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for Drugs and Drug Addiction



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Workbook Drugs

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0 Summary (T0)

0.1 Summary of Drugs workbook (T0.1)

Drug use in the general public and amongst adults and adolescents

The findings of the Epidemiological Survey of Substance Abuse (ESA) conducted in 2012 have already been presented in the REITOX Report 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 used drugs in the last 12 months was still at approximately 5% with less than 3% using drugs in the last 30 days.

Cannabis remains by far the most commonly used illicit drug, amongst both adults and adolescents. In the ESA 2012, almost one in four adults (23.2%) stated that they had used cannabis at least once (lifetime prevalence), 4.5% had used cannabis within the past year (12-month prevalence).

The "Drug Affinity Study" (Drogenaffinitätsstudie, DAS, 2011 survey) and - in addition to that - the "Alcohol Survey 2012", both conducted by the Federal Centre for Health Education (BZgA), presented data on cannabis use amongst adolescents and young adults between the ages of 12 and 25 years old. The DAS revealed a 12-month prevalence of 4.6% for 12 to 17 year-olds whilst the Alcohol Survey returned 5.6%. The Alcohol Survey also showed that 1.3% of 12 to 17 year-olds had consumed regularly, i.e. more than ten times in the past twelve months. The data from the regional monitoring systems of Frankfurt and Hamburg, the results of the ESA 2012 as well as the data from the BZgA also point to a stagnation or even a turn in the continuously decreasing trends in the use of illicit substances (primarily: cannabis) that had been observed for several years among adolescents. This development is also compatible with the fact that the trend scout panels of the Frankfurt Monitoring System for Drug Trends (MoSyD) reported the perception of a clear improvement in the image of cannabis in 2013 and 2014; according to the panel, a widespread openness and acceptance of use was apparent in almost all scenes.

Clearly, it is still the case that the target group of "regular" users (as differently as they are defined in the individual studies) are not being reached to a satisfactory extent.

In the ESA 2012, noteworthy values in terms of the prevalence of use of illegal substances in the adult population were only reached by, in descending order, cocaine, amphetamines and ecstasy (12-month prevalence in each case). However, the importance of individual stimulants varies widely by region and scene as well as between age groups. Some indicators from law enforcement and treatment suggest an increasing significance of amphetamine; in the nationwide surveys on prevalence of use in the general public, this increase cannot be seen in the same way.

According to the ESA data, the use of heroin, LSD, mushrooms and crack remains limited to a specific group that is much smaller in number. In the general adult population the lifetime

prevalence for so-called “new psychoactive substances” (NPS) is also less than one per cent whilst the 12-month prevalence is comparable to that for heroin.

In this workbook, the findings from the current trend scout, expert and pupil surveys as well as from the open drug scene in the scope of the Frankfurt MoSyD are reported. In addition, there are results from various individual studies and on individual aspects (target group and substance specific) of drug use in the population.

High Risk Drug Use

Calculations based on figures collected from treatment facilities, police contacts and drug-related deaths lead to an estimated figure for problem heroin use ranging between 56,000 and 169,000 persons. This corresponds to a rate of 1.1 to 3.2 persons per 1,000 population in the age group of 15 to 64 year-olds. The estimate, based on the "treatment request" multiplier, rose between 2007 and 2011 before falling once more since 2012. The estimated values for the multiplier “police contacts” have been falling for years. Likewise, the estimates for the multiplier "drug-related deaths" fell between 2008 and 2013, last year the trend has been consolidated however.

The findings of the last Epidemiological Survey of Substance Abuse (ESA) will be presented, namely dependency and abuse of illegal substances. Based on the overall sample, 0.5% of respondents fulfilled the DSM-IV criteria for cannabis abuse and for dependency. In total, 0.2% exhibited cocaine dependency. An abuse of amphetamines was exhibited by 0.2% of respondents, a further 0.1% fulfilled the criteria of dependence. Multiple diagnoses (abuse and/or dependence) applied in 6.6% of the sample.

Terms and data sources used in the Drugs workbook

Basic terms

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 *at some point during a lifetime (lifetime prevalence)* is therefore only a rough indicator of the extent of drug use in the population at a given point in time. The respective figures also include people reporting experience with drugs dating back 20 or 30 years. The lifetime prevalence is thus not suitable as an indicator for current changes, since it does not give any valuable insight into the current use behaviour of the respondents.

Therefore, drug use in the *12 months prior to the survey (12-month prevalence)* is a better indicator of current user numbers and is often cited in the relevant literature as a reference value. The 12-month prevalence is on the one hand limited to a sufficiently manageable time frame of past consumption whilst also providing other, more interpretable, prevalence values. In contrast, the *30-day prevalence* of the use of illicit drugs, with the exception of cannabis, often only produces extremely low figures which are of little to no interpretable value. The clear difference that has been shown for many years in the overall population in Germany between lifetime-prevalence, 12-month-prevalence and 30-day-prevalence shows that experimental or short-term use is the most common pattern of consumption.

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) defines "*high risk drug use*" (*HRDU*) as drug use which fulfils the following criteria:

- The use is recurrent.
- There are actual harms (negative consequences) for the person (e.g. dependence but also other health, psychological or social problems) or
- The use increases the probability/risk of the person suffering such harms.

In the reported data, the consumption of psychoactive substances (not including alcohol, tobacco and caffeine) according to high risk patterns of use (e.g. intensively related to the frequency) and/or high risk routes of administration (e.g. intravenous use) within the last twelve months is considered to be HRDU.

In addition to recording clinical diagnoses of "*dependence*" and "*harmful use*", for which the international ICD-10 criteria (Dilling et al. 2005) apply, the German Core Data Set on Addiction (DHS 2010) proposes a definition for "high risk use". For every substance or disorder, it should be estimated whether "high risk use" is present if neither the ICD-criteria for dependence nor for harmful use are fulfilled and thus no diagnosis can be made and if at the same time the number of consumption days during the last 30 days is greater than zero. For the estimation of individual "high risk alcohol consumption", in this case, the recommendations of the World Health Organization (WHO), the British Medical Association and the board of trustees of the German Centre for Addiction Issues (DHS) apply. For other substances, there are currently no binding recommendations.

