undertaken for at-risk groups, both local approaches and nationwide available projects like early intervention in drug users who have come to the attention of the police for the first time (FreD) or the implementation of the intervention programme "Realize it" in the *Laender* have proven successful.

The *Laender* too, have set a focus on children and teenagers as well as on legal addictive substances. Central to their work is a stronger goal orientation of support systems, the comparison of demand and offer in addiction care and the optimisation 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, 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 attention of the police for the first time.

**Note:** In the reporting year 2012/2013, the drug and addiction commissioners of the federal states reported numerous activities and projects. As the activities reported at this point in the past included only a selection of the activities undertaken with the support of the *Laender*, which were based on active reporting from the respective *Laender* to the DBDD, the format of the REITOX report has been modified to a) align the structure of the information recorded to the chapters of the REITOX report and b) to include the information recorded in the chapter which discusses the corresponding subject matter.

### 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, specialist and scientific events, only a very small and arbitrary selection will be presented, serving as examples for the wide range of events on offer.

- Annual Conference of the Federal Government's Commissioner on Narcotic Drugs on "Addiction in Old Age" (Jahrestagung der Drogenbeauftragten der Bundesregierung zu „Sucht im Alter“).



On 19 October 2013, the annual conference of the Commissioner on Narcotic Drugs took place in order to discuss various aspects of the problem, “addiction in old age” and involved speakers and participants from Germany and abroad. The topic, “addiction in old age” is gaining increasing significance and is often underestimated in respect of the prevalence of disorders and problems caused by the use of, in particular, alcohol, tobacco and medications in the generation of the over 60s. Experts from addiction support and old age care, psychiatry and care sciences as well as practitioners from Germany and abroad brought their experiences in this area together at the conference, bringing various perspectives to the table. Further important aspects covered were the situation and possibilities for action in cities and communities. A “market of possibilities” with successful examples and model projects of the Federal Ministry of Health on “addiction in old age” as well as other projects, rounded the conference program off.

- 1<sup>st</sup> International Conference on “Spice” Prevention (1. Internationale Konferenz zur “Spice“-Prävention).

From 25-26 September 2012, the first international conference on the topic of “Spice” prevention took place in Frankfurt am Main. This was concerned with the risks, prevalence, legal controls and new specific approaches to prevention. Researchers, pharmacologists, social scientists and experts in criminology and prevention from 14 European countries took part in the conference. The conference took place within the context of a European project on synthetic cannabinoids (project leader; Volker Auwärter, Freiburg), which was financially supported by the European Commission, the Federal Ministry of Health, and the Drug Unit of the City of Frankfurt am Main. The conference was organised by the Centre for Drug Research (CDR) at Goethe University, Frankfurt<sup>19</sup>.

- 5<sup>th</sup> German Addiction Congress in Berlin (5. Deutscher Suchtkongress).

The German Addiction Conference 2012 took place on the 3-6 October 2012 at the Charité’s Virchow Clinic Campus. The leading organiser was the German Society for Addiction Research and Treatment (DG-Sucht) in cooperation with the German Society for Addiction Psychology (DG-SPS) and with the support of countless other professional associations. For the first time this year, cooperation took place with the European expert association, EUFAS, which meant that international speakers and internationally important topics found a place at the German Addiction Conference. In total there were 155 talks and 63 posters displayed in moderated poster presentations.

- 21<sup>st</sup> Congress of the German Society for Addiction Medicine (21. Kongress der Deutschen Gesellschaft für Suchtmedizin).

The 21<sup>st</sup> Congress of the German Society for Addiction Medicine (DGS) took place from 2-4 November 2011 in Berlin under the slogan “Fit for everyday life”. The focus of the congress was, in addition to the numerous events covering wide ranging topics, a critical look at neuro enhancement and addiction risks, brain doping among students and the question “How fit are our patients for their everyday lives?”.

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<sup>19</sup> Conference Documentation: <http://www.uniklinik-freiburg.de/rechtsmedizin/live/SpiceConference.html>  
(Last retrieved on: 21.08.2013)

- 36<sup>th</sup> Federal Drug Congress of the Professional Association for Drugs and other Intoxicants (36. BundesDrogenKongress des Fachverbands für Drogen und Rauschmittel).  
The 36<sup>th</sup> Federal Drug Congress “Addiction and Violence” took place in Dornach near Munich on 6-8 May 2013. The Professional Association for Drugs and other Intoxicants (FDR) hosted the Federal Drug Congress as a symposium on addiction help with a focus on illegal drugs. The documentation of the congress can be found at [www.fdr-online.info](http://www.fdr-online.info)<sup>20</sup>.
- Symposium of the German Centre for Addiction Issues (Fachkonferenz der Deutschen Hauptstelle für Suchtfragen (DHS)).  
The DHS Symposium on the topic of “The four pillars of addiction help and addiction policy put to test” took place from 19-21 November 2012 in Leipzig, attended by numerous national and international contributors and partners<sup>21</sup>.
- Cooperation Conference of the German Centre for Addiction Issues (Kooperationstagung der Deutschen Hauptstelle für Suchtfragen (DHS)).  
The DHS Cooperation Conference took place from 22-23 April 2013 in Weimar on the topic “Addiction help and care for the elderly”<sup>22</sup>.
- Interdisciplinary Congress for Addiction Medicine (Interdisziplinären Kongress für Suchtmedizin).  
The 14<sup>th</sup> Interdisciplinary Congress for Addiction Medicine was held in Munich from 4-6 July 2013, an opportunity for specialists from addiction medicine and addiction therapy to meet. The congress offers the possibility of exchanging the latest scientific findings and obtaining fundamental knowledge on addiction medicine<sup>23</sup>.

### International Cooperation

Germany actively cooperates with international institutions in the area of drugs and addiction. Its most important partners in the EU are the European Commission, the Horizontal Drugs Group (HDG) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Germany is also an active partner, in addition to numerous bilateral contacts on an international basis, in the negotiations of the Commission on Narcotic Drugs of the United Nations (CND) as well as supporting, as one of the most important donor countries, the work of the United Nations Office on Drugs and Crime (UNODC). Furthermore, Mr. Werner Sipp, former head of the department in the Federal Ministry of Health on “Narcotics law, narcotics

<sup>20</sup> Conference Documentation: <http://fdr-online.info/pages/infos-fuer-die-suchthilfe/tagungen-seminare-fortbildungen/bundesdrogenkongress.php> (Last retrieved on: 21.08.2013)

<sup>21</sup> Conference Documentation: <http://www.dhs.de/dhs-veranstaltungen/rueckschau/fachkonferenzen.html> (Last retrieved on: 21.08.2013)

<sup>22</sup> Conference Documentation: <http://www.dhs.de/dhs-veranstaltungen/rueckschau/kooperationstagungen.html> (Last retrieved on: 21.08.2013)

<sup>23</sup> Conference Program: [http://www.sv-veranstaltungen.de/wp-content/uploads/2012/07/Suchtkongress-\\_2013\\_HP\\_Internet\\_Stand-24\\_06\\_20131.pdf](http://www.sv-veranstaltungen.de/wp-content/uploads/2012/07/Suchtkongress-_2013_HP_Internet_Stand-24_06_20131.pdf) (last retrieved on: 21.08.2013)

trade, international addiction issues”, is an internationally recognised, independent German expert in the addictive substance control office of the United Nations (International Narcotics Control Board INCB). When representing Germany in the European and other international bodies dealing with drug policy, the Federal Government’s Commissioner on Narcotic Drugs has an important coordinating function. She shares her function with the special agencies of various ministries (Ministry for Health, Ministry of the Interior, Ministry of Foreign Affairs) or experts from other areas when representing Germany on the international stage. German representatives also actively participate in the Civil Society Forum on Drugs of the European Commission.

During the reporting period and beyond, Germany engaged in various bilateral cooperation projects, with regard to drugs and addiction, with the Former Yugoslav Republic of Macedonia (IPA IV Project of EBDD), Central Asia (Central Asian Drug Action Programme), Serbia (Twinning) and participated in various international projects in which German experts cooperated with colleagues from countries within and outside of the EU.

### 1.3.3 Other drug policy developments

Aside from the changes and improvements reported in other parts of this report, there are no other developments to report.

### 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 national Board on Drugs and Addiction (Drogen- und Suchtrat, DSR) also plays 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. The working group, “Interface problems in the care of addicts”, as well as the working group, “Addiction prevention”, 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, the Federal Government cooperates with the *Laender* on various levels, such as in the AG Suchthilfe der Arbeitsgemeinschaft der Obersten Landesgesundheitsbehörden (AOLG) (Working Group on Addiction Help of the Supreme Federal States’ Public Health Offices) and the Koordinierungskreis Suchtprävention der BZgA (Coordination Group for Addiction Prevention of the Federal Centre for Health Education), as well as in individual projects.

On a national level, the Federal Centre for Health Education (Bundeszentrale für gesundheitliche Aufklärung, 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 Institute for Drugs and Medical Devices (Bundesinstitut für

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. The central institution of the Federal Government in the area of disease control and prevention is the Robert Koch-Institute (RKI). The RKI is the central facility of the Federal Government in the area of application and response oriented biomedical research. Its core responsibilities are the identification, prevention and combating of diseases, in particular infectious diseases.

## 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 this data, were the subject of a Selected Issue of the REITOX Report 2007 which is available in German and English on the DBDD website<sup>24</sup>. In spring 2008, the EMCDDA additionally published a summary of the information provided by the EMCDDA 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. In particular, 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 no longer differentiates between individual substances or legal and illegal 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 the identification of costs incurred alone (prior to the calculation of specific shares for legal or illegal substances) is associated with considerable effort. A research project financed by the BMG and implemented by the DBDD tackled this subject in 2008 (see following section).

### 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 Essen University to venture for the first

<sup>24</sup> [http://www.dbdd.de/images/publikationen/dbdd/Sonderkapitel/2007\\_oeffentliche\\_ausgaben.pdf](http://www.dbdd.de/images/publikationen/dbdd/Sonderkapitel/2007_oeffentliche_ausgaben.pdf)

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 (Mostardt et al. 2010).

Various approaches were combined for data collection: At the level of the central, regional and local authorities, the budget documents available to the public were analysed and ministries and subordinate authorities as well as other key persons were interviewed. Where expenditures were assumed but not stated separately in the budgets or could not be specified by those questioned, alternative calculation or estimate methods were developed with the help of data from published studies and statistics. The data on the expenses incurred by the social insurance institutions were collected by means of paper-based interviews. In addition to the German Pension Fund (Rentenversicherung Bund), 40 of the largest state health insurance companies were contacted by means of standardised questionnaires. The data from the participating insurers was then extrapolated for the entirety of the state health insurance system.

From the varying expenditures identified and calculated, one arrives at a figure of between 5.2 and 6.1 billion EUR spent in the reference year 2006 for the area of illicit drugs. This overall result should be viewed, however, due to missing data and methodological limitations, as a conservative estimate.

The expenditures are broken down in more detail in standard table STPE for the year 2008 as well as in the publication of the findings (Mostardt et al. 2010).

In view of the great expense associated with a comprehensive collection of data and estimation of public expenditures, the findings of the 2008 study have not been followed up. Therefore, there is no available data.

### **1.4.3 Social Costs**

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



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

### 2.1 Overview

#### Introduction

Experience with drugs means, in many cases, a one-off or infrequent use of drugs. After the drug is “tried”, its use is, in most cases, completely discontinued after a time. Drug use related to lifetime is therefore only a rough indicator of the extent of drug use at a given point in 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 that 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 Länder 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 Länder. 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 every 3 to 4 years since 1973. 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 DAS survey was carried out in 2011 with a sample of 5,000 interviewees. The findings were published by the BZgA in 2012 and were presented in the REITOX Report 2012 under sections 1.2 and 1.3<sup>25</sup>.
- In addition to the DAS, the BZgA published the findings of representative surveys conducted on cannabis use among adolescents of 12-19 years old and 12-25 year olds respectively in 2007 and 2011 (BZgA 2007, 2011b), and these findings were presented in the REITOX Reports of 2007 and 2011.

<sup>25</sup> The results of the DAS 2011 are based on a multi-level random sample on the basis of the ADM telephone sampling system (computer generated random telephone numbers). It is a random selection of 12-25 year olds in households, the exhaustion quota was 60.9 %, the sample size was N=5,001 interviewees.

- The Epidemiological Survey on Substance Abuse (ESA) (formerly the 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. In this REITOX Report, the latest results of the ESA 2012 are presented. Information on the design of the study and the methods used by the ESA 2012 has been extensively provided by Kraus and colleagues 2013 (Kraus et al. 2013a, in press). The adjusted sample includes n = 9,084 people between 18 and 64 years of age. The net response rate was 53.6 %.
- The “European School Survey Project on Alcohol and other Drugs” (ESPAD<sup>26</sup>) has been carried out since 1995 in numerous European countries. In 2011, several *Laender* participated for the third time in the survey after 2003 and 2007: Bavaria, Berlin, Brandenburg, Mecklenburg-Western Pomerania and Thuringia. In 2007, Hesse and Saarland also took part. Initiated by the Pompidou-Group at the Council of Europe and coordinated by CAN<sup>27</sup> (Stockholm), the survey uses European-wide uniform standards for data collection. The survey is carried out among 15 to 16 year olds in school year groups 9 and 10. In 2011, the adjusted sample size comprised 6,192 pupils from 352 classes (Kraus et al. 2012). Some data for individual *Laender* is also available for the ESPAD.
- The study on “Health Behaviour in School-aged Children” (HBSC), funded by the WHO, is carried out every four years and has today grown to include 41 countries. The study investigates the health behaviour of school children from 9 to 17 years old. Trend data from the most recent HBSC survey in Germany was published in 2012. Individual findings of past surveys have already been published in previous REITOX Reports (Nickel et al. 2008; Settertobulte & Richter 2007). The trends reported in 2012 (see chapter 2.3.1) are based on data from the surveys in 2002 (n = 5,650), 2006 (n = 7,274) and 2010 (n = 5,005). The data from 2002 is based on data from four *Laender* (Berlin, Hesse, North-Rhine Westphalia, Saxony); in 2006 the German data set comprised (Berlin, Hamburg, Hesse, North-Rhine Westphalia and Saxony). The 2010 data is based on information from 15 *Laender* (on the study design and methods used in the scope of the HBSC cf. Ottova et al. 2012; Ottova et al. 2012).
- In 2007, the first results of the Health Interview and Examination Survey for Children and Adolescents (Kinder- und Jugendgesundheitsurvey, KiGGS) were presented (Lampert & Thamm 2007). The findings were based on nationwide representative data on the health of children and adolescents aged from 0 to 17 years. A total of 17,641 children and

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<sup>26</sup> [www.espad.org](http://www.espad.org)

<sup>27</sup> Swedish Council for Information on Alcohol and Other Drugs.



adolescents participated in the study. For the analyses of tobacco, alcohol and drug use, the data from 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 of children and adolescents in Schleswig-Holstein (RKI 2007a; Schütze et al. 2007), which was presented in the REITOX Report 2008.

### Data from the Laender and the 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 a regional and local level. They focus, alongside other factors, on the extent and effects of the use of a specific substance and the 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).

Another source that has been providing information on drug trends at a 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<sup>28</sup>, a scene-based survey and an expert survey. In the study period 2012 a total of N = 1,513 valid questionnaires provided the data for the MoSyD pupil survey (based on those surveyed from the 10<sup>th</sup>-12<sup>th</sup> grades or the 1<sup>st</sup>-3<sup>rd</sup> years of a traineeship), of which N = 1,000 (weighted sample: N = 1,001) respondents were between 15 and 18 years old. The findings presented below are based on this partial sample. Furthermore, findings of the trend scout panel of the MoSyD are available. The findings are reported in chapters 2.3.2 and 2.4.

In May 2009, the findings of the MODRUS IV study (*Moderne Drogen- und Suchtprävention – 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 legal addictive substances, drugs and their use of the computer and the internet (N = 2,432). The results have already been presented in the REITOX Report 2009.

After the last data collection in 2009, a survey called “Hamburg School Bus” was carried out for the fifth time in 2012 within the framework of the Local Monitoring System (LMS) among students aged 14 to 18 years at schools providing general or vocational education. The number of pupils aged between 14 and 17 years of age included in the sample in the 2012

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<sup>28</sup> The trend scout panel used by MoSyD is a partly standardised survey instrument of a qualitative, ethnographic nature. The primary goal of the instrument is to track new trends and changes with respect to the use of illicit drugs in Frankfurt/Main. To this purpose, recreational scenes are selected especially from youth cultures. The selection of the different settings is focused on the scenes for which a relatively high use prevalence of illicit drugs can be assumed. The trend scout survey is designed as a panel survey that measured the same sample of respondents in regular intervals (twice a year since 2006). The survey is based on a half-open guideline-based interview.

survey is n = 1,013 (weighted sample; n = 1,148 unweighted sample). The surveys, which were conducted in schools whose selection was based on theoretical sampling, were administered to classes of school pupils from the 8th class upwards (cluster sampling) (Baumgärtner & Kestler 2013).

High interest was exhibited by various cities and municipalities in adopting the data collection methods used by the “Hamburg School Bus” project in their own areas in future. This led the Office for Addiction Prevention to investigate one of the model projects supported by the Federal Ministry of Health in order to ascertain how it would be possible to adapt this approach for use in other regions, while saving resources, and what knowledge could be gained from it. For this purpose, the previously paper-based survey was transferred to a tablet/PC-based process and was extended beyond the Greater Hamburg Area to include four further model locations (two municipalities in Lower Saxony, a small town in Mecklenburg-West Pomerania and a rural district in Schleswig-Holstein) with the intention of collecting regional data. The publication of these results is planned for the start of 2014 (Baumgärtner & Kestler 2013).

### **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 was published in the period under review, this report confines itself to presenting only some basic data.

When interpreting the results of population surveys, it needs however to be taken into account that the figures may be considerably underestimated given the fact that 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 tap into other data sources (e.g. police files, cf. chapter 4.2). In addition to quantitative data, qualitative studies have also 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 2009, 2012) and the most recent DAS (2011).

Table 2.1 Prevalence of illegal drugs in Germany

	Source	Age	Prevalence	Absolute <sup>1)</sup>
Lifetime	ESA 2012	18-64	23.9 %	12,351,000
	ESA 2009	18-64	26.7 %	13,729,000
	DAS 2011	12-17	7.2 %	344,000
12 Months	ESA 2012	18-64	4.9 %	2,532,000
	ESA 2009	18-64	5.1 %	2,622,000
	DAS 2011	12-17	4.9 %	234,000
30 Days	ESA 2012	18-64	2.6 %	1,344,000
	ESA 2009	18-64	2.6 %	1,337,000
	DAS 2011	12-17	2.0 %	95,000

1) Figures are rounded. Population figures in the age categories (Source: Statistisches Bundesamt, GENESIS Online-Datenbank) of 18-<65 year-olds: 51,418,000 (year 2009) & 51,680,000 (year 2012); 12-17 year-olds: 4,778,270 (year 2011). BZgA 2012b; Kraus et al. 2013b; Pabst et al. 2010.

The lifetime prevalence is not suitable as an indicator for current changes since it does not give any valuable clues as 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).

Prevalence estimates of substance-related disorders as defined by DSM-IV can be extrapolated for the general German population aged between 18 and 64 based on the results of the ESA 2012. According to these estimates, approximately 283,000 adults (95 % confidence interval (CI) = 201,000 – 397,000) exhibit misuse and 319,000 adults (CI = 224,000 – 453,000) exhibit dependency in connection with the consumption of the illegal drugs cannabis, cocaine or amphetamine. In addition, an estimated 4.61 million people (CI = 4.20 million – 5.05 million) have a diagnosis for misuse of painkillers, sleeping tablets or tranquillisers. Approximately 2.31 million people (CI = 2.03 million – 2.62 million) are dependent on (at least) one medication. In relation to illegal drugs, more men than women in the population exhibit substance-related disorders. Only prescription medications have a higher proportion of female addicts (Kraus et al. 2013b).

## 2.2.2 Comparison of the use of individual drugs

### National data

The data from the DAS 2011 was comprehensively reported in the REITOX Report 2012; the most important key figures are reported again in Table 2.2 in comparison with the ESA data.

New results of the ESA were presented in 2013 on the use of illegal substances amongst adults. Initially, the results are compared to the data of the last ESA (2009) and to the DAS (2011) in Table 2.2.

Table 2.2 Prevalence of consumption of illegal drugs by substance

Source	DAS 2011		ESA 2009			ESA 2012		
	%;12-17 Y	%;18-25 Y	%; 18-64 Years			%; 18-64 Years		
Substance	12 M <sup>1)</sup>	12 M <sup>1)</sup>	LT <sup>1)</sup>	12 M <sup>1)</sup>	30 D <sup>1)</sup>	LT <sup>1)</sup>	12 M <sup>1)</sup>	30 D <sup>1)</sup>
Cannabis	4.6	13.5	25.6	4.8	2.4	23.2	4.5	2.3
Amphetamines	0.4	1.6	3.7	0.7	0.3	3.1	0.7	0.4
Ecstasy	0.2	1.0	2.4	0.4	0.2	2.7	0.4	0.2
LSD	0.1	0.3	2.4	0.1	0.1	2.2	0.3	0.1
Heroin	0.0	0.0	0.5	0.1	0.0	0.6	0.2	0.1
Cocaine	0.2	0.9	3.3	0.8	0.3	3.4	0.8	0.3
Crack	0.0	0.0	0.2	0.1	0.0	0.3	0.1	0.1
Mushrooms	0.4 <sup>2)</sup>	0.7 <sup>2)</sup>	2.8	0.1	0.1	2.6	0.3	0.1
Volatile substances	0.1	0.2	--	--	--	--	--	--
Any illicit drug	4.9	14.3	26.7	5.1	2,6	23.9	4.9	2.6
Illicit drugs besides cannabis	1.0	2.8	7.4	1.3	0,6	6.3	1.4	0.8

1) LT: Lifetime, 12 M: 12 Months, 30 D: 30 Days.

2) Psychoactive plants.

BZgA 2012b; Kraus et al. 2013b; Pabst et al. 2010.

Table 2.3 contains a differentiated overview of the consumption prevalences according to the substance in question, age group and gender from the ESA 2012 (Kraus et al. 2013b; Pabst et al., in press). A total of 4.5 % of participants in the ESA 2012 study admitted to having consumed cannabis in the 12 months before the survey (Table 2.3). With prevalence values under 1 %, the consumption of all other illegal drugs surveyed was less common. Cocaine (0.8 %) and amphetamine (0.7 %) are the most commonly consumed illegal substances after cannabis. The least commonly reported substances were heroin and spice (both 0.2 %) and crack (0.1 %).

All illegal drugs investigated were consumed more frequently by men than women. For example, the 12-month prevalence figures for cannabis consumption among men were twice as high as those for women (6.0 % vs. 3.0 %, OR = 2.1, 95 % CI = 1.7-2.7). In addition, there are age differences in the consumption of illegal substances in the last 12 months. There is a characteristically negative age gradient in cannabis consumption, with the highest prevalence values for the age categories 18 to 20 (16.2 %; see Table 2.3) and 21 to 24

(13.7 %). The consumption of amphetamine (2.4 %), ecstasy (1.7 %) and LSD (1.3 %) were most commonly reported by 25 to 29 year-olds. Other opiates (0.8 %) and cocaine (1.8 %) were most commonly consumed by the 30 to 39 age group.

Based on the entire sample, 0.5 % of those surveyed meet the DSM-IV criteria for cannabis misuse, with a further 0.5 % meeting the criteria for dependence. A total of 0.2 % exhibit cocaine dependence. Misuse of amphetamines is evident in 0.2 % of those surveyed, while 0.1 % fulfil the criteria for addiction. With the exception of cocaine misuse, men exhibit substance-related disorders in connection with the use of illegal drugs more commonly than women. In addition, single diagnoses are most common in the 20 to 30 age group.

The results of the ESA 2012 show that cannabis remains the dominant illegal drug in Germany. The above-average consumption of cannabis by young male adults observed here has been well known for many years. One particular risk group identified for this is students (Pauly & Klein 2012). Cocaine and amphetamine are the most commonly used illegal substances after cannabis. The prevalence of all other illegal drugs studied here is low, with 12-month prevalence rates below 0.5 %.

Based on this data we can extrapolate that approximately 600,000 adults (95 % CI: 470,000 - 770,000) in Germany meet the criteria for a clinical diagnosis in connection with the consumption of cannabis, cocaine or amphetamine. A particular risk in connection with the use of illegal drugs is the high prevalence of consuming additional (illegal) substances to compensate for and/or modulate effects. In line with this we see a substance-related comorbidity, in particular in connection with the consumption of cannabis and cocaine (Piontek et al., in press).

Table 2.3 Lifetime, 12-month and 30-day prevalence of the consumption of illegal drugs, 18 to 64 age group (ESA 2012)

Lifetime Prevalence	Total	Sex		Age Group						
		Men	Women	18-20	21-24	25-29	30-39	40-49	50-59	60-64
Any ill. drug <sup>1)</sup>	23.9	28.3	19.3	23.6	31.3	41.3	36.1	20.4	15.0	8.4
Cannabis	23.2	27.5	18.6	23.0	30.8	41.1	35.4	19.7	14.1	7.7
Drugs other than cannabis	6.3	7.8	4.8	3.3	7.8	12.1	11.0	4.9	3.6	2.6
Amphetamine	3.1	4.4	1.8	2.4	4.5	6.8	5.3	2.1	1.5	1.3
Ecstasy	2.7	3.6	1.8	1.2	3.4	6.7	6.6	1.4	0.6	0.4
LSD	2.2	3.0	1.3	0.7	1.2	3.9	4.4	1.4	1.5	1.1
Heroin	0.6	0.9	0.4	0.3	0.3	0.9	1.2	0.5	0.6	0.2
Other opiates	1.0	1.2	0.8	0.4	0.9	1.5	2.0	0.7	0.9	0.3
Cocaine	3.4	4.4	2.3	1.7	3.0	7.6	6.6	2.8	1.3	0.7
Crack	0.3	0.5	0.2	0.0	0.3	1.2	0.3	0.2	0.2	0.2
Mushrooms	2.6	3.9	1.3	1.2	3.2	7.1	4.9	2.0	0.7	0.4

Table 2.3 (continued)

Lifetime Prevalence	Sex			Age Group						
	Total	Men	Women	18-20	21-24	25-29	30-39	40-49	50-59	60-64
NPS <sup>29</sup>	0.6	0.9	0.3	1.3	1.4	2.5	0.3	0.2	0.1	0.2
12-month-Prevalence	Total	Men	Women	18-20	21-24	25-29	30-39	40-49	50-59	60-64
Any ill. drug	4.9	6.4	3.3	16.8	13.9	10.2	6.5	2.0	1.2	0.4
Cannabis	4.5	6.0	3.0	16.2	13.7	9.8	5.7	2.0	0.9	0.1
Drugs other than cannabis	1.4	2.1	0.7	2.4	3.0	3.2	2.6	0.6	0.4	0.2
Amphetamine	0.7	1.2	0.3	1.6	2.1	2.4	0.6	0.5	0.1	0.0
Ecstasy	0.4	0.7	0.1	0.7	0.8	1.7	0.3	0.4	0.1	0.0
LSD	0.3	0.5	0.1	0.6	0.3	1.3	0.1	0.3	0.0	0.0
Heroin	0.2	0.3	0.1	0.3	0.0	0.7	0.2	0.2	0.0	0.0
Other opiates	0.3	0.4	0.3	0.1	0.1	0.7	0.8	0.1	0.2	0.1
Cocaine	0.8	1.3	0.3	1.4	0.8	1.5	1.8	0.5	0.2	0.2
Crack	0.1	0.2	0.0	0.0	0.0	0.6	0.1	0.1	0.0	0.0
Mushrooms	0.3	0.5	0.1	0.5	0.6	1.0	0.4	0.3	0.0	0.0
NPS	0.2	0.3	0.0	0.7	0.1	0.7	0.1	0.1	0.0	0.0
30-Day Prevalence	Total	Men	Women	18-20	21-24	25-29	30-39	40-49	50-59	60-64
Any ill. drug <sup>1)</sup>	2.6	3.7	1.5	7.6	6.6	5.2	3.8	1.4	0.8	0.2
Cannabis	2.3	3.3	1.2	7.3	6.5	4.8	2.7	1.3	0.5	0.0
Other drugs than cannabis	0.8	1.1	0.5	1.4	0.9	1.8	1.5	0.5	0.3	0.2
Amphetamine	0.4	0.6	0.1	0.9	0.4	1.5	0.3	0.3	0.1	0.0
Ecstasy	0.2	0.4	0.0	0.4	0.1	0.9	0.2	0.3	0.0	0.0
LSD	0.1	0.2	0.0	0.3	0.2	0.4	0.0	0.1	0.0	0.0
Heroin	0.1	0.2	0.1	0.0	0.0	0.4	0.1	0.2	0.0	0.0
Other opiates	0.2	0.2	0.2	0.0	0.0	0.3	0.7	0.1	0.2	0.1
Cocaine	0.3	0.4	0.2	0.5	0.2	0.5	0.5	0.2	0.1	0.2
Crack	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.0
Mushrooms	0.1	0.2	0.0	0.3	0.1	0.3	0.0	0.3	0.0	0.0
NPS	0.1	0.1	0.0	0.3	0.0	0.3	0.0	0.1	0.0	0.0

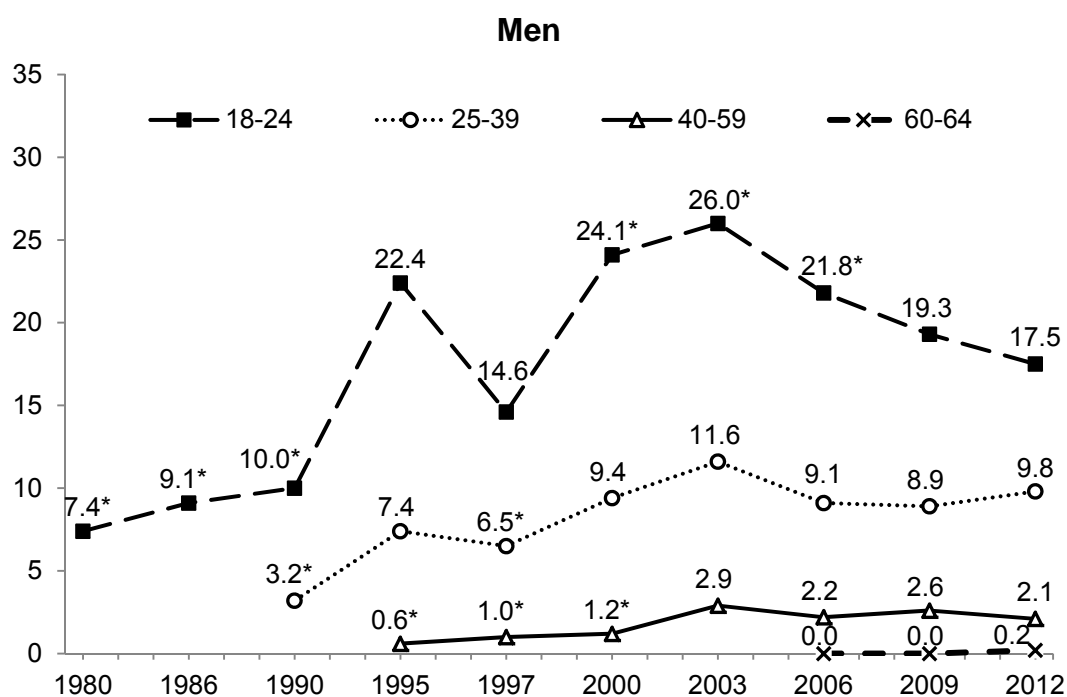
1) Cannabis, amphetamine, ecstasy, LSD, opiates, cocaine, crack or mushrooms.  
Kraus et al. 2013b.

<sup>29</sup> In the scope of the data collection on ESA, respondents were asked about "Spice, smoke, space, bath salts, cathinones and similar substances". This therefore produced a mixed category containing individual products and different groups of substances, some of which include so-called "legal highs" or "research chemicals" beyond the (cannabinoid based) herbal mixtures. "Spice" and similar herbal mixtures (which verifiably contain synthetic cannabinoids) largely disappeared from the market back at the beginning of 2009 as a result of changes to the law, although similar products have continued to appear in the subsequent years which are primarily distributed via the internet. Representative data is available from the Frankfurt MoSyD for the city of Frankfurt on the consumption of herbal mixtures and related products.

### ESA 1980-2012: Trends in cannabis consumption

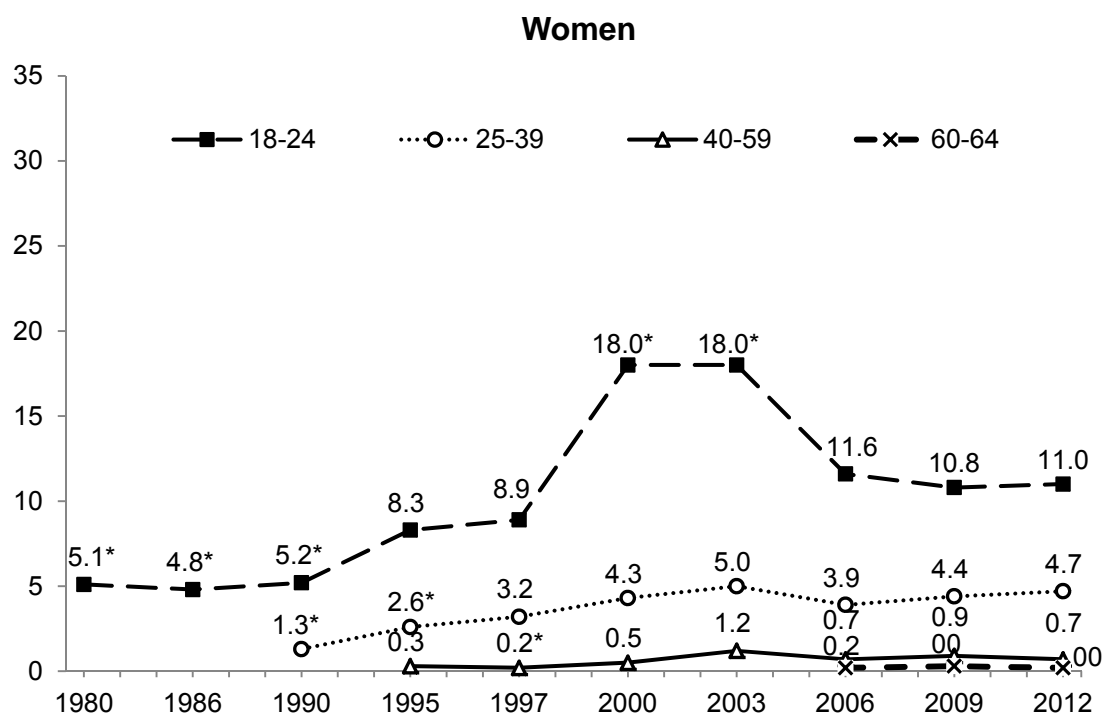
Within the last six years, no changes have been evident in the prevalence of cannabis among most population groups. Only a fall among young men aged between 18 and 24 can be observed. However, in the long term there is an almost universal increase in the proportions of current consumers.

The 12-month prevalence for cannabis consumption again fell markedly among young men and women aged between 18 and 24, following an increase up to the start of the 2000s (Kraus et al. 2013c, in press). The maximum in both genders was almost four times as high as in 1980 (Figures 2.1 and 2.2). A similar development can be observed among 25 to 39 year-old adults, although the prevalence was considerably lower than that for young adults and the fall from the maximum was smaller. A markedly lower prevalence level and a flatter curve can be observed for 40 to 59 year-olds and among 60 to 64 year-olds. Differences between men and women first and foremost relate to the lower proportion of cannabis consumption among women in all age groups. In comparison with the respective starting levels, the 12-month prevalence values for the year 2012 are significantly higher for both genders in all age groups, with the exception of the 60 to 64 age group. The decline from the middle of the 2000s onwards is only statistically significant in the youngest age group.



Kraus et al. 2013c, in press.

Figure 2.1 Men: Trends in the 12-month prevalence for cannabis consumption, \* $p < .05$



Kraus et al. 2013c, in press.

Figure 2.2 Women: Trends in the 12-month prevalence for cannabis consumption, \*p < .05

Trend data provided by the DAS for the lifetime prevalence rates for the use of cannabis by adolescents and young adults between 12 and 25 years of age was presented in chapter 2.3 of the Reitox Report 2012.

### 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 (Aden et al. 2011; 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, however, there is a non-negligible group which displays highly problematic use patterns 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 2008a). For this group of persons it is particularly important to provide specific treatments as described, for example, by Küstner and colleagues (2008; see also Thomasius & Stolle 2008b).

The prevention of nicotine consumption (both universal and selective) clearly 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 illegal



substances (Perkonigg et al. 2008a). In view of the particular importance assumed by the use of legal psychotropic substances (especially alcohol and tobacco) by teenagers and young adults, findings on the use of legal substances will be cursorily presented in the following.

So far, research on trend prognoses for substance use disorders, especially for childhood and adolescence, is scarce. A few individual surveys however identified abetting and protective factors for the development of substance disorders (cf. REITOX Report 2010, quoted from Sack & Thomasius 2009; Thomasius 2009).

### **2.3.1 Use of legal psychotropic substances**

#### **Alcohol**

According to the findings of the current DAS (BZgA 2012b) the proportion of 12-17 year old adolescents who have drunk alcohol within the 30 days prior to the survey is 42.0 % (30-day prevalence), 14.2 % of this age group drink alcohol regularly (i.e. at least once a week), 15.2 % of adolescents have drunk five glasses of alcohol one after the other at a drinking occasion at least once in the last 30 days (binge drinking) and 3.7 % at least four times (frequent binge drinking). In the case of young adults in the age of 18-25, the 30-day prevalence of alcohol consumption is 81.9 %, 39.8 % regularly consume alcohol. The 30-day prevalence rate for binge drinking is 41.9 % and the prevalence of frequent binge drinking is 12.9 %. The alcohol consumption levels for male adolescents and young adults are higher than that of their female counterparts in all the described consumption indicators. Alcohol consumption amongst adolescents from 12-17 years old has declined in the last few years. The 30-day prevalence of alcohol consumption as well as the regular consumption of alcohol, binge drinking in the last 30 days and frequent binge drinking were not as common in 2011 as they were still in 2004. Trends amongst 18-25 year old young adults since 2004 have varied. In addition to downward trends, increases have also been observed so that no clear trends can be ascertained for this age group.

Data on the consumption of alcohol amongst adolescents from the Health Interview and Examination Survey for Children and Adolescents (KiGGS) (Lampert & Thamm 2007) and the MODRUS IV study (Modern Drug and Addiction Prevention – Moderne Drogen- und Suchtprävention) were already reported in the REITOX Reports 2007, 2008 and 2009. Data on alcohol consumption of adolescents is also available from the HBSC study which has already been presented in part in previous REITOX Reports. Trend analyses from the HBSC were reported by Richter and colleagues in 2012 (Richter et al. 2012). According to those, following a sharp rise in consumption rates of alcohol in the years 1994 to 2002, a just as sharp decline in consumption frequency has been observed since 2002, whereby the period from 2002 to 2006 was clearly of crucial significance (the same applies for tobacco and cannabis).

## Tobacco

Current data on tobacco consumption amongst adolescents and young adults is available from the DAS (BZgA 2012b). In 2011, 70.8 % of 12-17 year old adolescents in Germany had never smoked, 11.7 % smoked. 4.8 % smoked on a daily basis, 2.0 % smoked 10 cigarettes or more per day and 0.3 % smoked more than 20 cigarettes per day. 17.5 % had tried smoking at least once but were currently non-smokers. In the case of young adults between the ages of 18-25, 27.6 % had never smoked; the smoker quota was 36.8 %. 23.1 % smoked every day, 16.5 % consumed at least 10 cigarettes per day and 4.8 % smoked at least 20 cigarettes per day. Amongst adolescents and young adults, no differences in smoking behaviour between the sexes can be seen. Smoking is declining amongst males and females between the ages of 12 and 17 as well as between 18 and 25. Amongst adolescents, the rate has more than halved over the last decade from 27.5 % (2001) to 11.7 % (2011). Trend analysis of the existing HBSC studies on tobacco consumption is also available. This shows that regular smoking in the period 2002 to 2010 decreased significantly overall, whereby the stronger reduction was in the period 2002 to 2006. The rate of smoking amongst 13 year olds fell from 14.1 % in 2002 to 3.0 % in 2010; amongst 15 year-olds from 33 % to 14.9 %. This decline was observed for girls as well as boys to the same extent (Richter et al. 2012).

Findings on tobacco consumption of adolescents from the KiGGS and the MODRUS IV study were reported in the REITOX Reports 2007 and 2009.

There is also regional data from other sources (e.g. Hamburg School Bus survey 2012 (Baumgärtner & Kestler 2013); the study by KFN Lower Saxony (Baier & Rabold 2012); and the MoSyD Frankfurt study (Bernard et al. 2013)) on alcohol and tobacco consumption among school pupils, adolescents and young adults. We do not explore these here due to the objectives of the REITOX Report.

### 2.3.2 Use of illegal drugs

#### National data

##### *ESPAD*

In 2011, Germany took part in the European School Survey Project on Alcohol and other Drugs (ESPAD) for the third time, after also taking part in 2003 and 2007. The aim of the study is to examine the extent of, attitudes to and risks of alcohol, tobacco and drug consumption amongst adolescents (see 2.1).

The percentage of cannabis users has declined considerably compared to the first study in 2003 (see table 2.4 of the Reitox Report 2012). In contrast to this, no further significant changes have occurred since 2007. Overall, the lifetime prevalence of cannabis use in the last nine years fell from 30.8 % to 22.2 %, the 12-month prevalence from 24.6 % to 17.4 % and the 30-day prevalence from 13.5 % to 8.1 %. The proportion of girls with experience of cannabis declined to a greater extent than the proportion of male users, falling significantly even in comparison to 2007 (lifetime prevalence: 21.1 % vs. 16.8 %). A comparison

according to type of school showed a decline from 2003 levels especially in intermediate secondary schools (Realschule) and grammar schools (Gymnasium).

The development of problematic cannabis use over time can only be viewed for the period of the last four years as the respective indicators were not collected in 2003. Accordingly, there was no significant change in the percentage of problem users either for the group of 12-month users or for the entire sample group. No statistically significant effects can be seen in the gender specific analysis either. However, notable differences can be seen in the varying types of school. There were no changes in respect of intermediate secondary schools (Realschule) and grammar schools (Gymnasium), which was similar to the sample group as a whole. In contrast to that, the proportion of adolescents in comprehensive schools (Gesamtschule) who developed problems as a result of their use of cannabis fell considerably (2.6 % vs. 0.4 % in the sample as a whole; 13.7 % vs. 2.2 % amongst users). A completely different development was observed in respect of secondary general schools (Hauptschule) where the prevalence of problematic cannabis use increased from 0.7 % to 2.9 % (overall sample) and from 5.0 % to 17.0 % (users).

The lifetime prevalence of the use of illegal drugs except for cannabis has remained unchanged since 2003 (10.5 % vs. 8.9 %). Differences in the development over time of consumption behaviour could be seen in respect of ecstasy and magic mushrooms whose lifetime prevalence rates displayed a decreasing trend between 2003 and 2011. In contrast to this, an increase in male cocaine users in comparison to 2003 was witnessed. The increase of gamma-hydroxybutyrate (GHB) use across all subgroups between 2003 (0.2 %) and 2007 (2.4 %) did not continue after that.

### ***Drug affinity study of the Federal Centre for Health Education, BZgA (DAS)***

The results of the most recent DAS were comprehensively reported in the REITOX Report 2012. Based on the results of the current DAS (BZgA 2012b), the use of illicit drugs, in relation to the group of all adolescents and young adults in Germany, is still largely determined by the use of cannabis. The role played by ecstasy, LSD, amphetamine, cocaine, crack, heroin, inhalants or psychoactive plants is much less significant than cannabis. This applies for the 12-17 year olds and the 18-25 year olds overall, as well as for the male and female respondents in these age categories.

The proportion of adolescents and young adults who have used cannabis at least once in their lives (lifetime prevalence) is slowly changing in Germany. After an initial stagnation and then a slight reduction in lifetime prevalence from 1979 to 1986, the proportion of 12-17 year olds who have tried cannabis at least once in their lives has risen continuously from a level of 3.3 % (1986) to 15.1 % in 2004. In this period, an increase could also be seen amongst 18-25 year old young adults, which was particularly sharp between 1997 (25.2 %) and 2004 (43 %). In 2004, the lifetime prevalence of cannabis use in both groups reached record levels.

In the case of adolescents, the lifetime prevalence reduced significantly thereafter, falling to just 6.7 % in 2011. This effect is due to there being a new generation without any experience

of use. In the case of young adults, the lifetime prevalence of cannabis use has also fallen and was significantly lower in 2011 than in 2004 – even if the lower levels of 2010 are currently not being matched.

Young men and women of the ages 18 to 25 show a similar trend pattern to the overall group, however, on a different level. In the 1990s, an increase in the lifetime prevalence of cannabis use begins for young adults of both sexes. The highest levels of cannabis use experience for male and female 18-25 year olds was evident in the year 2004. The values for lifetime prevalence from the 2011 survey remain for young men at 2004 levels, for young women, however, the current value is significantly lower than in 2004.

From an overall perspective, the development of various indicators of cannabis consumption for the last few years has shown a decline amongst adolescents in Germany. Regular cannabis use is currently, according to 2011 findings, at 0.8 % of all 12-17 year olds. In the studies from 1993 to 2007 the respective percentage values are statistically significantly higher. Amongst young adults from 18-25 years old, the 12-month and 30-day prevalence rates, as well as the regular cannabis consumption rate, do not follow the lifetime prevalence over time.

The sharp increase shown by the lifetime prevalence of cannabis use from 1993 to 2004 has not been observed in the other indicators (12-month, 30-day). That means that an increased tendency to try drugs did not lead to an increase in current and regular consumption. In contrast to the group comprising adolescents (12-17 year olds), the lifetime prevalence indicator amongst young adults (18-25 year olds) more often shows a cannabis use which is a few years in the past (Figures 2.1 and 2.2 of the REITOX Report 2012).

The results of “Risky drug use in adolescents: an issue for municipalities. Results of the 2nd Delmenhort School Study on Alcohol, Tobacco and PC consumption”, presented in the last REITOX Report (2012), have since been published by the Hochschule Emden/Leer (Fietz et al. 2013).

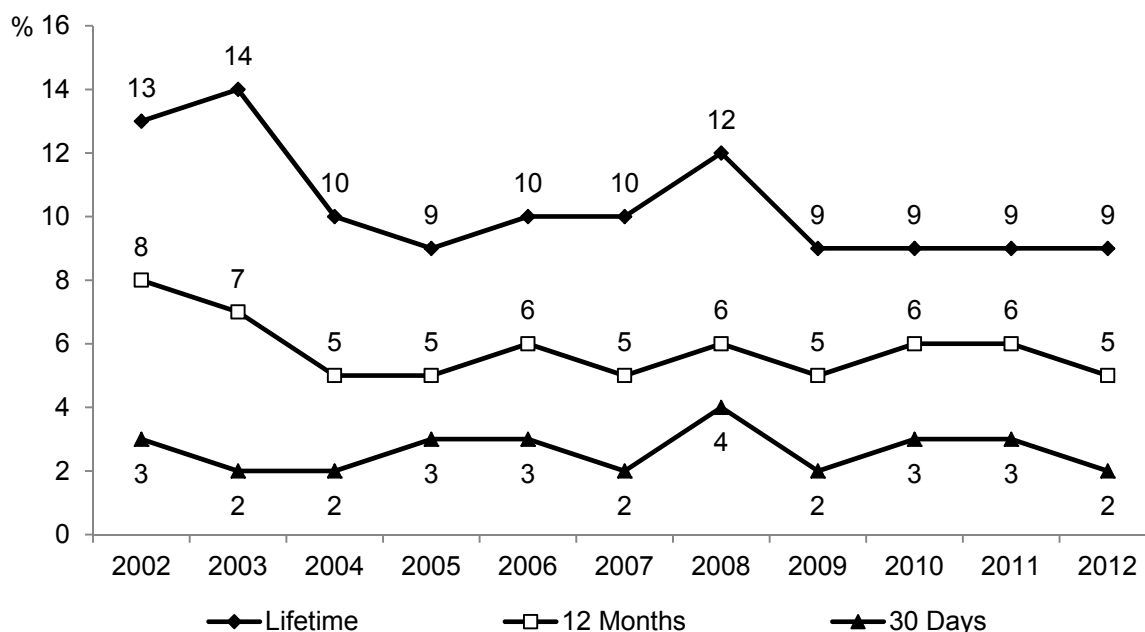
## **Data from the Laender and the regional monitoring systems**

### ***Frankfurt (MoSyD)***

In 2012, as in the previous two years, 9 % of 15-18 year old Frankfurt school pupils reported experiences with at least one illegal drug<sup>30</sup> apart from cannabis (Figure 2.3). The 12-month prevalence was in 2012 also comparable to that of the previous year, as was the 30-day prevalence. Overviews of the lifetime and 12-month prevalence rates for the use of individual substances are shown in Tables 2.4 and 2.5.