Irrespective of the above definitions, use can be problematic even if only the user himself experiences it as problematic and, for example, considers himself as being dependent without having an objective diagnostic classification of addiction (Kleiber & Soellner 1998). The working definitions used in different places respectively comprise different subsets of the described total group. Only the terms based on clinical classification systems are clearly defined.

In various surveys, the idea of "problem" or "high risk" use (including of cannabis) has been investigated. However, terminology and implementation differ from study to study so that comparability of information is only possible to a limited extent. It appears necessary, especially in the context of cannabis use in light of the data available on the possible long-term effects of intensive cannabis use, to also include this use behaviour when looking at problem or high risk patterns of use.

A detailed representation of the methodology for measuring and estimating high risk use can be found in chapter 4.1 of the REITOX Report 2014 (Pfeiffer-Gerschel et al. 2014). Basic information on national and local estimates of drug use can be found in section C1.1.2.

Most important data sources

In Germany, epidemiological data on drug use and drug users is mainly available on the basis of regular national representative surveys and prevalence studies. These are complemented by quantitative and qualitative regional studies which often focus on individual substances or specific user groups. Furthermore, international studies in which individual Länder or regions participate will also be described below. The short descriptions contain information on the participating countries.

Nationwide data sources

- 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 intoxicants among adolescents and young adults (age group 12-25 years) on a long-term basis. The study has been conducted every three to four years since 1973. Initially designed as a personal interview, it has been carried out as a telephone interview (CATI) since 2001 with a sample of 3,000 interviewees. The latest DAS survey was carried out in 2011 with a sample of 5,000 respondents. The findings were published by the BZgA in 2012 (BZgA 2012) and were presented in the REITOX Report 2012 in sections 2.2 and 2.3¹.
- In addition to the DAS, the BZgA published the findings of representative surveys conducted on cannabis use among 12 to 19 year-old adolescents and 12-25 year-olds in 2007, 2010, 2012 (BZgA 2007; 2011; 2014) and in 2014. The surveys from 2010 onwards were conducted in the scope of the Alcohol Survey (Orth & Töppich 2015). The

¹ The results of the DAS 2011 are based on a multi-level random sample on the basis of the ADM sampling system for telephone surveys (computer generated random telephone numbers). It is a random selection of 12-25 year-olds in households, the response rate was 60.9%, the sample size was N=5,001 respondents.

results of the evaluation were presented in detail in the REITOX Reports 2007, 2011 and 2014. Findings on cannabis use from the current "Alcohol Survey 2014" were not yet available as of August 2015.

- The Epidemiological Survey of Substance Abuse (ESA, nationwide study on the use and abuse of psychoactive substances amongst adults in Germany) is a combined written, telephone and online survey on the use of psychoactive substances, their effects and on their assessment as well as on other underlying data. Since 1980 the study has been conducted every three to four years on the basis of a representative sample of the resident population². Funded by the German Federal Ministry of Health (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 an adequate statistical basis for Land evaluations. Findings from the 2015 ESA survey were not available as of August 2015 so the results of the ESA 2012 are presented in this REITOX Report. Information on the design of the study and the methodology used by the ESA 2012 has been extensively provided by Kraus and colleagues (2013a). The adjusted sample includes N=9,084 people between 18 and 64 years of age. The net response rate was 53.6 %.

International Studies

- The "European School Survey Project on Alcohol and other Drugs" (ESPAD³) has been carried out since 1995 in numerous European countries. Initiated by the Pompidou-Group at the Council of Europe and coordinated by CAN (Swedish Council for Information on Alcohol and Other Drugs, Stockholm), the survey uses Europe-wide uniform standards for data collection. 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. The survey is carried out among 15 to 16 year-olds in school year groups 9 and 10. In the 2011 survey, the adjusted sample size in Germany comprised 6,192 pupils from 352 year groups (Kraus et al. 2012). Individual data is available from all participating Laender for the ESPAD 2011. Findings from the ESPAD 2015 survey, which was only conducted in Bavaria, were not yet available in August 2015.
- 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 reported in previous REITOX Reports. The trends

² The target group changed over time from adolescents and young adults in the age range of 12-24 (1980), 12-29 (1986) and 12-39 (1990) to the adult population of 18-59 year-olds (1995, 1997, 2000, 2003) and finally the 18 to 64 year-olds (2006, 2009, 2012).

³ www.espad.org (last accessed: 5 Oct. 2015).

reported in 2012 (see REITOX Report 2012 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 five Laender (Berlin, Hamburg, Hesse, North-Rhine Westphalia and Saxony). The 2010 data is based on information from 15 Laender (c.f. on the study design and methodology of the HBSC, Ottova et al. 2012). Ter Bogt and colleagues (2014) investigated, based on data from the HBSC studies of 2002, 2006 and 2010, the extent to which international changes to the frequent use of cannabis are related to the societal and/or familial well-being as well as how they relate to gender. The results were presented in the REITOX Report 2014.

- The "German Health Interview and Examination Survey for Children and Adolescents" (KiGGS) is part of the health monitoring of the Robert Koch Institute (RKI) and is currently carried out as a combined cross-sectional and cohort study (Lampert et al. 2014). In 2007, the findings of the 2003-2006 KiGGS base line surveys were released (Lampert & Thamm 2007). They are based on nationwide representative data on the health of children and adolescents aged from 0 to 17 years old. A total of 17,641 children and adolescents participated in the study. For the analyses of tobacco, alcohol and drug use, the data from interviews conducted among 11 to 17 year-old boys and girls and their parents was used. The most important results of the KiGGS base line survey have already been presented in the REITOX Reports 2007 and 2008. With the first follow-up survey to the KiGGS study (KiGGS wave 1, 2009-2012), the findings of the base line survey were continued however only in relation to tobacco and alcohol consumption (Lampert et al. 2014).

Data from the Laender and the regional monitoring systems

- In 2009, the findings of the MODRUS IV study (Moderne Drogen- und Suchtprävention; Modern Drug and Addiction Prevention) were presented in Saxony-Anhalt. The results were presented in the REITOX Report 2009.
- Brandenburg obtains information on substance use amongst adolescents from a pupil survey in the 10th year group which has now been conducted three times, each four years apart. A total of 9,994 pupils from 13 administrative districts and administratively independent urban districts and thus approximately 55% of all pupils in the 10th year group in Brandenburg took part in the current survey "Brandenburg adolescents and substance use (BJS)" in the school year 2012/2013. The average age of the adolescents interviewed was 16 and has remained roughly constant over the years that the survey has been conducted (Ministerium für Umwelt, Gesundheit und Verbraucherschutz des Landes Brandenburg [Brandenburg Ministry for the Environment, Health and Consumer Protection] 2014). The results of the survey are reported in A1.1.2.
- A source that has been providing information on drug trends at a local level for many years is the Monitoring System for Drug Trends (MoSyD) from Frankfurt/Main. The MoSyD is made up of several components: a representative pupil survey, a trend scout

panel⁴, a scene-based survey and an expert survey. A key change in comparison to previous years is the fact that since 2013 the pupil survey has been conducted with the help of tablet PCs (c.f. on that point also: Werse et al. 2014; Werse et al. 2015). In the study period (end of 2014 to beginning of 2015)⁵ in the scope of the pupil survey within MoSyD, a total of 1,538 questionnaires were included in the analysis (based on all respondents from the 10th-12th year groups or in the 1st-3rd years of a traineeship); 981 respondents (weighted sample) were between 15 and 18 years old (Werse et al. 2015). Furthermore, findings of the trend scout panel and the scene survey of the MoSyD are available.

- A survey called “Hamburg SCHULBUS” (“SCHOOL BUS”) was carried out for the fifth time in 2012 within the framework of the Local Monitoring System (LMS) among pupils aged 14 to 18 at schools providing general or vocational education. For the 2012 survey, 1,013 14 to 17 year-olds were able to be included (weighted sample figures; unweighted sample n=1,148). The surveys, which were conducted in schools whose selection was based on theoretical sampling, were conducted in classes of school pupils from the 8th grade upwards (cluster sampling) (Baumgärtner & Kestler 2014). High interest was exhibited by various cities and municipalities in adopting the data collection methods used by the “Hamburg SCHULBUS” project in their own areas. This led the Office for Addiction Prevention to analyse one of the pilot projects funded 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 specific knowledge could be gained from it. The results were published at the start of 2014 (Baumgärtner & Kestler 2014).

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 analyses commissioned within the context of larger, nationwide studies and already mentioned amongst the nationwide data sources (e.g. regional analyses of KiGGS, HBSC and ESPAD).

Due to the objectives of the REITOX Report this year, no detailed analysis will be performed on the data regarding alcohol and tobacco consumption amongst pupils, adolescents and

⁴ 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 uncover new trends and changes with respect to the use of illicit drugs in Frankfurt/Main. To this end, recreational scenes are selected especially from youth cultures. The selection of the different settings is focused on the scenes for which a relatively high prevalence of use of illicit drugs can be assumed. The trend scout survey is designed as a panel survey - a pool of informants which as far as possible remains the same is interviewed at regular intervals (twice a year since 2006). The survey is based on a half-open, guideline-based interview.

⁵ Due to difficulties in timings, the survey period stretched from November 2014 to March 2015 instead of as planned only from November to December 2014.

young adults. An overview of the data sources available in Germany and some selected nationwide findings can be found in chapter 2 of the REITOX reports up to 2014.

0.1.1 Illicit drugs with the greatest significance and polyvalent use (T0.1.1)

Overview of the use of various drugs

A minimum estimate of the prevalence of the use of illicit drugs in Germany based on the findings in the most recent surveys in the scope of the ESA surveys (2012) and the DAS (2011) is presented in Table 1.

Table 1 Prevalence of the use of illicit drugs in Germany

	Study	Age	Prevalence	Absolute ¹⁾
Lifetime	ESA 2012 ²⁾	18-64	23.9 %	12,351,000
	DAS 2011	12-17	7.2 %	344,000
12 Months	ESA 2012 ²⁾	18-64	4.9 %	2,532,000
	DAS 2011	12-17	4.9 %	234,000
30 Days	ESA 2012 ²⁾	18-64	2.6 %	1,344,000
	DAS 2011	12-17	2.0 %	95,000

1) Figures are rounded. Population figures used as basis in the age categories of 18 to <65 year-olds: 51,680,000 (Year 2012); 12 to 17 year-olds: 4,778,270 (Year 2011) (Source: German Federal Statistical Office, GENESIS online database).

2) The prevalence of use of illicit drugs shown from the ESA are based on a cross-sectional analysis from 2012. The numbers cannot be directly compared to data from previous ESA surveys to ascertain trends over time as the data from the ESA 2012, in contrast to earlier ESA surveys, was also weighted in respect of the educational structure of the population.

BZgA 2012; Kraus, L. et al. 2014.

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 that extrapolation, approximately 283,000 adults (95% confidence interval (CI) = 201,000-397,000) exhibit abuse and 319,000 adults (95% CI = 224,000-453,000) exhibit dependence in connection with the use of the illicit drugs, cannabis, cocaine or amphetamine.

In addition, an estimated 4.61 million (95% CI = 4.20m-5.05m) persons have a diagnosis of misuse of painkillers, sleep inducing drugs and tranquilisers. Approximately 2.31 million persons (95% CI = 2.03m-2.62m) are dependent on at least one of those medications.

In relation to illicit drugs, more men than women in the population exhibit substance-related disorders. For prescription medications, a higher proportion of female dependents is seen (Kraus L, et al. 2014).

Comparison of the use of individual drugs

Nationwide data

The data from the Drug Affinity Study (DAS) 2011 was presented in detail in the REITOX Report 2012. On the use of illegal substances amongst adults, new findings were most recently presented in the REITOX Report 2013 from the ESA 2012. The most important key figures are shown in Table 2 together with the data from DAS 2011.