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<sup>30</sup> Summary of the substances: psychoactive mushrooms, ecstasy, speed, cocaine, LSD, crack, heroin, crystal and GHB.



Bernard et al. 2013.

Figure 2.3 12-month and 30-day prevalence of the use of illicit drugs (except cannabis) among Frankfurt students aged between 15 and 18; 2002-2012 (MoSyD)

Amongst Frankfurt school pupils, inhalants continue to be relatively widespread despite a general downward trend since 2007 (Tables 2.4 and 2.5): 10 % of 15 to 18 year olds have tried inhalants at least once. For laughing gas and for speed the proportion is 5 %, for psychoactive mushrooms, cocaine and ecstasy it is 4 %. For LSD, the lifetime prevalence is 3 %, for GHB/GBL it is 2 % and for crystal (methamphetamine) and for crack it is 1 %. Heroin had been consumed by less than 1 % of respondents.

A total of 9 % have had experiences of consuming at least one of the so-called “hard drugs” (in summary: magic mushrooms, ecstasy, speed, cocaine, LSD, crack, heroin and GHB/GBL).

Referring to the last 12 months, 5 % of 15 to 18 year olds reported consuming solvents, 3 % consumed speed in this period and 2 % consumed laughing gas, magic mushrooms, cocaine or ecstasy. All other substances had 12-month prevalence figures of 1 % maximum. In total, 5 % of people had consumed at least one “hard drug” in the preceding year.

Table 2.4 Lifetime prevalence of a range of substances (%) in the 15 to 18 year old age group in the year after the survey (MoSyD)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Sig.
Inhalants	17	17	21	14	15	17	15	16	13	14	10	***
Laughing gas	5	5	3	6	5	5	5	6	6	5	5	n.s.
Cocaine	4	5	4	4	5	4	6	3	4	3	4	n.s.
Psych. mushrooms	8	9	5	4	6	5	5	4	4	4	4	***
Speed	5	5	4	3	5	4	5	3	6	6	5	**
Ecstasy	5	5	3	3	4	3	3	3	3	3	4	**
LSD	3	3	2	2	3	2	2	2	3	3	3	n.s.
Crack	1	2	1	2	1	2	1	2	2	1	1	n.s.
Crystal	a	a	a	a	a	1	1	1	1	1	1	n.s.
Heroin	1	1	1	1	1	1	<1	<1	1	<1	<1	*
GHB/GBL	<1	1	1	1	<1	1	1	<1	1	<1	2	*
Hormonal drugs	a	a	3	4	2	3	4	3	3	3	1	*

<sup>a</sup> Not collected.

Bernard et al. 2013.

Table 2.5 12-month prevalence of a range of substances (%) in the 15 to 18 year old age group in the year after the survey (MoSyD)

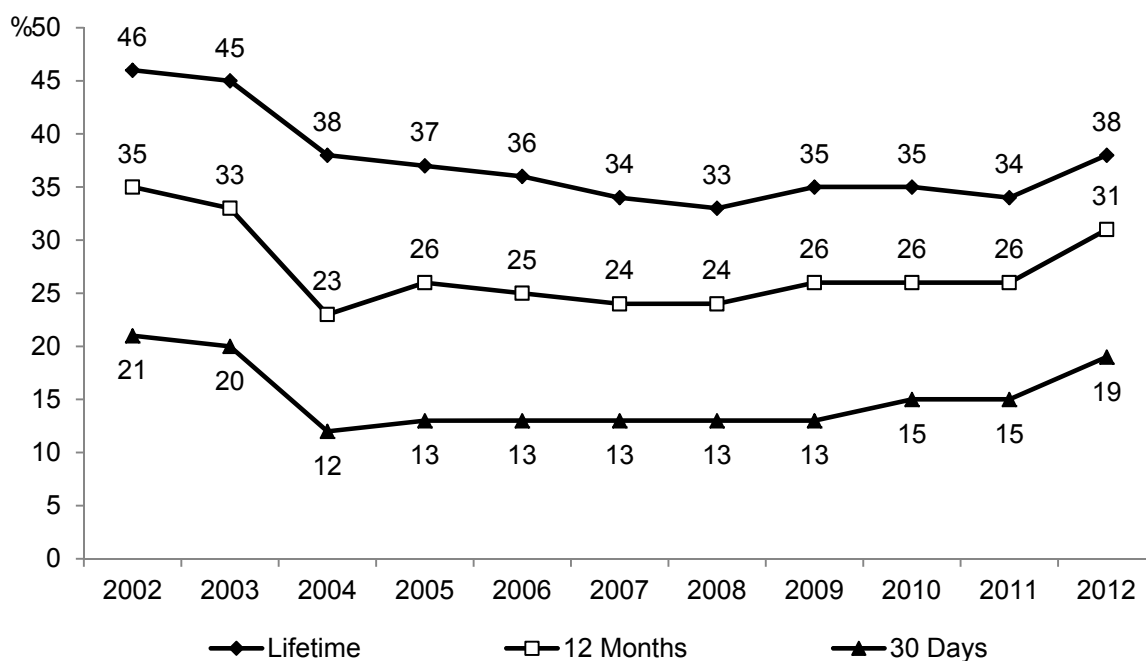
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Sig.
Inhalants	7	7	8	7	7	9	8	8	6	8	5	n.s.
Laughing gas	2	2	1	1	1	2	2	3	2	2	2	n.s.
Cocaine	3	3	2	3	2	2	3	2	3	2	2	n.s.
Psych. mushrooms	4	4	2	2	3	2	2	1	1	3	2	***
Speed	3	2	2	2	3	2	4	2	3	4	3	**
Ecstasy	3	2	1	1	2	2	2	2	2	2	2	n.s.
LSD	1	1	1	1	2	1	1	1	1	1	1	n.s.
Crack	1	1	<1	1	1	1	1	1	1	<1	<1	n.s.
Crystal	a	a	a	a	a	1	1	1	<1	1	<1	n.s.
Heroin	<1	<1	<1	<1	<1	1	<1	<1	<1	0	<1	n.s.
GHB/GBL	<1	<1	<1	<1	<1	1	1	<1	1	<1	<1	n.s.
Hormonal drugs	a	a	2	2	1	2	2	2	2	1	1	n.s.

<sup>a</sup> Not collected.

Bernard et al. 2013.

In relation to cannabis consumption in Frankfurt school pupils, it is evident that after an initially marked reduction up to 2008, and a period characterised by mild fluctuations in the years that followed, lifetime prevalence of cannabis consumption among Frankfurt school pupils has recently risen by four percentage points, thereby putting it over the key rate for the preceding seven years (Figure 2.3). After a considerable drop in 2004 and extremely stable values in the following years the 12-month prevalence levels also rose comparatively clearly in 2012 – by five percentage points. A slight upward trend was already evident in the 30-day prevalence figures in the preceding two years, following a low point in 2004 and almost completely consistent values in the following years. This value has once again risen in recent times, meaning it has almost reached the high values of the two initial years.

After data from recent years that may have indicated a stagnation in cannabis consumption, the latest trends from Frankfurt's school pupils indicate an increase once again. This can also be seen among the heavy users (at least 10 times in the previous months) – in comparison to the previous year, the corresponding proportion increased once again by three percent to its current level of 7 %; this proportion is thus almost as high as in the first few years of the survey. However, the proportion of individuals who had used the drug a maximum of 9 times in the preceding month only increased by one percentage point.



Bernard et al. 2013.

Figure 2.4 Lifetime, 12-month and 30-day prevalence of cannabis use among Frankfurt students aged between 15 and 18 years old; 2002-2011 (MoSyD)

Since 2008, school pupils have also been asked about their consumption of so-called herbal smoke blends; since 2010 use of other so-called legal highs has been surveyed. In the current 2012 study, 7 % of the 15 to 18 year olds surveyed had consumed a herbal smoke blend at least once in their lives, 2 % in the preceding 30 days. Likewise, 2 % had consumed

a product of this kind more than 5 times in their lifetime. There are no significant differences between the different age cohorts. Only 27 % of those who had ever consumed a herbal smoke blend had tried a product of this kind on more than five occasions, and only 17 % (1 % of all 15 to 18 year olds) were “experienced users” who had consumed these substances on more than 10 occasions. In response to the questions about legal high products (in addition to “bath salts” and “plant foods” the question also mentioned “research chemicals”/RCs as examples), 2 % of those questioned admitted having tried a substance of this nature on at least one occasion. Only three of those questioned had also taken other legal highs in the last month, and four had taken these products more than five times in their lifetime.

Once again, the answers to these questions about the consumption of legal highs or research chemicals should be viewed with a certain degree of circumspection. Only five of the 24 people who claimed to have consumed these chemicals responded to an open question about the substance consumed, i.e. “bath salts”, by mentioning a product or substance that is at all part of the legal high/RCs group of chemicals in the strictest sense. Seven apparently experienced consumers mentioned medications with potential for abuse such as Ratiopharm<sup>®</sup> cough syrup (Dextromethorphan/DXM) or Ritalin<sup>®</sup> (Methylphenidate). In individual cases the names of herbal smoke mixtures were provided as well as LSA<sup>31</sup> or rosewood seeds and yopo seeds (both natural, legal hallucinogens). Taking this into consideration, the lifetime prevalence of other legal highs or RCs in the strictest sense was only 0.5 %. These answers confirm that there is evidently a large degree of uncertainty about the term “legal highs” among the adolescents surveyed.

The authors of MoSyD come to the conclusion that herbal smoke mixtures and other so-called “legal highs” are not only primarily tried by those who also have experience with illegal drugs, but very often by those who have more extensive experience with drugs and by current consumers. In summary, it is possible to state that the general prevalence of legal highs in 2012 in Frankfurt was almost unchanged. The proportion of those who have had experiences of consuming drugs remained the same and as before only very few school pupils regularly or currently consume herbal smoke mixtures or other so-called “legal high” products. In a trend that was similarly unchanged, so-called herbal smoke mixtures were much more frequently tried than “bath salts”, “research chemicals” or similar substances, which only played an extremely marginal role among adolescents in Frankfurt.

The results of the trend scout panel also indicate that the so-called “legal highs” only have a marginal significance in Frankfurt. Smoking mixtures with synthetic cannabinoids only have a minor importance in terms of demand in comparison to conventional cannabis products; however they play the largest role amongst available legal high products. Further research chemicals in the area of “party drugs” have up until now only obtained a limited resonance in extremely specific scenes which are especially open to experimentation. The bulk of users continue to rely on the offers of the illegal market structures, giving reasons such as,

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<sup>31</sup> LSA (d-lysergic acid amide) also known as Ergine.



amongst other things, lack of experience with RCs, the associated risk and the relatively uncharted nature of the substances, for example in relation to risk minimising practices. Only individual cases were reported from drug assistance facilities, cases in which clients had ordered synthetic drugs on the internet. The Frankfurt police force also sees no noticeable indication of a developing trend in the area of legal highs.

### ***Hamburg Schulbus – (Hamburg School Bus Project)***

The data collected for the fifth time in 2012 on the consumption prevalence for narcotics among adolescents between 14 and 17 years of age and the conclusions that can be drawn from this have established themselves as an indispensable instrument in managing drug policy measures aimed at addiction prevention in Hamburg. 2013 saw the publication of the summary report of the 2012 School Bus survey, which presented the first descriptive results of the 2012 survey and compared the survey data with that of the previous year (Baumgärtner & Kestler 2013). The surveys, which were conducted in schools, selected based on theoretical sampling, were administered to classes of school pupils from the 8<sup>th</sup> class upwards (cluster sampling)<sup>32</sup>. The lifetime prevalence of various addictive substances, which is an expression of their availability and as an indicator of the readiness of adolescents to experiment, has exhibited a downward trend for legal drugs and, since 2009, a slight upward trend in consumption prevalence for illegal drugs. Following a decline between 2004 and 2007 and relative stagnation in 2009, the lifetime prevalence of cannabis consumption rose again in 2012 (Table 2.6). The same applies to the prevalence of consumption of other illegal drugs. Comparable trends can also be observed for the 30-day prevalence of consumption of cannabis and other illegal drugs. The steepest rises in the last five years of those surveyed are the proportions of males and of 16 to 17 year old adolescents who reported having consumed cannabis. The rise in the consumption prevalence for cannabis is likely to be connected, to a not insignificant extent, with a similarly observed increase in tobacco consumption. As a result of the similarity in how they are used, it is mainly tobacco users who have an above average consumption rate for cannabis. While few of those who have never smoked and adolescents who have at most tried tobacco are cannabis consumers, almost a third (31 %) of current smokers and nearly a half (48 %) of regular tobacco users admit to having used hashish and/or marijuana at least once in the last 30 days.

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<sup>32</sup> The survey used highly standardized, tablet-PC supported questionnaires. Thematically, this survey contained all the items contained in previous surveys to gather basic data on the consumption of addictive substances and fundamental social statistics. Survey teams, made up of student assistants who had been trained in advance by the Office for Addiction Prevention, were responsible for on-site substantive and organisational management. The fieldwork phase in Hamburg took place directly after the 2012 summer holidays and was completed after approximately three months.

Table 2.6 Lifetime and 30-day prevalence of consumption of cannabis and other illegal drugs, 14 to 17 year old school pupils in Hamburg, 2004-2012

	2004	2005	2007	2009	2012
<b>Lifetime prevalence</b>					
Cannabis	38.0	35.0	22.7	23.6	29.3
Other illegal drugs	10.2	10.3	5.8	3.9	7.3
<b>30-day prevalence</b>					
Cannabis	16.7	15.5	9.0	11.3	16.9
Other illegal drugs	3.4	4.8	2.2	0.9	2.2

Baumgärtner & Kestler 2013.

That the willingness of younger adolescents to experiment with cannabis seems, however, to have declined is confirmed by figures on the trends in age of first consumption. The average age of first consumption of cannabis has been rising continually since 2005 (2005: 13.7 years old) and is currently at 14.8 years of age. The importance of the efforts to raise the age of first consumption of narcotics is, according to the authors, clear when one examines the consumption patterns of adolescents in relation to their age of first use of various substances. For cannabis consumption (and also for alcohol and tobacco), among the 16 and 17 year olds of today who had already had relevant consumption experiences at the age of 13 or younger, there are markedly higher proportions of regular consumers today than among adolescents of the same age who only began to consume cannabis (or alcohol and tobacco) later.

In comparison to hashish and marijuana, other illegal drugs apart from cannabis only play a subordinate role. Table 2.7 provides an overview of the lifetime prevalence of a range of addictive substances. Those listed from cocaine onwards have been summarised in the following overviews within the overarching category, "other illegal drugs". It is evident that following the high point reached in the mid-2000s, the lifetime prevalence of these illegal drugs more than halved from 10 % to 4 % in 2009. In the survey year 2012 it rose again to a solid 7 %.

Table 2.7 Lifetime prevalence of a variety of addictive substances among adolescents in Hamburg, 2004-2012

	2004	2005	2007	2009	2012
Inhalants			8,7	8,3	7,2
Herbal mixtures				4,8	3,3
Cocaine	4,5	4,2	3,2	1,9	3,2
Amphetamines	3,1	3,9	2,2	1,3*	2,5
Mushrooms	4,0*	4,1*	2,5	1,5	2,1
Ecstasy	4,1**	4,5**	2,3	1,5	2,0
LSD	2,2	2,7*	1,2	1,0	1,3
Research chemicals					1,2

The % proportions marked with a \* in the previous years differ significantly from the reference year of 2012 with values of \* $p < 0.05$ ; \*\*  $p > 0.01$  and \*\*\* $p < 0.001$ .

Baumgärtner & Kestler 2013.

When one considers the 30-day prevalence figures, which document the recent experience of young people with illegal drugs (except cannabis), there is also an increase in the 2012 data in comparison to the 2009 data. But at a total of 2 %, the proportion of current consumers of illegal drugs among adolescents in Hamburg remains at a moderate level.

In addition to collecting information on prevalence, the School Bus survey 2012 also contains a range of other data that was combined with substance consumption data, i.e. immigrant background, social status, relationships with third parties or situation at school.

### **Saarland**

At the end of the 2009/2010 school year, the Criminological Research Institute of Lower Saxony (KFN) conducted a representative study in Saarland among school pupils in the fourth and ninth classes on the subject of delinquent behaviour and the factors influencing it; as part of this there was an analysis of police criminal statistics. The report was published in 2012 (Baier & Rabold 2012)<sup>33</sup>. In addition to countless other indicators, data was also collected on substance use among children and adolescents. Of the adolescents surveyed in Saarland, 23.6 % admitted to drinking alcohol at least once a month; at national level it was 22.8 %. So-called binge drinking (the consumption of at least five alcoholic drinks in one sitting) was practised by 53.6 % of adolescents in Saarland in the previous month (National level: 53.9 %). In comparison to legal drugs, illegal drugs are consumed much more rarely. Of those who had ever consumed these drugs, most limited themselves to occasional consumption (one to 12 times per year). For cannabis consumers, this applies to 11.3 %; for

<sup>33</sup> <http://www.kfn.de/versions/kfn/assets/fob120.pdf>. In the context of the survey 691 children (average age: 10; total population: 8,665 school pupils) and 2,096 (average age: 15; total population: 10,102 school pupils) were reached. The samples were designed in such a way that all school types were included (with the exception of special schools with focuses other than learning) and that representative statements on the six regions in Saarland are possible. The return rates for both cohorts, at 48.8 % and 59.1 % respectively, were below average; at the same time these rates are still higher than those obtained using other methodological approaches.

consumers of “hard” drugs the figure was 3.3 %. Only 3.4 % of cannabis users consumed the drug more frequently; for the “hard” drugs this applied to 0.8 % of the adolescents surveyed.

### Summary and trends

Tables 2.8 and 2.9 summarise the results of currently available studies on the prevalence of use of illegal drugs and cannabis amongst adolescents and young adults.

For the first time in several years, the data from the regional monitoring systems (Frankfurt and Hamburg) point to a stagnation or even a turn around in the decreasing trends in the consumption of illegal substances that have been observed for many years (primarily: cannabis) among young people. The data from the Hamburg School Bus survey and from the Frankfurt MoSyD indicate that a group of more experienced and older individuals is involved and that the openness to experimentation, in particular among the younger age groups, remains at a low level. Clearly, attempts to reach the target group of “regular” consumers are still not being met with sufficient success, although there are indicators that the established prevention programmes and services are having success in raising the age of first consumption further. Particular attention should be paid to the connections between cannabis consumption and smoking behaviour. The relationship has been well known for many years and has repeatedly been described elsewhere. The prevalence of so-called “legal highs” and related products seems to be unchanged and relatively low. Nonetheless, they seem to have established themselves as a permanent fixture in the drug scene. Gathering epidemiological data on this segment is associated with significant difficulties and will certainly be a subject of study in future against the backdrop of changing consumption patterns. From the data it is also clear that considering individual substances in isolation without considering consumption patterns and other relevant (e.g. social) data is not sufficient if we are to adequately describe the emergence and maintenance of illegal substance consumption.

Table 2.8 Prevalence rates for the use of illicit drugs except cannabis (exception: BZgA) among school populations and adolescents in various German studies

Source <sup>1)</sup>	Year	Age group	Region	Prevalence (%)		
				30 Days <sup>2)</sup>	12 Months	Lifetime
BZgA	2011	12-17	National	0.4	1.0	1.8
BZgA	2011	18-25	National	1.0	2.8	9.1
BZgA	2008	12-17	National	0.6	2.0	2.7
BZgA	2008	18-25	National	0.9	2.9	9.2
BZgA	2004	12-17	National	0.1	1.6	2.6
BZgA	2004	18-25	National	0.5	3.1	11.2
ESPAD	2011	15-16	5 Laender			8.9
ESPAD	2007	15-16	7 Laender			10.1
ESPAD	2003	15-16	6 Laender	3.8	8.3	12.3
MoSyD	2012	15-18	Frankfurt	2	5	9
MoSyD	2011	15-18	Frankfurt	3	6	9
MoSyD	2010	15-18	Frankfurt	3	6	9
MoSyD	2009	15-18	Frankfurt	2	5	9
MoSyD	2008	15-18	Frankfurt	4	6	12
MoSyD	2007	15-18	Frankfurt	2	5	10
Schulbus	2012	14-17	Hamburg	2.2		7.3
Schulbus	2009	14-17	Hamburg	0.9		3.9
Schulbus	2007	14-17	Hamburg	2.2		5.8
Schulbus	2005	14-17	Hamburg	4.8		10.3
Schulbus	2004	14-17	Hamburg	3.4		10.2

1) BZgA: cannabis, heroine, cocaine, amphetamine, ecstasy and LSD. Data on use of "illegal drugs excluding cannabis" is not available before 2008. The presented data from the year 2004 is 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. The results depicted differ from those of the previous year and are based on a re-analysis of the data (Baumgärtner & Kestler 2013).

2) Corresponds to "present use" (BZgA until 2008) or respectively "current use" (Schulbus).

Table 2.9 Prevalence rates for the use of cannabis among school populations, adolescents and young adults in various studies

Source	Year	Age group	Region	Use in Period ( %)		
				30 Days <sup>1)</sup>	12 Months	Lifetime
HBSC	2010	15	National <sup>2)</sup>		7.4	
HBSC <sup>3)</sup>	2006	15	5 Laender	7.1/4.3	10.6	18.1/13.8
HBSC	2002	M=15.7	4 Laender		17.5	24.0
KiGGS <sup>3)</sup>	2003-2006	11-17	National		9.2/6.2	
BZgA	2011	18-25	National	5.4 (3.3) <sup>4)</sup>	13.5	39.2
BZgA	2011	12-17	National	1.9 (0.8) <sup>4)</sup>	4.6	6.7
BZgA	2010	18-25	National	5.3 (3.2) <sup>4)</sup>	12.7	35.0
BZgA	2010	12-17	National	1.7 (0.2) <sup>4)</sup>	5.0	7.4
BZgA	2008	18-25	National	4.5	11.6	40.9
BZgA	2008	12-17	National	2.6	6.6	9.6
BZgA	2007	18-25	National			
BZgA	2007	12-17	National	2.3	5.9	9.0
BZgA	2004	18-25	National	6.1	15.2	43.0
BZgA	2004	12-17	National	2.4	10.1	15.1
ESPAD <sup>5)</sup>	2011	15-16	5 Laender	8.1	17.4	22.2
ESPAD <sup>5)</sup>	2007	15-16	7 Laender	8.1	17.2	25.2
ESPAD	2003	15-16	6 Laender		24.0	31.0
MoSyD	2011	15-18	Frankfurt	15	26	34
MoSyD	2010	15-18	Frankfurt	15	26	35
MoSyD	2009	15-18	Frankfurt	13	26	35
MoSyD	2008	15-18	Frankfurt	13	24	33
MoSyD	2007	15-18	Frankfurt	13	24	34
Schulbus	2012	14-17	Hamburg	16.9		29.3
Schulbus <sup>6)</sup>	2009	14-17	Hamburg	11.3		23.6
Schulbus <sup>6)</sup>	2007	14-17	Hamburg	9.0		22.7
Schulbus <sup>6)</sup>	2005	14-17	Hamburg	15.5		35.0
Schulbus <sup>6)</sup>	2004	14-17	Hamburg	16.7		38.0

1) BZgA (DAS 2004: 30 days = "present"), Schulbus (30 days = "current use").

2) Except for Baden-Württemberg.

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

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

5) 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.

6) The results depicted differ from those of the previous year and are based on a re-analysis of the data (Baumgärtner & Kestler 2013).

When comparing the data, the following should be taken into account:

- The age groups surveyed by the individual studies are not identical.
- There are no separated prevalence rates available for the BZgA data until 2008 for “illegal drugs excluding cannabis”.
- ESPAD and HBSC were only conducted in some of the 16 Laender (HBSC 2010: All Laender except Baden-Württemberg).
- Some of the divergences in the prevalence estimates may also be attributable to different methods used (telephone vs. class supported questionnaires) or different wording in the questionnaires.

Details on surveys in the population are contained in Online Standard Table 2, on youth surveys in Standard Table 30.

After the considerable increase of the prevalence rates for cannabis use from around the mid-1990s onwards, the most recently presented study findings give the impression of a certain easing with regard to the use and spread of cannabis, especially among adolescents and young adults.

Prolonged changes in the use of other substances have not been reported recently. However, there are still significant regional differences to be observed in the use behaviour and characteristics of the markets (e.g. prices and/or purity levels of various substances).

Moreover, individual substances or groups of substances (e.g. GHB/GBL, methamphetamines, biogenic drugs and tilidine) have repeatedly come to be the focus of attention, often in connection with intense media reporting. It is a problem that regular monitoring systems are not available (exception: Frankfurt) for all of these substances. Moreover, some of the appearances of these substances are transitional phenomena that cannot be necessarily taken as indicators of prolonged changes in patterns of use.

In connection with the use of illegal substances by teenagers and young adults it is important to note that the use of illegal and legal substances (especially alcohol and tobacco but also medical drugs) is often closely linked so that important developments may possibly be neglected when looking at the use of illegal substances in an isolated manner.

### **More results from the MoSyD Frankfurt's Trendscout Panel**

In most scenes, cannabis is described as easy to obtain at a relatively high quality. The trend towards growing one's own cannabis has apparently continued apace.

Although cocaine is accorded a lower importance in the electronic dance scene, it is still considered in these contexts to be the most commonly used drug besides cannabis. The availability and the specific prevalence rates differ considerably between the individual scenes. As before, the high price is typically given as a reason for why the drug is for the most part consumed rarely.

Amphetamine remains the most used illegal drug in the electronic music oriented party scene and is described as inexpensive and readily available. The popularity of ecstasy tablets in these social scenes has once more substantially increased.

The prevalence of LSD and magic mushrooms is limited to a large extent to small, experienced groups of consumers. The consumption of GHB/GBL also seems to be limited to a few subgroups, although negative user experiences have led to a reduction in the frequency and intensity of consumption.

## 2.4 Drug use among targeted groups

### 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 services 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 access to the health care system (Walter et al. 2007).

Studies analysing 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 services by patients with a migrant 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 not possible to convey medical terms or everyday conceptions beyond merely linguistic notions without taking into account the respective cultural context and related connotations of language. More recent studies on the therapy of people with substance abuse disorders and a migration background can also be found in chapter 5.

Data from the Frankfurt MoSyD show that a comparison of adolescents from Muslim parent households with other adolescents of the same age, those with a Muslim background use cannabis and illegal drugs much more rarely. In the last ten years, a type of “polarisation” has occurred whereby a growing group amongst Muslim adolescents exists who have never consumed any legal or illegal drugs. At the same time, the group of those who regularly consume such substances has remained roughly the same size.



### **(Techno) party scenes**

The use of amphetamine, which has displaced cannabis as the most commonly consumed illegal drug in the techno/house milieu, continues to be ranked as high in the most recent results of the Trendscout survey (see above) (Bernd et al. 2013). Speed has the most positive image among the synthetic drugs and is also the most commonly consumed. Within techno/house circles, cannabis in particular is accorded a slightly lower importance in comparison to 2011. The trend, reported in the last reporting year, indicating a wider range of ecstasy tablets on offer with a higher MDMA content has continued in 2012. Alongside this, a more or less consistent supply of MDMA crystals and powders are reported. As a result of this, its image has further improved: in the electronic dance scenes ecstasy is now ranked second in the list of the most commonly consumed illegal substances. In comparison to the established synthetic drugs, cocaine is accorded a markedly lower level of importance. Consumption of ketamine increased again slightly in 2012 according to the trend scouts, however, the prevalence was as before almost exclusively associated with scenes connected to electronic music. Many trend scouts reported on lower inhibitions in relation to consumption of the dissociative narcotic throughout the reporting year. Overall however, a temporary reduction in the supply was noted at the end of the year.

### **Open drug scene – Frankfurt am Main**

In 2013, “Scene Study 2012”, the most recent report from MoSyD, provided information on the open drug scene in Frankfurt am Main (Bernard & Werse 2013). According to this, following an increase in the previous year of 2012, the average age fell again slightly to 37.2 years of age, making it higher than in all years before 2010 and around 10 years over the 1991 values. At 32 %, the proportion of those surveyed who do not hold German nationality was the highest to date. The situation regarding education and professional training was markedly more positive than in 2010; three fifths of those surveyed had a qualification of some kind. The employment situation of those surveyed had only slightly improved, although at 77 %, the unemployment rate was the lowest to date.

As was the case in previous years, heroin and crack were the most frequently consumed drugs in the street scene by far. Almost all of those surveyed had experiences of using these drugs; around two thirds had consumed heroin in the last 24 hours and three quarters had consumed crack. This means that heroin consumption is at the same level as in 2010, whereas current crack consumption levels have increased since 2008. Men surveyed injected crack more frequently, while women more commonly smoked the cocaine derivative. A clear change in relation to illegally traded benzodiazepines was evident in 2012: only one fifth of those surveyed had used these substances in the last 24 hours. In 2010 these values were more than twice as high. The authors link this shift first and foremost to the complete regulation of flunitrazepam under the Narcotics Act (BtMG), which has apparently seriously reduced the availability of this medication in the street drug scene. It seems that only a minority of consumers switched over to the much more freely available and considerably cheaper drug diazepam.

The downward trend in the use of powder cocaine observed in the previous year has been reversed: the 30-day (currently 45 %) and 24-hour prevalence (11 %) are once again at 2008 levels. Increases – albeit small and at a low level – have also been observed in the proportion of those surveyed who had consumed substitution medications which were not prescribed at the time: in the last 30 days, 12 % had consumed illegally sold methadone and 7 % had consumed illegally traded buprenorphine; only very rarely had such substances been consumed in the last 24 hours. Cannabis consumption has risen again; currently 27 % of those surveyed had consumed the drug in the last 24 hours. More than two fifths had consumed alcohol in this period. Therefore, as in previous years, the majority of scene members displayed a polyvalent consumption pattern.

Intravenous consumption takes place very predominantly in consumption rooms whose importance as locations for intravenous consumption has increased in recent years, reaching the highest values of all the surveys – three quarters of those surveyed primarily inject here.

Only 4 % of those surveyed in the year 2012 reported being HIV positive. With this, the infection rate, which has fallen sharply since 1995, fell once again. However, the proportion of those with a current HIV test result fell in the year 2012. As far as risk behaviour in connection with intravenous consumption is concerned, the proportion of people who indicate not engaging in any risk behaviours (such as multiple uses of utensils) has increased to a current level of 69 %.

41 % of those surveyed, and therefore less than in the previous year, are currently receiving substitution treatment. More than three quarters of those in substitution treatment are receiving methadone; this proportion has fallen somewhat due to an increase in buprenorphine. On average those in substitution treatment have been in this form of treatment for a year. Those receiving substitution treatment take heroin markedly less frequently than those who are not in treatment. By contrast, there was no significant difference for crack consumption, as this has clearly risen among those receiving substitution treatment since 2008. Benzodiazepines were even more commonly consumed in 2012 among those in substitution treatment than by others surveyed.

In response to the (newly included) question on what (additional) support measures, which provide a daily structure, the persons surveyed would like to have access to, sports programmes were by far the most commonly listed measures, followed by employment support and a variety of other options. The most important aspect of these kinds of measures was the need for social contacts (outside the drug scene).

### **Addictive substance consumption among homosexual and bisexual men**

In 2012, Dirks and colleagues wrote a review of the literature on the consumption of addictive substances by homosexual and bisexual men. The proportion of men who have sex with men (MSM) among those newly infected with HIV has remained constant and high in many western industrial states: the consumption of addictive substances is associated with multiple risk behaviours for the transmission of sexually transmitted diseases. The consumption of addictive substances by MSM and its association with sexual risk behaviour is important for

the spread of HIV. To investigate this issue, the studies published since 1999 on the prevalence of addictive substance consumption by MSM were examined. According to this, most studies of this issue were conducted in the USA. The levels of alcohol consumption and alcohol-related disorders among MSM were generally comparable to the general population. There were higher prevalence rates among MSM for the consumption of illegal substances, in particular cannabis, amyl nitrate, hallucinogens, stimulants and cocaine. There are also sub-groups of MSM who intensively consumed so-called “club drugs” in the context of social activities. This consumption is associated with sexual risk behaviour. The authors recommend that the role of addictive substance consumption be considered as an important factor when developing target-group-specific interventions for the prevention of sexually transmitted diseases among MSM (Dirks et al. 2012).

## **2.5 Further research results and findings with a focus on diagnostics**

### **Methamphetamine consumption**

In the past year, the press has increasingly reported on the growing consumption of methamphetamine (e.g. *Süddeutsche Zeitung*, 14 August 2012; *Welt*, 22 April 2013; *faz.net*, 21 August 2012). There have been clear rises in seizures and first-time drug offences according to the law-enforcement authorities, which were not limited to the *Laender* bordering the Czech Republic (see Chapters 9 and 10). However, there is no reliable epidemiological data to date that could provide some insights into the use of methamphetamine in the general population. In 2013, the Federal Ministry of Health commissioned a study to address the motives of consumers of (meth-)amphetamine, however, the central question this study seeks to address is not epidemiologically oriented. The initial results of the study are expected in spring 2014. The German Monitoring Centre for Drugs and Drug Addiction (DBDD) has carried out its own study on methamphetamine consumption among outpatient addiction advice centres and their clients in the areas bordering the Czech Republic (Jakob et al. 2013a). In the second step, these results were compared with information from a comparative sample of addiction advice centres in the rest of the country (“PharMon sample”). According to the first results, there is a connection between requests for treatment due to consumption of methamphetamine and the geographic distance to the Czech Republic. However, this study addresses a population that has already come into contact with the support services. In addition, there are severe methodological limitations to the study, which demand great circumspection in interpreting the results. The DBDD is also currently analysing 250 more consumer questionnaires that were administered in various advice centres. The results are expected at the end of 2013. The results of the Frankfurt Trendsout Survey indicate that (as was already the case in 2011) the use of methamphetamine in Frankfurt was only common among certain groups of people in sections of the techno-party context and that supply is limited to a few scene dealers (Bernard et al. 2013).

### **“Legal highs” and new psychoactive substances**

The results of the current Trendscout study from the Frankfurt MoSyD indicate that “legal highs” play at best a marginal role in all the scenes investigated (Bernard et al. 2013). The same applies to “research chemicals”, which are only prevalent to a certain extent in specialised, experimentally oriented circles. The majority of partygoers were by contrast considered somewhat conservative in their consumer behaviour.

In 2012, Werse and Morgenstern presented the results of an online survey. The study presents information on so-called “legal highs” and new psychoactive substances (NPS) regarding their prevalence, usage patterns and motivations for consumption and discusses the possible consequences for drug and addiction policy (Werse & Morgenstern 2012). The results are based on a non-representative survey among German-speaking people who have experience in dealing with so-called “legal highs”. The authors come to the conclusion that the prevalence of consumption of “legal highs” in the various European countries differs considerably. According to the study the prevalence rates are lower than the lifetime prevalence rates for illegal drugs, although almost all users of “legal highs” have experience with other illegal substances. The authors differentiate between different user groups who respectively prefer different products. According to this, “herbal mixtures” are primarily used by a range of people to compensate for poor cannabis availability or to avoid the legal consequences. Those engaging with “research chemicals” are primarily experienced users who wish to expand their spectrum of experience. Werse and Morgenstern express the supposition that repressive drug policies are having a promoting effect on consumption of so-called legal highs as “replacement drugs”. In this regard they point to the unknown side effects of long-term consumption of NPS, which are at least as dangerous as the effects of the drugs they replace. In summary, they come to the conclusion that increased enforcement and repression-oriented drug and addiction policies pose a health risk to drug consumers and thereby can also endanger public health.

The IFT Institute for Therapy Research in Munich is carrying out research as part of the Federal Ministry of Health-supported project “PharMon” in cooperation with the MINDZONE addiction prevention project investigating new trends in substance misuse in the party scene. In the scope of this research, information on new substances and patterns of use amongst party goers is being collected as this population can be considered very knowledgeable and experienced in the use of such substances. Currently (September 2013), the study is in the data collection phase. This is expected to be finished in December 2013. The interpretation and evaluation of the results is planned for the start of the year 2014.

## 3 Prevention

### 3.1 Introduction

#### 3.1.1 Institutions involved and Organisational framework

The primary goal of prevention is to promote the health of the individual, maintain abstinence and to prevent abuse and addiction, or at least reduce it. 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 is one of the four main areas that the German addiction and drug policy is based on (cf. chapter 1.1.2).

The importance of prevention of addiction is also shown by the fact that the *National Strategy on Drug and Addiction Policy* (Die Drogenbeauftragte der Bundesregierung 2012b), with its specific measures and aims, is to be embedded in a wide-ranging prevention strategy.

The bodies responsible for the implementation of the *National Strategy on Drug and Addiction Policy* and for the associated 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 players 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 detail in chapter 2. This chapter will therefore only refer to a few particularly relevant aspects.

The study entitled “Juvenile Drug Affinity in the Federal Republic of Germany 2011”, from the Federal Centre for Health Education (Bundeszentrale für gesundheitliche Aufklärung, BZgA), examines the illegal substances of cannabis, ecstasy, LSD, amphetamines, cocaine, crack and heroin as well as inhalants and psychoactive plants, in addition to the consumption of alcohol and tobacco. In summary, a decrease in consumption comprising the whole range of addictive substances among 12 to 17 year old adolescents has been recorded between 2001 and 2004. Experience with and the consumption of illegal drugs among 18 to 25 year old young adults is more widespread. The cannabis consumption rates in this age group show a fluctuating trend: in 2011, lifetime prevalence was lower in comparison to 2004 but was, however, at a higher level than in 2010<sup>34</sup> (BZgA 2012b).

<sup>34</sup> Lifetime prevalence of cannabis consumption for 18 to 25 year olds:  
2004: 43.0 %; 2010: 35.0 %; 2011: 39.2 %

Lifetime prevalence of cannabis consumption for 12 to 17 year olds:  
2004: 15.1 %; 2010: 7.4 %; 2011: 6.7 %

Cannabis is the most frequently used illegal drug in Germany (BZgA 2012b). Overall, alcohol is the most widespread addictive substance whose consumption often contains risky forms of behaviour. Children and adolescents are particularly at risk due to the use of alcohol. The earlier they start drinking alcohol, the greater the risk that they damage their health and/or develop dependency later on (BZgA 2011a).

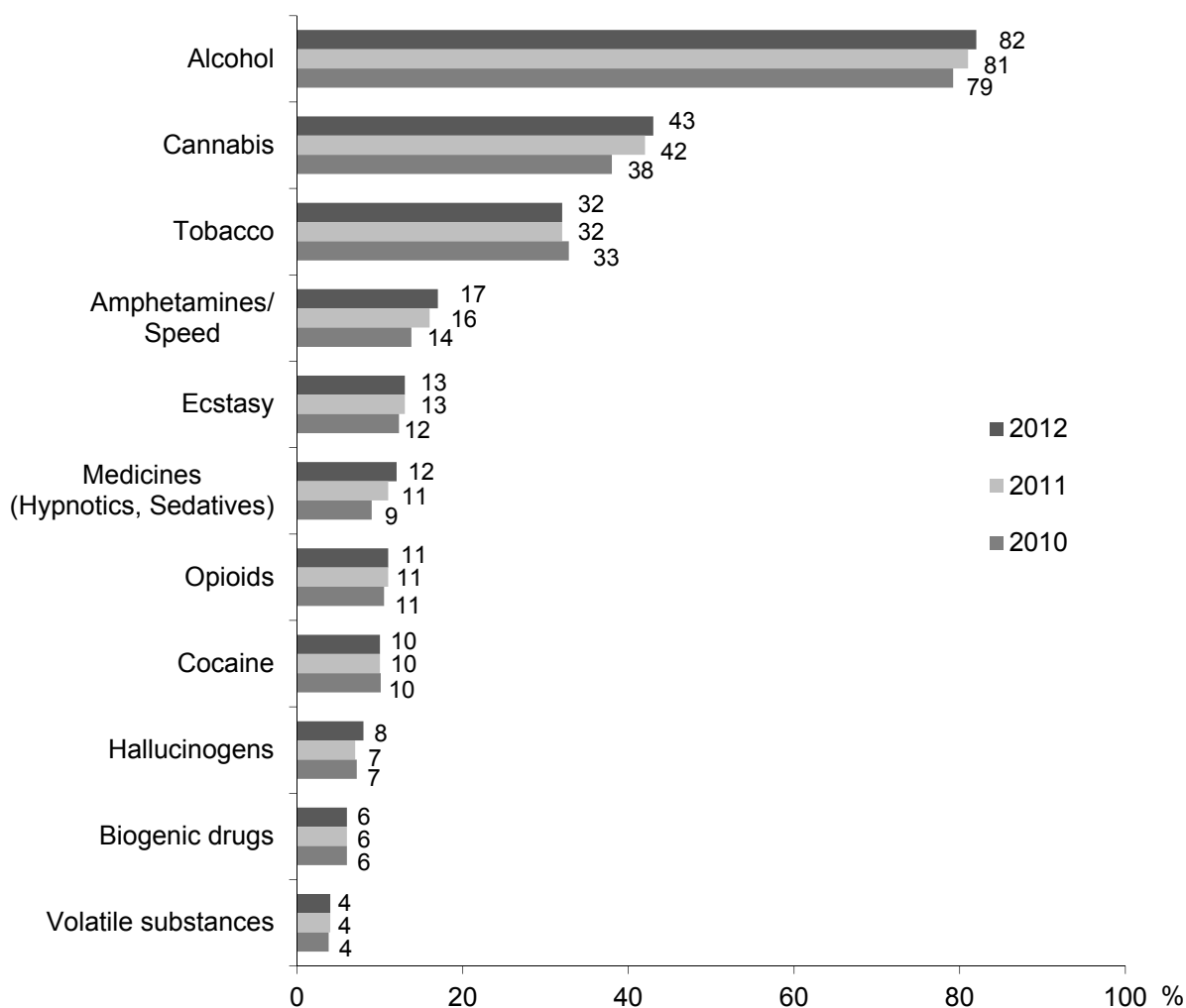
To promote low-risk alcohol-related behaviour and to decrease cannabis consumption, the specialist personnel offer a range of preventative measures related to specific substances. The data of the documentation system for addiction prevention, Dot.sys<sup>35</sup>, correspondingly shows a concentration of measures specifically related to the substances alcohol and cannabis (Figure 3.1).

Drawing on the data recorded with the Dot.sys documentation system, 43 % of measures raise cannabis as an issue whereas only 17 % are concerned with amphetamines. The relevant prevalence figures in the target groups are decisive for the design of addiction prevention measures for specific substances. However, there are regional particularities that should be observed. For example, a dramatic increase in recent years in the consumption of methamphetamine in crystalline form ("crystal") has been observed in the German-Czech border region (Saxony and Bavaria). In Saxony the services of addiction advice centres are now used predominantly by people who consume stimulants, who represent 41 % of the total demand for services. In 90 % of these cases, the substance consumed was crystal (Die Drogenbeauftragte der Bundesregierung 2013). In the year 2012 a further rise of the proportion of addiction support demand in Saxony is expected at levels of approximately 40 % (ibid.).

Despite the fact that cannabis consumption is falling overall among adolescents and young adults, it is necessary to make cannabis the focus of preventative measures in order to combat the persistently high consumption rates, above all among young adults. The positive development of substance use amongst 12 to 17 year olds will in future also be supported by suitable addiction prevention measures. Findings of the socialisation research and development psychology indicate that developments in adolescents are crucial for the following stages of life. By preventing young people from commencing substance use, positive effects can be obtained for adulthood: the less adolescents experience drugs, the less frequently they will consume drugs as young adults. Plans exist to expand the services on offer in the area of indicated prevention and to raise awareness of the existence of cessation support (such as [www.quit-the-shit.net](http://www.quit-the-shit.net)) and of local counselling centres (BZgA 2012b).

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<sup>35</sup> The monitoring system Dot.sys is the documentation system used in Germany's addiction prevention initiatives (cf. 3.1.3).



Number of prevention activities recorded in Dot.sys with respect to substances:

N (2012) = 19,942 N (2011) = 18,904, N (2010) = 16,373

Dot.sys 2012, own presentation.

Figure 3.1 Development of the substances addressed between 2010 and 2012

In comparison to the previous year, the proportion of substance related measures documented by dot.sys remained constant: 59 % of measures address one or more substances. In 2010 this figure was 48 %<sup>36</sup>.

The percentage breakdown of the substance-related measures in 2012 largely corresponds to the breakdown of the previous years (Figure 3.1). The proportion of addiction prevention measures related to alcohol as a substance continues to increase slightly: from 79 % to 81 % in the previous year to more than 82 % in 2012.

For 30 % of the measures it was stated that there was a gender-specific approach. In the years 2010 and 2011 the proportions were just 26 % in each year. However, more strictly considered it must be stated that specifically female (5 %) or specifically male approaches

<sup>36</sup> A specific substance relation was indicated in 2011 for 18,904 of the measures documented with Dot.sys. In 2010 there were 16,373. This increase lies in the change of input modality in the question based on the content reference: the category system was expanded from the single response in 2010 by the option of selecting multiple categories as an answer in the reporting year 2011.

(4 %) were almost equally prevalent, a rate that is almost unchanged. Only the proportion of activities that equally consider both genders rose from 17 % in the previous year to 21 %.

### 3.1.3 Effectiveness and efficiency in addiction prevention

Good examples of the central factors in the increase of effectiveness and efficiency of addiction prevention are evaluation, networking and transfer. In order to guarantee a structured and systematic exchange, in recent years structures have been successfully developed and cooperations agreed at various levels with almost all relevant addiction prevention contributors. Among these are, for example, the development of quality standards, the further development of existing quality assurance measures and the employment of recognised quality assurance instruments in addiction prevention. In this context, the BZgA-*Laender* cooperation association, “addiction prevention” (a cooperation between *Laender* authorities responsible for drug prevention and the BZgA), is equally as trend-setting as the events and experts’ meetings organised by the German Monitoring Centre for Drugs and Drug Addiction (Deutschen Beobachtungsstelle für Drogen und Drogensucht, DBDD), the BZgA, the German Centre for Addiction Issues (Deutsche Hauptstelle für Suchtfragen, DHS) as well as by many other players, and of course the monitoring system Dot.sys (documentation system used for addiction prevention), a joint project of the BZgA and the *Laender*. Against this backdrop, this report places a focus on evidence-based approaches. Working on behalf of the Federal Centre for Health Education (BZgA), the IFT compiled an expert report on the effectiveness of addiction prevention measures (Bühler & Thrul, in press). The National Strategy on Drug and Addiction Policy stipulates that preventative measures be tested for their effectiveness and relevance. “It is of particular importance in times of tight finances to apply the resources available in a targeted manner” (Die Drogenbeauftragte der Bundesregierung 2012b). To increase the effectiveness of addiction prevention measures, a stronger focus on risk groups is intended (Die Drogenbeauftragte der Bundesregierung 2012b).

#### Dot.sys

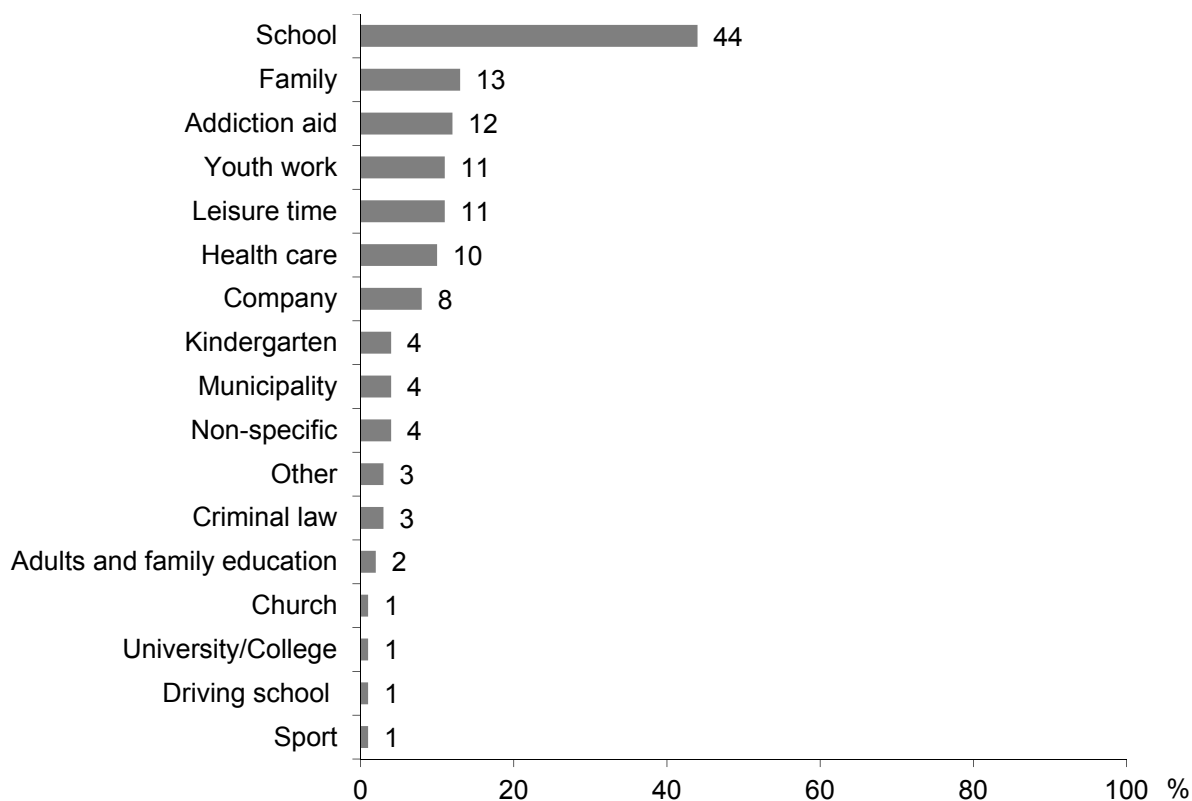
The project *Dot.sys* that is jointly carried out by the BZgA and the *Laender* provides comprehensive information on the prevention activities implemented in Germany within one calendar year. With this, *Dot.sys* makes an important contribution to reporting on prevention and also improving the quality and transparency in prevention practice. The participating counselling centres, authorities, associations, specialised clinics and coordination agencies at *Laender* 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.

The computer-based documentation system of addiction prevention measures, “*Dot.sys*”, is used for creating and presenting addiction prevention measures on a federal, *Laender*, and



local level. The system has been available since 2011 free of charge as an online database at [www.dotsys-online.de](http://www.dotsys-online.de)<sup>37</sup>. An offline version is also provided.

Of the 32,845 addiction prevention measures, projects and programmes documented in Dot.sys 3.0 in the reporting year 2012, a share of 57 % took a universal prevention approach, 18 % were carried out as indexed prevention measures and 14 % as selective prevention measures. 11 % of the measures must be allocated to structural or situational prevention. The setting "school" is the primary field of action of addiction prevention activities in Germany in 2012 with 44 % of the measures performed and documented.



Dot.sys 2012, N = 32,845, own presentation.

Figure 3.2 Settings for prevention measures, all prevention types, in 2012

Other selected results show the following:

- In 2012, 41 % of the measures carried out were directed at end users. The percentage of measures directed at target groups of multipliers rose by 3 % to 41 % compared to the previous year. This means that the trend of declining measures emerging since 2008 directed at multipliers in Germany for the benefit of an increase in the measures with a target level of end users did not continue in 2012.

<sup>37</sup> The new version Dot.sys 3.0 has been available to professionals since 2011 and can be used offline on a computer with the Microsoft Windows operating system or online using an internet browser. The two modules of the original Dot.sys system (the input and evaluation module) were integrated into a uniform system. This way the measures can be both documented and evaluated in an application.

- In 2012, 19,942 measures specifically related to a substance were carried out (59 % of the documented measures). This means that the proportion remained the same as that of the previous year.
- The focal point of prevention on a federal and *Laender* level continues to be alcohol, cannabis and tobacco prevention. The measures with a specific substance use concentrated on the substances alcohol (82 %), cannabis (43 %) and tobacco (32 %) as in previous years. 40 % of the measures were conducted “unrelated to any specific substance” and are thus aimed, across substances, primarily at promoting life skills. Life skills encompass self-awareness, empathy, creative and critical thinking, decision making and problem solving ability, coping with emotion and stress as well as communication and relationship skills.
- In addition to training sessions and courses (39 %), counselling (24 %) and cooperation/coordination are in the foreground of addiction prevention activities (14 %).
- The most commonly named objective of the measure is still knowledge transfer (73 %). Changing attitudes (50 %) was mentioned somewhat less often than in the previous year (54 %), followed by the exchange of skills and resources (35 %) as well as behaviour change (21 %).
- The "school" setting continues to be the primary field of action of addiction prevention activities in Germany in 2012 with 44 % of the measures documented. It is followed at 13 % by measures taking place in the “family” setting as well as measures in an “addiction services” context at 12 %. The free-time sector and youth work are the context for addiction prevention work in 11 % of cases, followed by interventions in healthcare settings (10 %) and measures in the workplace (8 %).
- 32 % of the measures are being or have already been evaluated. That reflects a slight increase of 4 % over the previous year. These are typically internal evaluations.

### 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, workplace settings, communal facilities or sports clubs, to mention just a few (Springer & Phillips 2007).

In addition to the behavioural and environmental prevention measures (BZgA 2007) of universal prevention, the interventions primarily differ in respect of their scope, either as substance-specific, non-substance-related/behavioural addictions and cross-substance projects. Cross-substance interventions primarily serving to teach life skills or to promote forming critical opinions.

### 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 run in the setting "school" have been successfully implemented all over Germany for many years. "Be Smart – Don't Start" – the school class competition to promote non-smoking – and "Smoke free School" are just two examples. The aforementioned programmes are generally made up of different modules ranging from promoting social skills and conveying information to motivating participants to lead a healthy lifestyle.

The effectiveness of addiction prevention measures at primary school has been intensively examined. Measures that build on a psychosocial approach and on behaviour-modifying interventions are particularly likely to succeed, usually on the condition that they are supplemented by components in non-classroom settings (Bühler & Thrul, in press). An early entry into the consumption of legal addictive substances has a negative effect on psychosocial development, which is why the application of addiction prevention measures in primary school seems particularly useful. In addition, later consumption of illegal drugs can be predicted if legal drugs are consumed early on (Brook et al. 2002; Hanna et al. 2001; Maruska et al. 2011; McGue et al. 2001).

An example of the long-lasting effects of behaviour-modification techniques in primary schools is the "good behaviour game", developed in the USA in 1969 by a teacher (Barrish et al. 1969), which was introduced to Germany for the first time in 2007 in 23 primary schools in Cologne and the surrounding areas (Hillenbrand & Pütz 2008). It has been adapted to suit German school culture (and renamed "KlasseKinderSpiel", roughly "great kids' game") and is now successfully being used in other areas. The target group for this intervention, which is based on learning theory principles, are primary school pupils and special needs pupils of various ages). First, the common rules for optimal cooperation are laid down, and unsuitable behaviours ("fouls"), which can be issued at a later date, are determined: e.g. leaving your place without permission, interrupting, playing or passing notes. Groups are then formed and a playtime is set. The group with the lowest number of points wins and gets a reward. In the first weeks this takes place immediately after playtime, later the time is pushed back, e.g. to the end of the school day. The game has been evaluated in more than 20 studies in a variety of types of schools and among school pupils of different ages, from preschool to adolescence, with very good results (Kellam et al. 1994, 2008, 2012; Hillenbrand & Pütz 2008). In a US sample of young adults who had played this game in the first grade, there were fewer addiction disorders in comparison to the control group; among the male participants the difference was significant. The largest effects were found for the first graders who had been considered "highly aggressive, disruptive".

For the 15 to 25 age group, the strategy “REBOUND – my decision” was developed in cooperation with the Mentor Foundation Germany<sup>38</sup>. The development and study phases (2010-2012) were financially supported by the DG Justice of the European Union and was implemented within a network of schools (eighth to tenth grade) from the Rhine-Neckar Metropolitan Region. The continuation of the measure as a standard service is ensured by funding from business, science and private donors. Since 2013, any school that makes available a minimum of four teachers can participate. In addition, REBOUND can be taught by social work professionals who take part in a 16-hour training course. REBOUND is a media-based intervention that centres on an activating film-based pedagogy. Awareness is developed and promoted through short films, lively group exchanges as well as other methods of assessing oneself and others. For example, sets of cards are used to try out different roles in the classroom and practice empathy. Peers were involved in the development of the teaching materials and were also involved in communicating the material as external class visitors (“peer mentors”). The peer mentors participate in the programme for a 12-month period. The precondition is having completed a basic training course, which results in the award by the “Young University Heidelberg” of a “class visitor” or “course assistant” certificate (depending on the number of class hours). An important experience-oriented element is the making of a short film. There is also an optional parallel e-learning course. In the test phase, five schools (723 pupils, 60 school classes) participated in a controlled efficacy study (Kröniger-Jungaberle et al. 2013). In the intervention group, the incidence of experience with drunkenness fell. However, risk perceptions of cannabis and tobacco were also reduced. The authors suspect that in the case of cannabis, this may be linked to more realistic perceptions. Fear-inducing strategies could achieve an unrealistically high perception of risk. In contrast to this, the intervention possibly prevented the trivialisation of the risk involved when the target individuals come in contact with users or try these substances themselves (“switching risks”).

Results from the efficacy study have also been implemented in the “Unplugged” class programme, which is targeted at 11 to 14 year olds in secondary schools. The goal of the measure, which is based on the concept of comprehensive social influence, is the prevention of use and misuse of legal and illegal substances. The starting points are the correction of normative convictions and the development of life skills. In this way, initial contact with psychoactive substances can be delayed and the transition from experimental to regular substance use can be prolonged. Parents’ evenings were additionally organised in order to ensure that the in-school prevention programmes were supported outside of the school setting.

“Unplugged” has been comprehensively evaluated in a number of European countries in randomised controlled studies with large samples and has a proven efficacy in preventing regular consumption of legal and illegal substances (Faggiano et al. 2007, 2008, 2010). A fall in regular cannabis consumption can primarily be linked to changes in normative attitudes to illegal drugs in general and to cannabis in particular as well as a change in efficacy

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<sup>38</sup> [www.my-rebound.de](http://www.my-rebound.de)

expectations (Faggiano 2010). The programme, which consists of 12 teaching units delivered by specially trained teaching staff, was originally developed in the context of the EU-DAP project (European Drug Prevention Trial).

Approximately one in ten interventions follows 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 & Schönbach 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 legal and/or illegal drugs are consumed. In the context of life skills programmes in cannabis prevention, the involvement of peers is more likely to lead to success than delivery by teaching staff.

### 3.2.2 Family

As the most important and constant base for socialising of children and adolescents, the family assumes an important role in the area of prevention. Until the start of puberty, the family exerts the largest influence, positive or negative, on the standards and values adopted by children and thus also on forming different modes of behaviour. Parents and siblings, as well as close relatives and acquaintances, often serve as role models whose lifestyles are - consciously or unconsciously - imitated and adapted to. Given this, the family has the greatest influence on the health education and thus on the health in general of the child.

13 % of the measures documented in Dot.sys in 2012 were implemented in family settings. Parents and guardians have a major influence on the psychological development of their children. Part of the federal government's strategy from 2008 to promote children's health is supporting them in their parenting skills and promoting better health as well as more equal opportunity for children and young people<sup>39</sup>.

This strategy was implemented with the ELSA platform, which provides advice to parents of children and adolescents at risk of and suffering from addiction. The platform is a low-threshold model project financially supported by the Federal Ministry of Health. It was developed by the Delphi-Gesellschaft, a society for research, advice and project development and by Villa Schöpflin, a centre for addiction prevention, in cooperation with addiction advice centres in eleven *Laender*. The Federal Centre for Health Education (BZgA), the German Central Advisory Service for Addiction Issues (Deutsche Hauptstelle für Suchtfragen e.V., DHS), the Federal Conference for Educational Counselling (Bundeskongferenz für Erziehungsberatung, BKE) and the Hessian State Advisory Service for Addiction Issues (Hessische Landesstelle für Suchtfragen, HLS) provided expert advice. On the website, parents can choose to receive advice via an anonymous request using an email

<sup>39</sup> [http://www.bmg.bund.de/fileadmin/redaktion/pdf\\_misc/psychische-Gesundheit\\_01.pdf](http://www.bmg.bund.de/fileadmin/redaktion/pdf_misc/psychische-Gesundheit_01.pdf)

form, by booking a chat appointment or by taking part in a multi-week, internet-based advice programme. Databases that are linked from the site make the search for a nearby addiction advice centre easier, if an appointment there is desired.

### 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 organisations, local clubs and institutions, parties and associations, etc. In addition to kindergartens and schools, organised and non-organised recreation as well as the public health sector serve as spheres of action for community-based prevention.

From 2008 to 2012, the SPIN project (“Social Prevention In Networks) in Lower Saxony became the first to adopt the “Communities That Care” (CTC) approach developed in the USA. The concept is based on the assumption that factors associated with risk and protection in various social spaces, city districts or communities can be identified and measured. The data collected in this way is intended to support professionals in addiction prevention, working in the various localities, in planning their work. The starting point is to agree on which protective and risk factors to concentrate so that the tasks can be adjusted in keeping with the resources and competences of the participating organisations. The selection of suitable addiction prevention measures is supported by a recommendation list ([www.gruene-liste-praevention.de](http://www.gruene-liste-praevention.de)), which contains more than 40 entries. Interventions for which there is evidence of efficacy are ranked according to their effectiveness and the strength of the findings that support them. They are categorised according to target group as well as protective and risk factors. The purpose of this is to make it easier to find the strategies that are the most effective and best adapted to local needs.

### 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 stigmatisation of this target group.

Addiction issues frequently start in childhood and adolescence, long before young people come into contact with legal or illegal drugs. In order to prevent the development of addiction, prevention must be applied early on and on a comprehensive basis.

The aim of the campaign “Making children strong” by the BZgA, for example, is to strengthen the self-confidence and self-esteem of adolescents and to encourage their conflict-resolving and communication skills (cf. REITOX Report 2010, 2009). It is essential for children and adolescents to learn how to say “no” to all types of drugs even under peer pressure.

In addition to parents and teachers, coaches and their staff in sports clubs are important people in a position of trust within the “Make Children Strong” initiative of the BzG.A. Cooperation with grassroots sports is particularly important in this case. The campaign has for many years successfully cooperated with sporting associations in Germany. Strong association ideas, or in other words good examples from the associations for addiction prevention in connection with “Make Children Strong”, are presented on the website [www.kinderstarkmachen.de](http://www.kinderstarkmachen.de).

### 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 imminent or a group of people can carry a higher risk of developing addiction through their whole lives (Springer & Phillips 2007). 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 youths,
- people with a migrant background,
- children and teenagers from families with addiction problems,
- teenagers with use experience, and
- clubbers.

The target groups of selective prevention measures are often addressed in recreational settings. Interventions for socially disadvantaged youths or children and teenagers from families with addiction problems are often carried out in school and pre-school settings. Generally speaking, this approach has the advantage of using existing resources at an early stage. However, the risk of stigmatising target groups by selective prevention activities should be taken into account. The *National Strategy on Drug and Addiction Policy* envisages a stronger focus on at-risk groups (Die Drogenbeauftragte der Bundesregierung 2012b, p.

12) and sees the need “... to develop specific services for at-risk adolescents in the field of selective prevention” (ibid).

### 3.3.1 At-risk groups

#### Socially disadvantaged groups

Poverty, unemployment and a low social status increase the risk of the onset or aggravation of addiction-related problems (Deutscher Bundestag 2008). It is therefore particularly important to promote and strengthen this group of people in the development as early as possible. However, the “usual” prevention measures are often almost impossible to apply in the work with socially disadvantaged children and adolescents as they do not always meet the needs of this target group.

The ELTERN AG programme adopts a low-threshold empowerment approach that seeks to actively locate families in particularly challenging life situations that are difficult to reach or cannot be reached by conventional support services. The target groups are couples in the family planning phase as well as parents with children up to preschool age, for whom childcare is offered if needed.

The parents are recruited in a six- to ten-week preliminary phase, primarily by collaborating with various authorities and institutions in city districts, but some are contacted directly. As soon as eight to twelve people have agreed to participate and the corresponding rooms have been found, ten introductory meetings then take place in order to familiarise parents with the concept.

After this, interested parents meet once a week over a 20-week period and learn how they can support and develop their children more effectively. Two trained course leaders from the neighbourhood guide them through this and neighbourhoods establish contact with the family through local knowledge disseminators such as childcare workers, midwives and paediatricians. The meeting focuses on communicating the fundamentals of childrearing and methods for stress management. Only the structure of the meeting is predetermined. The contents are selected by the parents themselves. This should allow them to talk to each other directly about building neighbourhood networks in order to ease transitional phases (family – crèche – primary school). This approach was first adopted in 2004. In 2012, 189 mentors in 10 *Laender* reached 450 families with 990 children. The programme was evaluated and its effectiveness was demonstrated (Schneider & Böhm 2012).

#### Addiction prevention 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, 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. These are funded, for example, by the Federal Ministry for Families, Senior Citizens, Women and Youth (Bundesministerium



für Familie, Senioren, Frauen und Jugend, BMFSFJ) or by the Federal Agency for Migration and Refugees (Bundesamt für Migration und Flüchtlinge, BAMF).

The data available on the prevalence of addiction behaviour amongst people with a migration background is generally insufficient. In addition, this population group is too heterogeneous to enable generally applicable statements to be made as to the addictive behaviour of its members. Rather, the group must be further differentiated into specific sub-categories. Individual study results are available for the addictive behaviour of migrant adolescents.

### 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 (Klein 2001). An estimated 6 million adults grew up as children in families with addiction problems<sup>40</sup>. Substantive scientific findings show that children from families in which at least one parent is affected by alcohol or drug dependence run a higher risk of developing addictive diseases themselves than children from families without addiction problems. Therefore, children and adolescents from addiction-stricken families form one of the largest known target groups of selective prevention measures. Reasons for the higher risk of developing addiction are, among others, domestic violence, separation and divorce of the parents, physical and emotional abuse or also sexual abuse - these occur more frequently in addiction-stricken families than on average (Thomasius et al. 2008).

In order to help children and young people from families with addiction problems, a coordinated action of all participating organisations and institutions is necessary, as called for in the Federal Child Protection Act (Bundeskinderschutzgesetz, BKiSchG) and in the Act on Cooperation and Information in Child Protection (Gesetz zur Kooperation und Information im Kinderschutz, KKG)<sup>41</sup>. Prevention and intervention programmes in Germany for children and their drug-addicted parents are offered by outpatient and inpatient addiction support services and self-help groups. "Kidkit – Help for Children and Adolescents" is a cooperation project between the KOALA e.V association, the Cologne "Drogenhilfe" (Drug Help) organisation and the German Institute for Addiction and Prevention Research based in the Catholic University of Applied Science campus in Cologne. On the website, children and adolescents who are growing up in dysfunctional families and/or who experience violence in the family receive age-appropriate information on topics such as "addiction and family", "violence in the family" and "mentally ill parents" as well as a free and anonymous advice sessions<sup>42</sup>.

<sup>40</sup> [www.fruehehilfen.de](http://www.fruehehilfen.de)

<sup>41</sup> Art. 1 Act on Cooperation and Information in Child Protection (Gesetz zur Kooperation und Information im Kinderschutz, KKG), <http://www.bmfsfj.de/BMFSFJ/kinder-und-jugend,did=119832.html>

<sup>42</sup> [www.kidkit.de](http://www.kidkit.de)

The modular prevention strategy “Trampolin”<sup>43</sup>, already described in the previous REITOX Report, which is aimed at children from families affected by addiction, changed from being a federally supported model project to being included in the standard catalogue of services. The German national football player Cacau, who plays for VfB Stuttgart and who is also involved with the German Foundation for Childhood Addiction Support, agreed to act as an ambassador. The scientific evaluation of the effectiveness of “Trampolin” took place using a prospective, randomised-controlled study design. Parents and children were surveyed at three points in time. The results show that children benefit from participating in “Trampolin” in a number of ways. Compared to a control group, their psychological stress was significantly lower even six months after the end of the course. They also knew much more about the issue of addiction in the family and how to deal with it. Long-term follow-up studies in relation to the children involved are planned to be conducted. The issues of specific measures and challenges for research and practice resulting from the evaluation were discussed as part of the final conference in February 2012. Hence, strengthening the network of youth services and medicine, the abandonment of strict separation between prevention and treatment as well as the establishment of “Trampolin” as a standard programme for children of families with addiction issues were discussed as important steps to be put into practice (DZSKJ & DISuP 2012).

### 3.3.3 Selective prevention in 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 centre or clubbers. Among them often are teenagers with substance use experience, socially disadvantaged youths or juvenile delinquents who require different prevention responses than youths without substance use experience.

Generally speaking, recreational settings may be split into an organised and a non-organised area. The prevention measures undertaken in the organised area (youth aid institutions, church-run organisations, community-based youth centres) 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.

The described heterogeneity clearly shows the importance of taking into account the different life spheres of the adolescents and not restricting prevention measures merely to achieving abstinence or use reduction, but aiming them instead at teaching risk competence and risk management skills.

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<sup>43</sup> [www.trampolin.de](http://www.trampolin.de)

Trampolin aims to prevent negative development processes of children from families afflicted by addiction, using methods of promoting resilience and supporting children in building their own resilience and protection factors.

In the non-organised area, prevention of addiction is more open. This means that activities and services are low-threshold and generally voluntary. They mainly aim at minimising behaviours that are harmful to health and at promoting responsible substance use. In the non-organised area, prevention work is mostly based 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 and organisers of music and party events.

Big Brothers Big Sisters Deutschland (BBBSD) is a mentoring programme for children and adolescents from six to sixteen years of age from a variety of backgrounds who would benefit from support and development (children from migrant backgrounds, poorly educated or broken families, those who changed school or moved house). The origins of this initiative, which has its roots in the USA, go back to 1904. Since 2007, BBBSD has been established as a gGmbH (a charitable limited company) with a regional office in Mannheim. In the years following its establishment it has expanded. It now has offices in Frankfurt, Essen, Hamburg, Stuttgart and Munich. In January 2011, there were 372 mentoring relationships. The goal is to develop communication skills and social cohesion. Through social learning, young people experience recognition and appreciation, allowing them to develop self-belief and personal responsibility. Boys are assigned a male mentor and girls a female mentor who works on a voluntary basis. These so-called "tandems" meet every one to two weeks for a few hours for a period of at least a year. The mentors go through a comprehensive, clearly defined and thorough selection and allocation process and are prepared for their tasks individually in information meetings and workshops. Based on the individual needs of the children, the mentoring team puts together an individual learning plan that has been discussed with the mentors and the family. The experience and development of their mentees are documented in a monthly electronic diary, which is the basis for problem solving.

In the USA an independent charitable research institute assessed the effectiveness of BBBS in a randomised control-group study (waiting list) in a sample of 950 boys and girls, who met with mentors in tandems three times a month for a period of a year (Tierney & Grossman 2000). Measurements were taken at the starting point and after 18 months. In comparison to the control group, follow-up studies showed that the intervention group had significantly fewer children who had consumed illegal drugs ( $p = 0.05$ ).

Drug Scouts is a selective-preventative initiative in Leipzig that has been active in the party scene for 16 years and is part of the EU Project, Nightlife Empowerment & Well-being Implementation Project (NEWIP). Its objective is to prompt critical reflection among consumers of party drugs through various channels (telephone, information shops, web), by offering information on the health risks (pill warnings on the website [www.drugscouts.de](http://www.drugscouts.de)) and support in reducing their consumption. In the local area, an increased focus on alcohol and poly-drug consumption is planned.

### 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 2009).

#### 3.4.1 Children and teenagers with behavioural disorders

Behavioural disorders in children are a central risk factor for the development of addiction-disorders at teenage and adult age. There are indications of psychological problems for about a fifth of all children and teenagers. Around 10 % of the children and adolescents display psychological problems, i.e. specific disorders ranging from anxiety and depression to social behaviour disorders (Hölling et al. 2007). 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 thus run up against additional problems (cf. also the passage on socially disadvantaged youth in Chapter 3.4.1).

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 substance-related addictions. 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 % of children and teenagers are affected by an attention deficit/hyperactivity disorder. Numerous studies have shown that children with ADHD run a significantly higher risk of developing an addictive disorder (Thomasius et al. 2008).

There is at present no information available on prevention measures currently carried out for children and teenagers with ADHD.

#### 3.4.3 Early recognition and early intervention

At the interface between indicated prevention and therapy, measures have meanwhile been established to which the term “early intervention” can be assigned. The target group of early intervention measures is characterised by problems caused by increased substance use and/or problems that are closely linked to it. These people have a very high risk of developing addiction. However, at the time of intervention, this group does not (yet) meet the

criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) or the criteria of the International Classification of Diseases (ICD-10) (EMCDDA 2009). In general, treatment can only be initiated if dependence has been established by a diagnosis according to DSM-IV or ICD-10.

The internet portal of the BZgA on drugs and addiction prevention [www.drugcom.de](http://www.drugcom.de), which was established in 2001, offers quality-assured information and advice on legal and illegal drugs, and is aimed at drug-savvy teenagers and young adults in the age group of 15 to 25 who occasionally or regularly use drugs. Another relevant target group are point persons in the field of addiction help, drug prevention and school and youth recreation. [www.drugcom.de](http://www.drugcom.de) is the central element of the BZgA for the prevention of substance abuse and dependence on illicit addictive substances.

In addition to a multitude of information services, such as a drug lexicon as a module for imparting knowledge, the internet portal offers various communication and consultation opportunities, such as the "Check Your Drinking" self-test and "Cannabis Check" for people to examine their own consumption behaviour for the most widespread psychoactive substances in Germany, alcohol and cannabis. So far 1,053,029 people have tested their consumption behaviour using a self-test at [www.drugcom.de](http://www.drugcom.de) (status as of: 30 June 2012). The aim of the self-test is to encourage participants to critically reflect on their consumption and to motivate them to change their behaviour if possible. In 2012, 2,200 users visited [www.drugcom.de](http://www.drugcom.de) daily.

Internet-based interventions for the treatment of problematic substance use can be successfully applied in drug prevention. In addition, the internet is used and adopted by adolescents and young adults as a low-threshold information and counselling service (Van Eimeren & Frees 2010). With its internet-based, short-term intervention programme for young cannabis users, "Quit the Shit", BZgA has offered effective support for those who want to control or reduce their cannabis use since 2004<sup>44</sup>. Since August 2004, 3,572 people have taken part in "Quit the Shit" (status as of: 30.06.2012).

### 3.4.4 National and regional media campaigns

National and regional (media-)campaigns are instruments of universal prevention. Providing information on risks that emanate from a substance forms an integral part of a multi-level prevention strategy. Taking in and processing information and potentially changing one's behaviour is easier the more 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 service.

As robust findings on the effectiveness of mass media campaigns in the prevention of the use of illegal drugs are lacking (Ferri et al. 2013), their deployment is limited to legal drugs.

<sup>44</sup> Cf. REITOX Report 2011: a control group study (study period: 2006-2008) examined what effects "Quit the Shit" achieved. The final summary report for the controlled study of the effects of the reduction and cessation programme for cannabis users "Quit the Shit" shows that a complete programme of use (at least 45 days) is associated with a significantly higher probability of reducing cannabis use.

Since alcohol is the most widely used psychoactive substance in Germany, this drug is especially discussed in national and regional (media) campaigns. Approximately 74,000 people die annually from risky consumption of alcohol alone or consumption of alcohol combined with tobacco in Germany (cf. Gaertner et al. 2012).

The starting age for alcohol consumption is currently 14.5. Thus, the age at which children and adolescents consume alcohol for the first time has increased slightly (BZgA 2012b, p. 32). An aim of the BZgA's alcohol prevention campaign for 12 to 16 year old adolescents, or "Null Alkohol – Voll Power", is to strengthen this trend and to delay entry into substance abuse in children and adolescents. It also aims to provide better information to young people on alcohol and to promote a critical attitude towards alcohol.

In order to inform young adults on the health risks associated with smoking and to support them in stopping, the internet platform [www.rauchfrei-info.de](http://www.rauchfrei-info.de) of BZgA's "rauchfrei" campaign was released in advance of the World No Tobacco Day 2012 with a new design, new features and updated content. Targeted group-specific information, tests and interactive tools on the subject of (non-) smoking have been integrated into the website. The portal has been online since 2005 and reaches up to 30,000 people every month. At its core is the evaluated online cessation programme which coaches smokers who want to quit on smoking cessation for up to four weeks. According to intention-to-treat analysis<sup>45</sup>, 13.5 % of users are smoke-free after six months which is comparable to the success rate of other online cessation programmes (BZgA 2012a, unpublished).

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<sup>45</sup> Statistical process in which all participants are included in the analysis according to their randomly assigned treatment group, irrespective of the treatment actually provided.

## 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 European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)). Generally speaking, consumption is regarded as problematic if at least one of the following criteria is fulfilled:

- risk carrying use (risky use),
- harmful use (F1x.1) or addiction (F1x.2) in respect of a clinical diagnosis (International Classification of Diseases (ICD) or Diagnostic and Statistical Manual of Mental Disorders (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 2012). 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 exceeds 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 such as, “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 problem 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 members have been trained or are experienced in diagnosing such cases. The aforementioned definition of “risky consumption” in the German Core Data Set includes any consumption (within the last 30 days) of a substance from the categories F11 (opioids) – F19 (multiple substance use and other substances) of the ICD-10 classification. Specifically 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, such as cannabis, while denying using for example heroin or playing 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, for example, 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. Hence, the fifth edition of the classification system, DSM, by the American Psychiatric Association (APA), published in May 2013, abandoned the differentiation between substance abuse and substance dependence and instead defined a substance use disorder, that is classified according to its degree of severity: mild, moderate and severe (APA 2013). The amalgamation of substance abuse and substance dependence into one clinical definition is supported by a series of findings which cast doubt on the ability to differentiate between abuse and dependence and rather suggest replacing a categorised differentiation with a dimensional disorder model defining differing levels of severity.

Furthermore, differentiating between legal/illegal substances and focusing on the concept of problem use, or respectively a medical classification, of a main drug is - according to the authors - not sufficient. These difficulties are of particular relevance 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 references in police records when reviewing several substances and, as valid mortality estimates are only available for



opioid users, the prevalence estimates for Germany were restricted to the target group of opioid 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 prevalence rates and describing patients is done in terms of main drug and not in terms of administration route.

## **4.2 Prevalence and incidence estimate of problem drug use**

### **4.2.1 EMCDDA estimate methods (indirect estimates)**

For the year 2012 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 attention 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 of the year 2011 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 2012.

- **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. The multipliers used have a particularly limited validity as they are based on small case figures and selective samples. The methods have been described elsewhere (Kraus et al. 2003). All multiplier methods as such are subject to considerable qualifications. Changes in prevalence rates, for example, are not necessarily reflected by the therapy demand. The collection of data on users, who come to the attention 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 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 62,000 and 203,000 persons (with the estimates of the year 2011 serving as a calculation basis). This corresponds to a quota of 1.1 to 3.8 persons per 1,000 population in the age group of 15 to 64 year olds (Table 4.1).

Table 4.1 Estimate of the prevalence of problem opioid use from 2005 to 2012 (Figures in 1000s, age group 15-64 years old)

Data Source	Reference Year								Prevalence per 1.000
	2005	2006	2007	2008	2009	2010	2011	2012	
Treatment <sup>1)</sup>	137- 163	130- 154	110- 130	164- 195	163- 194	167- 198	171- 203	<sup>2)</sup>	3.2-3.8
Police contacts	128- 166	117- 159	108- 149	99- 137	89- 127	81- 117	79- 106	74-95	1.4-1.8
Drug-related deaths	79-96	103- 130	99- 113	117- 178	91- 119	82- 137	63-91	62-65	1.1-1.2

1) Number of outpatient facilities according to the DSHS + estimates of 20 % hidden participants.

2) Cf. chapter 4.2.1 on the missing calculation of the estimate based on therapy data for 2012.

DBDD 2013, special calculation.

In 2013, the estimation procedure was refined based on treatment data for clients with opiate, cocaine and amphetamine problems, meaning that patients in inpatient addiction treatment facilities are now considered. In addition, the number of clients with corresponding primary diagnoses and the number of patients for the facilities documented in the Statistical Report on Substance Abuse Treatment in Germany were both taken from the same table (Deutsche Suchthilfestatistik, DSHS). Furthermore, since 2009 the estimates have been undertaken on the basis of the total number of outpatient facilities, taken from the facilities register (Süss & Pfeiffer-Gerschel 2011). A more detailed presentation of the methods used can be found in the REITOX Report 2010. The estimates for the previous year were adjusted accordingly and for this reason they differ from the reported estimates to date of problem drug users.

In comparison to 2010, the estimates for the year 2011 are higher due to the "treatment request" multiplier. This can primarily be linked to the fact that the number of admissions for outpatient treatment rose more sharply in the year 2011, compared to 2010, than the number of admissions to inpatient treatment fell by in the same period.

The number of heroin users who have come to the attention of the police for the first time has been rapidly declining for some years (2000: 7,914; 2012: 2,090). At the same time, the portion of drug-related deaths that had been previously recorded as users who had come to the attention of the police for the first time, had been on a continual decline between 2003 (n = 52) and 2011 (n = 34) and slightly rose again from 2011 to 2012 (n = 37). The estimates based on this indicator have been on a continual decline since 2000.

The estimates based on the multiplier “drug-related deaths” are based on the mortality rate amongst clients in outpatient treatment and the number of drug-related deaths. The former slightly declined in comparison to the previous year (2011: 1.1 %-1.6 %; 2012: 1.4 %-1.5 %), the latter continued to fall in 2012 after the sharp decline from 2010 to 2011 (2010: 1,237; 2011: 986; 2012: 944). The estimates based on the multiplier “drug-related deaths” thus continued to decline for 2012 in comparison to 2011.

The estimates for the multiplier “police contacts” have been falling since 2005. The same applies for the multiplier “drug-related deaths” for the years since 2008. The estimates based on the multiplier “treatment demand” fell between 2005 and 2007, then rose markedly from 2007 to 2008 and slightly rose following insignificant fluctuations in 2008 and 2009. One can, therefore, not observe any clear tendency.

The range of values (1.1 - 3.8/1,000) still lies within the prevalence rate calculated by a European meta study for the dependence on illicit substances for the age group 15 to 64 (Range for opioid dependence: 1.0 - 7.0 with an expert based “best estimate” of 1.0 - 4.0; range for cannabis dependence: 0.0 - 9.0 with an expert based “best estimate” of 3.0 - 18.0) (Wittchen et al. 2011). Further details can be found under 4.2.2.

If one takes a broader definition of the target group which includes users of other 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 way 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 prevalence.

Updated calculations undertaken with the refined estimation method on the basis of treatment data from 2011, which includes clients with cocaine and amphetamine problems, produce a prevalence of 229,000 - 272,000 (2010: 214,000 - 254,000). This corresponds to a prevalence of 4.3 - 5.0 (per 1,000 population) amongst 15-64 year olds (2010: 4.0 - 4.7 %). After a sharp increase from 2007 to 2008 (2007: 2.5 - 2.8 %; 2008: 3.8 - 4.5) and no difference between 2008 and 2009 (3.8 - 4.5) this rate is continuously increasing. Estimates based on police data and fatalities are not undertaken for the extended target group, due to the difficulties mentioned 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 of problem drug use

The incidence of problem 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 prevalence rates 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 developed 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 problem drug use from non-treatment sources

#### Estimates in the general populations

The last Epidemiological Survey on Addiction (ESA) was conducted in the year 2012 (Pabst et al., in press). The methodology has already been described in Chapter 2. The data on disorders in connection with illegal substances that the ESA is based on was compiled using DSM-IV criteria (APA 1994) in connection with the use of cannabis, amphetamine and cocaine. The items of the Munich Composite International Diagnostic Interview (M-CIDI; Wittchen 1994; Wittchen et al. (1995) were used.

Based on the entire sample, 0.5 % of those surveyed met the DSM-IV criteria for cannabis misuse, with a further 0.5 % meeting the criteria for dependence. A total of 0.2 % exhibited cocaine dependency. Misuse of amphetamines was evident in 0.2 % of those surveyed, while 0.1 % fulfilled the criteria for addiction. With the exception of cocaine misuse, men exhibited substance-related disorders in connection with the use of illegal drugs more commonly than women. In addition, single diagnoses were most common in the 20 to 30 age group.

The authors extrapolated the prevalence estimates of substance-related disorders as defined by DSM-IV for the general German population aged between 18 and 64. Based on the extrapolations, approximately 283,000 adults (CI = 201,000 - 397,000) exhibit misuse and 319,000 adults (CI = 224,000 - 453,000) exhibit dependency in connection with the consumption of the illegal drugs cannabis, cocaine or amphetamine.

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

#### 4.4.1 Description of the forms of use falling outside of the PDU<sup>46</sup>-definition of the EMCDDA

Various studies have been conducted to collect data on the construct “problematic” or “risky” use of cannabis. However, terminology and implementation differ from study to study so that data comparability is very limited. It appears nevertheless necessary to include cannabis use

<sup>46</sup> Problem Drug Use.

in the investigation of problem and risky patterns of use given the data available on the possible long-term effects of cannabis use.

The findings of the last European School Survey on Alcohol and other Drugs (ESPAD) conducted on problem use of cannabis can be found in the Reitox Report 2012.

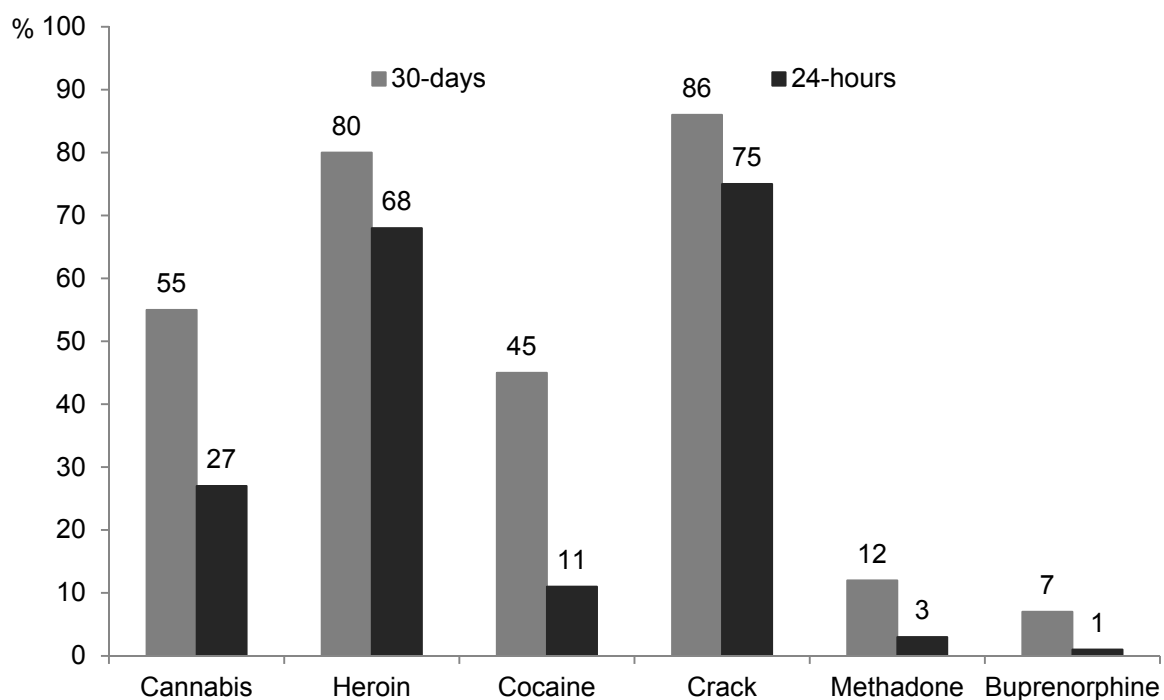
Prevalence estimates of intensive, frequent, long-term and other problematic forms of use are not included in the PDU definition.

#### **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 adolescents and young adults**

In the following, selected findings from the most recent studies analysing the connections between problematic, risky or regular use and the later onset of substance-related disorders will be reported to complement previously presented data from repeat surveys. The 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 and nicotine (in comparison with alcohol). 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. 2008a). 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 stressful life circumstances also form risk factors for the persistence of cannabis use into the third or fourth decade of life (Perkonig et al. 2008b).

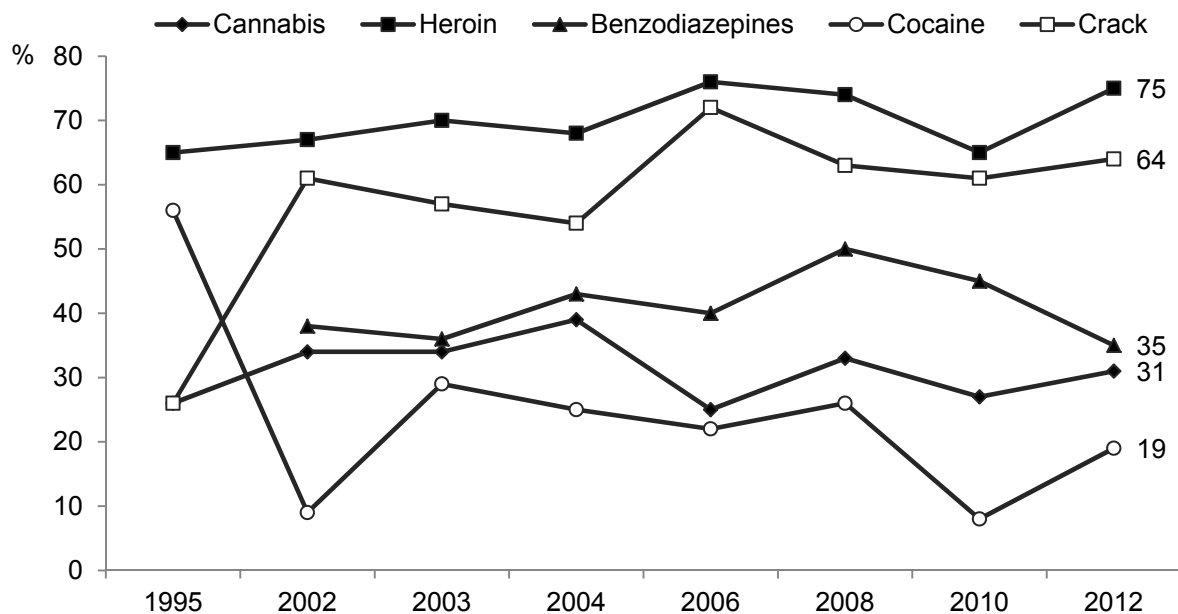
Data on this is available from the current MoSyD study. This study comprises several components: a representative pupil survey, a trend scout panel, a “drug scene” survey and interviews of experts. More details on the methodology are provided in Chapter 2.1. The results from the scene study are described in the following section. 150 drug users were questioned. They were either recruited directly from the “open drug scene” in the area around Frankfurt Central Railway Station, or from low-threshold facilities run by the Frankfurt Drug Assistance Association (Frankfurter Drogenhilfe).



Bernard et al. 2013.

Figure 4.1 30-day and 24-hour prevalence rates (in %) for illegal drugs

As can be seen from the 30-day and 24-hour prevalence rates (see Figure 4.1) heroin (80 % and 68 % respectively) and crack (86 % and 75 % respectively) play the most important roles by far in the drug consumption patterns among scene members. They are followed, at least as far as the 30-day prevalence rates are concerned, by cannabis (55 %) and cocaine (45 %), both of which have markedly lower daily use prevalence levels in comparison to their high 30-day prevalence rates (cannabis: 27 %; cocaine: 11 %). Substitution drugs that have not been prescribed are only used by a small proportion of scene members: only 12 % had used non-prescribed methadone in the last 30 days and 7 % had used non-prescribed buprenorphine. In relation to the last 24 hours, only 3 % had recently used illegally acquired methadone and 1 % had used buprenorphine without a prescription. These figures indicate that a certain, albeit small, proportion of scene members resort to using illegally traded substitutes in “emergency situations”. Regular or daily use of these substances without prescription seems by contrast to be restricted to individual cases.



Bernard et al. 2013.

Figure 4.2 The proportion of people (in %) with heavy use of illegal drugs, among those who had used hard drugs in the last 30 days

Figure 4.2 shows the percentage rates of those interviewees who had exhibited “heavy” use of particular drugs, i.e. daily or almost daily, out of all those who had used one of these drugs in the last 30 days. The drug with the highest current rate of heavy users (2012) is once again heroin (75 %). In comparison to the previous year, this value has increased once again, and is therefore at a comparable level to the years 2006 and 2008. Statistically significant changes between surveys can be observed for the frequency of consumption of cocaine and crack, although the significance can be linked back to changes between 1995 and 2002. In the case of cocaine, this proportion of heavy users fell dramatically in this period, while for crack the opposite trend was evident. As far as the changes in the subsequent surveys are concerned, there was a rise again in heavy consumption of cocaine powder in 2003, which remained stable at a similar level in the following years. In 2010 the key figure for heavy cocaine consumption fell to the lowest levels recorded in any of the surveys, however, it has recently risen again to 19 %. For crack, there have, however, been relatively low fluctuations in heavy use after a clear rise from 1995 to 2002. In the 2006 survey, the proportion of heavy users within the group of current users did rise, however, this trend did not continue in the two following surveys. Based on the data presented, we can state that as far as the proportion of daily users is concerned, heroin and crack continue to dominate.

#### 4.4.3 Medical drug abuse

##### Introduction

Estimates of the prevalence of dependence on medical drugs in Germany range from 700,000 (Schwabe 2007) to 1.9 million people (Kraus & Augustin 2001; Soyka et al. 2005).

According to the findings of the 2009 epidemiological addiction survey, 4.0 % of all respondents between the ages of 18 and 64 demonstrated problem use of pharmaceuticals, as defined by the criteria in the short questionnaire on medical drug abuse (Pabst et al. 2010). Despite the high prevalence of the dependence on medical drugs, the disease - often named "the quiet addiction" - is hardly perceived by the public in contrast to drug and alcohol addiction (Rabbata 2005). Medical drug addiction often affects older people (Ruhwinkel 2009) and women (Tetrault et al. 2008). 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 (Küfner & Rösner 2008).

Even if 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 nationwide 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 distress 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 undetected much longer 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 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. For instance, the quantities of prescribed substitution substances (methadone, buprenorphine) increased steadily in Germany in parallel with the extension of of substitution therapy services in Germany in the years prior to 2011 (Böger & Schmidt 2012b). The number of reported substitution patients also rose steadily between 2002 and 2010 to 77,400; since 2011 there has been a slight reduction to 75,400 patients (BOPST 2013). According to the substitution register, the predominantly reported substitution substance is still methadone. However, the proportions of buprenorphine and levomethadone have been rising since 2003 (BOPST 2013). The prescribed quantities of other prescription drugs (especially: opioid analgesics) have increased greatly over the last few years (Böger & Schmidt 2012b). For instance, the prescribed quantities of opioid analgesics have been continuously rising by 60 % during the last ten years (Böger & Schmidt 2012b).

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 such as antidepressants (Küfner 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). A study commissioned by the Federal Ministry of Health (BMG) in 2010 found that the vast majority of students (88 per cent) had no personal experience of so-called “brain doping” (Middendorff et al. 2012a,b). When asked whether they had practised brain doping since they began their studies, and if so, how often they took the corresponding substances (prescribed medications, painkillers, tranquillisers, psychostimulants or stimulant drugs) the majority of students (71 %) answered that it was out of the question for them. One in six said they had not taken such drugs, but could imagine doing so. 8 % had seldom taken such performance-enhancing drugs, 4 % did so every now and then. Frequent use of performance-enhancing substances was found in 1 % of cases. In order to counteract this new trend of medication misuse, the Act on Improving Measures Against Doping in Sports (Gesetz zur Verbesserung der Bekämpfung des Dopings im Sport) and the Regulation on Doping Agent Amounts (Dopingmittel-Mengen-Verordnungen, DmMV) have been in force since 2007. The main aim of these laws is to impede the activities of international criminal networks.

One of the most important risk groups for medication abuse are older people, who frequently rely on medications like painkillers and tranquillisers to combat the symptoms of age-related illnesses (Die Drogenbeauftragte der Bundesregierung 2013; Dyckmans 2013; Koechl et al. 2012). However, in this group, the 60+ age group, long-term use of benzodiazepines seems to increase the risk of suffering from dementia, falling, experiencing deadened emotions or other cognitive impairments (Billioti de Gage et al. 2012; BMG 2013; Dyckmans 2013). Within this context, the misuse of benzodiazepines and z drugs demands particular attention. The BARMER GEK Medications Report 2013 by Glaeske & Schicktanz indicates that benzodiazepines are primarily prescribed for older people, of which two thirds are women. Additionally, the authors estimate that between a third and a half of medications containing benzodiazepine are not prescribed to resolve an acute medical problem but rather on a long-term basis to maintain addiction and avoid the onset of withdrawal symptoms.

While the misuse of sedatives/hypnotics plays the most important role among older people (60+ years of age), in the group of younger people there are trends above all in the abuse of stimulants to improve performance (also in popular sports, see Kläber 2011). For example, one result of the Study on the Consumption of Performance Enhancing Substances in Daily Life (KOLIBRI), produced by the Robert Koch Institute (RKI) in 2011 is that the prevalence of doping substances is highest in the cohort of 18 to 29 year olds (2.2 % of men and 1.9 % of women) and that additionally willingness to misuse medications for physical and psychological performance enhancement is highest among young people (RKI 2011). Prescription figures for methylphenidate (MPH; Ritalin) – a drug used to treat ADHD (Spencer et al. 2012) – for young people have also continued to rise in recent years. This trend can most likely be explained through the increase in diagnosis and treatment rate of ADHD as a consequence of growing awareness amongst doctors, psychotherapists but also parents and teachers of the physical signs in children and adolescents. However, a current

study of the Phar-Mon project in collaboration with low-threshold prevention projects has produced indications that ADHD medications such as Ritalin are being misused among young party-goers in Germany. The abuse potential of MPH has long been indicated in a variety of international publications (Barrett et al. 2005; Spencer et al. 2012). Experts generally consider it to be problematic if stimulants are prescribed by non-specialist doctors, not qualified in the diagnosis and therapy of behavioural disorders, outside the multimodal therapy setting of the – usually male – clients (Glaeske&Schicktanz 2013). In light of this, politicians and administrative organisations are supporting a strengthening of guideline compliant diagnosis and therapy of ADHD with numerous measures. Regulatory measures in this context in recent years of the authorising agencies and joint self-governing bodies also point in the right direction and should help prevent possible misuse or incorrect use of methylphenidate based medicinal products. The use of MPH for pharmacological neurological enhancement as well as for the purposes of intoxication should continue to be examined closely in the future (Franke et al 2012; INCB 2013).