The REITOX Report 2013 contains a differentiated presentation and commentary of the prevalence rates according to individual substance, age group and gender from the last ESA (Kraus L, et al. 2014; Pabst et al. 2013).

Table 2 Prevalence of use of illicit drugs by substance

Study	DAS 2011 (%)		ESA 2012 (%)		
	12-17 years	18-25 years	18-64 years		
Substance	12 M ¹⁾	12 M ¹⁾	LT ¹⁾	12 M ¹⁾	30 D ¹⁾
Cannabis	4.6	13.5	23.2	4.5	2.3
Amphetamine	0.4	1.6	3.1	0.7	0.4
Ecstasy	0.2	1.0	2.7	0.4	0.2
LSD	0.1	0.3	2.2	0.3	0.1
Heroin	0.0	0.0	0.6	0.2	0.1
Cocaine	0.2	0.9	3.4	0.8	0.3
Crack	0.0	0.0	0.3	0.1	0.1
Mushrooms	0.4 ²⁾	0.7 ²⁾	2.6	0.3	0.1
Inhalants	0.1	0.2	--	--	--
Any drug	4.9	14.3	23.9	4.9	2.6
Drugs not including cannabis	1.0	2.8	6.3	1.4	0.8

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

2) Psychoactive plants.

BZgA 2012; Kraus, L. et al. 2014.

Cannabis remains the dominant illicit drug in Germany. Cocaine and amphetamine are the most commonly used illegal substances after cannabis. The prevalence of all other illicit drugs studied here is considered low, with 12-month prevalence rates below 0.5%.

Data is also available for adolescents and young adults from various studies. Table 3 summarises the most important findings of more recent studies on drug use amongst adolescents and young adults.

Table 3 Prevalence rates for the use of illicit drugs *aside from* cannabis amongst school pupils and adolescents in various German studies*

Study ¹⁾	Year	Age group	Region	Prevalence (%)		
				30 days ²⁾	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	2014	15-18	Frankfurt	3	7	10
MoSyD	2013	15-18	Frankfurt	3	6	8
MoSyD	2012	15-18	Frankfurt	2	5	9
MoSyD	2011	15-18	Frankfurt	3	6	9
MoSyD	2010	15-18	Frankfurt	3	6	9
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

* In the case of frequently repeated surveys (e.g. BZgA, MoSyD), only the data of the last five published studies are shown.

1) BZgA: Cannabis, heroin, cocaine, amphetamines, ecstasy and LSD. Data for consumption of "illicit drugs not including cannabis" is not available prior to 2008. The available data from 2004 is the result of a re-analysis of the BZgA. Therefore, figures can diverge from those of previous years. ESPAD: amphetamine, LSD, ecstasy, cocaine, crack and heroin. ESPAD takes into account students from grades 9 and 10, the focus is therefore on the 15-16 year-old age range, however a few students aged 14 and 17 years were also included.

MoSyD: psychoactive mushrooms, ecstasy, speed, cocaine, LSD, crack, heroin, crystal meth and GHB/GBL.

SCHULBUS: ecstasy, mushrooms, LSD, speed/amphetamine, cocaine, crack and heroin. The results shown differ from those of the previous years 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).

The following must be taken into account when comparing the data from different studies of drug use:

- The age groups surveyed by the individual studies are not identical.
- Some studies were only conducted in some Laender or regions.
- Some of the differences in the prevalence estimates may be attributable to different methods used (telephone vs. class supported questionnaires) or different wording in the questionnaires.
- Regionally, there also exist some considerable differences in the use behaviour and in the characteristics of the markets (e.g. availability, price and/or purity for different substances).

Details on youth surveys are contained in Standard Table 30.

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

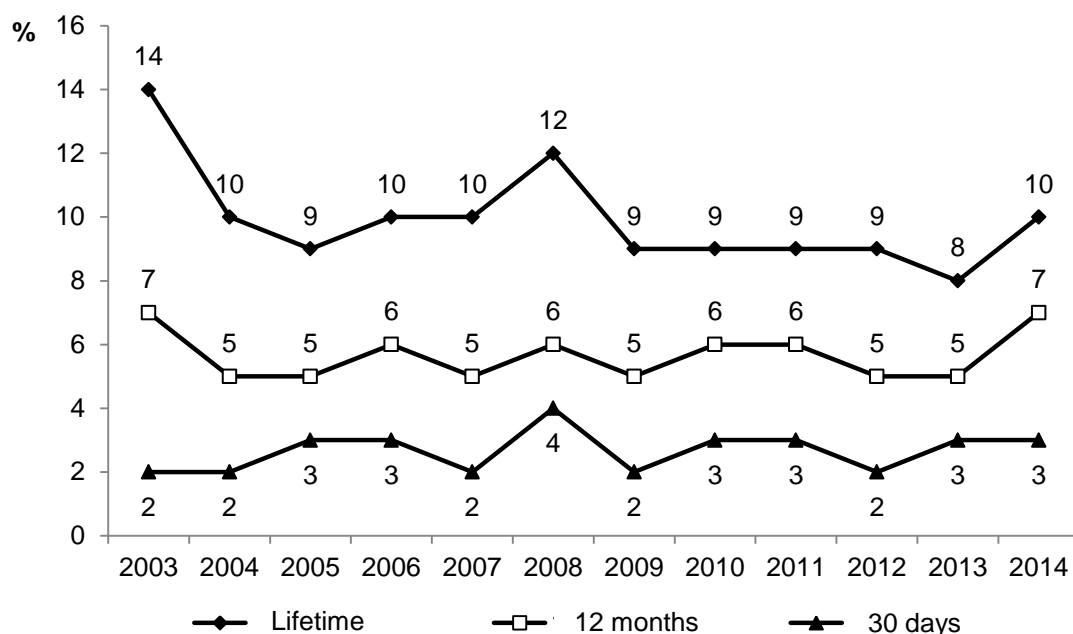
In connection with the use of illegal substances by adolescents and young adults it is important to note that the use of illegal and of legal substances (especially alcohol and tobacco but also medical drugs) are often closely linked so that important developments may possibly be neglected when looking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

Data from the Laender and the regional monitoring systems

Frankfurt (MoSyD)

In 2014, 10% of 15-18 year-old Frankfurt school pupils reported experiences with at least one illicit drug not including cannabis⁶. 7% reported that they had used a "hard" illicit drug at least once in the last 12 months with 3% stating this was the case for the previous month. Over the past 12 years, the prevalence rates for all illicit drugs together (lifetime prevalence, 12-month prevalence and 30-day prevalence) have remained very stable despite some fluctuation (see Fig. 1). Detailed overviews of the lifetime prevalence and 12-month prevalence of the use of individual substances can be seen in Table 4.