As is also the case for illegal drugs, the internet may also act as a platform for the acquisition of medications for non-indicated purposes (EMCDDA 2013). Online delivery pharmacies, social networks, medication forums and other sources open the black market further, meaning contact with dealers on the street can be avoided (INCB 2013; Nielsen & Barrat 2009). For those observing medication abuse in Germany, it has now become essential to be aware of the internet-based acquisition patterns of consumers. In addition, the use of modern technologies in monitoring and warning systems are a promising development in the fight against medication dependence (Nielsen & Barrat 2009). In the USA pharmacists and doctors have already been successfully supported through computer programmes such as the Prescription Drug Monitoring Programme (PDMP) when prescribing and dispensing medications (BÄK 2013).

#### **Data from the monitoring system Phar-Mon**

Funded by the BMG, the Phar-Mon project has been investigating medical drug abuse among clients of a random sample drawn from 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 in medical drug abuse.

In the period from January to December 2012, data was collected from N = 33 reference facilities participating in the project. 30 of the 33 facilities which were invited to participate, reported a total of N = 1034 recordings of the abuse of medical drugs by N = 815 clients. These recordings come mostly from men (71.1 %) and persons with the main diagnosis of addiction or harmful use of opioids (65.9 %).

Overall, substitution substances were the most commonly misused medication with 38.2 % of the recordings, which represents a decline of 12 % in comparison to the previous year (2011: (2011: 43.3 %). Substitute drugs are mostly abused by clients with primary opioid-dependence diagnoses. As far as the active ingredient is concerned, methadone (26.4 %)

and buprenorphine (14.6 %) dominate when this group is asked to name substances, although buprenorphine is less frequently named in comparison to the previous year (2011: 18.4 %). In 2012, the abuse of levomethadone, at 12.0 %, has stayed consistent with the previous year's levels. In keeping with the increased naming of methadone overall since 2009 (16.5 %), the prescription numbers for methadone have also increased by 7.7 % in the report period of 2011 (Böger & Schmidt 2012a). For the drug buprenorphine, the prescription numbers have, by contrast, fallen dramatically (there may have been an increase of 2.9 % for the drug suboxone, but there was a fall of 20.9 % for subutex) (Böger & Schmidt 2012a). Finally, the prescription figures for levomethadone-containing medications only increased by 0.6 % (Böger & Schmidt 2012a), which is reflected in the stagnation in the entries that named it in the Phar-Mon sample.

In addition to substitution substances, especially sedatives/hypnotics are misused. In particular amongst clients with the treatment-relevant main diagnosis (MD) of dependency or harmful use of alcohol and sedatives/hypnotics, the abuse of sedatives/hypnotics prevails (30.4 % of all recordings in the MD alcohol and 64.3 % of all recordings in the MD sedatives/hypnotics). As a whole, the sedatives/hypnotics recordings of all main diagnosis groups relate primarily to benzodiazepine (i.e. 90.9 %). Amongst benzodiazepines prescribed as sedatives/hypnotics, those most commonly misused were diazepam (18.9 % of all recordings) and lorazepam (3.8 % of all recordings).

An increase in anti-epileptics (anticonvulsant) abuse year-on-year was also seen in 2012 (2011: 4.8 %; 2012: 7.5 % of all recordings). In this context, the benzodiazepine clonazepam was recorded most often (55 of 61 recordings). There are indications that the medication has a sedating effect in lower doses (1-2 mg) and a stimulant effect in higher doses (8 mg or more) (Schifano et al. 2011). Clonazepam is also taken together with other sedatives or with psychedelic drugs and is easily available via the internet (Schifano et al. 2011). The medication is often obtained through "doctor shopping". There was a marked increase in mentions of clonazepam in the Phar-Mon sample in recent years. In 2011 there were 27 documented cases of clonazepam misuse (3.4 % of total drugs named) in comparison to the 55 cases in 2012 (6.8 % of the total named). A more detailed look at the data on clonazepam shows that it was principally named in North Rhine–Westphalia (in Cologne alone: 2011 = 92.6 %; 2012 = 81.8 %). The majority of clients for whom clonazepam misuse was documented are opioid dependent (94.5 %), mostly men (76.4 %), who use the drug in tablet form (94.5 %) and overwhelmingly acquire it on the black market (87.3 %). The average age of the clients is 33.7 (SD: 6.8). The medication is primarily taken orally (96.4 %) and is only injected in rare cases (1.8 %). In keeping with the usual effects of benzodiazepines, clonazepam is mostly used for sedation and anxiety reduction.

The misuse of the anti-convulsant drug pregabalin (trade name: Lyrica®) has also come into focus in recent times. With 60 million defined daily doses (DDD), it is by far the leading medication of the newer anti-convulsants. Prescriptions of this substance have continually risen in the last number of years, by 10.6 % from 2010 to 2011 (Schwabe & Paffrath 2012). Pregabalin is consumed in order to gain a range of effects e.g. sedation, euphoria or also

ecstasy-like effects such as disassociation. The drug is used orally, intravenously, rectally or by parachuting<sup>47</sup>. According to a recent publication (Gahr et al. 2013) from April 2008 to August 2012 there were 55 cases of pregabalin abuse or dependence reported to the Federal Institute for Drugs and Medical Devices (BfArM). The number of cases has continually risen in this period. In over 40 % of the cases, polytoxicomania was diagnosed. In approximately one third of the cases, withdrawal symptoms were observed after the patient stopped taking the drug (Gahr et al. 2013).

In the full year of 2012, five cases of pregabalin misuse were documented by Phar-Mon. Four<sup>48</sup> of the five clients had a primary diagnosis of opiate addiction and three were men. The most common source of the medication was a doctor's prescription (four out of the five cases). In addition, clients reported primarily using pregabalin for sedation (two out of five cases), pain reduction (two out of five cases) and anxiety reduction (one of five cases). Among the patients with a history of substance-related disorders, the medication should only be prescribed when absolutely necessary and any signs of misuse should be observed. Against the backdrop that pregabalin is currently being considered for use in the treatment of alcohol and benzodiazepine addiction (Förg et al. 2012; Schifano et al. 2011), further research in this field is of great importance. However, among the general population, Lyrica does not seem to have substantial potential for abuse or dependence.

After substitution drugs (38.2 % of all drugs named in 2012) and sedatives/hypnotics (32.5 %), analgesics (10.3 %) are the third most abused medications in the Phar-Mon sample. Within the analgesic category, opioid-containing analgesics (7.9 %) are abused three times as frequently as non-opioid analgesics and anti-inflammatory drugs (2.4 %). One of the most well known analgesics is the anti-inflammatory drug ibuprofen (named 7 times out of 19 entries for non-opioid analgesics). The number of cases of misuse of non-opioid analgesics has fallen since 2009 (3.5 %) to 2.4 % (2012), which is above all evident in the fall in the number of cases of misuse of ibuprofen and medications with the active ingredient diclofenac in the Phar-Mon sample. Prescription numbers for ibuprofen overtook those for diclofenac for the first time in 2011, which had previously been the preferred active ingredient (Böger & Schmidt 2012a). Tilidine (named 27 times out of the 64 entries for opioid analgesics) and tramadol (named 19 times out of 64 entries for opioid analgesics) were the most commonly misused opioid analgesics in the Phar-Mon sample in 2012. Between 2009 (total proportion of opioid analgesics 4.8 %) and 2012 (proportion of opioid analgesics 7.9 %) a slight increase can be observed.

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<sup>47</sup> Parachuting refers to a method for consumption in which the powdered substance is, for example, wrapped in a piece of toilet paper and swallowed.

<sup>48</sup> As a result of the small sample for namings of pregabalin, percentages will not be given here in order to avoid biased results.

## 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. These are firstly abstinence-based options and secondly substitution-based options, the main difference being the latter are initially focused purely on stabilising the overall condition. The two concepts complement each other since, in the long term, substitution also aims at abstinence from drugs if at all possible.

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

#### **Contact and motivation phase**

- Develop, maintain and strengthen the motivation to have treatment
- Counselling, incl. medical, psychological and social diagnosis and case history
- The basis should be a treatment or support plan (taking into account all regionally available treatment/healthcare options)

#### **Detoxification/withdrawal phase**

- Multi-professional teams will assist in treating different aspects of the addiction within a “qualified withdrawal” program
- Duration of two to six weeks, depending on the individual case

#### **Rehabilitation phase**

- Abstinence should be stabilised and dependence permanently ended
- Out-patient, in-patient or day care
- Standard therapy duration for drug addicts: up to 26 weeks

#### **Integration and aftercare phase**

- Comprises aftercare as well as assisted living and other out-patient aftercare measures.
- During the aftercare phase, therapeutic measures are reduced with the focus instead placed on re-integration into work and society (support from specialist departments within job agencies as well as the client’s pension insurance provider).

## Data sources

Information on the characteristics and consumption patterns of clients in treatment is available from various sources. However, comparability of the data is limited – in particular in respect of in-patient treatment – due to the different ways it is collected.

### *Outpatient Treatment*

Based on the German Core Data Set on the Documentation of Addiction Treatment (Deutscher Kerndatensatz, KDS), the Statistical Report on Substance Abuse Treatment (Deutsche Suchthilfestatistik, DSHS) (Pfeiffer-Gerschel et al. 2011b) provides extensive data on outpatients from the large majority (2012: N = 794; 2011: N = 778) of the outpatient facilities funded by the *Laender* and municipalities (Pfeiffer-Gerschel et al. 2013f). Since January 2007, most of the addiction aid facilities in Germany have used the new Core Data Set (DHS 2012) (on the introduction of the new core data set see also REITOX Report 2008, chapter 4.3).

Since 2010, no facility has been excluded from the Statistical Report on Substance Abuse Treatment in Germany (DSHS), reported here, on the grounds of their missing quota<sup>49</sup> being too high (>33 %), in order to avoid an overestimation of the missing figures and to achieve a maximum facility sample for each table. This contrasts with previous years up to and including 2009. Therefore, caution needs to be exercised when comparing data of 2010 with that of 2007 to 2009.

The “Treatment Demand Indicator (TDI)” of the EMCDDA<sup>50</sup> is integrated in the Core Data Set. However, there are still divergences between the TDI and the Core Data Set because the German treatment system orients itself to the International Classification of Diseases (ICD-10), which renders substance-based analysis difficult or impossible.

### *Inpatient Treatment*

In 2012, N = 198 facilities participated in the DSHS (2011: N = 166) (Pfeiffer-Gerschel et al. 2013a).

A lot of the larger facilities, especially psychiatric clinics which also offer addiction-specific treatment are not represented in the DSHS. In order to fill this gap as far as possible in the REITOX Report, data from other sources was taken.

- The 2011 Statistical Report on Hospital Diagnosis (KDS) produced by the German Federal Statistical Office (Statistisches Bundesamt 2013b) documents the diagnosis on

<sup>49</sup> By default, a facility-related missing quota of 33 % or less is required for an inclusion in the overall evaluation for all tables with single choice questions. Facilities with a missing quota of more than 33 % in such a table are not taken account of in the data merge in order to prevent that overall data quality is overproportionally impacted by few facilities with a high missing quota. Although this will inevitably lead to a reduction of the facility sample (N) for the respective table, this can be disregarded in the interpretation of the results due to the higher validity of the included data (Pfeiffer-Gerschel et al. 2010).

<sup>50</sup> The TDI is one of five epidemiological key indicators, which are documented nationally and aggregated on an EU level. Standardised core data is collected in respect of problem drug use, dependence and resulting consequences (EMCDDA 2012).

discharge of all patients leaving inpatient facilities as well as the main diagnoses, age and sex. Though complete, the KDS is not addiction-specific and offers little detailed information in this area. 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, amongst other things, information on the treatment of patients with addiction problems. So far, no systematic analysis has been carried out for the transfer of this data into the standard of the Core Data Set.

- The statistics from the German Statutory Pension Insurance (Deutsche Rentenversicherung, DRV) document all cases for which the costs were borne by the pension insurer (DRV 2012). However, the proportion 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.

- Data from regional monitoring systems can be compared to the nationwide figures, insofar as the regional systems used the KDS, and thus serve as valuable extension of national statistics.

### ***Substitution treatment***

Since 1 July 2002, data on substitution therapy has been recorded by the substitution register with the purpose of avoiding double prescriptions of substitution drugs as well as monitoring the implementation of specific quality standards in therapy. The short-term use of substitution substances for the purpose of detoxification is not documented in this register where the detoxification treatment lasts a maximum of four weeks and the patients do not require substitution chemicals directly upon completion of the treatment. Since 2010, this data source has provided information on the number of clients treated and on the substitution drugs used, complete with a list of names of the doctors in charge of therapy.

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

## **5.2 Strategy, Policy**

In Germany there is a sophisticated, nationwide support system available to addicts. They can use this support free of charge, however in some cases approval for costs is required from the social funding agencies defined in the statutory social codes (Leune 2013, p. 181). House doctors play a particular role as they are often the first point of contact for addicts and at-risk persons. The core of the support system is provided, in addition to the house doctors

(for whom no detailed treatment data is available) by the approximately 1,300 addiction advice and treatment centres, around 320 psychiatric outpatient institutes, around 800 facilities for integration support and about 500 (all-day) outpatient and 320 inpatient therapy facilities (ibid.). The majority of the care facilities is run by charitable bodies. State and commercial organisation are also found, in particular, in the area of inpatient treatment.

Table 5.1 Overview of addiction support services offered

Type of facility	Number [rounded]	Places [rounded]
Counselling centres and services (per year) approx	< 1,300 <sup>51</sup>	> 500,000
Substitution treatment (registered)*	8,416	75,400
Low threshold facilities	> 300	
Specialist hospital departments	> 300	> 7,500
Psychiatric clinics	300	> 220,000
Psychiatric outpatient institutes	300	91,800
Withdrawal with motivational elements	190	> 2,000
(Whole day) outpatient rehabilitation	100	> 1,000
Inpatient rehabilitation	320	13,200
Adaption facilities	115	> 1,200
Social therapy inpatient facilities	268	> 10,700
Social therapy daycare facilities	112	> 1,200
Outpatient assisted living	460	> 12,000
Employment projects/qualification measures	250	> 4,800
Self help groups	8,700	No reliable figures

\* In 2012, 2,731 doctors registered. In total, 8,416 doctors qualified to administer substitution treatment are registered (BOPST 2013).

Flöter & Pfeiffer-Gerschel 2011; Leune 2013; BOPST 2013.

Low-threshold and counselling services 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 therapeutic treatment, outpatient addiction support is, for the most part, voluntarily funded by the *Laender* and municipalities.

Acute treatments for 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 providers. The main diagnosis for all patients treated in German hospitals is

<sup>51</sup> This represents an estimate of the total number of outpatient psycho-social counselling centres amongst which facilities which exclusively or primarily treat users of illegal drugs are in the minority.



reported to the Federal Statistical Office which regularly publishes the respective data (Statistical Report on Hospital Diagnoses).

Rehabilitation is to stabilise 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 who also decide on the type, scope and duration of the therapy. Statistical data on the services rendered are available from the social administration authorities.

### **Treatments: Psychiatry**

In addition to the data from the DSHS and the German Statutory Pension Insurance Scheme (DRV), the report on the basic data set on addiction psychiatry can also be used. The figures on addiction treatment cannot, however, be added to the data of the DSHS or the DRV due to possible overlapping. The addiction psychiatry facilities within the specialist psychiatric clinics and the addiction psychiatry departments of the general hospitals and university clinics represent, alongside facilities counselling and rehabilitation, the second major pillar of addiction disorder treatment in Germany. These facilities offer low-threshold, qualified withdrawal treatment, however emergency cases are also treated and crisis interventions and complex treatments in cases of comorbidity are also performed. A detailed diagnosis and reintegration planning process is also conducted. A multi-professional team treats all types of addiction disorder on an inpatient, day care or outpatient basis. This provides a comprehensive medical, psychosocial and psychotherapeutic treatment. Projections show that in 2010 approximately 300,000 inpatient addiction treatments took place in psychiatric clinics. In addition there are 300,000 quarterly treatments that were carried out in psychiatric outpatient institutions of the clinics. 31 % of inpatient psychiatric cases and 14 % of outpatient cases involved patients with dependencies. By comparison, only 150,000 treatments were performed in facilities for internal medicine as a result of alcohol or drug addictions according to the report on health by the Federal Government. Most patients were primarily alcohol-dependent (approx. 70 %). Disorders related to opioid consumption or consumption of multiple substances were the reason for inpatient treatment in approximately 10 to 13 % of cases (DGPPN/Bundessuchtausschuss der psychiatrischen Krankenhäuser 2011 cited according to Die Drogenbeauftragte der Bundesregierung 2012a).

A shift in demand towards increasingly intensive treatment forms has been observed for a long time. Outpatient care for addicted people in psychiatric facilities has been greatly expanded, particularly through the set-up of outpatient psychiatric clinics in institutions tasked to carry out treatment for addicts.

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*, for example 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 system

The German treatment system for people with drug-related problems or their relatives is – as described above – very elaborate. Planning of the treatment demand in the various segments of the medical and/or social help system at a national level, however, does 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 substitution – is of limited use in describing the therapy system in Germany. The question as to whether psychosocial 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 psychosocial care provided within the framework of substitution programmes (with the exception of a few cases in which the counselling facilities themselves dispense the substitution drugs according to existing guidelines). Generally, medical substitution treatment takes place outside of the counselling facilities. Psychosocial care and 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 aimed at alcohol addicts and older target groups. It is the aim of the German Self Help Associations to open themselves up increasingly to addicts of all substances and to convince more young addicts of the idea of self-help.

#### 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 specialised clinics (often in the psychiatric ward, see also chapter 5.2, section Treatments: psychiatry). Outpatient counselling facilities are often the first port of call for drug users insofar as their drug problems are not treated by primary care – i.e. generally speaking by practice-based doctors. The counselling is free of charge, the facilities are mainly funded by the municipalities and *Laender* as well as by their not 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, although

patients without employment are subject to other regulations) (cf. Chapter 11.2.1 REITOX Report 2012). In some cases, inpatient measures are not appropriate for the client's situation (for example if it could jeopardise an existing job) or even impossible (for instance if there is no childcare available to enable a mother to go to treatment). In recent years we have seen increased flexibility in the structure of treatments offered and this has enabled clients to make use of other, demand specific treatment services (for example day care and outpatient treatment options).

Withdrawal treatments are carried out by specialised clinics or therapeutic communities. In the integration and after-care phase, a varied range of services, specifically geared to the needs of the clients, is offered 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 supplementary training specific to the field. All services offered aim at stabilising abstinence from drugs.

Since 2001, substitution based therapy has been regulated in detail by the Narcotics Law and in the meantime has become a fully medically recognised treatment form. This treatment option reaches a large number of drug addicts and has been 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). The results of a study conducted by Wittchen and colleagues (Wittchen et al. 2008b) underline again the effectiveness of various types of substitution treatments with methadone and buprenorphine and show a retention ratio of the patients undergoing substitution treatment that is comparable to the results of controlled clinical studies. Concomitant use (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 distress caused by somatic and psychological disorders.

The state of the art in opiate substitution treatment (OST) had already been established in 2002 by the guidelines passed by the German Medical Association (Bundesärztekammer, BÄK). In 2010, a revised version of the guidelines was presented by the BÄK (cf. also chapters 1.2.2, 5.5.2 and chapter 11 of the REITOX Report 2010). In 2003, OST was acknowledged by the statutory health insurance without any qualification as an SHI-accredited care service to be borne by the SHI. Substances eligible for substitution therapy in Germany are levomethadone, methadone and buprenorphine. Codeine and dihydrocodeine (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 substituted patients are treated by practice-based doctors or in specialised outpatient clinics. Doctors carrying out substitution therapy need to be qualified in addiction medicine. If they do not have this additional qualification they may treat up to three patients under the supervision of a colleague. Meanwhile, a few inpatient facilities have started to accept patients for opiate substitution therapy.

In the current discussion on opiate 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. In this context, what constitutes success can vary depending on the observer's perspective: the reduction of concomitant use of other psychotropic substances can be considered as much a success as the cessation 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 as "necessary". As a result of different interpretations of psychosocial care in the *Laender* and communities, psychosocial care is, on a national level, subject to great variations in terms of organisation, funding and treatments offered.

The revised guidelines of the German Medical Association of 2010 (BÄK 2010) determine the type and scope of psychosocial care, noting that the provision and integration of measures suitable for eliminating psychosocial problems is mandatory for the treatment of opiate addiction. The guidelines furthermore underline the necessity of coordinating psychosocial care and medical care (see also chapter 1.2.2. and 5.5.2 of the REITOX Report 2010).

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 not yet satisfactory. At a regional level however, cooperation and coordination of the treatments offered 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 differing goals and the regional differences they bring about.

### **Quality assurance**

Various professional societies and experts have worked together over recent years to develop guidelines for the treatment of drug dependence and addiction problems (see also chapter 11 of the REITOX Report 2010). These publications are a summary of the current state of knowledge and provide practical guidance – with information on the quality of the empirical basis for the individual statements - for carrying out treatments. In 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-emotionalise the scientific controversies over the most efficient therapy approaches (Schmidt

et al. 2006). Currently, the published guidelines on “Cannabis related disorders”, “Opioid related disorders (acute treatment and post-acute treatment)”, “Mental and behavioural disorders from cocaine, amphetamine, ecstasy and hallucinogens” and “Medication dependence (sedatives, hypnotics, analgesics, psychostimulants)”, as well as on the substances, alcohol and tobacco, are currently being revised.

At a consensus conference held in 2006, the guidelines of the German Society for Addiction Medicine (Deutschen Gesellschaft für Suchtmedizin, DGS e.V.) for the therapy of chronic hepatitis C in injecting substance users were passed (Backmund et al. 2006).

Moreover, the revised version of the S3-Guideline of 2004 on “Prophylaxis, diagnostics and therapy of the Hepatitis-C-virus (HCV)-Infection, AWMF-Register No. 021/012” from the German Society for Digestion and Metabolic Diseases (DGVS) was published in 2010 (Sarrazin et al. 2010) (see also chapter 7.3 of the REITOX Report 2010).

Addiction therapy may only be provided by adequately skilled staff with supplementary training in the specific relevant field. 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 on the basis of European standards (introduction of Master and Bachelor programmes at universities and technical colleges) the requirements on therapeutic staff in addiction support are being newly developed and defined. In the restructuring of the courses for social workers, psychologists and medical staff in the area of addiction support, post-graduate education plays a particularly 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 options (in particular counselling centres), quality assurance and technical monitoring are mainly in the hands of the institutions that support these facilities, namely the *Laender* and municipalities. The responsibility for detoxification and rehabilitation, however, lies with the respective insurance carriers (statutory health and pension insurance organisations) (cf. also chapter 11.3 of the REITOX Report 2012). With outpatient treatments now being increasingly funded by the social security administration, the above mentioned 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 organisations is promoted by *Laender*-financed institutions.

### 5.3.2 Availability and diversification of treatment

A detailed presentation of the forms of treatment that are generally available 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 services, there are differences to be found between the *Laender*. For example, not all *Laender* offer consumption rooms as a component 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*).

All in all, the situation with regard to support services available has not changed much recently. The only partially secured 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 services are cut at various locations. At the same time however, facilities have started to engage in a professionalisation of their operational and technical procedures.

Based on the data of the DSHS (Statistical Report on Substance Abuse Treatment in Germany), Hildebrand and Colleagues (2009) reported estimates for achievement ratios of outpatient and inpatient addiction treatment facilities. According to these estimates, the specialised 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 information on the availability of treatment can be found in standard table 24.

The services offered by counselling and treatment facilities are, especially in the outpatient setting, not exclusively limited to users of specific substance groups. The large majority of the therapy services provided by specialised 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 specialised treatment facilities). But also people with problems related to the use of illicit drugs and other disorders (e. g. eating disorders, pathological gambling, and tobacco dependence) are treated. Correspondingly, most of the facilities hold treatments 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 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 support facilities is to define various problem areas with the respective counselling and treatment requirements and 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 addictive diseases (DHS 2001).

Given the significant increase in the prevalence of cannabis use, especially at the end of the 1990s (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>52</sup>, INCANT<sup>53</sup>, CANDIS<sup>54</sup>, CAN stop<sup>55</sup>, AVerCa<sup>56</sup> or “Quit the shit”<sup>57</sup>) have already been presented in the REITOX Reports of recent years. Although all projects have (problem) 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.

Diamorphine-assisted therapy, addressed to the group of heavily dependent opioid users, is also a further development of an intervention that primarily defines itself by the main substance of the disorder, but which is linked to a series of psychosocial and health interventions.

Even though current intervention studies on other substance groups (e.g. stimulants, cocaine, LSD) are not available to a comparable extent, 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 the Selected Issue of the REITOX Report 2010 on the development, methods and implementation of national treatment guidelines).

## 5.4 Characteristics of treated clients

### 5.4.1 Outpatient treatment

The data presented in the following is based on the detailed data of the table volumes published within the framework of the Statistical Report on Substance Abuse Treatment in Germany (Deutsche Suchthilfestatistik, DSHS) of the year 2012 (Pfeiffer-Gerschel et al. 2013a,d,e,f). The data used in the presentation is taken from the partial evaluation corresponding to outpatient counselling and treatment. Detailed information on the variables of the treatment demand indicator (TDI) can be found in standard TDI. The presented tables include references to the relevant TDI tables. Information on clients undergoing treatment or receiving counselling while in prison and some information on clients of low-threshold facilities can be found in chapters 8 and 9.

In the year 2012 data from a total of 327,939 therapies (without one-off contacts) carried out in N = 794 outpatient facilities was collected within the framework of the DSHS. For this REITOX Report only data from clients primarily treated for illicit substance use (including sedatives/hypnotics and volatile solvents) were taken into account (patients treated primarily for alcohol-induced disorders accounted alone for 53 % of all recorded cases in 2012).

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<sup>52</sup> [www.realize-it.org/](http://www.realize-it.org/)

<sup>53</sup> [www.incant.eu](http://www.incant.eu)

<sup>54</sup> [www.candis-projekt.de/](http://www.candis-projekt.de/)

<sup>55</sup> [www.canstop.med.uni-rostock.de/](http://www.canstop.med.uni-rostock.de/)

<sup>56</sup> [www.averca.de/](http://www.averca.de/)

<sup>57</sup> [www.drugcom.de/](http://www.drugcom.de/)

## Diagnosics data

For the year 2012 the German Statistical Report on Treatment Centres for Substance Use Disorders contains data on the main diagnoses of a total of 63,740 treatments from N = 794 facilities that were started or completed in outpatient psychosocial addiction support centres because of problems with illicit drugs. The main diagnoses are based on the diagnostic categories of the international classification system of the World Health Organisation (WHO), the 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 (41.1 %; 2011: 44.9 %) sought treatment or counselling primarily for dependence on or harmful use of opioids<sup>58</sup>. The proportion 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 (2012: 36.5 %; 2011: 34.7 %) clients were treated for primary cannabis problems. After a slight decrease in 2011, this proportion has risen slightly. As in the previous years, the proportion of clients who received counselling and treatment because of problems connected to the use of stimulants also increased in 2012 (12.3 %; 2011: 10.5 %). The comparative values for cocaine (6.0 %; 2011: 5.8 %) and other substances remained practically unchanged in comparison with the previous year.

In the case of persons who received addiction specific treatment for the first time, Cannabis accounted for by far the largest percentage which had also grown slightly (58.4 %; 2011: 56.6 % of all clients). After a considerable margin, the second largest group is first-time clients with the main diagnosis stimulants (16.6 %; 2011: 15.0 %), followed by first-time clients with opioid related disorders (15.0 %; 2011: 18.1 %). The proportion of first-time clients with cocaine related disorders (6.0 %; 2011: 6.0 %), as well as all other substance groups, have remained practically unchanged in size since last year (Table 5.2).

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<sup>58</sup> The portions given below were calculated on the basis of the values given by the TDI-tables 14.1.1 (all clients treated) and 14.1.2 (first time clients) set up for the outpatient treatment centres for substance use disorders.



Table 5.2 Main diagnosis in outpatient therapy (DSHS outpatient data, 2012)

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	39.9 %	45.7 %	41.1 %	14.4 %	17.5 %	15.0 %
Cannabinoids	39.3 %	26.2 %	36.5 %	61.9 %	45.0 %	58.4 %
Sedatives/Hypnotics	1.2 %	5.6 %	2.2 %	1.2 %	5.8 %	2.2 %
Cocaine	6.5 %	3.9 %	6.0 %	6.6 %	3.9 %	6.0 %
Stimulants	11.2 %	16.3 %	12.3 %	14.3 %	25.3 %	16.6 %
Hallucinogens	0.2 %	0.3 %	0.2 %	0.3 %	0.2 %	0.2 %
Volatile substances	0.1 %	0.2 %	0.1 %	0.1 %	0.3 %	0.1 %
Multiple/other substances	1.6 %	1.7 %	1.6 %	1.3 %	2.1 %	1.4 %
<b>Total (N)</b>	<b>50,084</b>	<b>13,595</b>	<b>63,679</b>	<b>14,522</b>	<b>3,790</b>	<b>18,312</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. 2013d,f.

Secondary addiction diagnoses made in addition to the main diagnosis are relatively common. Out of the clients with primary opioid-related problems<sup>59</sup> in 2012, about one in four clients (26.4 %) also displayed an alcohol-related disorder (dependence or harmful use) or a disorder in connection with the use of cocaine (22.6 %) (Table 5.3). Dependence on or harmful use of cannabis continued to represent the most common non-opioid secondary diagnosis in this patient group (31.6 %).

Among clients with primary cocaine-related problems<sup>60</sup>, cannabis, alcohol, amphetamines and ecstasy played a dominant role as substance-related secondary diagnoses. The proportion of clients with a primary cocaine problem who also fulfilled the diagnostic criteria of a heroin-related disorder fell to 7.3 % (2011: 8.9 %).

Almost one in five of the clients with primary cannabis-related problems<sup>61</sup> also displayed harmful use of or dependence on amphetamines (18.8 %). Almost one client in ten with a cannabis-related main diagnosis also showed harmful use of or dependence on cocaine (9.1 %). More than a quarter of the clients with a primary disorder caused by the use of cannabinoids also fulfilled the diagnostic criteria of an alcohol-related disorder (26.8 %). Seen across the board of all substances, approximately more than a quarter of the clients had a disorder caused by the use of alcohol in addition to the primary reason for treatment admission.

<sup>59</sup> TDI table 24.1.1; all subsequent data on clients with primary opioid-related problems are referred to a total number of N=23,307. A direct calculation of a total number from the TDI-tables is not possible since several entries are possible for the additional substance related diagnoses.

<sup>60</sup> TDI table 24.1.1; referred to a total number of N=2,968.

<sup>61</sup> TDI table 24.1.1; referred to a total number of N=18,202 (main diagnosis: cannabinoids).

Almost every second client (48.4 %) with the main diagnosis stimulants<sup>62</sup> was also diagnosed with a harmful use or dependence on cannabinoids; 11.6 % had a secondary diagnosis of a disorder due to the use of cocaine) Pfeiffer-Gerschel et al. 2013f).

Table 5.3 Main diagnosis and additional substance-related diagnosis (DSHS outpatient data, 2012)

Single diagnosis <sup>1)</sup>	Main diagnosis				
	Opioids	Cannabis	Sed./Hypn.	Cocaine	Stimulants
Alcohol	26.4 %	26.8 %	34.4 %	38.1 %	28.2 %
Heroin	84.4 %	2.5 %	5.5 %	7.3 %	4.7 %
Methadone	37.5 %	0.4 %	1.5 %	1.3 %	0.4 %
Buprenorphine	9.9 %	0.3 %	1.2 %	0.7 %	0.3 %
Other Opiates	11.4 %	0.7 %	3.3 %	1.0 %	0.9 %
Cannabinoids	31.6 %	100.0 %	7.6 %	44.4 %	48.4 %
Benzodiazepines	13.8 %	1.2 %	71.5 %	3.7 %	2.3 %
Other Sedatives/Hypnotics	0.5 %	0.2 %	18.7 %	0.3 %	0.4 %
Cocaine	22.6 %	9.1 %	4.2 %	93.8 %	11.6 %
Crack	3.2 %	0.3 %	1.4 %	5.0 %	0.4 %
Amphetamines	9.5 %	18.8 %	4.2 %	19.6 %	72.8 %
MDMA	4.2 %	6.5 %	0.8 %	6.9 %	16.8 %
Other stimulants	0.9 %	1.7 %	0.6 %	1.0 %	28.2 %
LSD	3.2 %	2.5 %	0.8 %	4.3 %	5.0 %
<b>Total (N)</b>	<b>22,085</b>	<b>19,525</b>	<b>1,180</b>	<b>3,120</b>	<b>7,301</b>

1) Multiple entries possible.

The data corresponds with the TDI-table 24.1.1.

Pfeiffer-Gerschel et al. 2013f.

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

In 2012, 78.7 %<sup>63</sup> (2011: 78.9 %) of all outpatient clients N = 63,679<sup>64</sup> with drug problems recorded within the framework of the German Statistical Report on Treatment Centres for Substance Use Disorders were male. 50.3 % (2011: 50.9 %) of all treated patients were between 15 and 29 years of age<sup>65</sup>. 88.4 % (2011: 83.1 %) of them were of German nationality, 2.6 % (2011: 3.0 %) were from other countries of the European Union (EU), 4.0 % (2011: 8.6 %) from non-EU countries such as Turkey or the former Soviet Union

<sup>62</sup> TDI tables 24.1.1; referred to a total number of N=7,301 (main diagnosis: cannabinoids).

<sup>63</sup> TDI tables 12.1.1, 13.1.1 und 14.1.1.

<sup>64</sup> For whom data on the gender and main diagnosis were available.

<sup>65</sup> TDI table 14.1.1.

(unknown nationality: 5.0 %). Since living conditions of the clients vary considerably depending on the main diagnosis or the drugs used, the characteristics presented in Table 5.4 are broken down by main drugs.

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

Table 5.4 Socio-demographic data broken down by main drug (DSHS outpatient data, 2012)

Characteristics	Main diagnosis			
	Opioids	Cannabis	Cocaine	Stimulants
Age when starting treatment (m) <sup>1)</sup>	36.0	24.8	33.1	27.1
Age of first drug use (m) <sup>2)</sup>	21.3	15.4	21.4	18.1
Gender (ratio males) <sup>3)</sup>	76.3 %	84.7 %	85.9 %	71.7 %
Living alone <sup>4)</sup>	52.3 %	60.2 %	42.4 %	53.1 %
Working status <sup>5)</sup>				
without work	62.1 %	35.4 %	40.2 %	46.3 %
in school/education	2.3 %	29.4 %	4.7 %	11.6 %
Homeless <sup>6)</sup>	3.0 %	0.7 %	1.7 %	1.3 %

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

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

3) TDI table: 12.1.1, 13.1.1 and 14.1.1 (for corresponding data).

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

5) TDI- table 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. 2013f.

Table 5.5 shows the most common use pattern for various substances. Heroin continues to be mainly injected by more than half of the clients (2012: 57.8 %; 2011: 58.9 %). The trend of recent years which saw the intravenous use of heroin falling in favour of smoking since 2003, (in 2003 heroin was still injected in two-thirds of all cases), has continued, after a slight rise in injecting use last year. The proportion of those who smoke heroin (2012: 28.0 %; 2011: 27.0 %), increased slightly in comparison to the previous year, whilst nasal use fell slightly (2012: 7.8 %; 2011: 8.4 %). Injecting use was also found in every fifth cocaine user (18.3 %). All other substances are mainly orally consumed, sniffed (especially cocaine) or smoked (especially crack). The most diversified use pattern was found for amphetamines.

Table 5.5 Routes of drug administration<sup>1)</sup> (DSHS outpatient data, 2012)

Substance	Route of administration					Total
	Injection	Smoking	Oral	Inhalation	Other	
Heroin	57.8 %	28.0 %	6.0 %	7.8 %	0.4 %	16,811
Methadone	2.9 %	1.8 %	94.7 %	0.3 %	0.3 %	9,023
Buprenorphine	3.7 %	1.5 %	88.0 %	5.6 %	1.3 %	2,341
Other opioids	12.5 %	11.7 %	70.7 %	2.3 %	2.7 %	2,652
Cocaine	18.3 %	21.4 %	1.4 %	58.4 %	0.5 %	10,383
Crack	8.2 %	85.8 %	1.9 %	3.5 %	0.5 %	938
Amphetamines	1.2 %	12.9 %	29.1 %	55.7 %	1.1 %	11,397

Multiple entries possible.

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

Pfeiffer-Gerschel et al. 2013f.

The DSHS also contains some basic data on intensity of care<sup>66</sup>. The average number of contacts during therapy was the highest for opiate clients, amounting to 20.7 (2011: 20.7), and the lowest for cannabis clients, amounting to 10.2 (2011: 10.2). There was generally more contact with women than men with comparable main diagnoses (Table 5.6). The average treatment duration corresponds in its distribution to the figures for contacts. On average, opioid clients have the longest treatment duration and cannabis clients the shortest.

Table 5.6 Number of times contacted and treatment duration (DSHS outpatient data, 2012)

Main Diagnosis	Number of times contacted (M)			Duration of treatment (M) <sup>1)</sup>		
	Males	Females	Total	Males	Females	Total
Opioids	19.4	24.7	20.7	52.8	60.0	54.5
Cannabinoids	10.0	11.7	10.2	25.9	25.2	25.8
Sedatives/Hypnotics	11.8	13.9	12.9	30.3	33.1	31.9
Cocaine	14.2	13.8	14.1	30.6	29.9	30.5
Stimulants	10.3	12.5	10.9	29.8	27.9	29.3
Hallucinogens	10.5	10.4	10.5	25.7	37.1	29.0
Volatile substances	7.1	9.2	8.0	21.4	16.3	19.3
Multiple/other substances	17.2	23.8	18.6	38.0	38.3	38.1

1) in weeks.

Pfeiffer-Gerschel et al. 2013f.

<sup>66</sup> Due to the small number of cases of clients with primary problems associated with hallucinogens (n = 138) and volatile substances (n = 64), these two groups were not taken into account in the comparisons.

### 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, differentiating 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 that provides information on some of the specialised clinics and facilities based on the Core Data Set.

#### Diagnosics data

Out of the total of 47,079 inpatient treatments of substance-related disorders in N = 198 facilities, documented by the DSHS in 2012, 9,481 were related to illicit substances (including sedatives/hypnotics and volatile solvents) (Pfeiffer-Gerschel et al. 2013a). Among those were 7,390 males: this corresponds to a male portion of 77.9 % (2011: 80.3 %). In three quarters of the cases (73.2 %) alcohol-related disorders were the primary reason for inpatient therapy (29,504 therapies; 2011: 23,603). 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, treatments with a main diagnosis based on dependence on or harmful use of opioids (without a main diagnosis of alcohol) still represent the largest single group in the inpatient setting (30.0 %; 2011: 34.2 %) <sup>67</sup>. This segment has been on the decline since 2007 (48.6 %). The second largest group is formed by treatments for disorders caused by cannabis use (26.8 %; 2011: 26.3 %), whose portion has been continually increasing since 2007. Then follow treatments for polyvalent drug use (16.8 %; 2011: 15.6 %). Their portion too, was found to increase over five years. Problems in connection with cocaine or stimulants were in 6.7 % (2011: 6.9 %) or respectively 15.5 % (2011: 12.7 %) of the cases the primary reason for treatment (Table 5.6).

Ahead of poly-drug use, cannabis-related disorders recorded by the DSHS were the second most common reason for therapy in the five years. This is probably an expression of the increased importance of cannabis in the inpatient setting of specialised clinics. Among the inpatients recorded within the framework of the DSHS, cannabis still plays a significantly minor role among women than among men: only 18.5 % (2011: 18.8 %) of the women vs. 30.8 % (2011: 28.1 %) of the men had 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 roughly by the factor 1:6 and for cocaine, which is to a larger extent the main reason for therapy in men (7.2 % vs. 4.7 %).

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

<sup>67</sup> The proportions presented below were calculated on the basis of the figures provided by the TDI-tables 14.1.1 (all patients treated) and 14.1.2 (all patients treated for the first time).

the use of opioids) account for the large majority of the cases. In the area of acute treatment (hospitals) about half of the drug cases in 2011 (43.5 %; 2010: 43.2 %) were related to polyvalent drug use; in the statistics of the German Statutory Pension Insurance Scheme (DRV) the figure even amounts to 46.7 % (2010: 51.6 %) 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>68</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 rise (but still account for a significantly smaller portion).

Hospital stays caused by sedative and hypnotics use continue to be relatively common in acute treatment (Statistical Report on Hospital Diagnoses). About one in ten addiction diagnoses in hospital treatments is related to these substances. In contrast, they play a relatively minor role in rehabilitation treatments (DRV) and in the DSHS (Table 5.7).

Table 5.7 Inpatients broken down by addiction diagnosis

	Hospital	DRV	DSHS			
	2011	2011	2011	2012		
Main diagnosis	Total	Total	Total <sup>1)</sup>	Total <sup>1)</sup>	Males <sup>2)</sup>	Females <sup>3)</sup>
Opioids	30.2 %	24.7 %	34.2 %	30.0 %	29.7 %	30.8 %
Cannabinoids	9.5 %	16.2 %	26.3 %	26.8 %	29.2 %	18.5 %
Sedatives/Hypnotics	10.7 %	2.1 %	3.8 %	4.0 %	1.9 %	11.4 %
Cocaine	1.3 %	3.7 %	6.9 %	6.7 %	7.2 %	4.7 %
Stimulants	4.0 %	6.3 %	12.7 %	15.5 %	14.6 %	18.9 %
Hallucinogens	0.6 %	0.1 %	0.4 %	0.1 %	0.1 %	0.1 %
Vol. substances	0.2 %	0.1 %	0.1 %	0.0 %	0.0 %	0.0 %
Multiple/other substances	43.5 %	46.7 %	15.6 %	16.8 %	17.2 %	15.6 %
Total (Number)	95,940	13,859	8,050	9,481	7,390	2,091

1) The data corresponds with TDI-table: 14.1.1.

2) The data corresponds with TDI-table: 12.1.1.

3) The data corresponds with TDI-table: 13.1.1.

DRV 2012;Pfeiffer-Gerschel et al. 2013a;Statistisches Bundesamt 2013b.

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

<sup>68</sup> This is partly due to the fact that the German Core Data Set that 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.

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 is formed by 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 – different coding practices can be held responsible for the differences found between the statistics.

### **Socio-demographic information and treatment duration**

In analogy to the presentation of the data for the clients in outpatient treatment, Table 5.8 summarises some socio-demographic characteristics of the inpatient cases documented within the framework of the DSHS for the main diagnosis 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 and cannabis users somewhat older; differences between users of cocaine and stimulants tend to be minor. After the proportion of homeless persons among inpatients with the main diagnosis opioids and cocaine had doubled in comparison to the previous year and amongst inpatients with the main diagnosis stimulants had more than quadrupled, it continued to increase slightly in 2011. In 2012, the proportion of homeless persons amongst clients with the main diagnosis opioids increased again whilst the proportion for the main diagnoses cannabis, cocaine and stimulants fell slightly. 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 use parameters which would, for example, give more information about the intensity of use and thus about the severity of the substance-related disorder.

Table 5.8 Demographic data by main drug (DSHS inpatient data, 2012)

Characteristics	Main diagnosis				
	Opioids	Cannabis	Cocaine	Stimulants	
Age when starting treatment (m) <sup>1)</sup>	34.1	27.1	32.6	27.6	
Age of first drug use (m) <sup>2)</sup>	20.7	15.1	20.7	17.8	
Gender (ratio males) <sup>3)</sup>	77.3 %	84.8 %	84.3 %	73.1 %	
Living alone <sup>4)</sup>	55.1 %	63.7 %	50.4 %	60.6 %	
Working status <sup>5)</sup>					
	without work	69.2 %	61.7 %	64.4 %	63.8 %
	in school/education	0.9 %	6.1 %	1.5 %	4.7 %
Homeless <sup>6)</sup>	2.8 %	1.1 %	2.4 %	1.7 %	

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

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

3) TDI table: 12.1.1, 13.1.1 and 14.1.1 (for corresponding data).

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

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

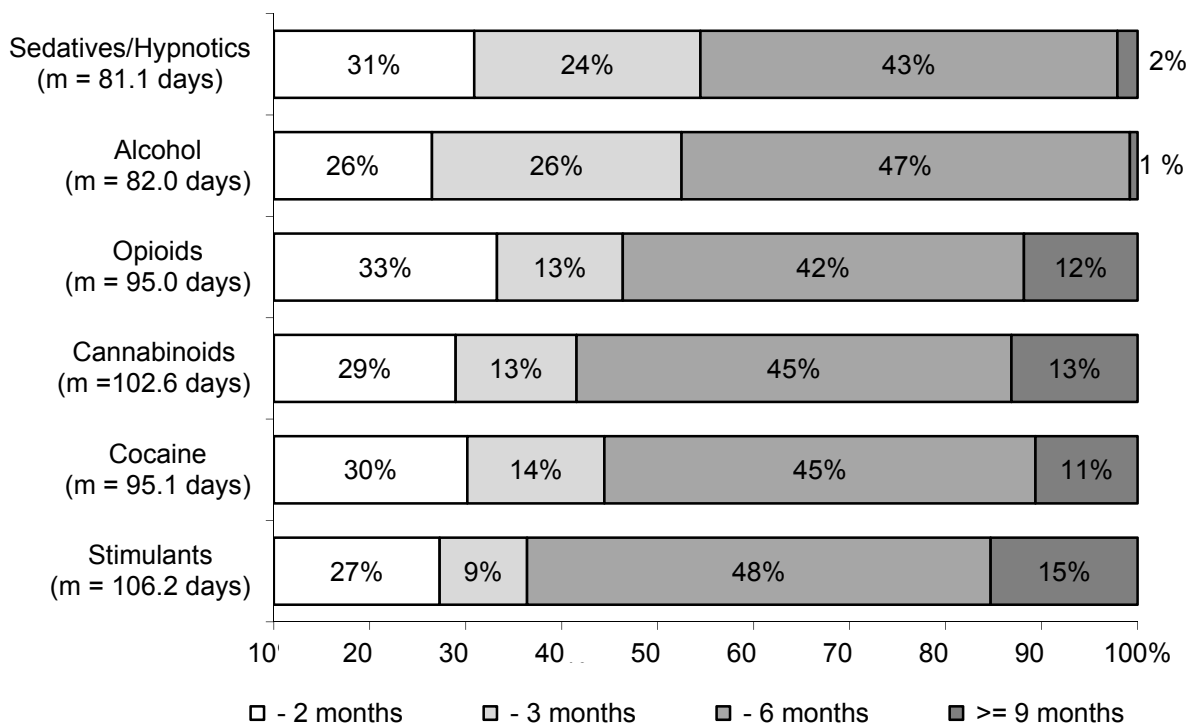
6) TDI- table 8.1.1 on the stability of the life situation (no directly corresponding data): on the day before the start of therapy.

Pfeiffer-Gerschel et al. 2013a.

The data from the DSHS shows significant differences in the average treatment duration broken down by main diagnoses (Figure 5.1). In 2012 the average treatment duration for patients with primary disorders caused by the use of cannabinoids was 14.7 weeks (2011: 14.1), 15.2 weeks (for stimulants 2011: 15.2), 13.6 weeks for cocaine (2011: 14.0), 13.6 weeks for opioids (2011: 13.8) and 11.6 weeks for sedatives/hypnotics (2011: 11.4). The treatment duration for alcohol, given as a comparative value, is on average 11.7 weeks (2011: 11.8).

Some of the treatment durations diverge considerably. A striking statistic 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 duration  $\geq 9$  months for alcohol and sedatives/hypnotics. The average treatment duration for alcohol-related disorders has been gradually decreasing over the last five years. For the other substance groups, no clear trend can be identified despite slight reductions in comparison to the previous year (apart from cannabinoids).





Pfeiffer-Gerschel et al. 2013a.

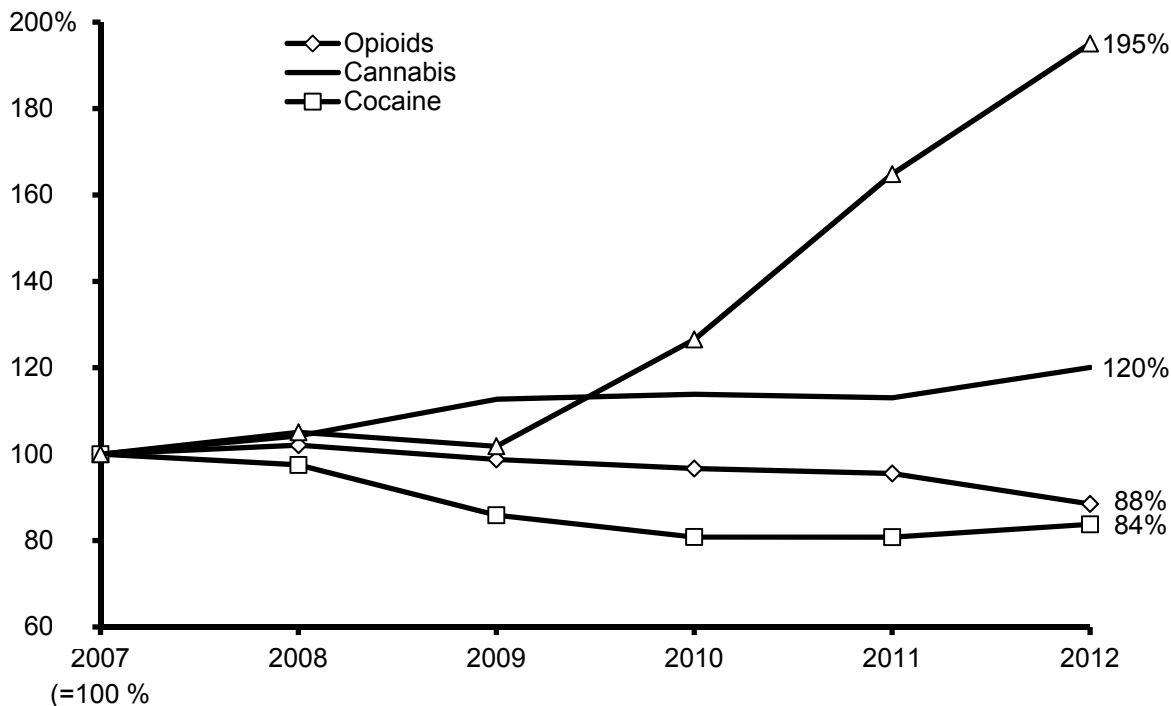
Figure 5.1 Duration of inpatient treatment broken down by substance use disorders (DSHS inpatient data, 2012)

## 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 first place when it comes to treatment requests made by persons seeking outpatient therapy for the first time, whereas opioids are the reason for making contact with a treatment facility in only less than five users. Eight years ago, this portion was still at about a third of the first-time patients. Among all 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, whereas the proportion of clients with the main diagnosis cannabis has increased continuously.

If one calculates the changes in admissions of clients to the outpatient setting, broken down by main diagnosis since the introduction of the new Core Data Set in 2007 (Index=100 %), one finds a slight increase in the share of patients with main diagnosis cannabis since 2007, a slight decline in patients with cocaine and opioid problems, and almost a doubling of the proportion of clients with the main diagnosis stimulants (Figure 5.2).



Pfeiffer-Gerschel et al. 2013a.

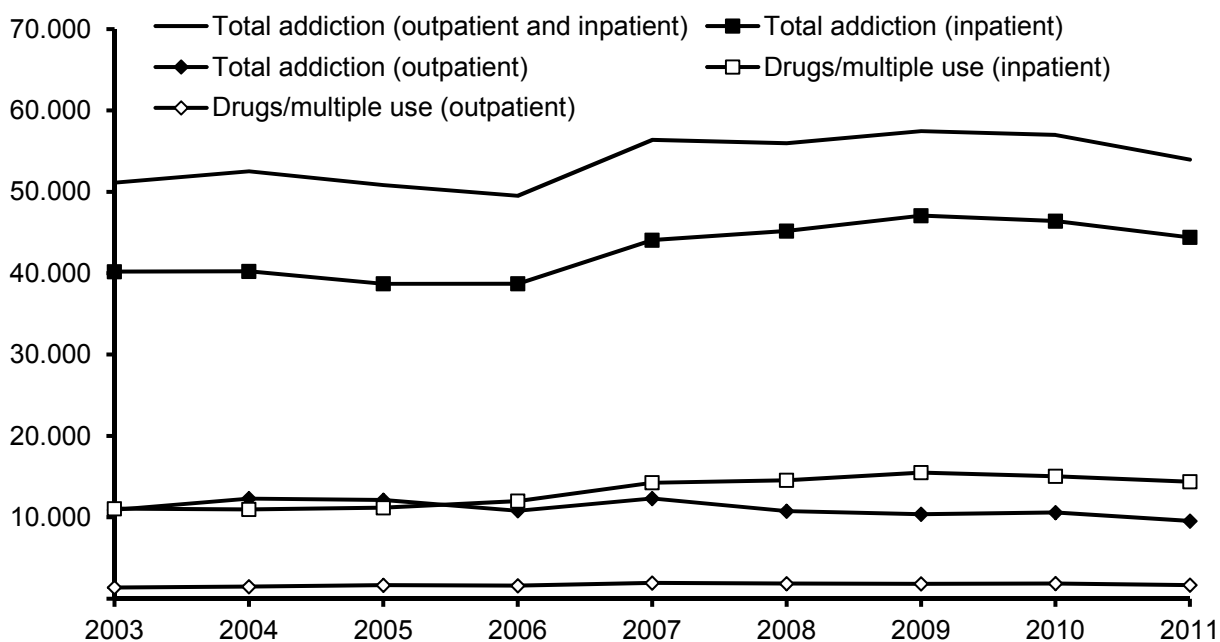
Figure 5.2 Changes in admissions to outpatient therapy, by main diagnoses (DSHS outpatient data)

In the inpatient setting, (rehabilitation statistics by the RV, DSHS), cannabis users form the second largest patient group after the opioid users. Inpatient treatment of cannabis disorders also plays an increasingly important role. This development becomes most apparent in the data collected by DHDS, while acute treatments for cannabis (statistical report on hospital diagnoses), by comparison, are still relatively rare.

The total number of rehabilitation services funded by the Pension Insurance in the area of addiction rose by over 10 % between 2003 (51,123) and 2009 (57,456), however in both of the past two years this number has decreased (2010: 56,997; 2011: 53,965) (Figure 5.3). The largest part of these services (69.4 %) is provided for alcohol related disorders. Disorders due to the use of illegal drugs and multiple use together comprise around 30 % of the treatments provided (medicinal drugs: 0.8 %). This share increased from 24.3 % in 2003 by about 5 %, which means that since 2004 the share of rehabilitation services funded by the Pension Insurance for the therapy of primary alcohol problems has been continually shrinking.

The ratio of inpatient to outpatient treatments is almost 5:1. This ratio shifted slightly between 2003 and 2008 (especially since 2005) in favour of the inpatient treatments (from 3.7:1 to 4.7:1). Looking only at the rehabilitation services funded for drugs and multiple use, one finds that the ratio between inpatient and outpatient treatment has, with nearly 9:1 markedly shifted towards the inpatient treatments. Between 2003 and 2007 (according to the DRV), the number of rehabilitation cases increased for drug patients (drugs/multiple use) in both the inpatient and outpatient area and have remained stable since then (Figure 5.3).

So far, the available statistics do not show the treatments carried out in day hospital care in a discriminating manner. An attempt to take a differentiated view of the statistical data could contribute to an in-depth analysis of changes in the reporting years to come.



DRV 2012.

Figure 5.3 Changes in outpatient and inpatient rehabilitation therapies

The total number of acute addiction or drug treatments in hospitals has basically remained stable after increases in 2010 and 2011 (Federal Statistical Office 2013b). Considerable increases were observed in the number of treatments due to stimulants (+38.3 %), cocaine (+13.6 %), sedatives/hypnotics (+10.5) and, although with a low overall number, in the number of treatments due to hallucinogens (+33.5 %) and, as in previous years, due to cannabinoids (+11.7 %). The number of inpatient hospital treatments in connection with opioids (-11.0 %) was the only main diagnosis amongst illegal drugs which fell significantly between 2010 and 2011 (Table 5.9).

Table 5.9 Inpatient treatment of drug problems in hospitals 2008-2011

Main diagnosis	Year				Changes
	2007	2008	2009	2010	2010 vs.2009
Alcohol	333,804	339,092	333,357	338,355	1.5 %
Opioids	30,776	31,496	32,538	28,956	-11.0 %
Cannabinoids	6,297	7,251	8,145	9,094	11.7 %
Sedatives/Hypnotics	9,294	9,094	9,270	10,241	10.5 %
Cocaine	1,388	1,050	1,076	1,222	13.6 %
Stimulants	1,868	1,848	2,805	3,878	38.3 %
Hallucinogens	482	431	430	574	33.5 %
Tobacco	281	258	310	269	-13.2 %
Volatile substances	152	194	171	198	15.8 %
Multiple/other substances	42,399	42,468	41,449	41,777	0.8 %
<b>Total addiction</b>	<b>426,741</b>	<b>433,182</b>	<b>429,551</b>	<b>434,564</b>	<b>1.2 %</b>
<b>Total drugs</b>	<b>92,656</b>	<b>93,832</b>	<b>95,884</b>	<b>95,940</b>	<b>0.1 %</b>

Statistisches Bundesamt 2009, 2011a,b, 2013b.

The greater flexibility in the structure of treatments offered is particularly noticeable through the expansion of day care and outpatient treatments. Since 2012, the German Statutory Pension Insurance Scheme (DRV) has enabled rehabilitants to transfer from an inpatient facility to a whole-day outpatient facility close to where they live – in the scope of the so-called “extended whole-day outpatient discharge option”. Before, this had only been possible in individual cases where the insured person happened to live near to the relevant inpatient rehabilitation facility (Hebrant 2011). Four of the 35 whole-day outpatient rehabilitation facilities run by the DRV (status: February 2010) have specialised exclusively in rehabilitation of drug addicts, 22 only treat alcohol and medication dependence and seven rehabilitate all three indications together. The aim is to achieve a standard combination of inpatient and whole-day outpatient rehabilitation as an alternative and addition to the market. The definition of short-term and long-term therapy is thus removed and the duration of the treatment is determined more flexibly. Good-practice is represented by the “Kombi-Nord”, which is jointly provided in north Germany by the DRV Braunschweig-Hannover, the DRV Oldenburg-Bremen and the DRV Nord.

A current challenge for the Saxon addiction support service comes from the growth in demand for treatment for clients with crystal misuse (SLS 2013b). The fourfold increase in the number of clients between 2002 (N = 869) and 2012 (N = 3,051) and in particular the rate of increase of the last three years enable one to conclude that the use is no longer confined to the party scene but is very widespread across different population groups. It is also noticeable that, in comparison to other illegal drugs, there is a relatively high proportion of

women (overall: approx. 30 %), in particular amongst the under 20s (>50 %). The challenge for the addiction support facilities consist not only in the consideration of drug-specific effects (e.g. psychosis, behavioural and personality changes, cognitive impairment) and particularly risky patterns of use (i.v. use) but also in respect of pregnancies and children in the home.

Tossmann, Jonas and colleagues (2012) have examined the effectiveness of multi-dimensional family therapy (MDFT) for youths with cannabis related disorders, for the first time in Germany. A randomised controlled trial (RCT) was conducted with two test conditions and four follow-up interviews (three, six, nine and twelve months after the baseline study). A single therapy treatment served as a comparison (youth psychotherapy), which is provided as standard in Berlin therapy facilities in these situations (Treatment as usual, TAU). 120 youths between the ages of 13 and 18 took part who displayed evidence of abuse or dependent use of cannabis according to DSM-IV. The results showed that in comparison to the baseline study, the participants of both treatments had significantly reduced their cannabis use and achieved significant improvements in relation to use related problems and mental issues. In terms of the extent of reduction of cannabis use, MDFT was revealed to be considerably more effective than youth psychotherapy ( $d = 0.31$ ), hence MDFT represents a very promising form of therapy for cannabis related disorders amongst youths.

The effectiveness of an intervention in online chat, based on a motivational interviewing (MI) technique, amongst young alcohol and cannabis users with ambivalent readiness to change was examined by Jonas and colleagues (2012) in the scope of a randomised controlled online trial with follow-up interviews after one and three months. The recruitment was carried out via self-tests on the website, [www.drugcom.de](http://www.drugcom.de), and only included persons with problem alcohol or cannabis use. Participants in the intervention group took part in private MI chats. Members of the control group only received, in the chat, factual information on the self-test they had taken. 302 persons were randomised and included in the intention-to-treat (ITT) analysis. There was no apparent difference in the groups in the consumption of alcohol ( $p \geq 0.224$ ), cannabis ( $p = 0.537$ ) or in their readiness to change according to the RCQ ( $p = 0.469$ ). Both groups reduced their alcohol consumption during the course of the study significantly and showed improvements in their readiness to change. The authors thus concluded that the described chat intervention did not achieve any change in behaviour amongst ambivalent users and that online intervention for this group should possibly be conducted for a longer period and have a more binding character.

Using a prospective observational study, Steffen and colleagues (2012) examined the effectiveness of outpatient addiction rehabilitation for people suffering from cannabis related dependence. Explicit data exists for short-term therapies (approx. 10-16 % one-year abstinence) but not for medical rehabilitation. 54 patients were included in the study who fulfilled the diagnosis for cannabis dependence. The target treatment scope was 120 individual and group sessions including work with relatives over a period of 12 months. One year after the end of the outpatient addiction rehabilitation, the abstinence percentage for cannabis addiction was 40 % and for other cannabis related dependence between 36 and 50 %. Due to the low number of cases involved as well as the lack of a control group or

randomisation with other therapy types, the effectiveness in comparison to short-term therapy and inpatient addiction rehabilitation must be examined in further randomised studies.

### 5.5.2 Substitution treatment

The most recent census carried out within the framework of the substitution register permits making inferences about the number of persons reached on a set day but not over the course of a year.

From 2000, when reporting became obligatory, the number of substitution patients reported continuously increased until 2010 – as of 1 July 2010 the number was 77,400. However, since 2011 the number has been on the decline – as of 1 July 2012 it was 75,400 (BOPST 2013).

In 2012, around 88,000 registrations, deregistrations or changed registrations of patient codes were recorded in the substitution register. This high number is due, amongst other things, to the fact that the same patients were registered and deregistered multiple times – either by the same doctor or by different doctors. The reasons for this could lie with the patient themselves (e.g. change of attending doctor, longer stay in a clinic or correctional facilities) or with the doctors (e.g. change in personnel in outpatient substitution clinics). In 2012, around 160 double treatments were confirmed by the substitution register (2011: around 150 double treatments) which were then ended by the doctors concerned upon notification by the register.

The number of doctors qualified to administer addiction therapy reported by the medical associations and registered in the substitution register (2012: 8,416) is considerably higher than the number of doctors actually performing substitution treatments. A total of 2,731 doctors reported patients to the substitution register in 2012. The number of doctors who actually perform substitution treatments has been stagnating at a practically unchanged level since 2004. In 2012, 542 of these doctors – that is approximately 20 per cent – used the supervision of a colleague (doctors without an addiction therapy qualification can treat up to three substitution patients simultaneously if they involve a suitably qualified physician). By the cut-off date of 1 July 2012, a good 15 per cent of the doctors performing substitution treatments had reported half of their substitution patients.

The average number of registered substitution patients per doctor varies considerably between the individual states and its nationwide average is 28. Access to substitution treatment is subject to strong regional divergences. Firstly, the proportion of substitution patients in the total population is much higher in the city-states (especially Bremen and Hamburg), possibly because of the surrounding environment, than in the large area states. Secondly, it is significantly higher in the western *Laender* than in the eastern *Laender*. Only 2.9 % (N = 2,181; 2011: 3.0 %; N = 2,266) of the patients reported to the register (cut-off date: 1 October 2012) and 5.3 % (N = 146; 2011: 5.3 %, N = 142) of the doctors performing substitution treatments are from the eastern *Laender* (excluding Berlin). The number of registered patients per doctor is accordingly also subject to considerable variations between

the *Laender*. Whereas a doctor in Hamburg treated on average 41.4 substitution patients in 2012 (followed by the Saarland with an average of 41.1), the average in Brandenburg was only 6.0 (Mecklenburg-West Pomerania: 10.1; Thuringia: 13.2).

The share of substances used in substitution treatment has shifted in the past few away from methadone (2012: 51.6 %) and towards levomethadone (2012: 27.0 %) as well as buprenorphine, which, in 2012, was used in about every fifth substitution (20,4 %) (Table 5.10).

Table 5.10 Type and proportion of substitution drugs reported to the substitution register (2004-2012)

Substitution drug	2004	2005	2006	2007	2008	2009	2010	2011	2012
Methadone	68.3 %	66.2 %	64.1 %	61.4 %	59.7 %	58.9 %	57.7 %	54.8 %	51.6 %
Levomethadone	15.0 %	15.8 %	17.2 %	19.0 %	20.6 %	21.8 %	23.0 %	25.4 %	27.0 %
Buprenorphine	15.6 %	17.2 %	18.0 %	18.6 %	18.9 %	18.6 %	18.6 %	19.2 %	20.4 %
Dihydrocodein	0.9 %	0.7 %	0.6 %	0.5 %	0.4 %	0.3 %	0.3 %	0.2 %	0.2 %
Codeine	0.2 %	0.1 %	0.1 %	0.1 %	0.1 %	0.1 %	0.1 %	0.1 %	0.1 %
Diamorphine				0.4 %	0.3 %	0.3 %	0.3 %	0.4 %	0.7 %

BOPST 2013.

Boywitt and colleagues (2012) examined the effectiveness of psychosocial treatment (PT) of clients receiving substitution treatment, on the basis of various criteria such as psychosocial stress, individual goal achievement, and concomitant use. To this end, a sample of clients who were in psychosocial treatment at the time, were interviewed on two occasions. The time between the two interviews was around twelve months in order to collect data on short to medium term developments in the scope of PT. Significantly positive developments were shown for PT in terms of the central variable of psychosocial stress. The extent of individual goal achievement is also positive. Furthermore, there was considerable agreement between the estimation of clients and carers of the client's situation and their progress. However, almost no change was observed in the area of concomitant use. In the opinion of the authors, the psychosocial treatment stabilised the psychosocial situation of the clients and is thus a favourable element in the support system for substitution treatment of opiate dependent patients.

Schönthal and colleagues (2013) have reported on the SURE (substitution based rehabilitation) project which is planned for three years. This was initiated due to the impression that fewer and fewer opiate dependent persons were utilising abstinence based rehabilitation options and were instead remaining permanently on substitution. Thus, the question was investigated as to whether it is possible to wean long-term substitution patients off substitution in ever decreasing dosages in an abstinence based specialist clinic and successfully treat them there. The results were, at first glance, worse than those achieved with non-substituted patients and reveal limitations. The second year of SURE has performed better and calls for further development and implementation of promising

concepts. The aim is to thoroughly document demand and rehabilitation possibilities amongst substituting patients and to make appropriate options available which are satisfactory to all. The project is also an expression of a different, uncomplicated approach to a complex issue in dealing with substance dependent individuals.

An overview of heroin-based treatment (HAT) is provided by Simon and colleagues (2012). In the opinion of the authors, HAT has established itself in recent years as second-choice therapy for the most seriously dependent heroin users in various EU countries. Studies with long-term follow-up periods of up to 6 years, demonstrate a high retention rate for HAT. After 2 years, 55 % of the original participants were still in treatment, after 6 years it was still 40 %. During this period, the use of street heroin remained stable at a reduced level. In addition, there were considerable improvements in social aspects: a more stable living situation, more social contacts outside the drug scene and an increased employment rate.

Plörer and colleagues (2012) have examined the misuse of fentanyl by opioid dependent patients with and without OST. In the scope of prospective, unannounced urine tests with qualitative drug strip tests for fentanyl on patients in three Munich outpatient substitution clinics (psychiatric outpatient substitution clinic, non-surgical general doctor's practice and substitution practice) in the years 2009 (N = 426) and 2012 (N = 446), 11 % of patients tested positive in the psychiatric outpatient substitution clinic in 2009, 7 % in 2012, in the non-surgical general practice the figures were 1 % (2009) and 5 % (2012) and in the substitution practice they were 4 % (2009) and 3 % (2012).

In two questionnaires in the same outpatient substitution facility, between 14 and 31 % (2009) and between 30 and 50 % (2012) of patients confirmed they had used fentanyl in the past year. In a survey of clients in different drug emergency facilities in Munich, 50 % of respondents in 2012 (N = 60) reported that they used fentanyl with 34 % reporting they used fentanyl several times a week.

The authors conclude from their data that for opioid dependent patients, a relevant misuse of fentanyl has to be assumed but the concomitant use during OST is substantially lower. Nevertheless, tests must be administered frequently in order to prevent overdosing and further awareness raising strategies should be developed.

### **5.5.3 Other current developments**

#### **The “Community Reinforcement Approach” (CRA) in the rehabilitation of drug dependent clients**

The “Community Reinforcement Approach” (CRA) in the rehabilitation of drug addicted clients is a behavioural therapy treatment concept for substance dependent individuals. In this approach, the positive reinforcers of the use of addictive substances are replaced by positive reinforcers of social aspects in order to promote abstinence. In Germany, research is conducted in particular at the University of Lübeck on the treatment motivation of relatives of addicts who are not willing to be treated (Bischof et al. 2013). A comparison is currently being conducted in two facilities for inpatient drug rehabilitation in Baden-Württemberg, one



of which works according to the CRA, the other with conventional treatment, in the scope of a quasi-experimental, controlled long-term study. Information will be gathered at five stages (pre, post, three months, 6 months and 12 months) in respect of treatment compliance, abstinence rate and in particular the change in employment and social participation. The first wave of the evaluation study was successfully completed at the end of 2012. In that wave, 126 patients were treated in the specialist drug clinic, “Klosterhof”, in Tübingen according to the CRA. 84 patients received standard treatment in the specialist clinic, “Haus Wiesengrund” (Freudenstadt-Kniebis). The final report will be made available in September 2014 (Die Drogenbeauftragte der Bundesregierung 2013; personal communication).

### **Treatment and counselling for addicts who are parents**

Many people suffering from addiction who are supported in the care system have children under the age of 18 living with them. In Germany there are many places where treatment and counselling are on offer to drug addicted parents and pregnant women. Many of these are directed at the children but the work with drug using parents focuses on addressing the parent role and the assumption of parenting responsibilities. A comprehensive overview of options available is provided by the special chapter of the DBDD Report 2011. Recently, the Association of Addiction Care in the Diakonisches Werk (social welfare organisation) of the Evangelical Church in Germany (GVS) published recommendations for action in dealing with parents suffering from addiction (Diakonie 2012).

An expert discussion funded by the Federal Ministry for Health on this topic, with the title “Implementation of offers for mothers/fathers/parents suffering from addiction and their children – requirements and challenges in outpatient addiction and drug support”, was organised by the association for the support of women addicts, “Bella Donna” on 14 March 2013 in Essen (Tödte 2013). The central questions discussed were, “What support do parents who are addicts need?” and “Who is best able to provide this support and organise it so that it is easy for those afflicted to take advantage of it?” The conclusions of the participants indicate that the complexity of the subject matter and the task at hand cannot be overcome by addiction/drug support on its own. Instead, only good and well thought out cooperations between different support systems, who can intelligently coordinate their particular areas of expertise and complement each other whilst ensuring continuity in the care for the parents and children. These cooperation networks are not able to operate simply by decree/proposal for action/guideline, their creation needs time. One must not forget: the route to the ultimate objective must already contain desired elements – networks do not arise as a result of an appeal but through cooperative development and mutual respect and appreciation for the specific expertise of the other; in the initial phase, the aim of the desired, reliable, cooperation structure must be built up gradually.

### **Older users of illegal drugs**

Addiction in old age is not a rarity, due to the demographic changes and improved medical treatment. Currently, the focus in this context is on alcohol and medication misuse amongst the over 60s (cf. priority of BMG in eight model projects on the topic “Addiction in old age –

sensitisation and qualification of specialists in the field of old-age and addiction care”; [www.unabhaengig-im-alter.de](http://www.unabhaengig-im-alter.de)). However, the shifting age structure amongst users of illegal drugs poses new challenges for personnel within the drug support and care system. In addiction support facilities, some persons are treated whose opiate addiction began in the 1980s and 1990s. More than a quarter of clients who are treated for an opioid problem today are over 40 years old. For many clients, attending doctors and social workers notice a premature and accelerated aging process. Diseases and health statuses are observed which usually occur 20 years later. Vogt and colleagues (2010) studied the current situation on older drug addicts in the old-age and addiction care systems in Berlin and Frankfurt am Main. The study showed that in the two cities, there are very well differentiated care networks both for addiction support and for old-age care, however the two areas are as yet only interconnected to a minor extent. A further expansion of care for the needs of older drug addicts is urgently required.

Data is available from the “Project 40+” of “mudra” in Nuremberg on the use status of interviewed clients (mudra e.V. 2013, personal communication). According to that data, two thirds of all interviewees were receiving substitution treatment at the time of the interview and the vast majority of them were satisfied with the treatment. One third of the interviewees remained abstinent, i.e. without concomitant use. Amongst users, cannabis and alcohol were primarily used. Heroin, other opiates (meth-)amphetamine, cocaine and illegally obtained sleeping pills and sedatives/tranquillisers hardly featured or did not feature at all. These were consumed, if at all, with a low frequency of use. It was noticeable that two thirds of alcohol users consumed alcohol daily (“when someone drinks, then often”) and a third of all THC users also used every day. Even if information supplied by the users about themselves does not always reflect reality, the impression gained from observations around the interviews (including house visits) showed that a credible tendency towards less conspicuous and moderate use exists. In several cases, acute health episodes, together with the awareness of the possibility of dying were catalysts for drastic reduction of the use of addictive substances. It was also reported that a desire to change the pattern of use amongst the interviewees was distinct. Over 60 % of users saw a high to very high need to change and 30 % were ambivalent at the time of the interview. In addition, most were confident that they would be able to achieve a reduction in use or (continued) abstinence. The key factors most often mentioned were regular work, daily structure and free time activities as well as supportive social contact. Improved conditions of withdrawal and substitution treatment also play a role.

### **Treatment of patients with addiction disorders and other mental disorders**

In a study, Bechdorf and colleagues (2012) examined the extent to which patients with the dual diagnosis of schizophrenia and substance abuse or substance dependence could be motivated to take part in outpatient integrated treatment programs. The study compares, for the first time, the effects of a treatment of motivation directed towards this problem (motivational interviewing, MI) with an intervention whose focus is unspecific standard treatment. The motivation based treatment was based primarily on the transtheoretical model of Prochaska and DiClemente as well as the techniques of motivational interviewing

developed by Miller and Rollnick. 60 inpatients with dual diagnosis were randomised before being given 4 sessions of MI or unspecific standard treatment. Data was collected before, immediately after, 3 months after and 6 months after the respective intervention. The findings of the study showed positive effects in respect of the take up of follow-up outpatient treatment due to the specific type of intervention of MI: 70 % of MI and 40 % of unspecific standard treatment patients participated in the outpatient integrated treatment post intervention ( $p=0.02$ ).

In a narrative overview work, Potthast and Catani (2012) address the question of to what extent traumatic life experiences and addictions influence each other and which implications this has for psychotherapy practice. It is clear that a complex, mutually perpetuating interplay between the symptoms of addiction and of trauma makes treatment considerably more difficult. The authors conclude that in practice a systematic screening for potential traumatic events or symptoms of trauma should be made part of the regular treatment of people with addiction problems. For patients with a comorbidity of addiction and post traumatic stress disorder (PTSD), the post traumatic symptoms should be addressed as part of the treatment from the very outset. Initial findings also indicate, not least, that these addiction patients can benefit from trauma focused treatment approaches if these go beyond pure strategies for stabilisation and resource activation.

In the scope of the research network, CANSAS, "Substance abuse as cause and consequence of violence experienced in childhood", the effectiveness of cognitive behavioural group therapy ("finding security") for individuals with posttraumatic stress disorder and addiction problems is being examined within a randomised controlled study of 342 female sufferers (ZIS Hamburg 2013). The Centre for Interdisciplinary Addiction Research (ZIS) in Hamburg is conducting the tests together with the University of Duisburg-Essen, the clinics of Essen-Mitte, the Evangelical Hospital in Bielefeld and the LVR-Clinic in Cologne. It is expected that the examined intervention will be demonstrated to be superior to the control group (TAU) in respect of the improvement of PTSD symptoms and substance use, and at least as effective as a relapse prevention program ("S.T.A.R."). The youth version of cognitive behavioural group therapy is being tested by the German Center for Addiction Research in Childhood and Adolescence (DZSKJ) in cooperation with the ZIS. 76 young females with PTSD and addiction problems, who are currently receiving outpatient treatment, are taking part. The project is due to end in 2015.



## 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 is collected by two nationwide 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 is hardly any data available on the morbidity of untreated drug addicts which could be used for epidemiological purposes. Hence, as an alternative, the descriptions of the health condition of the clients in addiction support facilities (at the start of their treatment) are used as an approximation. However, as these often represent a positive selection of the total of drug users, health aspects are probably underestimated.

#### 6.1.1 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). This data is published at regular intervals<sup>69</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. This data is 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) is 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 is published annually by the Robert Koch Institute in Berlin in the "Yearbook – Infection epidemiology of notifiable infectious diseases" (Infektionsepidemiologisches Jahrbuch meldepflichtiger Krankheiten) (RKI 2013) or respectively in the Epidemiological Bulletin of the RKI.

Since 2007, the German statistical report on treatment centres for substance use disorders has recorded data on the HBV and HCV status of patients in addition to the HIV status. Since

<sup>69</sup> [www.rki.de](http://www.rki.de)

the number of facilities which report this data is very small and only patients with test results are recorded, this data requires cautious interpretation.

### 6.1.2 Drug-related deaths

#### Case File: Narcotics

In general, drug-induced fatalities are recorded by the Criminal Police Offices in the individual *Laender* (LKA). The BKA has access to the database and is responsible for data quality management and data collection. Data collection modalities and the basis 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 toxicological reports in particular are often only released after a considerable delay, they are only taken into account in the classification of drug-related fatalities to a limited extent.

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 Register<sup>70</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 authority and then to the *Land* Statistics Office. Aggregation and evaluation at national level is done by the Federal Statistics Office. Often, this data source does not take into account the results of delayed toxicological reports in the classification of the drug-related deaths.

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 here is to record cases of death, within the framework of sensitive data collection, as soon as possible after the use of opioids, cocaine, amphetamine (derivates), hallucinogens and cannabinoids, i.e. in

<sup>70</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 (special series 12, part 4).

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 incorporated in this definition, although individual cases of this type may be included due to faulty death certificates or coding errors. In 2006, new coding rules of the World Health Organization (WHO) entered into force. According to the new rules, the acute causes of death are to be generally coded, if possible, in the form of the substance underlying the intoxication in lieu of the F1x.x-codes. In Germany, the new coding has, however, not led to the desired increase in specificity.

The data collected by the Federal Criminal Police Office (BKA), explicitly set out, in addition, long-term secondary diseases, suicides and accidents that have come to the knowledge of the police. It has, however, as yet not been possible to isolate completely the registered cases of intoxication to achieve data comparability with the General Mortality Register on the basis of the aggregated data recorded by the BKA, due to the usage of not completely distinct categories, hence only estimations were possible. Since the data year 2012, the BKA has used a new table in which the individual causes of death can be better separated and overlaps can be better identified in many cases.

Comparisons with other European countries should only be made on the basis of the General Mortality Register, 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 total number of drug-related fatalities. A certain number of relevant cases is not recognised, unreported or wrongly assigned – in both registers. However, a long-term comparison of the two registers shows very similar developments and trends that can be seen as a sort 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 how far target groups overlap remains to be undertaken.

## **6.2 Drug-related infectious diseases**

### **6.2.1 HIV/AIDS and viral hepatitis B and C**

The figures presented below stem from the data on new HIV and hepatitis C diagnoses, as well as acute hepatitis B cases reported to the Robert Koch Institute in the year 2012. Data from other sources gives additional insight into the problems of specific, often regional, populations of drug users (e.g. consumption room users and clients of outpatient addiction support facilities) affected by HIV and hepatitis.

Comprehensive epidemiological studies on the prevalence of hepatitis B, hepatitis C and HIV among injecting drug users are not yet available for Germany. The “DRUCK” study currently being conducted by the Robert Koch Institute (RKI, see below), will try, at least partly, to fill the information gaps in future.

Data on the prevalence of hepatitis B and C and of HIV in injecting drug users is also contained in standard table 9.

### **Development of HIV reported data**

A total of 2,954 HIV infections were reported to the RKI for the year 2012. This translates to a nationwide incidence of 3.6 cases per 100,000 population. The total number of newly diagnosed HIV infections thus rose in comparison with 2011 (2,694<sup>71</sup>) by 9.7 %, although one should note that the proportion of reported cases which did not meet the case criteria fell. The observed increase was thus likely at least in part to be a result of improved recording of first diagnoses. The distribution of reports across the German *Laender* largely remained the same compared to 2011.

Information about the mode of transmission was available for 77 % of newly diagnosed HIV infections. For 672 (23 %) reports, there was either no data at all or only insufficient information on the risk of infection which did not allow any clear attribution. Of the reports for which there was sufficient information (n = 2,282), persons who presumably contracted the HIV infection through injecting drug use made up 4 % (n = 89) and constituted as such the third largest group (RKI 2013b).

### **HIV Data from other Sources**

From Hamburg, data is available on the HIV prevalence among clients of the outpatient addiction help facilities. The HIV prevalence among opioid clients was 5.2 % in 2011 (2010: 4.6 %). 3.9 % of opioid dependent clients stated that they had not as yet had an HIV test (Buth et al. 2012).

Data is now also available from the Frankfurt Consumption Room Documentation (Förster et al. 2012) on the HIV status of the treated clients. Of 4,714 consumption room users for whom basic data was available, 3,646 people answered the question on HIV testing. Thus, there is valid information on HIV testing available for 77 % of consumption room users for 2011. Women had themselves tested for an HIV infection a little more often (91 %) than men (88 %). This was also observed in the previous year.

In turn, 75 % (2010: 73 %) of consumption room users who had had an HIV test, also had information as to the year of the test. For 82 % of consumption room users, for whom

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<sup>71</sup> In the last REITOX Report, the figure of 2,889 newly diagnosed HIV cases was reported. The following remark can be found in the Epidemiological Bulletin of the RKI of 17 June 2013: “At the beginning of 2013, a programming error in the evaluation program for HIV reports was discovered which led to duplicate records, which had been identified as such, not being combined in the HIV database. The remedying of this technical error led to a correction in the number of new HIV diagnoses for recent years. 2010 and 2011 are particularly affected. In each of these years, the number of new diagnoses is, after correction of the data error, around 200 cases fewer than first reported.”



information on the year of the test was available, an HIV test was performed in 2010 or 2011. For the remaining persons, the last HIV test was in 2009 or earlier. These findings show, as in the previous years, that the test results are comparatively recent.

For 3,111 clients, there was information on the results of their HIV tests. That corresponds to 66 % of all consumption room users in 2011, on the basis of the basic data. Of those, 3.2 % stated that they were HIV positive (men: 2.8 %, women: 5.2 %). Taking into account the ratio of men to women amongst HIV infected patients, this equated to 71 % to 29 %. The percentage of HIV infected women (29 %) amongst HIV infected consumption room users, was thus slightly lower than the year before (36 %). High proportions of HIV infected women amongst users of consumption rooms had also been recorded in the previous years. Overall, the percentage of HIV infected persons of 3.2 % fell in comparison to the previous years (2010: 3.7 %; 2009: 4.4 %). That equates to a reduction compared to 2010 of 12 persons. One must remember, however, that for many consumption room users, no information on HIV status is available.

The Statistical Report on Substance Abuse Treatment in Germany (DSHS) also records data on the HIV-infection status of the treated patients (Pfeiffer-Gerschel et al. 2013f). The HIV prevalence among the tested opioid clients in outpatient facilities was 3 % (n = 464), although status is unknown in 44 % of cases. If one only looks at those who have been tested, the HIV prevalence is 5 %. Among tested patients with any illegal substance problem, 4 % (n = 580) showed an HIV infection.

### **Development of Hepatitis B reported data**

In the year 2012 a total of 1,670 hepatitis B cases were reported to the RKI. Out of these 679 cases (41 %) corresponded to the reference definition. Thus, the total number fell in comparison to the previous year (812) by 16 %. The incidence of hepatitis B cases in Germany was 0.8 cases per 100,000 population and thus lower than the previous year (1.0).

Due to the change in the data collection software and the new method of recording modes of transmission, data on modes of transmission can only be compared with the previous year. Solid information was available on the mode of transmission in the case of 65 (10 %) of the diseases reported as per the reference definition. Multiple mentions were reduced to the most probable mode of transmission. Injecting drug use was stated as the reason in 11 cases (17 %) and thus represented the third most common mode of transmission (RKI 2013b).

### Development of Hepatitis C reported data

For 2012, 4,982 (2011: 5,027) cases of newly diagnosed hepatitis C were reported to the RKI<sup>72</sup>. This corresponded to a national incidence of 6.1 new diagnoses per 100,000 population. Thus the calculated incidence of new diagnoses was lower than the median of the years 2007 to 2011 (6.7).. No seasonal variations were found in the temporal course. The nationwide incidence of newly diagnosed hepatitis C has displayed a downward trend since 2005.

Due to the change in the data collection software and the revised analysis of the modes of transmission, the data on modes of transmission can be compared, to a limited extent, to the data from 2011 but not to any years prior to that. Solid information was available on the mode of transmission in the case of 1,375 (28 %) of the diseases reported as per the reference definition. Multiple mentions were reduced to the most probable mode of transmission.

Intravenous drug use, which is highly likely to be causally linked to the diagnosed hepatitis C, was reported for 1,202 cases (87 % of cases with information on mode of transmission), of which 927 cases were men (77 %). Thus, 89 % of cases amongst men and 85 % of cases amongst women (n = 272), where information on the mode of transmission is available, were transmitted by injecting drug use. The fact that men are overrepresented amongst intravenous drug users explains the considerably higher incidence of first diagnosis of hepatitis C for men in comparison to women. Amongst men for whom "intravenous drug use" was the most probable mode of transmission for the hepatitis C infection, 5 persons were 15 to 19 years old, 99 persons (11 %) were 20 to 24 years old, 192 persons (21 %) were 25 to 29 years old, 380 persons (41 %) were 30 to 39 years old and 250 persons (27 %) were 40 to 69 years old. The number of cases with probable mode of transmission stated as "injecting drug use" rose slightly in comparison with the previous year (1,126 cases) (RKI 2013b).

### Hepatitis B and C – Data from other sources

In the framework of the DSHS, data was also collected in 2012 on the hepatitis B and hepatitis C infection status of addiction patients in outpatient treatment (Pfeiffer-Gerschel et al. 2013f). The prevalence of hepatitis B among the tested opiate clients is at 8 % (n = 640), and among the tested clients with illicit drug problems at 6 % (n = 742). The prevalence of hepatitis C among the tested opiate clients is at 51 % (n = 5,330, out of these 567 are acute

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<sup>72</sup> Case definition: as it is barely possible from a laboratory diagnostic or a clinical perspective to distinguish between acute and chronic HCV infections, all newly diagnosed reports are recorded in the statistics. However, cases for which an earlier HCV laboratory test already exists are excluded. Thus, the overall number of recorded cases contains a considerable percentage of already chronic hepatitis C cases (in the sense of a virus replication of more than 6 months). The reference definition, which has, since March 2003 formed the basis for figures published in the weekly epidemiological bulletin and is applied retrospectively to the reported data from 2001 and 2002, is based on reported cases with first time laboratory detection of an HCV infection, irrespective of the clinical picture as the majority of new infections of hepatitis (around 75 %) are asymptomatic. The accordingly modified reference definition means that cases will also be taken into account for which the clinical picture is not fulfilled or for which no information is available.

and 4,763 chronic), and among the tested clients with any illicit drug problem at 37 % (n = 5,931).

According to the Hamburg base documentation system of the outpatient addiction help system (BADO), 48.8 % of opioid users were infected with hepatitis C in 2011 (2009: 48 %, 2010: 44.5 %). 3.5 % of clients have as yet never had a test (Buth et al. 2012).

In the Frankfurt Consumption Room Documentation 2011 (Förster et al. 2012), 4,714 consumption room users answered the question on hepatitis testing. There is thus valid information available on the hepatitis test of 77 % of consumption room users for 2011 on the basis of all basic data.

80 % of men and 84 % of women had themselves tested for hepatitis in 2010 or 2011. For the remaining consumption room users, the hepatitis test was longer ago.

In respect of the result of the hepatitis tests, information was available on 3,110 consumption room users. Of these, 54 % stated that they did not have a hepatitis infection. This means, therefore, that 46 % did have a hepatitis infection. Hepatitis C was most commonly reported. 43 % of consumption room users were infected with hepatitis C, a further 2 % with hepatitis B and C. Only slightly more than 1 % stated that they had a hepatitis B infection. The gender specific differences were minimal.

If one differentiates the information according to average age, it can be seen, as in previous years, that (amongst clients who provided information on their hepatitis status) those infected with hepatitis were considerably older than those without infection. The average age of consumption room users who were not infected with a hepatitis virus was 34.3; in contrast, the average age of those who did have a hepatitis infection was 36.5.

### **Update on the DRUCK Study of the RKI**

The study on drugs and chronic infectious diseases (DRUCK Study) has been running since April 2012, a serosurvey and behavioural survey on HIV and hepatitis B and C amongst injecting drug users in Germany. The study was funded by the German Federal Ministry of Health for a period of 3 years and is being conducted in a total of 8 to 9 cities in Germany. The pilot test in 2011 in Berlin and Essen already delivered initial results (see REITOX Report 2012, p. 143 et seq.) and showed the feasibility of the study design. Participants are recruited using the snowball method and studies in drug support facilities by trained study personnel.

Since the pilot phase in Berlin (n = 337) and Essen (n = 197), the study has been conducted in Leipzig (n = 130), Frankfurt/Main (n = 285) and Cologne (n = 322). Further cities are Hannover, Munich, Hamburg, and possibly one more city, if the total number of participants does not reach the N = 2,000 level. Table 6.1 shows the seroprevalence for Frankfurt and Cologne (RKI 2013a). Overall results of the study are expected in 2014/2015.

Table 6.1 Seroprevalence (HIV and HCV) of the study populations of the DRUCK-Study in Frankfurt am Main and Cologne

Seroprevalence of the study population (unweighted)	HIV	Anti-HCV positive	Fresh HCV-Infections	Anti-HCV and HCV-RNA positive
Frankfurt am Main	9.1 %	65 %	1.8 %	48.4 %
Cologne	1.6 %	63 %	4.6 %	40 %

RKI 2013a.

## 6.2.2 Sexually transmissible diseases, tuberculosis and other infectious diseases

Following the cluster of anthrax cases amongst drug users in 2009 and 2010 in Germany and Great Britain (see REITOX Report 2010), the outbreak continued in 2012. In June 2012, another three cases emerged in Germany followed by further cases in Denmark, France, England/Wales and Scotland. In September, a fourth case of anthrax was reported to the RKI concerning a person from Berlin who used heroin intravenously.

All cases displayed the fulminant clinical course of injection anthrax with a soft tissue infection, strong swelling and a rapid generalisation of the symptoms. For the treatment of infection with the anthrax bacterium, there are effective antibiotics available.

The fact that the anthrax strains which were isolated in the first three 2012 cases were identical or at least very closely related to the strains of the German and British cases from 2009/2010 suggests that the same infection source could still be active. All cases so far have involved heroin users which suggests that contaminated heroin could be the source of infection. However, no bacteria has so far been found in heroin.

Health authorities and drug help facilities across Germany were informed so that they would consider the possibility of anthrax in similar cases and therefore a timely diagnosis and treatment can be given (Grunow et al. 2012, 2013).

## 6.2.3 Data on risky behaviour

Initial data on the risk behaviour of injecting drug users from the pilot phase of the DRUCK Study of the RKI (see above) were presented in the last REITOX Report. Detailed analysis is expected in 2014/2015 after the study has been completed.

In the Hamburg base documentation system of outpatient addiction support, the treated opioid users are interviewed, amongst other things, on their shared use of needles: 5.2 % stated that they had shared needles with other users within the last 30 days, the lifetime prevalence was 34.6 % (Buth et al. 2012).

In an experimental study, Dörrbecker and colleagues examined the risk of a hepatitis C transmission through shared use of filters, water (which is used to thin the drugs) and water containers. For this, experiments were designed to replicate the normal practices amongst drug users when injecting drugs. The experiments showed that the hepatitis C virus could survive up to 3 weeks in water in a container. Water containers also represented a risk for

the transmission of hepatitis C in that even after being washed out, infectious virus particles could be detected, depending on the material of the container (plastic, aluminium or glass). Tested filter material also remained, depending on how it was stored (open or packed in foil) infectious up to 48 hours after use.

### **6.3 Other drug-related health correlates and consequences**

#### **6.3.1 Non-fatal overdoses and drug-related emergencies**

As an approximation of the number of drug related non-fatal emergencies, there is nationwide data available on acute intoxication and poisoning treated on an inpatient basis in hospitals (ICD-10-diagnoses) from the Statistical Report on Hospital Diagnoses, 2011 of the German Statistical Office (Statistisches Bundesamt, special calculations<sup>73</sup>). One should note that the cases of poisoning (ICD-10 T40.X) include both overdoses as well as mistaken administration or ingestion of the wrong substances. Also, a case of opioid poisoning could be caused by, for example, (accidental or intentional) overdoses of prescribed medications and not by the use of illegal drugs.

A further approximation of the number of drug related emergencies can be taken from the data of the Poison Information and Emergency Poison Control Centres. Data is available from five of the nine German Poison Information Centres on the documented enquiries on the basis of acute poisoning cases in connection with drugs (not including medication, which is recorded separately). In total, 2,329 cases were recorded in these institutions in 2011. From this information, however, one cannot tell whether these are accidental poisonings or overdoses during wilful drug use. In principle, the poison information centres classify cases according to substance (and other variables) in their documentation systems, however this information is usually not reported in detail in the publicly available annual reports. Information collected in Freiburg revealed that 99 of 335 cases documented in 2011 concerned poisoning by cannabinoids/herbal mixtures, which represents a significant increase over the previous year (2010: 27) (GIZ of the *Laender* Rheinland-Pfalz and Hesse 2012; GIZ-Nord 2012; Information Centres against Poisonings 2012; Tutdibi 2012; Poisoning Information Centre, Freiburg 2012).

In the reporting period, there were also two scientific articles dedicated to the peculiarities of hospital admissions in connection with synthetic drugs:

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<sup>73</sup> [www.gbe-bund.de](http://www.gbe-bund.de)

Table 6.2 Number of acute intoxication and poisoning cases, Statistical Report on Hospital Diagnoses, 2011

ICD-10-Diagnosis	Number (without fatalities)	Age (in years)				
		<15	15 - 25	25 - 45	45 - 65	>65
<b>Acute intoxication [acute inebriation] (F11.0 to F16.0, F18.0, F19.0)</b>	14,865	229	4,221	6,757	2,739	919
From opioids (F11.0)	1,892	12	268	1,020	323	269
From cannabinoids (F12.0)	1,268	83	814	327	44	0
From sedatives/hypnotics (F13.0)	3,275	34	511	1,227	1,026	477
From cocaine (F14.0)	318	0	81	206	31	0
From other stimulants (F15.0)	1,087	25	525	469	52	16
From hallucinogens (F16.0)	386	12	190	160	20	4
From volatile substances (F18.0)	95	13	26	33	18	5
From multiple substance use or consumption of other psychotropic substances (F19.0)	6,544	50	1,806	3,315	1,225	148
<b>Intoxication from narcotics (BtM) and psychodysleptics (hallucinogens) (T40.X)</b>	2,936	115	487	807	522	1,005
From opium (T40.0)	132	1	7	20	22	82
From heroin (T40.1)	247	0	26	187	34	0
From other opioids (T40.2)	1,660	55	96	263	376	870
From methadone (T40.3)	148	12	18	86	29	3
From other synthetic narcotics (T40.4)	69	2	26	19	12	10
From cocaine (T40.5)	109	1	31	69	8	0
From other non-specified substances (T40.6)	121	4	26	42	16	33
From cannabis(-derivates) (T40.7)	350	34	220	83	11	2
From lysergide (LSD) (T40.8)	21	0	12	9	0	0
From other non-specified psychodysleptics (T40.9)	79	6	25	29	14	5

German Statistical Office 2013b.

The aim of a retrospective study by Hermanns-Clausen and colleagues (2013) was to characterise the acute toxicity of synthetic cannabinoids on the basis of reports by emergency patients. The patient data was taken from the database of the Poisoning Information Centre of the University Clinic in Freiburg between September 2008 and February 2011. The criteria for inclusion were hospitalisation, the availability of clinical reports as well as the analytical proof of the intake of synthetic cannabinoids. Overall, 29 patients between the ages of 14 and 30 were included in the analysis (median: 19 years; 25

male, 4 female). The most commonly identified cannabinoids were JWH-018 (especially in 2008/09), JWH-122 (2010) and JWH-210 (2011). The most frequently reported symptoms were tachycardia, restlessness, hallucinations, high blood pressure, increase in blood glucose, hypokaliemia and vomiting. Chest pains, cramps, myoclonia and acute psychoses were also recorded. Overall, according to the authors, there was an increase in the use of extremely potent synthetic cannabinoids. The acute poisoning symptoms reflect in many cases those from the use of high doses of (conventional) cannabis. However, there are also some symptoms (restlessness, cramps, high blood pressure, vomiting and hypokaliemia) which seem to be characteristic of synthetic cannabinoids.