⁶ Summary of the substances: psychoactive mushrooms, ecstasy, speed, cocaine, LSD, crack, heroin, crystal meth and GHB.



Werse et al. 2015.

Figure 1 Prevalence of the use of "hard drugs" (not incl. cannabis) among Frankfurt pupils (aged 15 to 18), 2002-2014 (MoSyD)

Table 4 Prevalence of a range of substances in the 15 to 18 year-old age group in the year after the survey (2002 and 2010-2014) (MoSyD)

	2002	2010	2011	2012	2013	2014	2002	2010	2011	2012	2013	2014
	Lifetime prevalence (%)						12-month prevalence (%)					
Inhalants	17	13	14	10	15	11	7	6	8	5	8	5
Speed	5	6	6	5	5	4	3	3	4	3	3	3
Laughing gas	5	6	5	5	8	6	2	2	2	2	2	2
Cocaine	4	4	3	4	4	3	3	3	2	2	3	2
Psych. mushrooms	8	4	4	4	3	3	4	1	3	2	2	1
Ecstasy	5	3	3	4	3	5	3	2	2	2	2	4
Hormonal Drugs	^a	3	3	1	2	2	^a	2	1	1	2	2
LSD	3	3	3	3	1	2	1	1	1	1	1	1
Crack	1	2	1	1	1	<1	1	1	<1	<1	<1	<1
Crystal meth	^a	1	1	1	1	<1	^a	<1	1	<1	1	0
GHB/GBL	<1	1	<1	2	1	1	<1	1	<1	<1	1	<1
Heroin	1	1	<1	<1	1	1	<1	<1	0	<1	<1	<1

^a Not collected.

Werse et al. 2015.

Children and adolescents in inpatient youth care facilities

In addition to analyses which relate to the general public in the relevant age cohorts, there is also a survey on the sub-group of children and adolescents in public special education. It has long been suspected by experts in the field that this could be a particularly affected subgroup without specific respective data having been available. The Society for Research and Advice in Health and Social Care (Gesellschaft für Forschung und Beratung im Gesundheits- und Sozialbereich, FOGS) conducted a full survey in its own inpatient youth care facilities, on behalf of the Regional Authority of Westphalia-Lippe (Landschaftsverband Westfalen-Lippe, LWL), amongst its 12 to 17 year-old clients as well as the specialists in the facilities. A summary of the findings can be found in the REITOX Report 2014; data on cannabis use are laid out in the aforementioned report in section A1.2.1.

Summary and trends

Alcohol and nicotine remain the most widespread psychoactive substances; amongst illicit drugs, cannabis continues to occupy the top spot.

In particular, the available data from population surveys have indicated for some years a relative stability as far as drug use in Germany is concerned. Beyond this national view, there are regional developments which exhibit in part clear specifics. These include, for example, the use of crack in the open scene in Frankfurt am Main which has been very widespread for many years (notable crack scenes apparently only exist in Frankfurt and Hamburg) or the considerable burden caused by the use of methamphetamine in particular in the Laender in the south east of Germany.

The use of illicit drugs has for several years not been a dominant topic of public discussion. The debate surrounding the introduction of diamorphine based treatment is worth noting as it has, in part, encountered considerable public interest. In recent times, an increase in the use of new psychoactive substances (NPS) has been reported, however reliable epidemiological data on the use and popularity is lacking. Where data on the use of NPS has been collected (e.g. MoSyD, ESA), the information rather indicates a low popularity of this substance - however, this is in contrast to the in part considerable volumes of substances seized by law enforcement authorities meaning that overall, an inconsistent picture is created. Nevertheless, they seem to have established themselves as a permanent fixture in certain drug scenes. Gathering reliable epidemiological data on this segment is associated with significant difficulties and will certainly be a subject of future studies against the backdrop of changing consumption habits. The extent to which these substances play a role in the counselling and treatment facilities is also difficult to measure as much of the available data is organised according to the ICD-10 classification which does not allow a sufficient degree of differentiation of the substances involved in each case. The use of methamphetamine ("crystal meth") also seems to be increasing without this being reflected as yet in the nationwide data from population surveys. Other data sources (police data, data from counselling/treatment facilities from particular regions) do, however, clearly indicate a growing burden with a distinct regional focus in the area near the border with the Czech

Republic. As a further subject of public discussion, the debate surrounding how to deal with cannabis is receiving growing attention.

After the data from the regional monitoring systems (Frankfurt and Hamburg) had already pointed to a stagnation in previous years or even a turn in the continuously decreasing trends in the consumption among adolescents of illegal substances (primarily: cannabis) that had been observed for many years, data of the BZgA has now been available since 2014 (survey year: 2012) which supports this perception. The study published by the BZgA in 2014 arrives at the conclusion that "(...) *it could be wrong to assume a further decline in cannabis consumption amongst young adults in Germany*" (BZgA 2014).

Clearly, it is still the case that in spite of the numerous prevention and intervention programmes, the target group of "regular" users (as differently as they are defined in the individual studies) of cannabis are not reached to a satisfactory extent, whilst there are indications that the established prevention programmes and services can successfully increase the age of first use. Based on data regarding age of first use of addictive substances, Baumgärtner (2013) was able to confirm earlier findings that an early starting age of use enormously increases the risk of later substance abuse.

Some background information on drug use in specific groups (e.g. among migrants) was last reported in the REITOX Report 2014 partly and can also be found, in part, in the Treatment workbook.