Livak and colleagues (2013) report a considerable rise in admissions in the addiction ward of a psychiatric clinic of inpatients experiencing psychotic symptoms following the use of synthetic cathinones ("bath salts"). Since the end of 2011, the number of this type of admission has risen to 2-3 cases per week (around 3 % of admissions). Sample patients and their symptoms are described in seven case reports. These cases mostly concern polytoxicomaniac patients who have frequently used cathinone intravenously. The displayed psychotic symptoms including delusion, impaired thought processes and optical and acoustic hallucinations. Some were agitated, disoriented, helpless or suffered from oral dyskinesia. According to the authors it was particularly noticeable that the psychotic state often persisted for several days despite the administration of typical, neuroleptics medication. The situation is further complicated by the fact that the substances are not included in standard laboratory diagnostics, meaning that in acute cases the symptoms can only be treated on the basis of a suspected diagnosis.

### **6.3.2 Other topics of interest**

#### **Comorbid somatic and mental disorders amongst drug users**

In addition to the suffering induced by the infectious disease described above, drug users are to a great extent affected by a series of other somatic and mental comorbidities. Comprehensive national or representative analyses on this topic are not available.

In the Hamburg base documentation system 2011, however, there is information on both the physical and mental health of treated clients (Buth et al. 2012):

The 4,668 clients in the opioid group are mostly polyvalent users, however they all have an opioid dependence. On average, this group displays 4.0 problem areas including gambling and eating disorders, not including tobacco, with negligible differences between the sexes: (women: 3.9, men: 4.1). In addition to opiates, in particular alcohol, cannabis, cocaine, crack and sedatives are consumed. 15 % of the clients also had an eating disorder. 22 % of people in this group are seen by employees of the out-patient addiction assistance to be suffering substantially or extremely from a health perspective, in the case of a further 32 %, a medium health impairment. Only about 9 % of this group with chronic addiction disorders and numerous other illnesses have a recognised disabled status. 36 % of clients are extremely to substantially mentally stressed, whereby women (43 %) are affected to a greater extent than

men (33 %). The psychological symptoms suggest that the majority of these clients will require a further psychiatric-psychotherapeutic case management in future in addition to the existing addiction specific treatment in order to stabilise themselves for the longer-term. 42 % of the female and 27 % of the male opiate addicts report at least one suicide attempt in their lives.

In contrast, only around 10 % of the 2,126 cannabis clients have considerable or extreme health-body impairments, 40 % have no such impairments at all. Emotional distress affects cannabis clients more commonly than physical distress, around 30 % of such clients suffer from a considerable or even extreme affliction. 13 % of cannabis clients have already attempted suicide at least once.

More recent findings on the treatment of mental disorders with simultaneous addiction problems will be addressed in chapter 5.

### **Other disorders/impairments resulting from the use of illegal drugs**

It is as yet unclear whether signs of cognitive problems amongst MDMA users already existed prior to the start of use or whether other confounding variables can explain the deficits. Wagner and colleagues (2012) therefore conducted a prospective cohort study with 149 relatively new MDMA users in order to examine the connection between the commencement of MDMA use and subsequent cognitive ability. For this purpose, a battery of neuropsychological tests was carried out with the study participants including the ability to learn, memory and executive functions. In addition, a large number of other possibly confounding variables are recorded, such as age, general intelligence level, cannabis use, alcohol consumption, tobacco use, medicinal treatment, sport, nutrition and sleep habits and subjective well-being. 109 participants were able to be tested again after one year. During this period of time, 43 test subjects did not use any illegal drugs except for cannabis and 23 test subjects took more than 10 MDMA pills (median value: 33.6). A comparison of these two extreme groups revealed no differences in the potential confounding variables. Significant differences were found, however, in the immediate and delayed memory ability in a visual learning task (visual figure recognition from the learning and memory test, LGT 13). These findings suggest, according to the authors, a serotonin dysfunction in the hippocampus as a consequence of MDMA use. No significant differences were found in any other test.

A study by Köster and colleagues (2012) studied the integrity of the cortical and subcortical structures amongst three groups of test persons who differed in respect of their use of amphetamine type stimulants. The cortical thickness, the volume of cortical grey matter and the form of potentially vulnerable subcortical structures were measured for 20 experienced users (more than 100 MDMA pills or more than 50g of amphetamine in their lives), 42 test persons with low use experience (not more than 5 MDMA tablets or 5g of amphetamine) as well as 16 test subjects without any drug experience. Amongst the experienced users in particular, but also in some areas amongst the less experienced users, differences to the non-using study participants could be identified. The data confirms the hypothesis that massive use of amphetamine type stimulants is associated with a thinning of the cortical grey



matter. Due to the study design, however, no final answer could be obtained as to whether the differences identified were the consequence of or rather a reason for the drug use.

In many studies, a connection between the use of ecstasy (MDMA) and impairments of memory function was identified. Previous tests with functional image methods were unable to reveal anything, due to their cross-sectional design, on whether the identified differences in the memory related hippocampus already existed prior to the drug use or whether they are connected to the parallel amphetamine use. Therefore, Becker and colleagues (2013) conducted a study which prospectively examined the specific effects of ecstasy on memory related hippocampus functions. On two occasions (baseline t1 and follow-up t2 after 12 months), associative recall tasks and functional magnetic resonance imaging (fMRI) were performed amongst 40 ecstasy and/or amphetamine users. At t1, all participants had little experience with the use of ecstasy/amphetamine (less than 5 uses in their lifetime). At t2, those participants who had continued to use ecstasy/amphetamine (n = 17) were compared to those who had ceased using after t1. The analysis revealed that the encoding related activities in the left parahippocampal gyrus had changed differently for each group. The activity increased for the abstinent test subjects from t1 to t2 and decreased for test subjects who continued to use. The reduction was also associated with the use of ecstasy and not with the use of amphetamine. However, there were significant differences in performance in the memory tasks. According to the authors, the results suggest specific effects of ecstasy on the memory related hippocampus functions, however, alternative explanations, such as simultaneous cannabis use, could not be ruled out.

An impaired quality of decision making and associated altered neuronal activity patterns have already been described for stimulant users. The deficits are possibly caused by an increased attractiveness of short-term reward effects. In a study using imaging methods (fMRI), the decision making behaviour and associated neuronal activity patterns amongst experienced amphetamine and/or MDMA users, users with low use/little experience and non-users was examined. The study participants could choose between a less risky game of chance (control condition) and a game of chance whose odds of winning and possible amounts of winnings and losses varied (experimental condition). The three test groups did not differ in the quality of their decision making. However, the results did show that the neuronal activity patterns did differ between drug users and non-users. Amongst experienced users, the probability of occurrence of an event/win had more influence on the neuronal activity than the actual amount of the reward (Köster et al. 2013).

### **Drug use and anaesthesia**

Due to specific risks caused by the use of illegal drugs, the discovery of such substances before an operation or before an anaesthetic is administered is crucial. Therefore, in a prospective observational study, saliva tests and information provided by the persons themselves were compared for 939 consecutively included patients in the department for anaesthesia and intensive medicine in a Berlin clinic. Where positive results were returned, these were checked using blood analysis. It was shown that the information provided by the

patients themselves more frequently uncovered the use of illegal substances than the saliva tests. The self-reports were also more sensitive (although not more specific) to uncovering the use of illegal drugs than blood analysis. According to the authors, this shows that a questionnaire distributed to patients on substance use can lead to better provision of tailored interventions and anaesthesia. In addition, the saliva tests can, due to their high degree of specificity, be an alternative to time consuming blood analysis (Kork et al. 2012).

## **6.4 Drug-related deaths and mortality in drug users**

### **6.4.1 Drug-induced deaths (overdose/intoxication)**

#### **Data from the 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). The autopsy rate of all drug-induced deaths in the reporting year 2012 was on average 66 % (2011: 65 %; 2010: 66 %), whereby individual *Laender* considerably diverged from this value either higher or lower.

In 2012, a total of 944 people died because of the use of illicit drugs, which once more represented a reduction in comparison to the previous year (986) and the lowest level of drug-related deaths for 24 years. In the breakdown of the causes of death in 2012, a revised table was used for the first time which reduced the possibility of multiple counting and individually recorded more substances. As a result of this new recording method, the comparability with data from previous years has been limited and Table 6.2 thus only contains the current figures. As the BKA is only provided with aggregated data from the individual *Laender*, whether specific cases have been correctly categorised cannot be verified. Therefore, it is planned that in the coming years the experiences of the *Land* Criminal Police Offices (LKA) and of the BKA will be observed with the new data recording method and that the table, where necessary, will be further optimised.

Overdosing on heroin/morphine (including poisoning by heroin/morphine in conjunction with other substances) was recorded for 427 cases, thus remaining the most common cause of death (45 %). The proportion of drug-related deaths in which substitution substances were detected, alone or in combination with other drugs, was at 29 % (270 cases) (BKA 2013).

It is possible that the figures for mixed intoxications (“polyvalent poisonings”) or specifically for substitution substances could be underestimated in the representation of substance involvement as precise toxicological information on a case of death is often lacking.

Table 6.3 Drug related deaths 2012 by cause of death

Cause of death	Percent of	Number
	Total N 2012	2012
<b>Monovalent intoxications from opioids</b>	<b>26</b>	<b>241</b>
Heroin/Morphine	19	177
Opioid-substitution substances, including:	7	64
- of those: <i>Methadone/Polamidone</i>	4	37
- of those: <i>Buprenorphine (i.a. Subutex)</i>	0	1
- of those: <i>Others</i>	3	26
<b>Polyvalent intoxications from opioids <sup>1)</sup></b>	<b>40</b>	<b>375</b>
Heroin/Morphine in connection with other substances (i.c.w.o.s.)	26	250
Opioid-substitution substances i.c.w.o.s. including:	22	206
- of those: <i>Methadone/Polamidone i.c.w.o.s.</i>	15	146
- of those: <i>Buprenorphine (i.a. Subutex) i.c.w.o.s.</i>	1	11
- of those: <i>Others i.c.w.o.s.</i>	5	49
<b>Monovalent intoxications from substances other than Opioids</b>	<b>5</b>	<b>51</b>
Cocaine/Crack	2	21
Amphetamine/Methamphetamine including:	2	17
- of those: <i>Amphetamine</i>	15	10
- of those: <i>Methamphetamine</i>	1	7
Amphetamine derivatives	1	5
Others (except psychoactive medical substances) including:	1	8
- of those: <i>New psychoactive substances/Designer drugs</i>	0	1
<b>Polyvalent intoxications from substances other than Opioids <sup>1)</sup></b>	<b>8</b>	<b>79</b>
Cocaine/Crack	3	32
Amphetamine/Methamphetamine i.c.w.o.s. including:	4	35
- of those: <i>Amphetamine i.c.w.o.s.</i>	3	26
- of those: <i>Methamphetamine i.c.w.o.s.</i>	1	9
Amphetamine derivatives i.c.w.o.s.	1	8
Others (exc. psychoactive med. subst.) i.c.w.o.s. including:	2	22
- of those: <i>Psychoactive substances/Designer drugs i.c.w.o.s.</i>	1	11
Psychoactive medical substances i.c.w.o.s.	1	6
<b>Intoxications from psychoactive medical substances only (where applicable, in connection with alcohol)</b>	<b>3</b>	<b>24</b>
<b>Suicides</b>	<b>5</b>	<b>48</b>
Suicide by way of intoxication (already included in the causes mentioned above)	3	32
Suicide through means other than intoxication	2	16
<b>Long-term impairments including:</b>	<b>12</b>	<b>110</b>
- of those: <i>Long-term impairments in combination with intoxication consequences</i>	4	35
<b>Accidents</b>	<b>2</b>	<b>18</b>
<b>Other cases</b>	<b>3</b>	<b>30</b>
<b>Total (N) <sup>2)</sup></b>		<b>944</b>

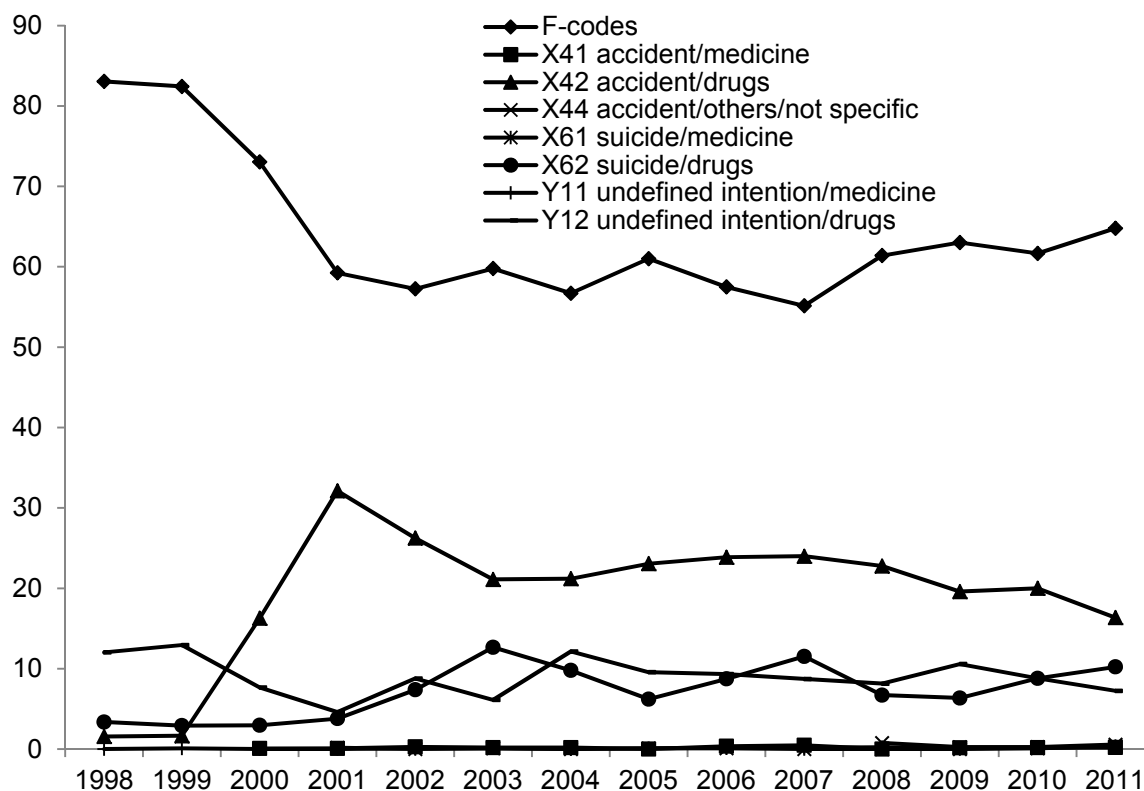
1) On the first level of the subcategories multiple counting may occur.

2) The total number includes all monovalent and polyvalent intoxications plus all suicides not caused by intoxications as well as all long-term impairments, accidents and other cases. BKA 2013.

### Data from the general mortality register

The most recent data on drug-related deaths recorded by the general mortality register of the German Federal Statistical Office are from the year 2011. In that year, data on 1,076 persons were collected – this corresponds to a decline of 10.7 % in respect of 2010 (N = 1,205). Since drug related deaths were first registered on the basis of the general mortality register in 1998, there was no year in which such a low number was recorded as in 2011. Among these were 228 females and 848 males (percentage men: 78.8 %), who died in connection with illegal drug use. Thus, the number of death cases recorded by the general mortality register according to the definition of the EMCDDA developed, as in the previous year, parallel to the – in this case unusually steep – decline in cases according to the police definition in the BKA register (-20.2 %). In contrast to the previous years, the BKA register gives a much lower number of cases for 2011 although the total figure also includes those “indirect” death cases which cannot be precisely separated from the “direct” cases as it is not clear whether the categories, “suicide” and possibly also “accidents/other” are classified as “direct” or “indirect” cases. There is thus an increasing discrepancy between the higher absolute number of direct cases in the general mortality register on the one side, and the BKA register on the other, albeit with similar global trends.

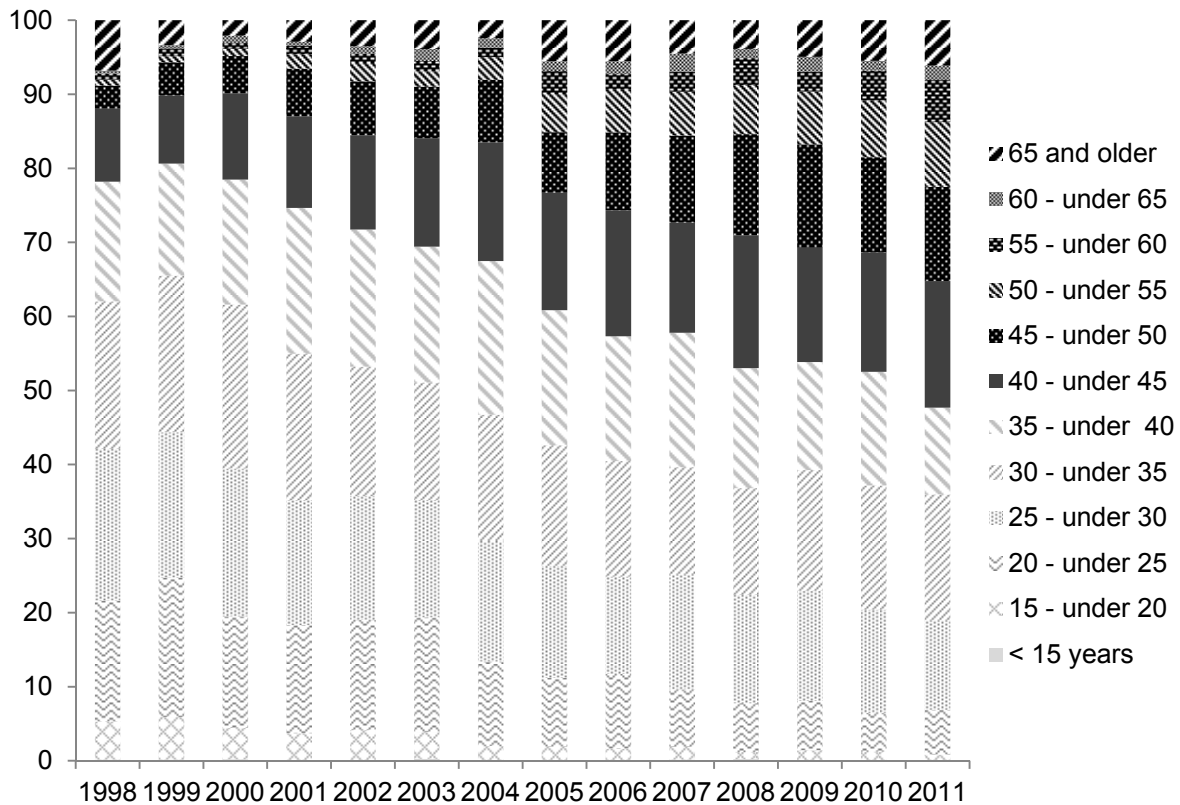
In 2011, the *underlying disease* (dependence, harmful use of drugs, other from the ICD group F 1x.x) was coded for 64.8 % of death cases (2010: 61.7 %); however, for these cases the information on the *acute* cause of death is lacking. The national mortality register has proven to be of little informative value for several years as far as an assessment of the substance classes, which were the acute cause of death in the case of intoxications, is concerned, despite the changes to the WHO coding rules which came into effect in 2006. Therefore the BKA was once more encouraged to breakdown the substance related information in their possession in respect of drug related deaths more systematically than before. This new method of presentation was published by the BKA for the first time for the year 2012 (see above).



Statistisches Bundesamt, special calculations.

Figure 6.1 Coding of causes of death in drug related cases of death in the general mortality register (1998-2011)

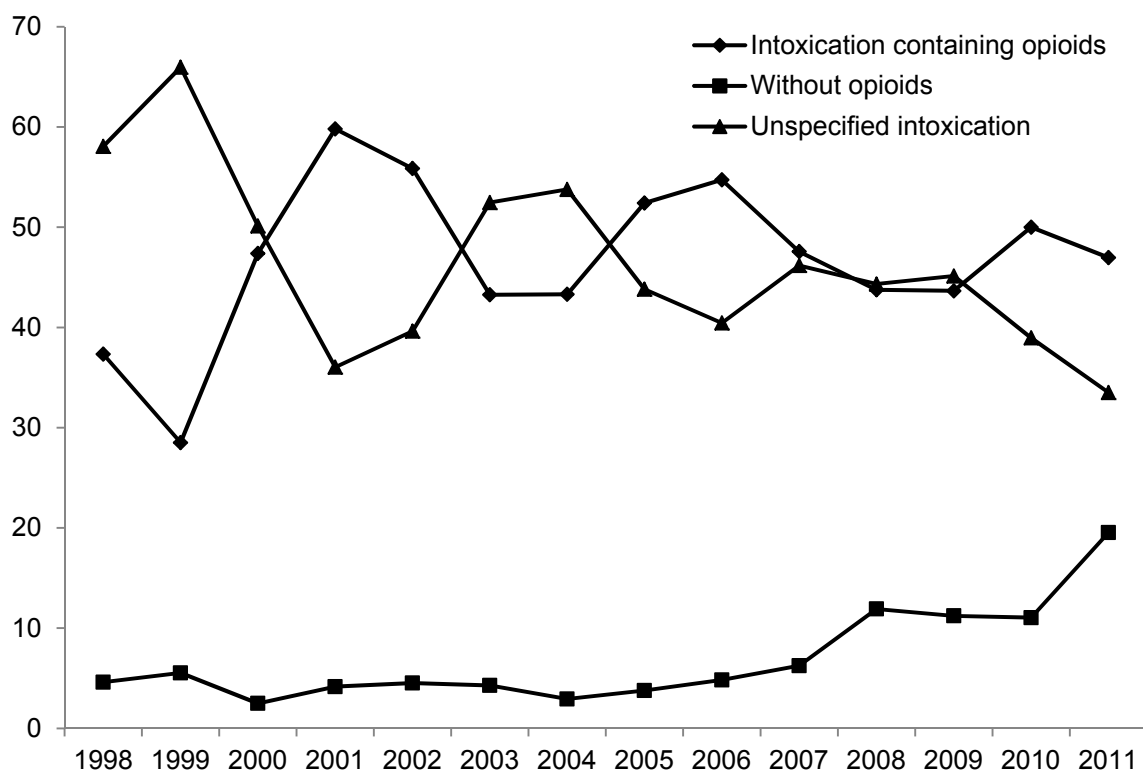
If one looks at the distribution of ages in drug related deaths in the course of the last ten years, the known trend towards an ever increasing proportion of older age groups has continued. The proportions of age groups over 50 years old are the only ones which are constantly growing. Specifically in the age group of over 65s, however, an increasing artefact is becoming apparent as cases of deaths of patients with chronic pain are possibly being included in the figures by the coding standard for drug related deaths due to errors in coding. Neither does a look at drug related deaths reveal any new trend amongst young users of hard drugs – rather the age segment of under 25s represents a similar proportion of deaths (6.8 %) as in the previous year.



Statistisches Bundesamt, special calculations.

Figure 6.2 Drug-induced deaths according to age groups 1998-2011

Only the coding of drug-induced deaths under the ICD-10 classification with the additional X/Y code for external causes allows inferences to be drawn on the substance spectrum involved in intoxications as this would allow a substance specific recording according to T-codes. In 2011, this applied to only 35.2 % of registered cases. Purely opiate related deaths accounted for, in this subgroup, almost 50.0 % of cases. In 19.5 % of cases, other substance groups were recorded, in 33.5 % intoxications were not specified. It may be assumed that opiates once more played a predominant role. The limited significance should once more be stressed, however, as 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 deaths.



Statistisches Bundesamt, special calculations.

Figure 6.3 Opiate induced intoxications in fatal drug overdoses 1998-2011 with ICD X/Y-coding

#### 6.4.2 Mortality and cases of death 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 exists on drug addicts in therapy.

According to the German Statistical Report on Treatment Centres for Substance Use Disorders (Pfeiffer-Gerschel et al. 2013f) for 2012, for 1.4 % (2011: 1.6 %; 2010: 1.5 %) of opioid clients, the treatment ended with the death of the client (opioid clients accounted for 87 % of all clients registered with the DSHS who had a drug problem and who died during an outpatient treatment). In order to eliminate the effect of the duration of the treatment, which has been extended since 2000 by an average of 10 weeks, a treatment period of 12 months was calculated and used as a basis. The resulting mortality of 1.3 % per year in 2012 was slightly lower than in the preceding years (Table 6.3).

However, when looking at this data, it needs to be taken into account that the treatment 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 facilities' knowledge of clients' deaths has not changed systematically over the years, it is nevertheless possible to interpret trends in the manner presented below.

Table 6.4 Mortality of opioid users in outpatient treatment – Trend

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Proportion of cases of death amongst treatment outtake	1.2 %	1.2 %	1.2 %	1.4 %	1.3 %	1.4 %	1.2 %	1.5 %	1.5 %	1.6 %	1.4 %
Treatment duration (days)	280.7	282.1	297.5	305.2	301.7	314.3	321.2	336.4	343.3	354.3	381.6
Mortality p.a.	1.6 %	1.5 %	1.5 %	1.7 %	1.6 %	1.6 %	1.4 %	1.6 %	1.6 %	1.6 %	1.3 %

Pfeiffer-Gerschel et al. 2013f and own calculations.

Data on the mortality among drug users is contained in standard table 18.

#### 6.4.3 Specific causes of mortality indirectly related to drug use

Data on road accidents in connection with drug use are presented in chapter 9. Other data is currently not available.



## 7 Responses to health correlates and consequences

### 7.1 Introduction

Health aspects of drug use are addressed by specific services and treatments offered to 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 limited proportion of the specific measures, as these are provided by specialised facilities or as part of a specific program.

Data on general health care does not provide any information that is specifically relevant to drug addicts as a group. Other than a few individual cases, there is no data available on the overall number of emergency cases of overdoses or other life-threatening conditions caused by drug use. Nor is there any data on the treatment of secondary diseases carried out in general doctor's practices or clinics.

### 7.2 Prevention of drug-related emergencies and reduction of drug-related deaths

Various targeted approaches are used to prevent drug-related deaths:

- Raising awareness and educating on the risks of overdosing
- Provision of effective treatment measures for drug users (in particular, substitution, see chapter 5) and improvement of retention rates
- Improved transition management after release from prison (see chapter 9)
- Provision of drug consumption rooms
- Improvement of the reaction of bystanders in the case of drug emergencies (first aid training, naloxone programs)

#### Provision of drug consumption rooms

In view of the high-risk use pattern still linked with heroin, drug consumption rooms and low-threshold facilities play an important role in offering help to addicted people at an early stage. Drugs are brought along to drug consumption rooms by the drug users themselves. Infection prophylaxis is an intrinsic part of the service provided and so paraphernalia brought along to the consumption rooms may not be used. The goal of this initiative is to secure the survival and stabilisation of the health conditions of the drug users, as well as to attract drug users who would not otherwise be reached by the system ("harm reduction") in order to provide them with motivational treatments 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 authorisation criteria to be fulfilled for setting up and running drug consumption rooms.

Currently, there are a total of 23 fixed location drug consumption rooms in six German *Laender* (Berlin, Hamburg, Hesse, Lower Saxony, North-Rhine Westphalia and Saarland) across 15 cities and one mobile drug consumption station in Berlin<sup>74</sup>.

More precise data on the utilisation and clientele of consumption rooms is at present only available for individual facilities which publish their annual reports on the internet. The data from Frankfurt and Berlin is presented below by way of example:

In the four Frankfurt consumption rooms in 2011, a total of 213,361 incidences of consumption by 4,714 consumption room users (of which 1,564 were new users) were documented which amounts to an average of 45 incidences of use per user. As in the previous years, heroin and crack are the predominant drugs which are intravenously injected in consumption rooms. Heroin was consumed in 81 % of all incidences of use, while crack was consumed – alone or in combination with other drugs – in 43 % (multiple answers possible). 14 % of consumption room users consume benzodiazepine intravenously, often in conjunction with other psychotropic substances. The injection of cocaine was only reported by 1 % of users. All other psychotropic substances are mentioned only rarely (0.3 %). In 3 % of incidences of use, the drugs are not taken intravenously. If one differentiates i.v. drug use according to pattern of use, heroin is used on its own (without other drugs) most often, accounting for 46 % of cases. In second place is heroin in combination with crack (at 24 % of recorded cases) and in third place (at 14 %) is crack on its own (Förster et al. 2012).

In the three available locations in Berlin in 2012 (two fixed location drug consumption rooms and one mobile facility), a total of 10,246 incidences of use by 957 visitors were documented. The use of heroin is also predominant here (7,889 incidences of use), followed by heroin-cocaine cocktails (1,163 incidences) and cocaine (1,015 incidences). 47 % of the incidences of use of heroin were by inhalation. Nine drug emergencies (2011: 18) were recorded, which could all be dealt with on location. In no case was the administration of naloxone or an emergency doctor required (Fixpunkt e.V. 2013).

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

The EMCDDA and ECDC list seven key interventions in a joint publication on the prevention of drug-related infectious diseases (ECDC&EMCDDA 2011):

- Health promotion/provision of information and education on infectious diseases with a focus on safer use and safer sex practices.
- Provision of sterile injection equipment and paraphernalia (safer use offers)
- Provision of vaccinations (hepatitis A and B, tetanus, influenza etc.)
- Provision of opportunities for testing
- Provision of effective treatment offers (in particular substitution, see chapter 5)
- Access to treatment for infectious diseases

<sup>74</sup> See also <http://www.drogenkonsumraum.net/> (last accessed: 12 August 2013)

- Creation of conditions based on the needs of the target group in the provision of the above services (e.g. outreach offers, street work, low-threshold facilities, cooperation between drug counselling centres and practice based doctors etc.)

### **Action plan for a national strategy against viral hepatitis in Germany**

The German Liver Foundation (Deutsche Leberstiftung) together with the “Action Group for Hepatitis and Drug Use” (Aktionsbündnis Hepatitis und Drogengebrauch) as well as the German Liver Patient Association (Deutsche Leberhilfe) has drawn up an action plan for a national strategy against viral hepatitis in Germany, which was presented at a press conference in Berlin on 23 July 2013 to coincide with World Hepatitis Day (Aktionsbündnis "Hepatitis und Drogengebrauch" et al. 2013). For the first time, this produced a catalogue of measures which includes all target groups for hepatitis infection and formulates specific goals for drug users. The action plan demands, amongst other things that:

- use specific information on the transmission of viral hepatitis and possible protection against it must be made available to all drug users
- sterile or hygienic drug use equipment, needle disposal containers and disinfectant for drug users be offered without limitation
- substitution treatment should be made widely and easily available in all settings to opioid dependent persons

In a press release, Prof. Dr. Heino Stöver also stated: “We must also bring more drug addicts infected with the hepatitis C virus (HCV) into therapy because therapies today are very effective and can prevent further contagion. Such therapies include a mature screening process, well-trained doctors who are familiar with the disease and are aware of further diseases as well as an HCV nurse, i.e. a specially trained nurse who supports the patients throughout the therapy.” This type of HCV nurse is already standard practice in other European countries in the treatment of hepatitis patients (Aktionsbündnis "Hepatitis und Drogengebrauch" et al. 2013).

### **Safer use initiatives**

Prevention of drug-related infectious diseases by low-threshold drug support facilities consists mainly of providing information on infectious diseases and risks as well as distributing safer use equipment. Distribution of needles and needle exchange is explicitly permitted by the Narcotics Act and is also practised by many facilities.

Data on needle exchanges in Germany is mostly only documented by individual facilities in the respective annual reports. A nationwide compilation of the data available is not undertaken. An overview of the locations of the 155 needle vending machines across Germany can be found on a website provided by the German AIDS Service Organisation (DAH)<sup>75</sup>.

<sup>75</sup> <http://www.spritzenautomaten.de/> (last accessed on 12 August 2013)

The only *Land* in which a regular survey is conducted on a local level on the distribution of single use syringes by the DAH, is North-Rhine Westphalia. For 2012, the DAH in NRW reported 2,040,100 needles issued in facilities (2011: 1,927,626; 2010: 2,113,242) as well as 215,059 (2011: 228,262; 2010: 251,072) needles issued by vending machines<sup>76</sup>.

The federal model project “Early Intervention as Hepatitis C Prevention Measure” was already presented in the last REITOX Report. The project was conducted from October 2008 to June 2011 by the Berlin drug assistance association, Fixpunkt e.V., funded by the Federal Ministry of Health and the *Land* of Berlin and evaluated by the Centre for Interdisciplinary Addiction Research in Hamburg (ZIS). Further short interventions for the prevention of HCV infections were developed in 2012: the range of needle exchanges was extended to include the “nevershare” needles from the English company, Exchange Supplies. These are 2 ml syringes, available in five different colours to reduce the likelihood of accidental sharing and with a so-called “low dead space” meaning that only very little (potentially infectious) blood and/or drugs remains in the syringe. The needles were introduced in March 2012 and by June 2012 were already being issued in 63 % of needle issuing contacts (N = 442) in the three Fixpunkt facilities. For 37 % of the contacts, only standard primo needles were asked for. The ratio of nevershare needles to primo needles was 72 % (23,600 units) to 28 % (9,100 units). Furthermore, drug addicts who visited the Fixpunkt facility “Druckausgleich”, were introduced, in a pre-test phase to pizza boxes as “mobile consumption places” and both the problems and practicability of specific surfaces for using drugs in public. The pizza box proved too large and unwieldy, however. Thus, alternatives are currently being considered (e.g. unfolded packaging of vending machine needles, burger boxes etc.). Manuals are drawn up for all interventions after the end of the pre-test phase for the purpose of ensuring quality (Leicht et al. 2012).

In order to also provide safer use information to drug users who obtain their needles from vending machines to preserve their anonymity, the project “Package insert – safer user information in needle boxes” (“Beipackzettel – Safer Use Infos in Spritzenschachteln”) tested the acceptance of a new insert containing a variety of information on safer use practices. The project was conducted by the German AIDS Service Organisation in cooperation with the Berlin addiction support association, Fixpunkt e.V. and the Cologne addiction support association, Vision e.V. The new informational insert was placed in 10,000 needle boxes and delivered to the participating facilities. 89 feedback reports from users, received between February and May 2012, could be evaluated. 88.8 % stated that the additional information on the insert was useful to them personally. 95.5 % reported that the information was also useful for other drug users. The majority of those questioned found at least one safer-use topic on the insert relevant (information on alternatives: 82 %; information on injecting: 73 %; information on mixed use: 72 %; information on substance preparation: 56 %). 95.5 % would welcome it, if inserts were always included in the needle boxes in future (Deutsche AIDS-Hilfe, personal communication).

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<sup>76</sup> [http://www.saferuse-nrw.de/Saferuse-NRW/upload/pdf/tabelle\\_uebersicht\\_spritzenabgabe\\_2010\\_2012.pdf](http://www.saferuse-nrw.de/Saferuse-NRW/upload/pdf/tabelle_uebersicht_spritzenabgabe_2010_2012.pdf) (last accessed on 19 August 2013).

A further study of the German AIDS Service Organisation, in cooperation with the Institute for Addiction Research (ISFF) in Frankfurt am Main and six drug consumption rooms in five German cities (Frankfurt, Berlin, Dortmund, Hamburg and Bielefeld), examined, under the title "SMOKE IT!" the extent to which heroin users could be motivated, with the help of new types of paraphernalia and accompanying information, to switch to inhalation. The survey was conducted from April to August 2012 with the help of written questionnaires which were completed by the heroin users at three different times<sup>77</sup>. The participants received a "SMOKE IT pack" from the staff of the respective facility, consisting of a clear bag with a flyer containing information on i.v. use and smoking use, a card with six photographs and instructions on constructing a smoking pipe and the procedure for consumption by inhalation as well as new, uncoated aluminium foil sheets, designed specifically for heroin use. In total, 177 questionnaires were received by the ISFF at point T1. 12 persons rejected the offer of a "SMOKE IT pack". Of the remaining 165 subjects, it was possible to interview 141 again at point T2 (response rate 85.5 %) and 89 at T3 (response rate 54.0 %). The study participants had been using heroin, on average, for 13.3 years and most (96.8 %) already had experience of using heroin by inhalation. As a reason for inhaling heroin, the participants stated, "healthier than injecting" (59 %), "curiosity" (49 %), "lower risk of infection" (35 %) and "avoid risk of overdosing" (33 %). Two thirds of the sample (65.3 %) thus actually used the SMOKE IT foils for inhaling heroin instead of injecting, although this was more amongst men (71 %) than women (48 %). Four fifths of all those surveyed stated that they would also use the SMOKE IT foils in future provided the respective offer was still available. The researchers conclude from the findings that heroin users can actually be motivated to less risky use behaviour through targeted contact and relevant offers and recommend extending the services provided by low-threshold facilities to include smoking foils and relevant information material (Deutsche AIDS-Hilfe, personal communication).

Further information on needle exchange services can be found in standard table 10.

### **Provision of testing possibilities**

With the nationwide model project, "TEST IT", drug consumers were provided with low threshold access to an HIV testing service within the drug scene environment. The project was designed to examine whether firstly the inclusion of the offer in an outpatient drug support facility and secondly the use of an HIV quick test could reduce the barrier to users taking an HIV test. The project, conducted by the German AIDS Service Organisation in cooperation with the Dortmund drug support facility, KICK, and with the scientific support of the Dortmund University of Applied Sciences and Arts (Fachhochschule Dortmund), took place from January to September 2010. A total of 168 persons (133 men, 35 women) received initial counselling in the scope of the project. 162 persons were tested for the first time with the HIV antibody test (quick test). Amongst the around 1,000 KICK users each year, for 5 % of which a positive HIV status was known, one third took the opportunity to

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<sup>77</sup> T1: immediately after recruitment of the study participants; T2: after foil-smoking in the consumption room or after returning to the facility; T3: no sooner than 30 days following the T2 interview.

participate in the project (duration 7.5 months). By way of comparison, in 2009 only 21 HIV tests were performed for drug users in the Public Health Department. Of the 162 quick tests, six (3.7 %) were positive. 83 % of men and 86 % of women stated that they had already taken an HIV test. For 55 %, the last test was over 12 months previously. The desire to be tested came both from the risk situation associated with drug use and that with sexual activity. According to the authors, the results show that for users to take advantage of counselling and testing offers, in addition to the setting (trust in the surroundings and attending staff), the short time period between test and notification of result as well as the method of taking blood (no vein blood, only drops of blood from the finger tips) are crucially significant. This type of health care measure, tailored to the target group, is utilised by a larger number of clients. This can be interpreted as a sign that the possibilities of low-threshold drug support facilities are not yet fully exhausted and further research and development is required (Schäffer et al. 2013).

### **Treatment of hepatitis C in drug users**

At a meeting of experts on 2 August 2012 in Frankfurt am Main, attended by medical professionals specialised in addiction, gastroenterologists, infectologists and one psychiatrist, the experiences of this group were discussed in relation to HCV triple therapy amongst addiction patients since the introduction of the HCV protease inhibitors in Germany in September 2011. The discussion was based on a patient population of 168 patients in total, with a chronic HCV mono-infection of genotype 1, who were receiving or had received a triple therapy with boceprevir or telaprevir in 8 practices or clinics (not including clinical studies). As only a few of these patients had completed their HCV triple therapy, there was no robust data on sustained virologic response (SVR). The topics of discussion were as follows:

- Is a patient with a chronic HCV infection of genotype 1, who is stable in substitution treatment, also able, reliably and in addition to their existing medication, to take 4 capsules of boceprevir three times a day together with food or 2 coated tablets of telaprevir three times a day with a small, high-fat content meal (20g fat)?
- Does existing experience with the HCV triple therapy in addiction patients call for changes to the current guideline recommendations?

The conclusion arrived at in the discussion was that carefully selected substitution patients are certainly able to comply strictly with a triple therapy and persevere to the end. The substitution treatment represents the best setting for the HCV therapy. During the therapy, the patient should be closely monitored as ensuring the correct amount of medication is taken punctually and regularly is essential. Furthermore, conclusions were drawn in respect of the second question - that guideline recommendations should also point out to the socio-medical aspects which need to be taken into account in substitution patients when assessing the therapy indication. In addition, it should be mentioned that the comorbidity and concomitant medication history plays a special role in substitution patients. When assessing

the potential interaction, the substitution drug and the use of other psychotropic substances must be taken into account (Backmund et al. 2012).

The interim conclusion of one of the studies on the triple therapy, which also formed the basis for the discussion described above, was reported by Backmund (2013): from the time protease inhibitors were approved for triple therapy, all substitution patients of a Munich treatment centre who suffered from chronic hepatitis C of genotype 1, were offered a triple therapy. At week 12, 18 of 21 patients (86 %) were HCV-RNA negative. One female patient was once more a non-responder, one female patient aborted the therapy herself and on one occasion the therapy was stopped due to serious, undesired effects. These findings show, according to the author, that opioid dependent patients with chronic hepatitis C, genotype 1, can be relied upon to independently take the protease inhibitors and can thus be successfully treated.

#### **7.4 Responses to other health correlates among drug users**

There is currently no information available on other health correlates amongst drug users.





## 8 Social correlates and social reintegration

### 8.1 Introduction

Drug use is often linked to difficult family and personal life circumstances. While it may, on the one hand, be a consequence of these circumstances, it can also, on the other, aggravate the situation and worsen the drug user's future prospects. The social framework conditions under which drug use takes place illustrate the marginalisation 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.

### 8.2 Social exclusion and drug use

#### 8.2.1 Social exclusion of drug users

According to the data of the Statistical Report on Substance Abuse Treatment in Germany (DSHS) on clients of outpatient facilities in 2012, 17.5 % of clients with a primary opioid problem, 16.7 % of clients with a primary cocaine problem and 12.4 % of cannabis clients left school without a school leavers certificate (high school examinations). Almost two thirds of clients with primary opioid related problems (62.1 %) are jobless at the start of the therapy and so are a little more than a third (35.4 % and respectively 40.2 %) of the clients with primary cannabis and cocaine related problems (Table 8.1). In general, this situation has not changed by the end of the therapy (Pfeiffer-Gerschel et al. 2013c).

Since 2007, data has also been available within the framework of the DSHS based on evaluations carried out by low-threshold facilities themselves. According to these evaluations, the socio-economic conditions of the clients who sought help from low-threshold facilities in 2012 are even worse than those found in other help areas. As can be seen from Table 8.1, the figures for missing school leaving qualifications, unemployment and homelessness are for all substances significantly higher than in clients in outpatient therapy. However, the ability to interpret these figures is limited as the total number, N = 28, of the low-threshold facilities participating in the DSHS only represents a small section of the overall number of similar services available in Germany (cf. chapter 5.2) and no data is available on the representativeness of the sample (Pfeiffer-Gerschel et al. 2013f).

Table 8.1 Social situation of persons in outpatient therapy and low-threshold facilities by main drug (2012)

Main diagnosis	Outpatient Treatment			Low-threshold facilities		
	No school leaving qualification	Un-employed <sup>1)</sup>	Home-less <sup>2)</sup>	No school leaving qualification	Un-employed <sup>1)</sup>	Home-less <sup>2)</sup>
	%			%		
Alcohol	5.0	37.0	0.5	7.6	59.9	6.5
Opioids	17.5	62.1	3.0	22.3	72.7	10.4
Cannabinoids	12.4	35.4	0.7	28.5	46.7	6.7
Sedatives/Hypnotics	4.8	32.0	0.4	20.0	55.6	0.0
Cocaine	16.7	40.2	1.7	22.9	71.4	12.5
Stimulants	12.1	46.3	1.3	16.2	53.7	8.3
Hallucinogens	11.6	40.7	0.8	--	--	--
Tobacco	4.1	16.9	0.5	0.0	40.0	0.0
Volatile substances	3.4	28.3	0.0	--	--	--
Mult./other substances	12.1	48.1	2.0	--	--	--

1) On the day before the start of treatment; according to SGB III (ALG I) or SGB II (ALG II).

2) On the day before the start of treatment.

Pfeiffer-Gerschel, et al. 2013 c.f.

## 8.2.2 Drug use among socially excluded groups

There is no current data available on the drug use of socially excluded groups.

## 8.3 Social reintegration

The German Social Security Codes, revised over the last decade, have created a series of preconditions for an improvement of the social reintegration of people with substance-related disorders. More details on this can be found in the REITOX Reports of 2005, 2007 and 2008.

The law on the further development of the basic social assistance for people in search of work, "Gesetz zur Fortentwicklung der Grundsicherung für Arbeitsuchende", which came into effect as of August 2006, has laid down comprehensive regulations for the status of people in inpatient facilities with regard to their right to basic social government care.

In connection with the health reform, which came into effect on 1 April 2007, not only were parent-child programs and geriatric rehabilitation included in the catalogue of standard insurance benefits, but also the medical rehabilitation for addicted individuals.

### 8.3.1 Housing

There is a range of services available for drug addicts to help them through periods of homelessness. These include firstly socio pedagogic/therapeutic accompanied services for

outpatient managed living, adaptation facilities or inpatient social therapy facilities (care homes or temporary accommodation). Secondly, the general services of homeless assistance are also used by drug users. However, current data on this is not available.

### 8.3.2 Education, vocational training

Many facilities complement therapy by offering promotional programs for drug addicts to support educational achievement and vocational training or to provide orientation for their professional life. Drug addicts are also given the opportunity to catch up on missing school 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.

### 8.3.3 Employment

The already tense situation on the labour market makes it difficult for substance dependent people to reintegrate, post therapy, into professional and social life. The unemployment rate among drug addicts is extremely high – depending on the severity of the problem, it can even exceed 80 %. Studies show that social and professional integration is a crucial factor for sustained abstinence.

In the last few years, a series of measures have been tested to facilitate the integration into working life of unemployed people for whom it is difficult to find jobs. 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 in the revision of the Social Security Code II, III and XII.

The statistics of the employment authorities usually do not identify the sub-section of people with substance related problems separately, hence measures and results for the target group of this report cannot be represented separately.

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 field of basic social care for people in search of work.

### **Promotion by the German Statutory Pension Insurance**

In the course of the further development of the content and structure of existing rehabilitation offers, the targeted promotion of employment opportunities for jobless rehabilitants by the Pension Insurance has become an integral part of the therapy for people suffering from addiction. It includes, for example, indicative groups with regard to unemployment and training for applying for jobs. From the viewpoint of the social security administration, the central goal of addiction therapy is to restore the working capacity. Apart from purely somatic aspects, psychological factors – i.e. the personal and social skills of the clients – are also taken into account to prepare clients for working life.

In the German *Laender*, various projects are carried out to improve the (re)integration of (former) drug users into the employment market. The projects, which were reported to the DBDD this year by representatives of the *Laender*, are briefly described below:

- Mecklenburg-Western Pomerania: cooperation agreement between the Schwerin Job Centre, the outpatient, day-care and inpatient facilities of the Schwerin Addiction Support System and the *Land* capital city, Schwerin. This cooperation agreement came into force on 29 April 2013 (signature) and serves to improve the integration of people suffering from addiction into the job market. After the signature of the agreement, it can be used and implemented by other municipalities. The cooperation agreement can initially be downloaded from the homepage of the Mecklenburg-Western Pomerania Land Office for Addiction Issues (Landesstelle für Suchtfragen Mecklenburg-Vorpommern e.V.)<sup>78</sup>.
- Bavaria: A single day survey conducted at the expert conference “Addicts and employment” of the Coordination Office of the Bavarian Addiction Support (KBS) in December 2012 found that in most municipalities, a cooperation agreement existed between the addiction counselling facilities and the job centres but that these were not always in writing.

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

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

### 9.1 Introduction

Since, in addition to the purchase of or trafficking in illegal drugs, the possession of drugs is also illegal, criminal sanctions are some of the more common corollaries of drug use and this is true not only in the Member States of the European Union (EU). The Federal Criminal Police Office (Bundeskriminalamt, BKA), in its statistics on drug-related crimes, distinguishes between punishable acts in terms of violations of the Narcotics Act (Betäubungsmittelgesetz, BtMG) and cases of direct economic compulsive crime. Punishable acts of the first group are recorded according to the following four categories:

- general offences as per Sec. 29 BtMG (especially possession, purchase and distribution, so-called consumption-related offences),
- dealing/trafficking in and smuggling of narcotics as per Sec. 29 BtMG,
- illegal import of narcotics in non-negligible quantities as per Sec. 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 2012 a total of 237,150 narcotics offences were recorded in Germany (2011: 236,478, 2010: 231,007), of which 173,337 were general offences against the German Narcotics Act (BtMG) and 45,040 were dealing/trafficking offences (2011: 48,291). Drug related crime has thus remained almost unchanged, with an increase of 0.3 % compared to the previous year (BMI 2013).