From the beginning of 2013 to the end of 2014, the IFT Institute for Therapy Research in Munich carried out research as part of the Federal Ministry of Health-funded project Phar-Mon in cooperation with the MINDZONE addiction prevention project investigating new trends in substance misuse in the party scene. In the scope of this study, information on new substances and patterns of use was collected amongst party-goers in Munich and the surrounding area. A total of 1,849 questionnaires were collected at 47 events of which, after eliminating invalid questionnaires, 1,670 were included in the analysis (Hannemann & Piontek 2015, personal communication). Findings on the use of psychoactive substances are presented in sections A1.2.1, B1.1.3 and D1.1.1.

0.1.2 Use of illicit drugs in combination with alcohol, tobacco or prescription drugs (T0.1.2)

In the Frankfurt Scene Study (Werse & Egger 2015), it was reported that the increase in alcohol consumption in the open drug scene which had already been observed in recent years, had continued in 2014: in 2014, the 24-hour prevalence for alcohol was above 50% for the first time.

Overall, there is little information on the combination of prescription drugs and the use of illicit drugs; they will be reported, where applicable, in the Treatment workbook. Data on the misuse of medicinal drugs from the Phar-Mon project will be reported in section D1.1.3. That section also includes a brief description of the project.

SECTION A: CANNABIS

1 National profile (T1)

1.1 Prevalence and trends (T1.1)

1.1.1 Cannabis use in the general population (T1.1.1)

The cannabis consumption of adults in Germany: Trends in the ESA 1980-2012

For many years cannabis has been the most consumed illicit drug in Germany. The 12-month prevalence for cannabis consumption among young adults aged between 18 and 24 continued to fall markedly in recent years, following an increase up to the start of the 2000s (Kraus, L et al. 2014). The maximum value was almost four times higher than 1980 for both men and women. A similar development was observed among 25 to 39 year-olds, although the prevalence was considerably lower than that for young adults and the reduction 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.

The cannabis consumption of adolescents and young adults in Germany in the DAS 2012

Historic data based on 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. The findings from the "Alcohol Survey 2012" on cannabis use are described in detail in the REITOX Report 2014.

According to the findings of the study, the lifetime prevalence of cannabis use amongst adolescents between the ages of 12 and 17 was 7.8%, the 12-month prevalence was 5.6% and the prevalence of regular use (more than ten times in the last month) was 1.3%. In the case of young adults between the ages of 18 and 25, the use of cannabis is much more widespread with a lifetime prevalence of 34.8%, a 12-month prevalence of 15.8% and a regular use prevalence of 3.9%. Similar to in the ESA surveys, distinct differences between the genders are apparent; more male than female adolescents and young adults reported the use of cannabis.

If one looks at the trend in the surveys since 1993, an increase can be seen amongst 12 to 17 year-olds both for the lifetime prevalence and for the 12-month prevalence in the 1990s followed by a decrease since the start of the 2000s. Regular use in this age group, however, has hardly changed at all over the years.

Amongst young adults (18 to 25 years old), the lifetime prevalence has developed in a similar way to that amongst adolescents. The 12-month prevalence amongst young men has been increasing since 2008, in deviation from this trend, and in 2012 had reached the level of the 1990s once more. This increase did not occur amongst young women. Regular use in this age group has hardly changed for both genders over the years.

Amongst young adults, there are no differences in lifetime prevalence rates according to social characteristics. The 12-month prevalence as well as the 30-day prevalence are above average for unemployed persons. That group also had by far the highest rates of regular use (9.3%) (BZgA 2014).

1.1.2 Cannabis use in school and in other population groups (T1.1.2)

Nationwide data and international studies

ESPAD

In 2011, Germany took part in the ESPAD Study for the third time, after also taking part in 2003 and 2007 (for study description see 0.1). The findings were presented in detail in the REITOX Report 2012. Overall, the lifetime prevalence of cannabis use amongst the adolescents questioned fell between 2003 and 2011 from 30.8% to 22.2%, the 12-month prevalence fell from 24.6% to 17.4% and the 30-day prevalence fell 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. The development of problem cannabis use over time (recorded via the Cannabis Abuse Screening Test; CAST) can only be observed for the period of 2007-2011 as the respective indicators were not collected in 2003. According to the data, there was no significant change in the proportion of high risk use 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.

Drug Affinity Study (DAS) of the Federal Centre for Health Education (BZgA)

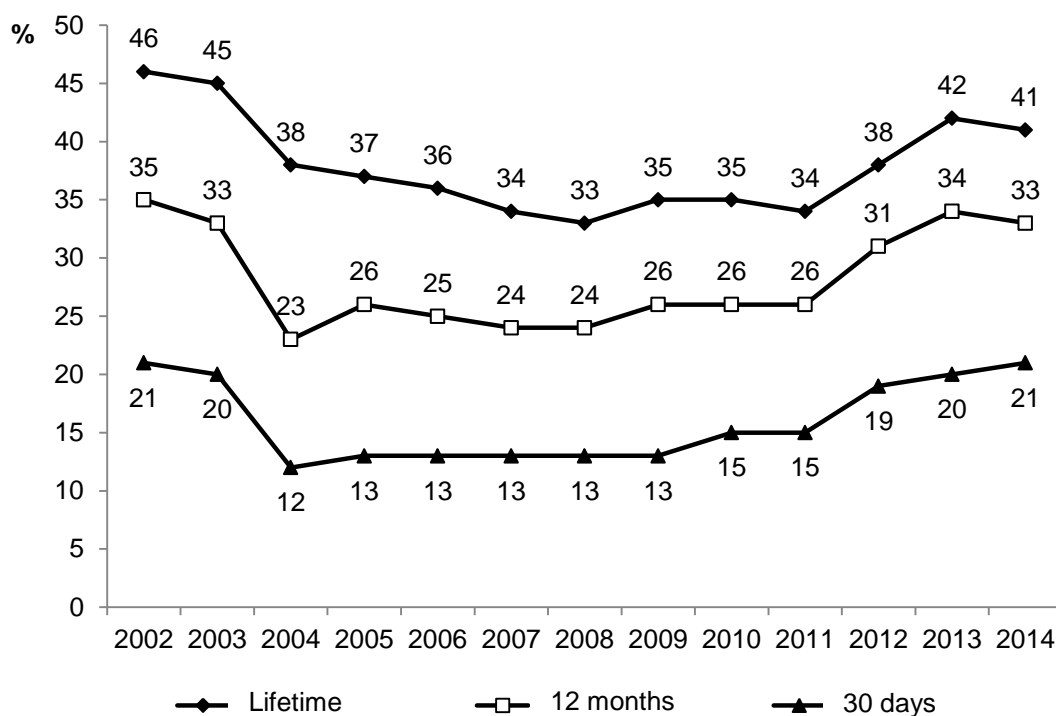
Data from the DAS of the BZgA has already been reported under section A1.1.1 as well as in the REITOX Reports 2013 and 2014, hence they will not be repeated here. Furthermore, the DAS is not a "pupil survey".

Data from the Laender and the regional monitoring systems

Frankfurt (MoSyD)

The lifetime prevalence of cannabis use amongst Frankfurt pupils fell by one percent in 2014 to 41% after a considerable increase from 2011 to 2013 (Figure 2). The same applies for the 12-month prevalence which fell from 34% in 2013 to 33% in 2014. As such, a stagnation of the experimental use of cannabis, as observed in recent years, could now also be ascertained amongst Frankfurt pupils. In contrast, the 30-day prevalence increased to 21%. The value for "frequent use" (at least 10 times in the last month) also increased, reaching a new peak at 9%; similarly, the proportion of daily users reached, with 4%, its highest level

since 2003. The age of first use has remained constant at an average of 15 years old for several years (Werse et al. 2015).



Werse et al. 2015.

Figure 2 Prevalence of the use of cannabis among Frankfurt pupils (15 to 18 years old), 2002-2014 (MoSyD)

Brandenburg

The Brandenburg pupil survey 2012/2013 (for the study description see 0.1) shows that more than one fifth of tenth grade pupils in Brandenburg had tried hashish at least once in their lives. In contrast, regular, i.e. daily or weekly, use of hashish is rare (2.0% of girls, 4.5% of boys). Illicit drugs other than hashish or marijuana are used far less than among adolescents: 6% of the pupils in the current survey have tried "hard" illicit drugs at least once in their lives⁷ with a declining tendency since the 2008/2009 survey (Ministerium für Umwelt, Gesundheit und Verbraucherschutz des Landes Brandenburg 2014).

Table 5 offers an overview of the data collected in various studies amongst adolescents and young adults in Germany on cannabis use.

⁷ Ecstasy, speed, cocaine or heroin.

Table 5 Prevalence rates for the use of cannabis among pupils, adolescents and young adults in various German studies*

Study	Year	Age group	Region	Use in period (%)		
				30 days ¹⁾	12 months	Lifetime
HBSC	2010	15	National ²⁾		7.4	
HBSC ³⁾	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 ³⁾	2003/06	11-17	National		9.2/6.2	
BZgA	2012	18-25	National	6.4 (3.9) ⁴⁾	15.8	34.8
BZgA	2012	12-17	National	2.0 (1.3) ⁴⁾	5.6	7.8
BZgA	2011	18-25	National	5.4 (3.3) ⁴⁾	13.5	39.2
BZgA	2011	12-17	National	1.9 (0.8) ⁴⁾	4.6	6.7
BZgA	2010	18-25	National	5.3 (3.2) ⁴⁾	12.7	35.0
BZgA	2010	12-17	National	1.7 (0.2) ⁴⁾	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
ESPAD ⁵⁾	2011	15-16	5 Laender	8.1	17.4	22.2
ESPAD ⁵⁾	2007	15-16	7 Laender	8.1	17.2	25.2
ESPAD ⁵⁾	2003	15-16	6 Laender		24.0	31.0
MoSyD	2014	15-18	Frankfurt	21	33	41
MoSyD	2013	15-18	Frankfurt	20	34	42
MoSyD	2012	15-18	Frankfurt	19	31	38
MoSyD	2011	15-18	Frankfurt	15	26	34
MoSyD	2010	15-18	Frankfurt	15	26	35
SCHULBUS	2012	14-17	Hamburg	16.9		29.3
SCHULBUS ⁶⁾	2009	14-17	Hamburg	11.3		23.6
SCHULBUS ⁶⁾	2007	14-17	Hamburg	9.0		22.7
SCHULBUS ⁶⁾	2005	14-17	Hamburg	15.5		35.0
SCHULBUS ⁶⁾	2004	14-17	Hamburg	16.7		38.0

* In the case of frequently repeated surveys (e.g. BZgA, MoSyD), only the data of the last five published studies are shown.

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

2) Except for Baden-Württemberg.

3) HBSC (2006) and KiGGS: First value: Boys, second value: Girls.

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

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

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

1.1.3 Commentary on cannabis use (T1.1.3)

If one looks at the trend of cannabis use in the studies of the last 10 to 15 years, there was, after the consistently reported increase in transitional use in the 1990s, initially a decline from around 2005. This decline has seemed to stagnate in recent years amongst adolescents as well as (young) adults. There are even isolated indications that the use is increasing again. There is reason for concern because the prevalence of regular use, in particular among young adults, has remained practically unchanged over the years. These observations support the assumption that changes in experimental use in the general population do not allow any conclusion to be drawn as to the consumption habits of experienced users and that such persons are still being inadequately reached by the multitude of measures. The number of persons in treatment due to problems related to cannabis has continually increased in recent years which on the one hand is evidence in favour of an acceptance of the interventions offered. On the other hand, this development also underlines the fact that intensive cannabis use leads to serious consequences and can arise in combination with other factors which represent a considerable burden on the individual and require professional support.