#### Direct economic compulsive crimes

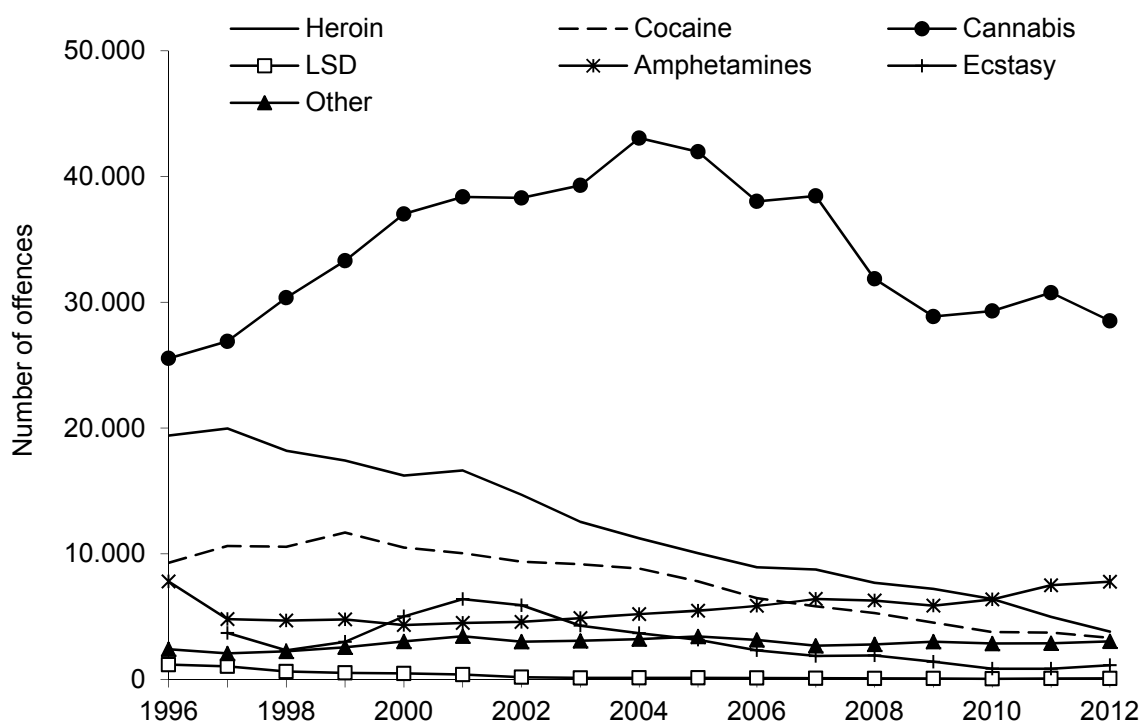
Direct economic compulsive crimes are understood to refer to all criminal offences committed in order to obtain narcotic drugs, substitutes or alternative drugs. In 2012, 2,152 cases (2011: 3,013) of direct economic compulsive crimes were recorded by the Police Criminal Statistics (Polizeiliche Kriminalstatistik, PKS), which corresponds to a decrease of 28.6 % compared to the previous year. With this, the number of this type of offence has thus fallen dramatically after a sharp increase from 2010 to 2011 and is lower than the previous lowest level of 2005 (2,210). Almost two thirds (61.8 %) of these offences are related to prescription forgery or theft for the purpose of obtaining narcotics (BMI 2013).

#### 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 with consumption-related crimes - taken account of in this report irrespective of the outcome of later legal proceedings.

Both in terms of proportion and absolute figures, **cannabis** played the most important role in drug dealing/trafficking crimes (28,524 crimes, 59.8 % of all crimes; 2011: 30,765 crimes, 60.6 %), well ahead of **amphetamine** (7,778 crimes, 16.3 %; 2011: 7,497, 14.8 %), which overtook heroin both in its share of the total and in absolute number of cases (Figure 9.1). Since then, **heroin** has continuously decreased in both indicators, reaching a level in 2012 of 8.0 % (3,806 crimes; 2011: 4,980, 9.8 %). The proportion and number of cases involving **cocaine** was at a slightly lower level (3,304 crimes, 6.9 %; 2011: 3,731, 7.3 %). Both the proportion and the absolute number of trafficking and smuggling crimes involving ecstasy increased after a continuous downward trend since 2001 and record lows in 2010 and 2011 (855 crimes, 1.7 %) (2012: 1,138 crimes, 2.4 %) (BMI 2013).



BMI 2013.

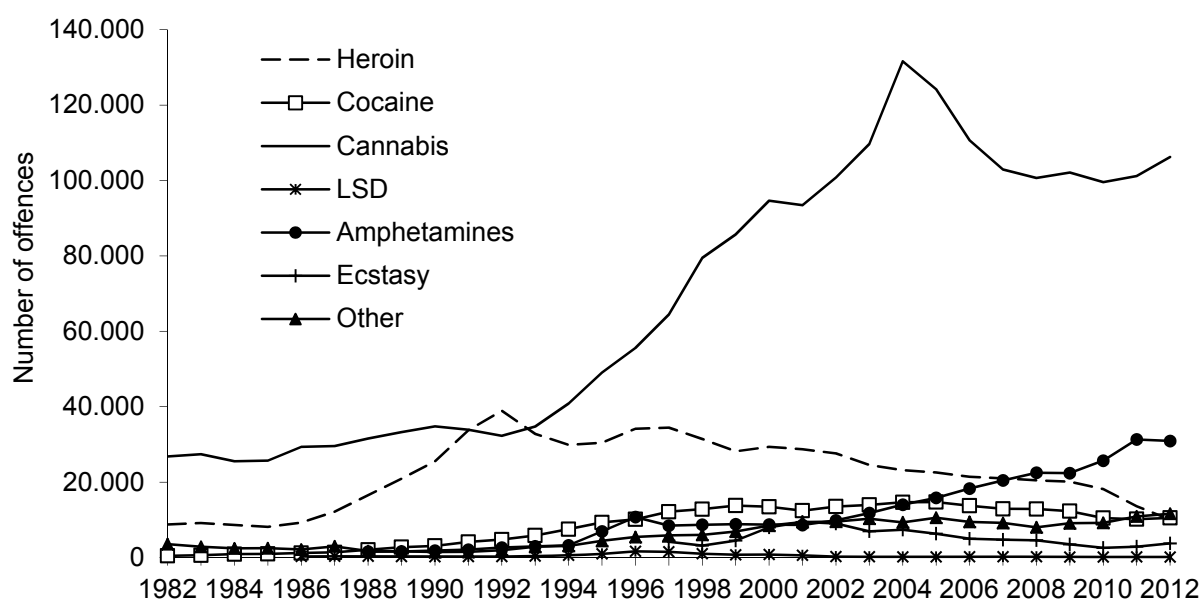
Figure 9.1 Development of dealing/trafficking offences (1996-2012)

### Consumption-related offences<sup>79</sup>

This section is about narcotics offences that are classified by police as “general offences” – due to the surrounding circumstances (quantity, persons involved) - and are therefore considered as consumption-related offences (Figure 9.2).

<sup>79</sup> The term "consumption-related offences" is used to describe general offences committed against the Narcotics Act (Betäubungsmittelgesetz, BtMG). The offences committed in violation of § 29 BtMG comprise possession, purchase and distribution of narcotic drugs and similar offences.

The police crime statistics (BMI 2013) show that cannabis plays a predominant role also in the case of consumption-related offences: 61.3 % of all such cases are related to cannabis. Heroin (5.8 %), amphetamines (17.8 %) and cocaine (6.1 %) together account for 29.7 % of the recorded cases. The remaining proportion is split between ecstasy, LSD and other drugs. In 2012, the total number (173,337) increased by 1.8 % in comparison with the previous year (2011: 170,297). The number of consumption-related offences in connection with ecstasy increased sharply from 2011 to 2012 (+30.2 %). A sharp fall was seen in the number of consumption related offences in connection with heroin (-25.8 %). Finally, there were minimal changes recorded for cannabis (+5.0 %), cocaine (+3.2 %), LSD (-7.5 %) and other substances (+6.8 %).



BMI 2013.

Figure 9.2 Development of consumption-related offences (1982-2012)

### Users of hard drugs who have come to the attention of the police for the first time (first-offence hard drug users)

Alongside data on narcotics offences, the Federal Criminal Police Office also publishes statistics on persons who have come to the attention of the police for the first time in connection with hard drugs. These statistics thus represent a sort of incidence measurement. 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 (the period of storage may not exceed 10 years for adults, five years for adolescents and 2 years for children, whereby a distinction should be drawn between the purpose of storage and the type and seriousness of the offence). In this way, an unknown number of repeat offenders are wrongly classified as “having come to the attention of police for the first time” and therefore the incidence rate is an overestimate of the actual value.

When analysing 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. Narcotics crimes are so-called crimes of low reportability, so they are only discovered through active checks, i.e. the more frequently the police perform such checks, the higher the number of detected crimes. Through triangulation, a comparison with recorded trends in other areas, e.g. the number of treated cases, can help to evaluate trends more reliably.

After a sharp increase in the overall figure for first-offence hard drug users in the previous year (2010-2011: +14.5 %) it fell back by 8.2 % from 2011 to 2012 to 19,559 cases (2011: 21,315).

The number of cases for first-offence users fell sharply in respect of other “hard” drugs (2012: 330; 2011: 897; -63.2 %) and fell substantially in respect of crack (2012: 369; 2011: 438; -15.8 %) whereby the total numbers in both cases are low. Considerable decreases were also recorded for heroin, as in the previous years (2012: 2,090; 2011: 2,742; -23.8 %). The number of first-offence hard drug users remained almost constant in respect of cocaine (2012: 3,263; 2011: 3,343; -2.4 %), (Meth-)amphetamine (2012: 13,728; 2011: 14,402; -4.7 %) and LSD (2012: 144; 2011: 135; +6.7 %). After the number of first-offence users of ecstasy had fallen continuously since 2004, reaching a record low in 2010, it has been increasing since then (2012: 1,257; 2011: 942; +33.4 %).

First-time offenders in connection with amphetamines and methamphetamines accounted for a little less than 2/3 (64.8 %) of the total of first-time offenders (heroin: 9.9 %; cocaine: 15.4 %, ecstasy: 5.9 %, crack: 1.7 % and others including LSD: 2.3 %)<sup>80</sup> in 2012. In this statistical documentation cannabis users are not taken into account since only so-called hard drugs are recorded (BKA 2013).

In 2012, 230 percent more offences were registered for amphetamine/methamphetamine than for heroin and cocaine combined (Bayerisches Staatsministerium für Umwelt und Gesundheit 2013, personal communication). The number of users of hard drugs who came to the attention of the police for the first time fluctuated slightly over the last years in respect of amphetamine and decreased slightly in 2012 compared to 2011. At the same time, the incidence of Methamphetamine (crystal) amongst first time offenders in Bavaria increased substantially. This trend is also reflected in the fact that in Bavaria in 2012, 528 persons were registered as first time users of crystal (+86.6 % in comparison to the previous year) (table 9.1).

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<sup>80</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 percentage breakdown by drug type exceeds 100 %.



Table 9.1 Age of first time users of crystal in Bavaria

	2010	2011	2012	Change (in %) 2011/2012
<14	0	0	0	-
14-17	3	3	16	+ 433.3
18-20	6	44	54	+ 22.7
21-24	21	87	129	+ 48.3
25-29	24	82	154	+ 87.8
30-39	20	50	134	+ 168.0
>=40	11	17	41	+ 141.2
<b>Total</b>	<b>85</b>	<b>283</b>	<b>528</b>	<b>+ 86.6</b>

Bayerisches Staatsministerium für Umwelt und Gesundheit 2013, personal communication.

### Sentencing under the Narcotics Act (BtMG) and the penal system

According to the sentencing statistics of the Federal Statistical Office (Statistisches Bundesamt 2012a) 55,391 persons (2010: 55,391) were convicted in 2011 for offences committed against the Narcotics Act (data for 2012 not yet available). 48,573 convictions were issued under the general criminal law (relating to adults) (2010: 48,572), and 6,818 (2009: 6,819) relating to juvenile offenders. As for the convictions issued in respect of the general criminal law, 16,041 (2010: 16,905) prison sentences were passed – out of these 10,258 (2010: 10,809) were suspended sentences - and 32,532 (2010: 31,666) fines were imposed.

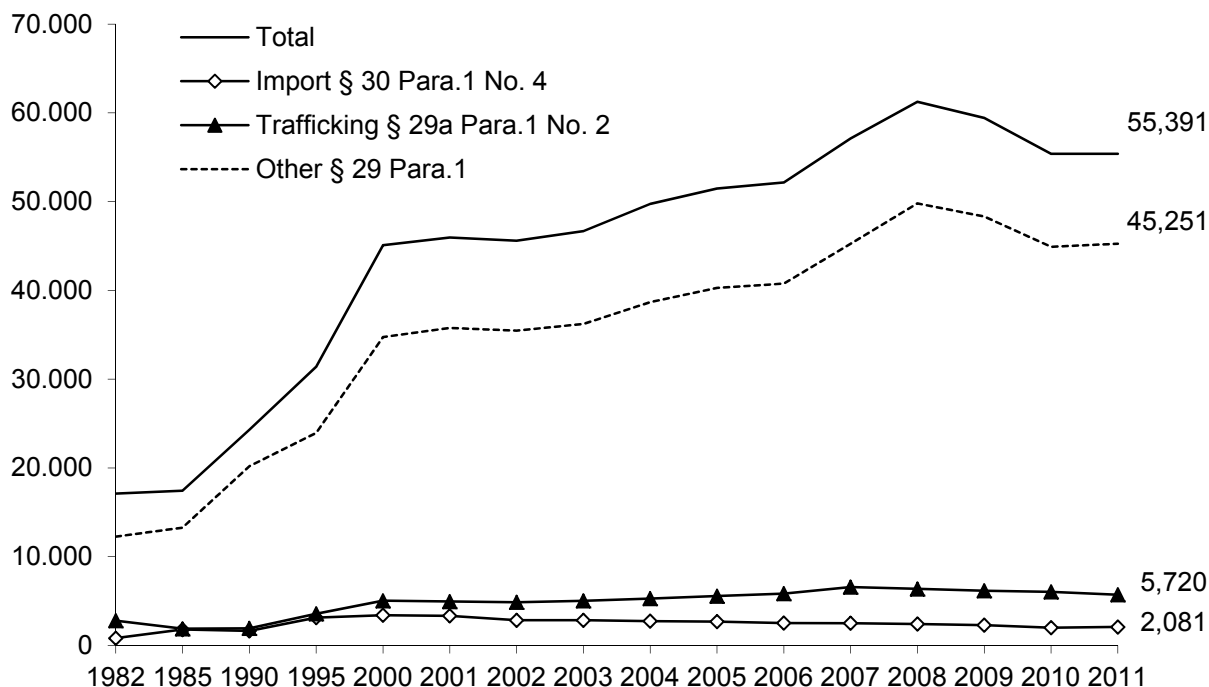
The overall figure remained stable in comparison to the previous year. This stability is reflected in all age groups, i.e. in adult, young adult<sup>81</sup> and juvenile<sup>82</sup> offenders. The stability of the overall number can be traced back to a slight increase in the number of cases involving unspecific consumption offences (Sec. 29 (1) BtMG) to 45,251 cases (2010: 44,920; 2010-2011: +0.7 %) and infringements of Sec. 30 (1) No. 4 BtMG (2011: 2,081; 2010: 2,003; +3.9 %) coupled with a slight decrease in dealing/trafficking crimes (2011: 5,720; 2010: 6,040; -5.3 %) (Figure 9.3).

As in the previous years, convictions rendered for violations of the Narcotics Act accounted for around 7 % of all convictions imposed in 2011, whereby the proportion of convicted males (7.6 %) was more than twice that of convicted females (3.5 %). Amongst juveniles, the share of convictions imposed for violations of the Narcotics Act was 4.1 %. Young adults aged between 18 and 21 years old had a considerably higher share at 8.7 %. As a result, narcotics offences committed by this age group have an above-average share in the overall crime rate.

<sup>81</sup> Young adults means persons who are aged 18-20 years old 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>82</sup> Juveniles means individuals who are 14-17 years old at the time of the offence (§ 1 JGG). They are adjudicated under the criminal law relating to juvenile offenders.

63.2 % of those convicted for offences committed against the Narcotics Act had already been sentenced at least once before (males: 64.5 %, females: 51.4 %); in 64.1 % of these cases, the crimes were committed by repeat offenders who had been sentenced at least three times before (Statistisches Bundesamt 2012a).



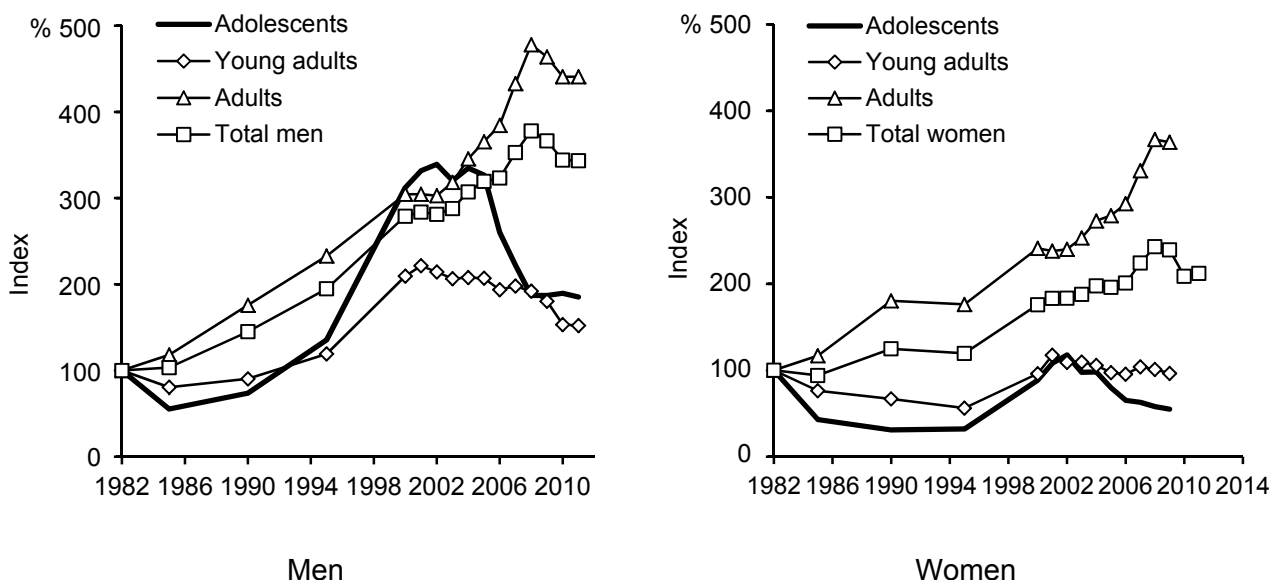
Statistisches Bundesamt 2012a.

Figure 9.3 Convictions under the Narcotics Act (BtMG)

As in the previous years, about nine times more men than women were convicted for violations of the Narcotics Act in 2011 (males: 49,956; females: 5,435). The development trends of the previous 29 years also show marked differences. Using the figures of 1982 as an index (=100 %), the number of convictions of men more than tripled (344 %) while that of women more than doubled (212 %) in the period to 2011.

Significant differences were found between juveniles and young adults. For juvenile (41 %) and young adult (73 %) females, the number of convictions issued in 2011 remained under that of 1982, whilst the number of convictions of male juveniles (185 %) and young adult males (152 %) has considerably increased. This enormous rise in the convictions of male juveniles and young adults mainly occurred between 1995 and 2000. Between 2000 and 2005, there were hardly any changes in these two groups. From 2005 to 2008, the number of convicted juvenile male offenders dropped by almost half (-43 %), whereas between 2008 and 2011 no further changes were found. The number of female juvenile convicts has been on a continual decline since 2002 (Index: 118) and amounted to only 41 % in 2011 in comparison with 1982. Among the young adult offenders, the number of convictions has been on the decline since 2001 (Index: 222) (Index 2011: 152). While the number of female young adults only experienced slight fluctuations between 2000 (index: 96) and 2009 (index:

96), the number fell sharply in 2010 and in 2011 was only 73 % (Figure 9.4). Information on violations of the Narcotics Act can be found in standard table 11.



Statistisches Bundesamt 2012a.

Figure 9.4 Trends in convictions under the BtMG

According to the Hamburg basic documentation system, BADO 2011 (Buth et al. 2012), more than a third of the clients of the Hamburg outpatient addiction help system had problems with criminal justice authorities (36.3 %) in 2011. This proportion had grown to 42 % at one stage before falling back below the 2005 level and in 2011 it remained stable in comparison to the previous year. In particular, the proportion of clients currently in custody (adults on remand or in prison) fell from 2005 to 2010 but rose again slightly from 2010 to 2011 (2005: 17 %; 2010: 13.6 %; 2011: 14.2 %). At the same time, the proportion of individuals who had been awarded probation conditions increased (from 6 % to 8.5 %). Opiate clients have the most problems with judicial authorities. Roughly half of opiate clients (49.1 %) report that they are currently in conflict with the law. They account for the largest proportion of clients serving a prison sentence (19.6 %) and are involved particularly often in judicial proceedings (14.5 %) or are awarded probation conditions (10.9 %). Within the cannabis group (34.8 % with current legal problems), a distinction must be drawn between male and female clients. Currently, 39.2 % of men but only 10.9 % of women are having problems with judicial authorities and the proportion of persons in prison is also many times higher for male clients (11.7 %) than female (1.3 %).

More than half of the clients documented by the BADO Hamburg in 2011 had been convicted at least once in their lives (51.5 %). This proportion fell by 5 percent between 2005 and 2010 and then rose again from 2010 to 2011 (2005: 56.0 %; 2010: 50.8 %; 2011: 51.5 %). As regards the type of crime in this period, there was a decline to be observed especially in the proportion of drug law offences (from 37 % to 29.1 %), economic compulsive crimes (from 29 % to 24.5 %) and other or unknown offences (from 28 % to 24.8 %). The highest share of

convicts is to be found again in the group of opiate clients (81.5 %). About two thirds had already been convicted because of violations of the Narcotics Act (65.6 %), over half of these because of economic compulsive crimes (53.6 %), more than a third because of unknown or other offences (41.1 %) and a quarter because of bodily injury offences (25.4 %). One third of cannabis clients had been convicted at least once in their lives (35 %). The most common offences in this context were assault and other/unknown offences with 15.3 % and 15.6 % respectively, followed by narcotics offences (10.8 %), economic-compulsive offences (8.2 %) and driving under the influence of alcohol or drugs (4.7 %).

Just as for the current problems with the judicial authorities, there are also significant gender differences to be found in relation to convictions for clients as a whole: women are less frequently convicted overall (females: 32.1 %; males: 57.1 %) and they have lower shares in the convictions for all offences than males. Particularly striking is the divergence in relation to the offence of assault for which about one male in four (22.3 %), but only one woman in sixteen (5.9 %) was convicted.

A total of 38.4 % of all clients treated in 2011 and documented by the BADO Hamburg, reported that they had already been in prison at least once in their lives. That is seven percentage points lower than in 2005. By far the largest proportion of clients with prison experience was in the group of opiate clients (68.5 %). In contrast, only 21.2 % of cannabis clients had experience of prison. A comparison of the sexes reveals that the proportion of those with prison experience was around twice as large for men (44.3 %) than for women (22.2 %).

In the 2012 Frankfurt MoSyD survey, 75 % of users interviewed reported that they had been imprisoned at least once in the lifetime for “hard drugs”, on average for sentences of four years. The most common reason for incarceration was serving time due to monetary fines (i.a. for using public transport without a ticket), followed by theft, drug dealing, bodily harm and drug possession (Bernard et al. 2013).

## 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 whether operators of motor vehicles involved in accidents have been 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<sup>83</sup>. This also applies to cases where lack of fitness to drive could not be proven. The recommendations of the so-called “Critical Value Commission” (Grenzwertkommission) can serve as a basis for the limits of each substance. This would be 1 ng/ml for THC, 10 ng/ml for morphine, 75 ng/ml for BZE, 25 ng/ml for ecstasy, 25 ng/ml for MDE and 25 ng/ml for amphetamine (Burhoff 2006).

<sup>83</sup> A list of these substances can be found here: [http://www.gesetze-im-internet.de/stvg/anlage\\_105.html](http://www.gesetze-im-internet.de/stvg/anlage_105.html) (last retrieved on 2 October 2013).

In the year 2012, there were a total of 209,637 police-registered accidents on German roads with injury to persons, with 455,713 vehicle operators involved (Table 9.2). Of these, 14,381 people involved in accidents (6.9 %) were under the influence of alcohol and 1,393 (0.7 %) were under the influence of “other intoxicating substances” (Statistisches Bundesamt 2013a). Thus, the downward trend, which had been apparent since 2003, continued once more (following a temporary increase from 2010 to 2011) in respect of the number of accidents with injuries to persons and the number of accidents under the influence of alcohol. The absolute number of accidents under the influence of other intoxicating substances stayed basically constant in 2012 compared to 2011, whereby the proportion of persons involved in accidents who were under the influence of alcohol or other intoxicating substance increased (alcohol 2011: 4.9 %; “other intoxicating substance” 2011: 0.4 %). However, since drugs are more difficult to detect than alcohol, it should still be assumed that drug-related cases are under-represented in German road accident statistics involving intoxication.

Table 9.2 Drug use and road traffic accidents – human causes

Year	Accidents with damage to persons	Incorrect driving behaviour	Drivers under the influence of...	
			Alcohol	Other intoxicating substances
2004	339,310	417,923	21,096	1,457
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	310,806	377,733	16,513	1,281
2010	288,297	350,323	14,237	1,151
2011	306,266	371,821	15,114	1,392
2012	299,637	362,993	14,380	1,393

Statistisches Bundesamt 2013a.

In a meta analysis on the basis of 66 studies, the risk of a traffic accident under the influence of drugs was calculated (Elvik 2012). The odds ratio of accident involvement were calculated (i.a. for amphetamine, painkillers, anti-depressants, benzodiazepine, cannabis, cocaine, opiates and zopiclone). A slight to medium increase in the risk of accident was observed for the use of most substances. Most of the studies which have evaluated the dose response relationship were able to confirm its existence. Effects of drug use on the risk of accidents from well-monitored studies tended to be smaller than in the less well-monitored studies.

### Crime experienced by drug users themselves

Since 2005, the Hamburg Basic Documentation System BADO has been showing a stable share of approximately 60 % of all clients who have had experience with physical violence (Buth et al. 2012). As for sexual violence, this has been at or just over 20 % for years.

Comparing the different substance groups, one finds that the clients who have sought help from the Hamburg ambulatory addiction help system for opiate-related problems are particularly affected in this respect. Among these, more than two thirds (69.7 %) stated that in the relevant period (2011) they had already been victims of physical violence and more than one in four had been victims of sexual violence (26.1 %). Experience with sexual violence is least common in cannabis clients (12.4 %). Experience with physical violence is also comparatively somewhat less prevalent among cannabis clients (55.9 %) as well as among alcohol clients (52.3 %).

The differences between the gender groups, however, are far more pronounced than they are between the substance groups. This applies to the experience with physical violence (females: 67.5 %; males: 58.9 %), and, to a much larger extent, to sexual violence. In 2011, over half (51.9 %) of all female clients reported that they had fallen victim to sexual violence; amongst male clients the percentage is 8.2 %. Among women, opiate clients are the ones who are the most affected by crime. More than two thirds of them report experience with physical violence (78.2 %) and a little less than two thirds experience with sexual violence (64.3 %) at some point in their lives.

### 9.3 Prevention of drug-related crime

Apart from consistent law enforcement, a variety of measures for crime prevention are also required to combat crime successfully. Therefore, the police have 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, opinion leaders, media and other groups who are active in prevention about different forms of crime and possible ways of preventing them. This is done using, amongst other things, crime prevention PR-work and the development and publication of media, measures and concepts that support the local police offices in their prevention activities.

The PREMOS (Predictors, Moderators and Outcomes of Substitution Treatment) Study is a prospective, long-term study involving a sample, representative for Germany, of 2,694 opioid dependent patients (Soyka et al. 2012). Convictions and criminal behaviour were examined at the beginning (baseline) of the study and after 6 years of continuous opioid substitution treatment (OST). At the time of the follow-up, 2,284 patients (84.7 %) were still in OST. Data on the criminality at the time of the follow-up was available for 1,147 patients (70.6 %). The majority of them (84.5 %) had already been charged or sentenced at baseline, in particular due to drug-related offences (66.8 %), economic compulsive crimes (49.1 %) or violent crimes (22.0 %). The recorded indictments and convictions were reduced to 17.9 % in the 12 months before the follow-up which suggests a significant and clinically relevant reduction in criminal behaviour of opioid dependent patients which are in sustained OST. According to PREMOS, sustained OST reduces both drug-related crime and economic compulsive crimes.

## 9.4 Interventions in the criminal justice system

### 9.4.1 Alternatives to prison

According to § 63 and § 64 of the Penal Code (Strafgesetzbuch, StGB) it is possible under certain circumstances to order the placement of mentally ill or addicted offenders in special closed correctional facilities (such as psychiatric facilities or withdrawal clinics).

The Narcotics Act (Betäubungsmittelgesetz, 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 Schäfer & Paoli (2006). With regard to the prosecution of consumption-related offences involving cannabis, there has recently been a move towards standardising the definitions of limit values for “small quantities” in the *Laender*, in line with the requirements issued 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 not punishment“, § 35 BtMG).

The BMG funded study, “Medical rehabilitation of drug addicts under Sec. 35 BtMG (“Therapy not punishment”): Efficacy and Trends”, which was conducted in the *Laender* Hamburg, Schleswig-Holstein and North-Rhine Westphalia was completed in April 2013. Three questions were at the heart of the study, which were examined from different perspectives and on the basis of different data sources. Firstly, the question was addressed as to whether a downward trend in the application of Sec. 35 BtMG has been observed. For that purpose, court statistics were analysed together with data from outpatient and inpatient support facilities. Secondly, the study examined whether drug addicts with a judicial order under Sec. 35 BtMG differ in certain aspects from those with other judicial orders or no judicial order. A comparison of these three groups was undertaken on the basis of the Hamburg base documentation of the outpatient addiction support system (BADO Hamburg) and inpatient rehabilitation for the years 2010 and 2011. The third question was on the effectiveness of an inpatient medical rehabilitation in respect of how the therapy is concluded. The effectiveness was examined by comparing two groups; one group with a judicial order under Sec. 35 BtMG and one group from all other patients. The basis for the group comparison was the data on the method of therapy conclusion from three *Laender* – NRW, Schleswig-Holstein and Hamburg. In these three *Laender*, personal interviews with judicial officers in state attorney offices (Cologne, Lübeck, Hamburg) as well as with employees in inpatient rehabilitation facilities for patients addicted to illegal drugs in order to also include practical experiences. The results of the study show that housing drug addicted criminals in a withdrawal facility under Sec. 64 StGB increased enormously from 2001 to 2011; over a period of 10 years, the number of male convicts placed under Sec. 64 StGB almost doubled whilst the number of female convicts increased fourfold. It also became clear that after the end of a rehabilitation measure, drug addicts were increasingly subject to

probation as per Sec. 35, 36 BtMG. According to information provided by the interviewed judicial workers, this is due to the considerably reduced duration of the inpatient drug therapy. The proportion of inmates put on probation following completion of rehabilitation increased by more than a factor of five between 2001 and 2010. In respect of the deferment of criminal enforcement under Sec. 35 BtMG, there is no apparent downward trend. Around 30-45 % of all patients starting therapy are under Sec. 35 BtMG. Only minimal differences can be seen in respect of the regular completion of inpatient medical rehabilitation, between the group with a judicial order under Sec. 35 BtMG and those without. A regular completion of the therapy was achieved by 50 % of the Sec. 35 group, thus this group was more successful than the group without this judicial order, from which 43.0 % completed the therapy normally.

Overall, external addiction counsellors in Bavarian correctional facilities report that, since 2011, the numbers of transfers under Sec. 35 BtMG have noticeably declined (Bayerisches Staatsministerium für Umwelt und Gesundheit 2013, personal communication). The counsellors on the ground see the reasons for this being the very narrowly defined causal relationship between the narcotics addiction and the crime. This must, however, not have been committed while intoxicated, so that Sec. 35 BtMG can apply. Possible crimes include, for example, crimes of narcotics procurement or crimes which have been committed whilst suffering from withdrawal symptoms or fear of withdrawal symptoms. Furthermore, following the German Federal Court of Justice decision of 4 August 2010, a change in the order of enforcement has no longer been possible which has additionally complicated the referral procedure as per Sec. 35 BtMG. The consequence of these circumstances is that the original intention of “therapy not punishment” is ever more rarely applied. Various working groups have been looking at this phenomenon and are trying to stop the declining numbers referred under Sec. 35 BtMG.

#### 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 is the first response of authorities in dealing with problematic behaviour in connection with drugs.

There is a series of other possibilities available to curb drug crime as well as economic compulsive crimes. Many cities have created legal possibilities to ban drug users from certain places to prevent the formation of open drug scenes<sup>84</sup>.

At public prosecution level, it is possible to stop prosecution of crimes committed by adolescents<sup>85</sup> and young adults<sup>86</sup>, who fall under the juvenile law or to discontinue

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<sup>84</sup> A move-on direction is a police measure to avert danger. It is limited to 24 hours. A banning order is an administrative act that can be passed by a municipality and can be referred to a longer period of time and a larger area than a move-on direction.

<sup>85</sup> See footnote 82.

<sup>86</sup> See footnote 81.



proceedings in respect of the Juvenile Offenders Act (JGG, §§ 45 und 47). This is mostly applied in cases involving only small quantities of cannabis.

In nearly all *Laender*, local prevention measures, such as the widely spread programme “Early Intervention in First-Offence Drug Consumers – FreD” are used as a way of intervening without starting criminal proceedings straight away. The programme addresses 14 to 18 year olds but also young adults up to 25 years old who have come to the attention 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 2007 and 2008).

### 9.5 Drug use and problem drug use in prisons

Because the percentage of addicts and consumers of illegal drugs in German penal institutions cannot be clearly quantified, the number of persons incarcerated as a result of violations of the Federal Narcotics Act (Betäubungsmittelgesetz) is frequently used. This estimate is relatively imprecise. Firstly, it counts people who, although they have violated the law in connection with drugs, may not themselves have consumed any illicit substances, as could be the case, for example, with some dealers. Secondly, a large percentage of drug consumers are not taken into account because, for example, persons who are sentenced as a result of offences in connection with procurement of drugs are listed under other categories of violations against the Federal Narcotics Act in the statistics.

As of 31 March 2012, there were a total of 8,126 persons (14.0 % of all inmates) serving time in prison institutions as a result of violations of the Federal Narcotics Act (BtMG). Of these, 6.5 % (526) were female, while 2.7 % (217) were serving sentences as juvenile offenders. From 2006 (total: 64,512; BtMG: 9,579) to 2012 the total number of inmates increased by 10.0 % whilst the number of inmates serving sentences due to BtMG offences decreased by 15.2 % (Table 9.3).

The number of inmates convicted for BtMG offences as a percentage of all inmates has remained relatively constant for adults since 2006. For juveniles and young adults (in particular male inmates) it is slightly decreasing (Statistisches Bundesamt 2012b).

Table 9.3 Imprisoned persons and narcotics offences

		Prisoners and persons in protective custody			Custodial sentences for adults		Juvenile punishments		Custodial sentences
		Total	Men	Women	Men	Women	Men	Women	
2012	Inmate N	58,073	54,765	3,308	48,717	3,094	5,584	212	466
	BtMG N	8,126	7,600	526	7,398	510	201	16	1
	BtMG %	14.0	13.9	15.9	15.2	16.5	3.6	7.5	0.2
2011	BtMG %	14.7	14.7	15.4	16.0	15.8	4.6	10.7	0.2
2010	BtMG %	14.6	14.5	16.2	15.8	16.7	5.0	10.2	0.2
2009	BtMG %	15.0	14.9	16.5	16.2	17.0	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	15.0	6.2	8.9	0.2
2006	BtMG %	14.8	14.7	18.2	15.7	18.8	6.8	11.4	0

Note: "BtMG N": Number of persons imprisoned due to offences against the BtMG, "BtMG %": proportion of persons imprisoned due to offences against the BtMG.

Statistisches Bundesamt 2012b.

### Legal framework conditions

The German Prison Law (Strafvollzugsgesetz) from 1976 still applies in most of the German *Laender*. It governs "the act of imprisonment in penal and correctional institutions" (§ 1 StVollzG). Since the reform of the Federalist system, which was adopted by the German Bundestag on 30 June 2006 and came into force on 1 September 2006, law-making power has been devolved from the Federal Government to the *Laender*. The German Prison Law is being replaced step by step by the respective *Laender* prison laws and administrative regulations (§ 125a of the German Constitution (GG)), which in part cite the German Prison Law. The German Prison Law still applies in 6 German *Laender*. There are *Laender* prison laws now in Baden-Wuerttemberg (JVollzGB since 1 January 2010), Bavaria (BayStVollzG, since 1 February 2010), Lower Saxony (NJVollzG, since 14 December 2007), Hamburg (HmbStVollzG, since 14 July 2009), Hesse (HStVollzG, since 28 June 2010), Brandenburg (BbgJVollzG, since 1 June 2013), Mecklenburg-Western Pomerania (StVollzG M-V, since 1 June 2013), Rhineland-Palatinate (LJVollzG, since 1 June 2013), Saxony (SächsStVollzG, since 1 June 2013) and in the Saarland (SLStVollzG, since 1 June 2013). The *Laender* prison laws are largely based on the Federal German Prison Law and usually only differ in terms of various details. The type and scope in the provision of services in the area of health care is based on the Federal Social Code (SGB V)<sup>87</sup> in all five of the German *Laender* with their own prison laws, for example.

<sup>87</sup> SGB V governs the organisation, insurance obligation and services provided by statutory health insurance schemes as well as their legal relationship to other service providers such as, for example, physicians, dentists and chemists.

The seventh title of the German Prison Law lays down regulations governing health care for prisoners. Generally speaking, there is an obligation to care for the physical and mental health of prisoners (§ 56 StVollzG). In addition to this, prisoners are “entitled to treatment when they are ill if this is necessary to diagnose or heal an illness, prevent it from becoming more acute or to alleviate it”. This means *inter alia* treatment by a physician and the supply of medication, bandages and dressings (§ 58 StVollzG). The provisions of Social Code V apply to the type and scope of health services (§ 61 StVollzG). No individual references are made in the German Prison Law to drugs, substitution or addictions. Medical care of inmates is paid for by the ministries of justice of the *Laender*. A health insurance scheme or the *Laender's* respective accident insurance scheme assumes the costs of work-related accidents (BMJ 2009).

Although the *Laender* codes scarcely differ from the German Prison Law or from each other, there are nevertheless subtle differences. The Hessian Prison Law stipulates a right on the part of inmates to psychological or psychotherapeutic treatment or care (§ 26, section 2 HStVollzG). In Lower Saxony the need to inform inmates about healthy living habits is codified (§ 23, section 1 HStVollzG and § 32, section 1 JVollzGB). The codes of Hesse and Baden-Wuerttemberg furthermore state that it is possible to exercise controls to combat abuse of addictive substances (§ 4 HStVollzG and § 64 JVollzGB).

### Implementation of the principle of equivalence

Resolution 37/194 of the General Assembly of the United Nations (Office of the United Nations High Commissioner for Human Rights 1982) states that health-care personnel in prisons have a duty to ensure that prisoners in custody receive protection of their physical and mental health and, if they are ill, that they receive treatment of disease commensurate in quality and standard to that afforded to persons who are not imprisoned or detained. In dealing with prisons and detained persons, the Council of Europe recommends, under the heading, “Equivalence of care”, that health policy in prisons complies with national health policy and be integrated into it. Furthermore, conditions in prison which constitute violations of human rights cannot be justified by a lack of resources (CPT 2010).

In Germany penal laws and regulations themselves stipulate what medical services prisoners are entitled to and, with regard to the type and scope of such, refer to the Social Code (SGB V) (Meier 2009). Under these provisions, prisoners are not entitled to the entire spectrum of health services which statutory health insurance schemes (GKV) are obligated to provide.

### Treatment

In a systematic review by Hedrich et al. (2012) an overview was provided on the effectiveness of sustained treatments (opioid maintenance treatment, OMT) in the prison setting. Results show that the benefits of OMT in the prison setting are comparable to those in the general public. OMT represents a possibility to motivate problem opioid users to submit themselves for treatment in order to reduce illegal opioid use and risky behaviour in

prison and possibly also to minimise overdoses after release from prison. If there is a connection with a treatment program which is close to the community, OMT in prison also facilitates the continuity of treatment and helps with the achievement of long-term, positive effects.

In one study, drug using individuals were interviewed who had been released from a Bavarian prison within the last two years (Schäffler & Zimmermann 2012). The participants in the study answered questions on substitution before and after their imprisonment, drug use before and during imprisonment, multiple uses of injecting equipment, satisfaction with intramural support services, types and sensations of poisoning in prison, time of the first use after release from prison and on infection status. In summary, one can conclude from the results that drug addicts in Bavarian correctional facilities are exposed to many health hazards. Many of the interviewed prisoners used intravenously and with high risk methods during their incarceration and almost 50 % used on the first day after release. A lower percentage of users are in substitution treatment compared to the substitution rate on the outside. Around two thirds of drug dependent prisoners experience cravings often or very often and are extremely unsatisfied with the medical care and the attitudes of the medical personnel towards them. In a survey paper on addiction related health care of prisoners in Germany, the authors arrive at a similar conclusion (Jakob et al. 2013b). Although the rate of narcotics users is many times higher amongst prisoners than the general public, which would require a comprehensive range of intramural treatments, there exist substantial differences, despite the equivalence principle, between intramural and extramural treatment of narcotics users or dependent persons. Furthermore, the lack of binding national guidelines on addiction related health care in prisons leads to differences in the type and availability of therapies offered between the *Laender*.

The Bavarian State Ministry of Justice and Consumer Protection (StMJV) (2013, personal communication) is aiming for a blanket qualification of all doctors working in Bavarian correctional facilities. In 2013, it is predicted that 28 doctors in Bavarian prisons will have the necessary addiction therapy qualification according to the requirements of the German Narcotic Drugs Prescription Ordinance (Betäubungsmittel-Verschreibungsverordnung, BtMVV) and the guidelines of the German Medical Association (Bundesärztekammer, BÄK) and will thus be qualified to administer substitution treatment.

The Saxony State Office Against the Dangers of Addiction reported for 2012 that a total of 2,511 clients from Saxon jails were counselled (SLS 2013a). Due to the age of clients in external addiction counselling as well as the connections of drug use and delinquency, a diagnosis in the area of illegal drugs in the correctional facilities was extremely prevalent and registered at almost 68 % of clients. From 2010 to 2012, this proportion increased by 12 %. Stimulants are, at 55 %, the most common problem substance as far as illegal drugs are concerned. Of those, 90 % relate to problem use of crystal. Problems in connection with opioids are recorded for 23 % of the clients. Other substances played a less important role.

The DSHS has kept a series of tables on ambulatory counselling during prison sentences since 2008 (Pfeiffer-Gerschel et al. 2013b). As this series of tables only comprises twelve

facilities for the reporting year 2012 (2011: 12 facilities; 2010: 8 facilities) and it cannot be ruled out that individual results are only available for one or two facilities or heavily influenced by them, these figures must be interpreted extremely cautiously. Furthermore, no information whatsoever is available on the mechanisms for selecting participation, nor can any conclusions be drawn regarding the representativeness of the participating prisons. In addition there are indications that there are problems with the documentation. For instance, some persons crop up in the overall data set, but not in the separate tables on external counselling in prisons. The average age of men with illegal drug problems who made use of outpatient aid in prison in 2012 was 29.3 (N = 1,335) (2011: 29.7), while the average for women was 29.8 (N = 16) (2011: 30.8). It is particularly noteworthy that 56.3 % (2011: 70.4 %) of women serving sentences in prison who underwent treatment as a result of a drug problem were treated for a primary opioid problem, while this percentage among men was only 24.9 % (2011: 31.6 %). In prison the percentage of men whose main diagnosis (MD) is stimulants (44.5 %) and who are undergoing treatment is significantly higher than among persons who undergo outpatient treatment outside of prisons (Table 5.2). In contrast to this, treatment of men in prison as a result of cocaine (8.1 %) and Cannabis (21.2 %) is of a similar magnitude to that of life outside prisons. In the case of imprisoned women, only five cases are documented as a result of an MD stimulants, two cases as a result of an MD cocaine and no cases as a result of an MD cannabis (Table 9.4).

Table 9.4 Outpatient treatment of drug problems in prisons

Main diagnosis	Men		Women		Total	
	N	%	N	%	N	%
Opioids	332	24.9	9	56.3	341	25.3
Cocaine	108	8.1	2	12.5	110	8.2
Stimulants	594	44.5	5	31.3	599	44.4
Hypnotics/Sedatives	8	0.6	0	0.0	8	0.6
Hallucinogens	4	0.3	0	0.0	4	0.3
Cannabinoids	283	21.2	0	0.0	283	21.0
Multiple/other substances	3	0.2	0	0.0	3	0.2
Total	1332	100.0	16	100.0	1348	100.0

Pfeiffer-Gerschel et al. 2013b.

### 9.5.1 Prevention, treatment and care of infectious diseases

The NRW Ministry of Justice has published new ordinances which regulate how to deal with contagious diseases in correctional facilities in North-Rhine Westphalia. In the course of this, a series of previous decrees on HIV/AIDS were lifted. Whether this means that the forced outing of prisoners with HIV/AIDS in prisons will stop will have to be examined (Justizverwaltungsvorschriften-Online 2012).

In the brochure, “Models of Good Practice of HIV and Hepatitis Prevention in Prisons” of the German AIDS Service Organisation (DAH), the insufficient provision of HIV and hepatitis prevention in prisons is criticised. According to the DAH, there is a lack, amongst other things, of a comprehensive offer of substitution treatment, sterile syringes and needles, hepatitis A/B vaccinations and comparable treatments for hepatitis C as are available on the outside. Examples of successful HIV prevention in prisons in Germany mentioned include needle vending machines in women’s prisons in Berlin, condom information centre in North-Rhine Westphalia and the substitution practice in the Bremen prison (DAH 2013).

With a letter of the Bavarian State Ministry of Justice and Consumer Protection of 29 July 2009, a working group for “transition management” was initiated. The working group set itself the goal firstly to record the already existing structures of transition management in Bavarian correctional facilities and to make any findings obtained available in the form of “best practice” recommendations for prisons. In addition to their mission, the working group did not just limit itself to recommendations but introduced specific measures to optimise transition management (Arbeitsgruppe "Übergangsmanagement", 2012). In the scope of this, prisoners also receive comprehensive information on routes and risks of infection of HIV and hepatitis, their awareness of the dangers of infection is raised and thus a positive change in behaviour is achieved. For the above purposes, informational material is available which also improves the necessary education of the prisoners and staff about both HIV and hepatitis. These informational materials are also available in the most relevant foreign languages.

Detailed information on prevention, treatment and care in respect of infectious diseases in prisons can be found in the Selected Issue Chapter 11 of the REITOX Report 2010/2011.

### **Hospital treatment orders**

As far as hospital treatment orders under Sec. 64 German Criminal Code are concerned, over 50 % of inmates suffer from drug dependence, however substitution treatment is rarely provided (RM 2750, 2426). An argument in favour of substitution during hospital treatment orders is the lower rate of remission in substance use (reduction under OST from 25 % to 2 %), a reduced rate of criminality (the probability of an “undesired enforcement event” is reduced under OST from 160 % to 10 %) and a reduced dropout rate for patients receiving OST (from 47 % to 10 %) (Knecht 2013).

### **9.5.2 Prevention of overdose risk upon 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 funding 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 intravenous drug use (IDU) after prison release, the revised guidelines passed by the German Medical Association (BÄK) on opioid substitution therapy –

(OST) (BÄK 2010) explicitly allow an OST to be commenced also in the case of currently abstinent dependents.

The report of the working group, "Transition Management", from the Bavarian State Ministry of Justice and Consumer Protection, contains the recommendation to provide all prisoners who have the narcotics remark "use" against their names in the IT system, an information leaflet in the scope of release negotiations. For drug users, the time after release from prison is particularly high risk due to the abstinence or reduced use during imprisonment (Arbeitsgruppe "Übergangsmanagement" 2012). The working group, "Treatment and care of prisoners at risk of or suffering from addiction", has developed a relevant information leaflet which was agreed with the coordination unit of the Bavarian addiction support service. It contains, in addition to warnings against the use of drugs after release from prison, important (emergency) addresses and space for a list of relevant support services specific to the correctional facility concerned.

## 9.6 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 Prison Law in connection with § 15 Prison Law) with a view to promoting reintegration into society after prison. In order to reach this goal prison services are to cooperate at inter-departmental level (§ 154 Prison Law).

Moreover, providers of social security services should work together with groups which have shared goals and the other organisations involved, with the aim of mutually complementing each others' work (§ 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, an attempt is made 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 opportunities for professional qualifications and training as well as job placement. Although from a historic viewpoint there have been corresponding efforts dating back up to 150 years with the introduction of "assistance for offenders" and the introduction of the probation service in the 1950s, there is still a great need for further development in the discussion and implementation of transition management.

The working group, "Transition Management", of the Bavarian State Ministry of Justice and Consumer Protection also recommends attempting to motivate addicted prisoners to accept a long-term, post-prison therapy and to enable them to take advantage of it (Arbeitsgruppe "Übergangsmanagement" 2012). These measures are further enhanced through information and education events on the topic of "drug abuse". Education on the medical and social consequences of abuse also includes those prisoners who have as yet had no or only little experience with drugs or seem to be at-risk. The working group also assumes that those prisoners can be deemed well prepared for release who are in contact with external addiction

counselling or with the specialist services of the correctional facilities. Finally, the working group believes that the most important thing is to reach those prisoners with addiction problems who had no contact to external drug counselling, specialist services in the facility or other external counselling services.



## 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. Obtaining a real understanding 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 (KT 34) of the Federal Criminal Police Office (BKA). Information on seizures is also available from the BKA or from the Land Criminal Police Offices (Landeskriminalämter, LKÄ).

#### 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, this data is regularly collected by the Drug Affinity Study (DAS) carried out by the Federal Centre for Health Education (Bundeszentrale für gesundheitliche Aufklärung, 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 2002, the Land Criminal Police Offices and the Federal Criminal Police Office agreed on an expanded collection of data on domestic narcotics prices. Since then, apart from the highest and lowest prices, the so-called “predominant market prices” at street and wholesale level have been recorded. Based on an agreement made at European level on the initiative of the EMCDDA, data collection for the latter has been differentiated since 2010 into trade volumes from 0.5 to < 1.5 kg (respectively 500 to < 1,500 consumption units), 1.5 to < 10 kg (1,500 to < 10,000 consumption units) and 10 kg to < 100 kg (10,000 to < 100,000

consumption units). To ensure the price survey is as representative as possible, data is 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 compile the data from the testing points and any further current information in a standardised table and transfer the current market prices of narcotics in their Land to the BKA once a year. Based on this data, the BKA calculates the average narcotics prices for Germany.

The drug prices established in this way can only be interpreted as rough approximate values, particularly since differences in purity and quality categories are not taken into account. A further difficulty is the fact that prices are only known in connection with a few incidents, so that random effects may influence these figures.

In 2010, the EMCDDA published a manual with guidelines on data collection for narcotics prices at street-level. In addition to describing methodological difficulties, for example geographic coverage, representativeness and weighting, the manual also provides examples of drug price calculations from several European countries. In France, Norway and the Netherlands for example, expert groups from the health sector and criminal prosecution, or from various social “scenes”, give estimates of current narcotics prices (EMCDDA 2010).

The trend scouts and scene surveys conducted in the context of the Frankfurt MoSyD also provide estimates on the prices of various drugs.

### **Purity**

Apart from establishing prices, the Federal Criminal Police Office 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 (< 1 g), retail (1g to < 1,000 g) and wholesale (≥ 1000 g). 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 maximisation. 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 and access to drugs**

In the REITOX Report 2012, data from the DAS 2011 was presented on the subjective availability and places of availability of cannabis as well as trends in the ease of cannabis availability amongst 12 to 25 year olds and young adults.

#### **Trendscout Panel of the Monitoring System of Drug Trends (MoSyD) in Frankfurt am Main**

Information on the (subjective) availability of illegal drugs in various party scenes can be taken from the Trendscout Panel of the Monitoring System of Drug Trends (MoSyD) in Frankfurt am Main (Bernard et al. 2013). According to that source, the image of marijuana and hashish is relatively positive, particularly when compared to other illegal drugs, despite the fact that an increase in impurity has been reported in recent years. Cannabis was considered to be very easily obtainable. The majority of users continue to prefer, on the grounds of taste and intoxicating effect, marijuana to hashish. Furthermore, hashish is estimated, with just one exception out of all environments studied, to be more difficult to obtain than “grass”. The trend towards home cultivation of cannabis has continued. Today, this has been documented for own use as well as commercial dealing in four different scenes. It is also known that large plantations are cultivated in apartments rented specifically for the purpose. In addition, the headshop Trendscout estimates that the sale of “home-grow-complete-systems” is increasing; sodium lamps were a “top seller” in 2012 in the relevant shops. The reason for this trend is seen as being the increased appearance of cut marijuana and – simultaneously – a reduced availability of types with a lighter intoxication effect on the black market. A large majority of users from the individual scenes made their purchases in private residences from a dealer known to them, usually a regular dealer from whom they have bought for a long period of time. An exception to this pattern is found amongst young people from youth centres: in both districts, the cannabis purchases took place largely in public places. The key factor for sales in public places was the disappearance of parental, home control. In isolated cases, “aggressive” sales strategies were reported in which youths were approached directly by the sellers in open spaces, parks or sports grounds, sometimes with threatening gestures.

In the electronic dance scene, amphetamine is still the most widespread illegal drug. In this environment, amphetamine has an almost universally positive image. The substance is still seen generally as controllable, performance enhancing and improving of one’s own social competence; neither direct emergencies nor indirect negative experiences are known in connection with the use of amphetamine. Analogously to the positive image across different scenes, the drug is also taken during the week by a minority, in individual scenes and with increasing tendency. For the majority of users, their consumption is limited to dance events at weekends. Due to the low price (see below), users often share with other persons. In all social scenes, the drug is almost exclusively administered nasally. In this way, in clubs the drug is usually taken in hidden places or directly from the packet on the dance floor.

Generally, speed is highly available across all scenes at fluctuating quality levels. Dealing in the substance takes place both in private niches and in the clubs themselves. As far as methamphetamine is concerned, a slight increase in significance has been observed. This applies primarily to the underground party scene and parts of the techno scene in which it is estimated that one in four had taken “crystal meth” one or more times. The reason for this increase is believed to be the sale of an allegedly stronger amphetamine-methamphetamine mixture. However, there is still no known, continuous supply in the individual scenes.

In seven of eight social scenes in the area of electronic music, an increased availability of MDMA crystals is reported. In general, a perception of high quality continues to be associated with the crystals. The actual quality is described as being constantly good. A high level of availability is reported in four scenes. In the remaining four scenes, a slightly downward trend is reported. In the latter environments, the availability of crystals has reduced. The image of ecstasy tablets has improved considerably in the wake of the noticeable increase in quality which was already observed last year. The trendscout of the electroclash scene even assumes the image of MDMA powder or crystals and ecstasy tablets are comparable. In four other scenes, a supply of high quality ecstasy “pills” was observed. The scepticism of the last few years which arose due to tablets with other, undesirable active ingredients (“bad pills”) seems to be gradually disappearing due to positive user experiences. All trendscouts report a similarly high level of availability: in contrast to MDMA crystals which are usually dealt in private settings, ecstasy is often sold at dance events; in one scene, an “inflationary” supply was reported with a high degree of competition. The number of users is estimated to be increasing as some persons prefer MDMA in tablet form as they perceive the price to be lower than that of crystals.

On the question of availability of cocaine, the statements of the trendscouts diverge considerably. Outside the techno scene, cocaine is estimated to be the second most available illegal drug after cannabis. In the youth centres and the hip-hop scene, the substance is seen as easily obtainable. Some of the youths from the youth centres have started dealing the drug. Use in this environment is limited to a small number of persons who take cocaine, at irregular intervals, at weekends. The majority of youths continue to reject the use as it is perceived as “too risky”. Cocaine is still seen as an elite drug in several scenes; sellers and users are regarded as part of an exclusive group. This exclusivity is usually explained as being due to the high price as well as the image created by the media. However, this media image also leads to the substance being rejected by some social groups such as the punk rock scene. In that environment, cocaine is only taken by a minority at special events such as concerts or birthdays. Reports from the techno scene also show that cocaine is a drug for special occasions. “Coke” is mainly consumed in private settings in social gatherings, sometimes also at dance events. Reports from the bodybuilding scene mentioned the commercial sale of cocaine in larger volumes to persons outside the scene. However, the quality was described as low due to the heavy use of cutting agents which are obtained from a known pharmacist. From the headshop scene, an increased sale of hydraulic presses, used to package cocaine, was reported.

As far as hallucinogens are concerned, the situation in the electronic music scene has only slightly changed since 2011. A genuine supply of LSD and/or psilocybin was only reported in three of the eight sub-groups within the scene. No commercial dealing was observed in psychoactive mushrooms. In individual cases, people had cultivated these mushrooms in grow-boxes in their own apartments and then given them out to their group of friends for free, especially at outdoor events and festivals. One trendscout in the technoscene rated LSD as easily available in his circles.

In respect of the availability and popularity of ketamine, a heterogenous picture is reflected in the individual social scenes. On the one hand, the popularity of Ketamine according to the trendscouts increased in two of eight scenes but on the other, a reduction was reported in two scenes. In a further two scenes, in which the popularity in recent years has been highest, a deficit in supply was reported and a falling availability, especially towards the end of 2012. Ketamine was offered primarily in crystalline form; in addition, the substance appeared only rarely in liquid (ampule) form. The trendscouts reported that the drug was always consumed nasally. Ketamine is used both at events in clubs themselves and at “after hours” or private “chillouts” following the events. The group of users who administered ketamine at “after hours” events apparently tended to be larger than those who used it at partys.

The use of GHB or GBL (“liquid ecstasy”, “knock-out drops”) is now only known to occur in certain sections of the techno scene and the underground party scene. Both trendscouts in this area reported a further drop in significance of the drug; GHB now only has a very peripheral role in terms of all legal and illegal drugs used within the scene. The loss of image and associated reduced popularity are caused by the visibly negative effects of use in the scene. In recent years, attention was regularly drawn at events to people who had overdosed on GHB and GBL and lost consciousness. In addition, repeated media reports over the past few years which stylised the drug as a “rape drug” could have contributed to the loss of image. In the respective social scenes, nothing was known about any commercial (small) trade in GHB/GBL. The drug was mostly ordered by users over the internet. Upon request, GHB or GBL was given to interested persons for free. From the scene itself, no cases of unintended consumption as “K.O. drops” were known.

The consumption of Khat was reported from the reggae scene. This applies solely to a small group of users of African origin. The use of Khat has existed within this closed ethnic group and has not so far reached other social groups within the scene. The trendscout thus assumed that there had been no increase in significance or rising trend.

So-called research chemicals (RCs) are a relatively new phenomenon which, due to their not (yet) having been made subject to the BtMG, are misleadingly labelled “legal highs” with total disregard for criminal liability under the pharmaceuticals law. “RC” is the abbreviation used in circles of experimental drug users for synthetic psychoactive substances of different substance categories (e.g. piperazine, cathinone or cannabinomimetic substances) that have not (yet) been brought within the scope of the BtMG and that have some similar effects to better known drugs which are outlawed under the BtMG (e.g. amphetamines, ecstasy or cannabis). These substances are, on the one hand, (at least allegedly) sold as a pure

substance under their actual chemical name via online shops. On the other hand, they are packaged and disguised as “bath salts”, “fertiliser tablets”, “air fresheners” or the like (without the specific substance being indicated) and sold by online traders or even by some bricks and mortar headshops. Recently, it has become evidence that this “disguised” trade has lost significance to the sale of RCs as pure substances (Werse et al. 2010, Werse & Morgenstern 2012).

According to the Trendscout Panel of the MoSyD (Bernard et al. 2013), “legal highs” play at most a marginal role in all of the relevant scenes. None of the trendscouts were personally aware of people who regularly used herbal mixtures with synthetic cannabinoids; the products were only consumed by some people in exceptional cases (e.g. lack of availability or imminent drug tests). Research chemicals and party drugs with similar effects were only used to a limited extent and at a roughly constant level, by specialised users open to experimenting. The majority of party goers were, in contrast, seen as more conservative in their use behaviour.

#### **“Scene Study” of the Centre for Drug Research (CDR) in Frankfurt am Main**

According to the “Scene Study” of the CDR on the “open drug scene” in Frankfurt am Main (Bernard & Werse 2013), the situation there in relation to illegally dealt benzodiazepine has changed considerably: only around one fifth of those interviewed has consumed the substance in the previous 24 hours. This is half the level it was in 2010. This change is likely due primarily to the complete subjection of flunitrazepam (rohypnol) to the German Narcotics Act (BtMG), which led to the availability of this medication in the street drug scene visibly worsening substantially. It seems that only a minority of users switched to the much more readily available and cheaper diazepam – at 1 Euro per tablet (in comparison to 4 Euros for flunitrazepam).

The availability of heroin was once more estimated as being slightly lower than the last time data was collected in 2010. The estimation of availability of the opiate is thus in the range of other surveys. The respective numbers for crack have experienced a very similar development to those for heroin in the same time period. In the current reporting year, the availability of the cocaine derivative, in spite of a relatively steep increase in the 24-hour prevalence, was also estimated as slightly lower. Thus, it can once more be concluded that the use and availability of heroin and crack are only related to a very limited extent especially considering the availability of both substances is still estimated as being very high. The lower values from 2008 are therefore possibly due rather to a temporarily worse general “supply situation”. Availability of cocaine powder is still estimated by the majority of those interviewed to be generally low, however compared to the previous surveys, the percentage of respondents who considered cocaine to be readily available increased greatly. It seems, therefore, that the black market situation for cocaine has improved. The change in the availability of benzodiazepine, which was first recorded in 2004, is also significant: whilst these substances were readily available until 2010, according to the interviewees, like heroin

and crack, the availability of the medical drug was quite substantially lower in the current survey.

### 10.2.2 Drugs origin: national production versus imported

According to the Federal Criminal Police Office (Bundeskriminalamt, BKA, 2013), as in recent years, illicit drugs, apart from cannabis (cf. Kipke & Floeter 2009) and to a comparatively small extent also synthetic drugs, are almost exclusively imported from abroad.

The extensive cultivation of cannabis in outside areas and indoor plantations continued in 2012. An increase in the number of cannabis plantations seized<sup>88</sup> to 809 (+13 %) is in contrast to the number of plants found within them falling to 69,617 (+43 %).

The number of indoor cannabis plantations seized rose in 2012 to 665 (+7 %), which was due to the considerable increase in small plantations to 491 (+23 %). In contrast, the number of large plantations seized, at 151 (-20 %), and of professional plantations, at 23 (-28 %), saw large falls<sup>89</sup>.

Whilst the number of plants seized in small indoor plantations, at 14,330 plants, basically reflected the number from the previous year, the number seized in large plantations fell to 33,494 (-28 %) and in professional plantations to 16,958 (-68 %).

In addition to indoor cannabis plantations, 144 outdoor cannabis plantations were seized (+47 %). The increase here is also due to the substantial increase in numbers of small plantations, to 123 (+58 %) whilst the number of large plantations seized, 18, and professional plantations, 3, were roughly the same as in the previous year<sup>90</sup>.

The quantity of plants seized in small outdoor plantations rose to 3,487 (+33 %) whilst large plantations fell to 1,318 (-67 %). In the three professional plantations, almost no plants were seized at all<sup>91</sup>.

### 10.2.3 Trafficking patterns, national and international flows, routes, modi operandi and organisation of domestic drug markets

According to a press conference of the Federal Government's Commissioner on Narcotic Drugs and the President of the BKA on 25 April 2013 (Die Drogenbeauftragte der Bundesregierung & BKA 2013), the largest single haul of cocaine seized was 268 kilograms on a ship bound for Hamburg where it would have been stored prior to distribution throughout Europe. However, cocaine is smuggled much more frequently via airmail or air couriers than

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<sup>88</sup> The definition of "cannabis plantation" was any site with a cultivation capacity of 20 plants or more.

<sup>89</sup> The definition of "professional plantation" was any site with a cultivation capacity of 1,000 cannabis plants or more, "large plantation" was a site with a capacity of 100 to 999 plants and "small plantation" referred to a site with a capacity of 20 to 99 plants. Cultivation capacity should not be confused with the number of plants found (e.g. if harvesting has already occurred).

<sup>90</sup> In 2011, 19 large plantations and two professional plantations were seized.

<sup>91</sup> Either the plantations had been completely cleared, external clues indicated a professional cultivation or industrial hemp was cultivated.

by sea, from South America to Germany. The majority of cocaine seizures occurred in transit at Frankfurt am Main Airport. Despite the substantial reduction of the number of cases and of the quantity seized of heroin, large individual quantities of this drug were still transported through Germany in 2012. This was proved by, amongst other things, a shipment of 250 kilograms which was seized on its way to Holland having been smuggled by cargo ship from Turkey, via Frankfurt to Bremerhaven before being reloaded and continuing its journey over land. Afghanistan remained the world's largest opium producer in 2012 and the most important heroin supplier for the European market. In respect of hashish smuggled into Germany, however, Morocco proved to be highly important, as the largest individual seizure of this drug in Germany, at 550 kg, had been smuggled from Morocco via Spain and France.

Köhnemann and colleagues (2012) have developed a molecular genetic testing procedure for cannabis plants. It is designed to help investigating authorities to uncover cannabis trafficking routes and assign discovered marijuana to the respective cultivation plantation. For example, the new analysis method enables remains of the roots of a plantation, which could also originate from legal crops, to be matched to a marijuana seizure. It is claimed that the molecular genetic findings from plant parts provide the police with important indications as to the origin of discovered substances and can reveal, for example, whether drug material could originate from a particular cannabis plantation or not. In addition, evidence of clones at several locations in Germany could provide clues as to connections between plantations and possible distribution channels.

### **10.3 Seizures**

#### **10.3.1 Quantities and numbers of seizures of all illicit drugs**

Comparing the years 2010 and 2011, the seized quantities of crystalline methamphetamine (crystal; +88.3 %) LSD (42.4 %), hashish (+36.5 %), psychoactive mushrooms (+30.4 %) and marijuana (+24.9 %), increased whilst the seized quantities of crack (-81.9 %), heroin (-51.4 %), ecstasy (-35.4 %), cocaine (-35.2 %) and amphetamine (-18.1 %) fell. Whilst the quantity of crystal seized has been increasing steadily for some years, indicating a "genuine" trend, the yearly seizures of hashish and marijuana have experienced strong fluctuations, caused amongst other things by the existence or absence of large individual seizures which greatly increase or reduce the figures respectively (BKA 2013). Table 10.1 provides an overview of the quantities of illegal drugs seized in Germany between 2010 and 2012.



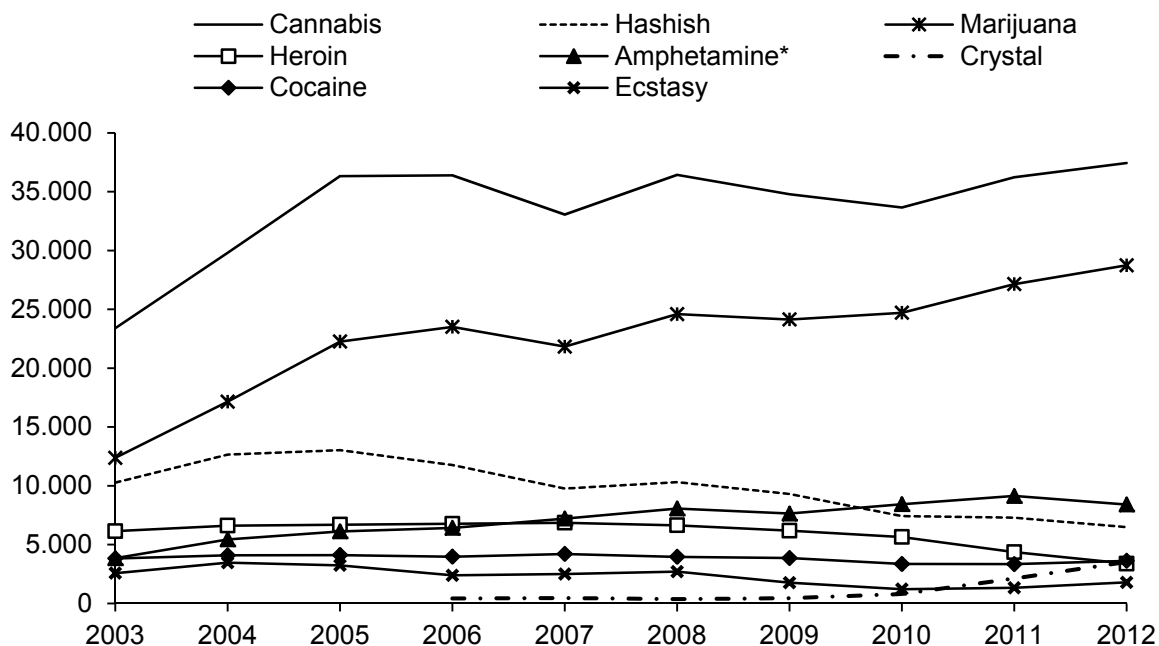
Table 10.1 Quantity of illegal drugs seized in Germany, 2010-2012

Substance	2010	2011	2012	Change 2011-12
Heroin	474.3 kg	497.8 kg	241.7 kg	-51.4 %
Cocaine	3,030.8 kg	1,940.6 kg	1,258.4 kg	-35.2 %
Crack	3.2 kg	2.8 kg	0.5 kg	-81.9 %
Amphetamine	1,176.9 kg	1,368.4 kg	1,120.6 kg	-18.1 %
Crystal	26.8 kg	40.0 kg	75.2 kg	88.3 %
Ecstasy	230,367 CU	484,992 CU	313,179 CU	-35.4 %
Hashish	2,143.7 kg	1,747.5 kg	2,385.7 kg	36.5 %
Marijuana	4,874.7 kg	3,957.4 kg	4,942.0 kg	24.9 %
LSD	4,279 tr.	25,978 tr.	36,988 tr.	42.4 %
Khat	30,389.3 kg	45,913.8 kg	45,270.1 kg	-1.4 %
Mushrooms	16.0 kg	13.2 kg	17.3 kg	30.4 %

BKA 2013.

A more precise indicator for (short term) trends is the number of seizures (Figure 10.1). The total number of seizure cases of heroin, opium, cocaine, crack, amphetamine, crystal, ecstasy, cannabis products and LSD in 2012 (57,519 cases<sup>92</sup>) was 3.2 % higher than the equivalent figure for 2011 (55,756 cases). The most important factors for the increased overall number of seizures are the increased numbers of seizures of crack (+67.8 %), crystal (+66.3 %), ecstasy (35.1 %), cannabis plants (+22.2 %) and marijuana (+5.9 %). Substantial reductions in numbers of seizures in a comparison of 2011 and 2012 can be seen in heroin (-22.5 %) and hashish (-10.9 %) (BKA 2013).

<sup>92</sup> The number of cases included multiple mentions; the total number of seizures is thus lower, due to numerous cases in which several types of drugs were seized.



\* Seizures of methamphetamine are also included in the category "Amphetamines". From 2006, however, data on seizures of crystal has been collected separately.

BKA 2013.

Figure 10.1 Number of seizures of Narcotic drugs in the Federal Republic of Germany from 2003-2012

When looking at the seized quantities and the number of seizures, one can see that figures have increased considerably since 2000 especially for amphetamines (quantity: +341 % number of cases: +220 %) and declined for ecstasy (-81 % and -62 % respectively) (Table 10.2). The number of cases in 2012 for heroin and cocaine each declined considerably in comparison to 2000, by -58 % and -25 % respectively, whilst the changes in quantity seized differ (heroin: -70 %; cocaine: +38 %) (BKA 2013).

Table 10.2 Changes in the number of seizures and quantity seized

	2012 vs.	Heroin	Cocaine	Amphetamines*	Ecstasy	Cannabis**	Mushrooms	Khat
Cases	2011	-22 %	+8 %	+6 %	+35 %	+3 %	+4 %	-16 %
Quant.	2011	-51 %	-35 %	-15 %	-35 %	-25 %	+30 %	-1 %
Cases	2000	-58 %	-25 %	+220 %	-62 %	+19 %		
Quant.	2000	-70 %	+38 %	+341 %	-81 %	+165 %		

Note: Increases >10 % are marked by framed fields and decreases >10 % by shaded fields

\*\*"Crystal" is also subsumed under the category "amphetamines".

\*\*The category "Cannabis" includes cannabis resin, herbal cannabis and cannabis plants.

BKA 2013.

In 2012, in 2,204 cases (2011: 1,804) 97,829 cannabis plants (2011: 133,650) were seized (Table 10.6), which constitutes a substantial decline in the number of seized plants (-26.8 %),

but also a considerable increase in the number of cases (+22.2 %). The quantity seized thus fell back to 2010 levels whilst the number of cases is the highest since 2004. The increased number of individual seizures of marijuana (see 10.3.1) indicates an increasing preference for this type of drug compared to a reduction in that for hashish (BKA 2013).

Table 10.3 Seizure of cannabis plants

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Quantity <sup>1)</sup>	68,133	93,936	190,241	135,252	121,663	127,718	101,549	133,650	97,829
Cases	1,008	1,035	1,121	1,463	1,526	1,359	1,517	1,804	2,204

1) in units.

BKA 2013.

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

In addition to the base materials and chemicals seized in illegal drug laboratories (see 10.3.3), in 2012 500 kg of  $\alpha$ -phenylacetone nitrile (APAAN) and 1,250 l hydrochloric acid, which were obviously intended for the illegal production of narcotics, were seized (BKA 2013).

### 10.3.3 Number of illegal laboratories and other production sites

In 2012, 24 illegal drug laboratories were discovered, which corresponds to a slight increase in comparison with the previous year (19 laboratories). These comprised 13 laboratories for the production of methamphetamine, nine for the synthesis of amphetamine and one each for the production of 3,4-methylenedioxyamphetamine (MDA) and of gamma-hydroxybutyric acid (GHB). In a case which cannot be described as a "classic" laboratory find, acetone was being used to produce an administrable consumption form of a herbal mixture ("methylone"). For the first time in Germany, a synthesis case became known in which a special precursor, specially smuggled in from China for the purpose, was converted to a base material (in the particular case, the base material benzyl methyl ketone (BMK) was synthesised from APAAN) from which methamphetamine was produced in what can be described as a major production facility. With the exception of one other laboratory, in which around 15kg of amphetamine was produced, the others only consisted of enough capacity to cover personal use or to supply a limited circle of people (BKA 2013).

Overall, the narcotic substances amphetamine (80.1 kg), methamphetamine (0.04 kg) and GHB (13.0 l) were seized in the detected laboratories as well as the base materials hydrochloric acid (716.6 l), sulphuric acid (71.3 l), acetone (93.8 l), ethyl ether (97.0 l), benzyl methyl ketone (BMK; 38.1 l), toluol (1,163.5 l), ephedrine (0.01 kg) and potassium permanganate (0.28 kg). In addition, the chemicals, APAAN (139.0 kg), nitroethane (131.6 l), benzaldehyde (93.5 l) and (red) phosphorus (0.2 kg), which are significant for the production of narcotic drugs, were found.

An overview of the most recent seizures is contained in standard table 13.

## 10.4 Price / purity

### 10.4.1 Prices of illicit drugs at retail level

As far as average drug prices (Table 10.4) are concerned, there were hardly any changes of any significance observed from 2011 to 2012.

At retail level, the prices for cocaine (-1 %), heroin (+1 %), marijuana (+2 %), crystal (-4 %), hashish (+4 %), ecstasy (+6 %), amphetamines (+8 %) and LSD (+11 %) remained almost unchanged.

After an international expert group led by the EMCDDA initiated a harmonisation of the data collection procedures for wholesale drug prices in Europe, wholesale quantities were divided into the categories 0.5 to < 1.5 kg (or respectively 500 to < 1,500 consumption units), 1.5 to < 10 kg (1,500 to < 10,000 consumption units) and 10 kg to < 100 kg (10,000 to < 100,000 consumption units) and larger<sup>93</sup> and implemented by the BKA. As a result, at least it is possible to compare the data of 2011 and 2012.

In comparison to 2011, the prices for wholesale quantities of cocaine fell, both in quantities of 0.5 to < 1.5 kg and in quantities from 1.5 to < 10 kg. Reductions were also seen in the prices for amphetamines and marijuana in quantities of 0.5 to < 1.5 kg, ecstasy in quantities of 1.5 to < 10kg and amphetamine and marijuana in quantities of 10 to < 100 kg (the latter two figures are based on very small amounts of data). All other wholesale prices either remained constant in comparison to the previous year or increased. There are no reliable findings on crack prices for 2012.

An overview of the current drug prices can be found in standard table 16.

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<sup>93</sup> Fundamentally, data are also supposed to be collected in the category above 100 kg. However, due to the very thin data basis, the BKA does not have any substantive representative values (Bundeskriminalamt, SO 51).

Table 10.4 Prices of various drugs 2011-2012 (all prices in €)

		Heroin	Cocaine	Crack	Ecstasy	Amphetamine	Crystal	Marijuana	Cannabis resin	LSD
Small quantities <sup>1)</sup>										
	2012	42.9	64.9	--	7.0	14.2	75.3	9.1	7.5	10.9
	2011	42.4	65.7	58.5	6.6	13.1	78.7	8.9	7.2	9.8
<b>Change</b>		+1 %	-1 %	--	+6 %	+8 %	-4 %	+2 %	+4 %	+11 %
Larger quantities <sup>2)</sup>										
0.5 to <1.5 kg	2012	27,444	38,786	--	2,642	4,052	33,750*	4,488	2,942	--
(500 to <1,500 CU)	2011	25,429	45,875	--	2,193	4,453	--	4,151	2,912	--
1.5 to <10 kg	2012	21,000*	30,900	--	2,150	3,146	--	4,120	2,625	--
(1,500 to <10,000 CU)	2011	21,000*	35,400	--	2,808	3,050	--	3,889	1,929	--
10 bis <100 kg	2012	12,000*	--	--	--	1,500*	--	3,500*	2,700*	--
(10,000-100,000 CU)	2011	--	33,000*	--	--	2,350*	--	4,333*	1,900*	--

1) Price per gram.

\* Median value is based on a very small data basis (less than five *Laender*).

2) Price per kilogram.

Bundeskriminalamt SO 51 2013, personal reports.

According to the Trendscout Panel of the MoSyD annual report, Frankfurt (Bernard et al. 2013), from 2011 to 2012, the price for marijuana fell to 8.60 €/g (2011: 9.50 €/g), whilst the price for hashish remained unchanged at around 7.00 €/g. The average price for MDMA crystals in 2012 was 50 €/g which was unchanged from the previous year. Ecstasy tablets cost an also unchanged 8.00 €/CU. In 2011, these relatively highly priced tablets appeared increasingly on the black market which was justified by a claimed higher active ingredient content. Cheaper (4-5 €/CU), mostly perceived as lower quality, "pills" were only dealt rarely in 2012. The estimated price for a gram of cocaine in 2012 was around 65 € which represented a slight fall in comparison with the previous year (70 €/g). The price for amphetamine has remained constant for a few years; in 2012, the estimated price was 10 €/g (2011: 11 €/g). As amphetamine is sold by individual members of the bodybuilding scene in large quantities, information exists in respect of intermediary and wholesale prices: when bought in 100 g quantities, the price is 4 €/g, for a kilogram the price is, 2 €/g. Individual dealers also had both the mixture of amphetamine and methamphetamine for 15 €/g each and the pure substance itself (methamphetamine) for 70 €/g on offer. However, no known continuous supply of methamphetamine exists in the individual scenes. Within the sphere of one trendscout in the techno scene, LSD was estimated to be easily available; LSD trips were available all year round at prices of between 10 €/CU and 15 €/CU. The average price of ketamine increased in 2012 to 40 €/g (2011: 30 €/g); the price of an ampule was, as in the previous year, also 40 €. The price rise is possibly connected to the fact that the substance gained popularity for the first time in individual smaller social groups but also with the reported generally lower level of availability.

After the price for heroin decreased substantially, according to information of the interviewees in the “Scene Study of the CDR, Frankfurt” (Bernard & Werse 2013), between 2003 and 2004 (2003: 75 €/g; 2004: 30 €/g), a continuous rise was then observed between 2006 and 2010 up to 50 €/g. In the current data collection period, the price has not changed any further. In contrast, the price for a gram of crack fell continuously between 2002 and 2004 (2002: 80 €/g; 2004: 50 €/g), but then doubled in 2008 to 100 €/g and has remained unchanged since then. Overall only slight fluctuations were observed in the price of cocaine, the median value of which for all survey years was 60 €/g or 70 €/g (2012: 70 €/g). The cocaine price in the “open scene” still reflects that produced by the trend scout survey for the substance within the party scene or youth culture (Bernard et al. 2013). The median value for the stated prices of flunitrazepam is 4 €/g, for diazepam 1 €/g (other benzodiazepine: 1.50 €/g).

### **Profits from the sale of marijuana**

According to the information provided by the forensic institute of the Land Criminal Police Office in North Rhine-Westphalia, it is possible to obtain at least 25 g of consumable marijuana from the proper cultivation of a full-grown cannabis plant. In North Rhine-Westphalia, the average value, from about 50 cannabis plantations with plants ready for harvesting or harvested plants, has been a little over 40 g of consumable, dried marijuana. 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 (2012: 9.10 €/g) or by the wholesale price respectively (2012: 3,500 €/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 ranging between € 217,500 and € 354,000 at retail level and between € 77,500 and € 130,000 at wholesale level.

For the year 2012 this means a non-realized profit from 97,829 plants of between € 7.6 million and € 12.7 million at the wholesale level and between € 21.3 million and € 34.6 million at the retail level (Bundeskriminalamt, SO 22 and own calculations).

## 10.4.2 Purity / Potency of illicit drugs<sup>94</sup>

### Composition of illicit drugs and drug tablets

#### *Heroin, cocaine and amphetamine*

The basis for the figures on active ingredient contained in amphetamines, cannabis, ecstasy, heroin and cocaine is forensic data provided by the BKA (KT 34) upon request of the DBDD (see also chapter 10.1/purity). Figure 10.2 offers an overview of the development of levels of active substance for amphetamine, cocaine and heroin since 2003.

In 2012, a total of 2,368 (2011: 3,102) amphetamine samples were tested for their potency. As the potency of amphetamine does not depend on the size of the seized amount, no differentiation is drawn between street level dealing and the wholesale level. The most common ingredient in the samples tested was caffeine; the most common cutting agent was lactose. The active ingredient content of amphetamine fell in 2012 to an average of 6.0 %, after having risen slightly in the previous two years (2010: 6.6 %; 2011: 6.9 %).

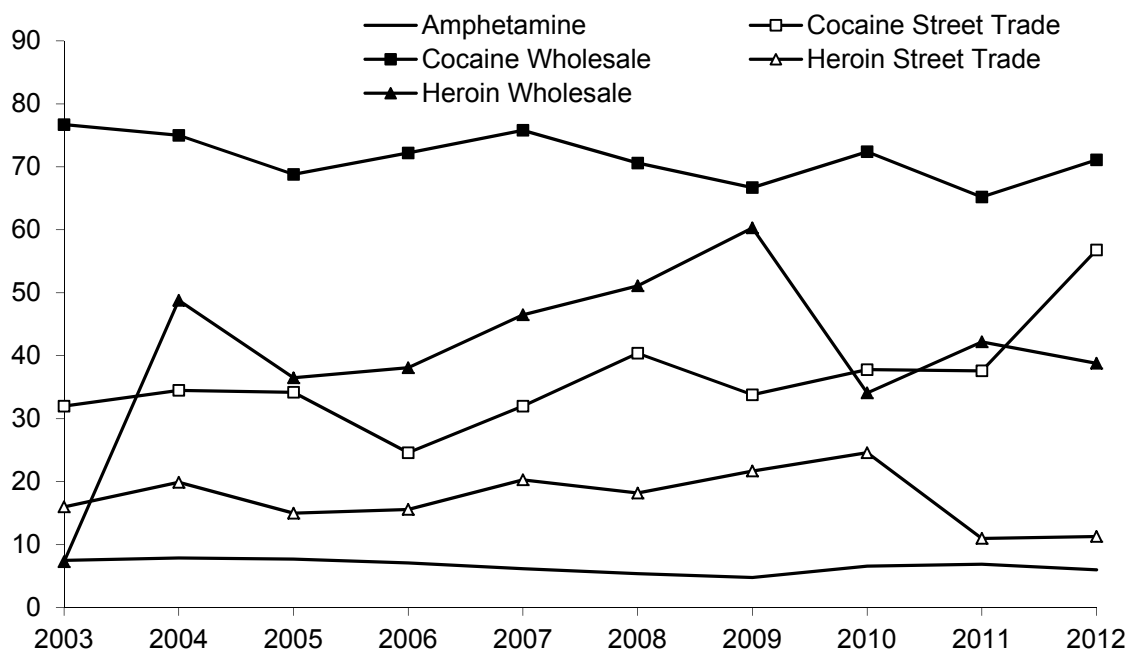
Cocaine comes onto the market primarily as hydrochloride. Cocaine hydrochloride and cocaine base are, however, shown together here. Overall in 2012, 2,683 cocaine samples were tested (2011: 2,970). In 2012, the active ingredient content of wholesale cocaine, at 71.1 %, was within the range of the past ten years (around 70 %, +/- 5 %). On the street, the active ingredient content increased by almost 20 percent in comparison to the previous year (2011: 37.6 %) to 56.8 %, the highest value by some margin in the past ten years. Additives detected were primarily tetramisole/levamisole, phenacetin and lidocaine and cutting agent, lactose.

For 2012, 2,102 (2011: 2,915) heroin samples were tested for their potency (Figure 10.2). Additives detected were, as in the previous years, primarily caffeine and paracetamol; the most common cutting agent was lactose. The active ingredient content of heroin on the street remained roughly on the level of the previous year, after it had halved from 2010 to 2011 (2012: 11.3 %; 2011: 11.0 %). In the wholesale trade, the active ingredient content of heroin fluctuated greatly: between 2005 (36.5 %) and 2009 (60.3 %), the purity of heroin almost doubled before falling sharply to 34.1 % in 2010. In 2011, the figure was 42.2 % and in 2012 38.8 %.

The current values can be found in standard tables 15 and 16.

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<sup>94</sup> The data on the contents of active ingredient comes from the forensic laboratories of the BKA (KT 34). The interpretation of the data was performed by the DBDD.



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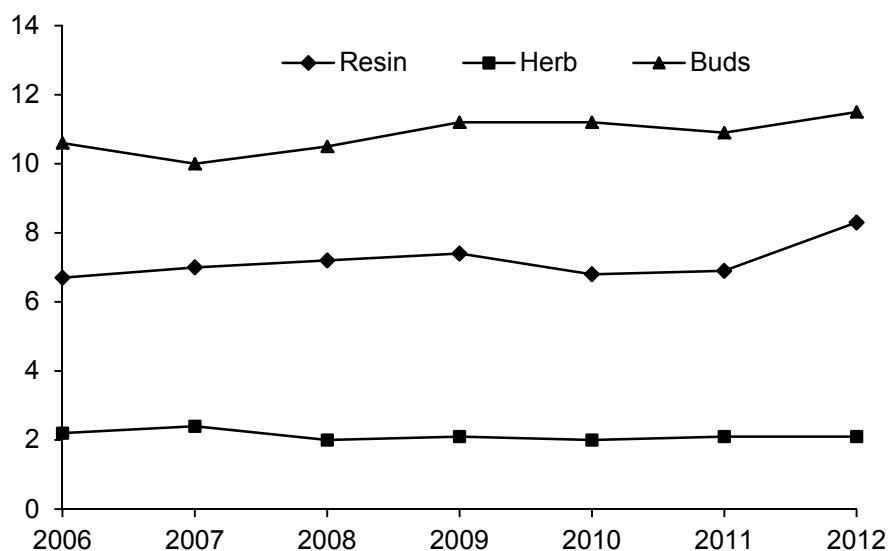
Figure 10.2 Amount of active ingredients in Heroin, Cocaine and Amphetamines

### **Cannabis**

Since 2006, all participating laboratories have differentiated in the examination of marijuana between the cannabis plant and the bud as the more potent buds have been increasingly appearing on the illegal drug market without the plant. The determination of the THC content<sup>95</sup> was achieved in 2012 on the basis of the reported data sets on 2,898 samples of cannabis plant, 5,542 samples with buds and 2,015 samples of hashish resin by the laboratories of BKA, LKÄ and the border authorities. The flower buds had a potency of 11.5 % in 2012 (2011: 10.9 %), the cannabis plant had a potency of 2.1 % (2011: 2.1 %). Since the time of the first separate recordings in 2006, there have been no significant changes either in the buds (around 11 %) nor the cannabis plant (around 2 %). In 2012, the active ingredient content of cannabis resin was 8.3 % which represented an increase in comparison to the previous year (2011: 6.9 %) of 1.4 percent (Figure 10.3).

<sup>95</sup> In the case of the reported active ingredient content, the tetrahydrocannabinol (THC) additionally created through heat is also taken into account.





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Figure 10.3 Amount of active ingredient in Cannabis

### **Ecstasy**

In 2012, the potency was reported for a total of 413,010 tablets and capsules (2011: 754,876) – referred to in the following as a consumption unit (CU). 94.9 % (i.e. 392,013) of all consumption units (2011: 99.6 %) contained one psychotropic active ingredient (single substance preparation). Among the single substance preparations, 3.4 methylenedioxy-N-methylamphetamine (MDMA) was dominant with a frequency of 98.6 %, followed by 1-(3-chlorophenyl)-piperazine (mCPP), methamphetamine, amphetamine and MDE (each < 0.1 %).

Table 10.5 shows the potency calculated as a base for the individual psychoactive substances in single substance preparations. According to the table, the median active ingredient content of MDMA since 2008/2009 (51 and 50 mg/CU respectively) increased in every year thereafter (2010: 58 mg/CU; 2011: 73 mg/CU) reaching 83 mg/CU in 2012. In the case of the mono and combination preparations, the cutting agents most commonly reported were lactose, cellulose and caffeine.

Table 10.5 Amount of active ingredients in ecstasy in mg/CU

Active Ingredient	Quantity				Median			
	2009	2010	2011	2012	2009	2010	2011	2012
MDMA	0.6-170	0.1-140	6-242	1-216	50	58	73	83
Amphetamine	0.2-37	0.3-21	0.4-54	2-11	2	3	5	5
Methamphetamine	0.1-15	1.7-33	7-14	11-21	0,5	5	12	12
m-CPP 1-(3-Chlorophenyl)-piperazine	2.7-53	0.1-100	0.2-39	5-46	27	30	29	21

Note: Amounts of active ingredients were calculated as base.

BundeskriminalamtKT 34, 2013, personal reports.



## PART B: BIBLIOGRAPHY AND ANNEXES

### 11 Bibliography

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## 11.2 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 für 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 Beobachtungsstelle fuer Drogen und Drogensucht (DBDD) German 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 Federal Centre for Health Education information for young people and party goers
<a href="http://www.drugscouts.de">www.drugscouts.de</a>	Land project in Saxony for young people
<a href="http://www.emcdda.europa.eu">www.emcdda.europa.eu</a>	Europaeische Beobachtungsstelle fuer Drogen und Drogensucht (EBDD) European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)
<a href="http://www.prevnet.de">www.prevnet.de</a>	“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.fh-frankfurt.de/fachbereiche/fb4/forschung/forschungsinstitute/isff.html">www.fh-frankfurt.de/fachbereiche/fb4/forschung/forschungsinstitute/isff.html</a>	Institut für Suchtforschung der Fachhochschule Frankfurt/Main Institute for Addiction Research of the Technical College Frankfurt/Main
<a href="http://www.katho-nrw.de/katho-nrw/forschung-entwicklung/institute-der-katho-nrw/disup/">www.katho-nrw.de/katho-nrw/forschung-entwicklung/institute-der-katho-nrw/disup/</a>	Deutsches Institut für Sucht- und Präventionsforschung (DISuP; ehemals Kompetenzplattform Suchtforschung) an der katholischen Fachhochschule NRW German Institute for Addiction and Prevention Research (DISuP; former Competence Platform for Addiction Research at the Catholic University of Applied Sciences in North Rhine-Westphalia)
<a href="http://www.dg-sucht.de">www.dg-sucht.de</a>	Deutsche Gesellschaft für Sucht German Association for Addiction
<a href="http://www.heroinstudie.de">www.heroinstudie.de</a>	Deutsche Heroinstudie German Heroin Study
<a href="http://www.ift.de">www.ift.de</a>	Institut für Therapieforschung München Institute for Therapy Research Munich
<a href="http://www.medizin.uni-greifswald.de/prevention/forschung/intervention/earlint_start.html">www.medizin.uni-greifswald.de/prevention/forschung/intervention/earlint_start.html</a>	Suchtforschungsverbund Nord-Ost ("Frühintervention bei substanzbezogenen Störungen" (EARLINT))
<a href="http://www.premos-studie.de">www.premos-studie.de</a>	PREMOS-Studie PREMOS Study
<a href="http://www.psychologie.tu-dresden.de/i2/klinische/index.html">www.psychologie.tu-dresden.de/i2/klinische/index.html</a>	Technische Universität Dresden Institut für Klinische Psychologie und Psychotherapie
<a href="http://www.nsfev.de">www.nsfev.de</a>	Norddeutscher Suchtforschungsverbund e. V.
<a href="http://www.suchtforschungsverbund-nrw.de">www.suchtforschungsverbund-nrw.de</a>	Suchtforschungsverbund Nordrhein-Westfalen Addiction Research Association Northrhine-Westfalia
<a href="http://www.uke.de/zentren/suchtfragen-kinder-jugend/index.php">www.uke.de/zentren/suchtfragen-kinder-jugend/index.php</a>	Universitätsklinikum Hamburg Eppendorf Deutsches Zentrum für Suchtfragen des Kindes- und Jugendalters (DZSKJ) University Clinic Hamburg Eppendorf German Centre for Addiction Problems among Children and Adolescents
<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 Universität Frankfurt am Main Goethe University Frankfurt/Main Centre For Drug Research (CDR)
<a href="http://www.zi-mannheim.de/">www.zi-mannheim.de/</a>	Zentralinstitut für seelische Gesundheit Mannheim Central Institute for Mental Health Mannheim
<a href="http://www.zis-hamburg.de">www.zis-hamburg.de</a>	Zentrum für Interdisziplinäre Suchtforschung (ZIS) der Universität Hamburg Centre for Interdisciplinary Addiction Research

### Websites of other relevant institutions/working groups

Website	Content
<a href="http://www.transit.gangway.de">www.transit.gangway.de</a>	Transit – Projekt für transkulturelle Suchtarbeit Transit – Project for transcultural addiction work
<a href="http://www.500Fragen.de">www.500Fragen.de</a>	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
<a href="http://www.fachstelle-faire.de">www.fachstelle-faire.de</a>	Fachstelle für Arbeitsmarktintegration und Reintegration Suchtkranker Department for Labour Market Integration and Reintegration of Addicts
<a href="http://www.indro-online.de">www.indro-online.de</a>	Institut zur Förderung qualitativer Drogenforschung, akzeptierender Drogenarbeit und rationaler Drogenpolitik Münster Institute for the Promotion of High Quality Drug Research, Addiction Work and Rational Drug Policy in Muenster
<a href="http://www.iss-ffm.de">www.iss-ffm.de</a>	Institut für Sozialarbeit und Sozialpädagogik Frankfurt/M. Institute for Social Work and Social Education in Frankfurt/Main
<a href="http://www.suchthh.de">www.suchthh.de</a>	Hamburgische Landesstelle für Suchtfragen e.V. Büro für Suchtprävention Hamburg Land Centre for Addiction Problems Department for Addiction Prevention
<a href="http://www.jura.uni-tuebingen.de/einrichtungen/ifk/www">www.jura.uni-tuebingen.de/einrichtungen/ifk/www</a>	Eberhard Karls Universität Tübingen, Institut für Kriminologie, Linksammlung Kriminologie

### Cannabis-specific projects

Website	Content
<a href="http://www.be-u-online.de">www.be-u-online.de</a>	Cannabis campaign of the city of Frankfurt
<a href="http://www.candis-projekt.de/">www.candis-projekt.de/</a>	Modular therapy of cannabis-related disorders
<a href="http://www.canstop.med.uni-rostock.de">www.canstop.med.uni-rostock.de</a>	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.dhs.de/projekte/abgeschlossene-projekte/cannabis.html">www.dhs.de/projekte/abgeschlossene-projekte/cannabis.html</a>	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.incant.eu">www.incant.eu</a>	International Cannabis Need of Treatment Study
<a href="http://www.quit-the-shit.net">www.quit-the-shit.net</a>	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.realize-it.org">www.realize-it.org</a>	Counselling service for cannabis use, offered in Germany and Switzerland

## Party projects

Website	Content
<a href="http://www.alice-project.de">www.alice-project.de</a>	Alice Project - Frankfurt
<a href="http://www.chill-out.de">www.chill-out.de</a>	Chill-Out – Gemeinnütziger Verein zur Förderung der Kommunikationskultur e.V. Aachen chill-out – non-profit association for the promotion of communication culture in Aachen
<a href="http://www.drobs-hannover.de">www.drobs-hannover.de</a>	Jugend- und Suchtberatungszentrum/ Psychosoziale Beratungs- und Behandlungsstelle Hannover Centre for young people with addiction problems / psychosocial counselling and treatment centre in Hannover
<a href="http://www.drugscouts.de">www.drugscouts.de</a>	SZL Suchtzentrum gGmbH Leipzig Addiction Centre Leipzig
<a href="http://www.partyack.de">www.partyack.de</a>	Drogenhilfe Köln e.V. Drug Aid Cologne

## Safer Use / Harm Reduction

Website	Content
<a href="http://www.saferuse-nrw.de">www.saferuse-nrw.de</a>	Safer use pages of the AIDS Help of Northrhine-Westfalia e.V.
<a href="http://www.spritzenautomaten.de">www.spritzenautomaten.de</a>	Deutsche AIDS-Hilfe e.V. – Projekt Spritzenautomaten JETZT German Aids Help Organisation AIDS-Hilfe – Project Syringe dispensing machines NOW

## In-patient treatment of drug addicts in Germany

Website	Content
<a href="http://www.bar-frankfurt.de">www.bar-frankfurt.de</a>	Bundesarbeitsgemeinschaft für Rehabilitation e.V. (BAR) Federal work association for rehabilitation (BAR)
<a href="http://www.suchthilfe.de">www.suchthilfe.de</a>	Bundesverband für stationäre Suchtkrankenhilfe e.V. (buss) Federal association for in-patient addiction aid
<a href="http://www.synanon-aktuell.de">www.synanon-aktuell.de</a>	Suchtselbsthilfe/Suchthilfegemeinschaft Synanon, Berlin Addiction self-help/Addiction aid community Synanon, Berlin





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