Based on ESPAD data from three survey waves (2003, 2007, 2011) in the 9th and 10th grades in five German Laender (Bavaria, Berlin, Brandenburg, Mecklenburg-Western Pomerania and Thuringia), Gomes de Matos and colleagues (2014) investigated whether changes occurred in the alcohol, tobacco and cannabis consumption of adolescents over time and on a national level. Across the Laender, use levels appear to be falling for all three substances over time. Cannabis should therefore not be looked at as an isolated phenomenon. The downward trend for cannabis use was only observed up to 2007. Over the full course of time, the observed use parameters, which are at a medium to high level compared to other European countries, are declining. The urbanisation effect - higher use in larger cities - is traced back to the increased availability (Tretter & Kraus 2004). Similar use profiles in the studied Laender suggest that substance use in Germany occurs within a common cultural context. As such, one can assume that persons in all German Laender share general standards and attitudes to substance use and are subject equally to nationwide regulations.

A study by Legleye and colleagues (2014) analyses changes in the prevalence of experimental cannabis use in France, Germany and the USA using national population surveys from 2009 and 2010. Three generations of men and women in the age ranges 18-34, 35-49 and 50-64 were studied in order to test the hypothesis that a positive relationship in older cohorts - the higher the level of education, the higher the level of experimental use - changes to a negative relationship in younger cohorts - the higher the level of education, the lower the level of experimental use. This change is posited to occur first among men and then among women. The hypothesis is based on the change in popularity of tobacco which followed the described pattern. The findings for Germany show initially the expected development pattern, in the final generation studied the development levelled out, however, so that cannabis use remained constant across all levels of education. The development in

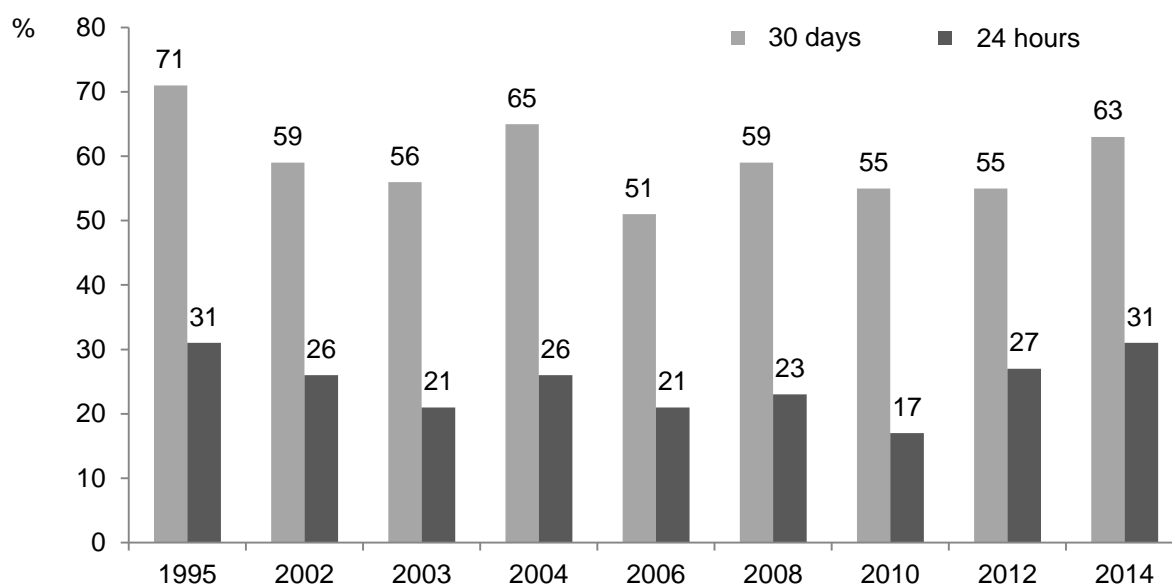
Germany is approximately parallel for both genders. Although the prevalence levels for women remain low, the authors observe a slow convergence of the levels between the genders. Overall, the prevalence of experimental use increased considerably across the age groups.

1.2 Patterns, treatment and problem / high risk use (T1.2)

1.2.1 Current surveys / studies on cannabis use (T1.2.1)

Cannabis use in the open drug scene - Frankfurt/Main

From the open drug scene in Frankfurt am Main, current data is available from the MoSyD (Werse & Egger 2015).



Werse & Egger 2015.

Figure 3 30-day and 24-hour prevalence rates of cannabis from the Frankfurt scene study (1995-2014)

For the observation of current patterns of use of cannabis in the scene, Figure 3 will show the values for the 30-day and 24-hour prevalence rates. In the case of the 30-day prevalence of cannabis, the starting value from 1995 is higher than those from subsequent surveys; since then no clear development has been observed (currently: 63%). However, the 24-hour prevalence has increased considerably since 2010 and in 2014 reached the highest value of all surveys, along with 1995, at 31% (Werse & Egger 2015).

Cannabis amongst party-goers

The high acceptance of cannabis is also confirmed amongst party-goers. Current findings from the Phar-Mon project on new trends in substance abuse in the party scene show that for party-goers cannabis was the most commonly used drug in the last 12 months (74.4%) (Hannemann & Piontek 2015, personal communication).

Cannabis use amongst adolescents in inpatient youth care facilities

According to the findings of the FOGS survey in the inpatient youth care facilities of the LWL, the use of illicit drugs amongst 12 to 17 year-old adolescents in the facilities is clearly dominated by the use of marijuana or specifically hashish. In comparison to the other illicit drugs mentioned, the adolescents had by far the most frequent access to marijuana or specifically hashish (39.6%). In relation to the month prior to the survey, 8.8% (n = 8) had consumed cannabis and thus a much higher proportion than in the same age group in the general population (1.9% for the same age group according to the latest DAS Study; c.f. BZgA 2012). The findings from interviewing the professionals reveals that they in part hugely underestimate the use of addictive substances amongst the adolescents in their care. The information provided by adolescents regarding their use behaviour is cause for concern, as indicator of problem behaviour (Landschaftsverband Westfalen-Lippe, LWL-Koordinationsstelle Sucht 2014).

Baldus and colleagues (2014) performed a cross-sectional study to investigate the connections between internalising problem behaviour, cannabis related expectations of effect, the number of psychosocial problem areas and the experience of dependence amongst adolescent and young adult cannabis users from the "CAN Stop" project (n = 239; 14 to 23 years old) taking into account gender and age sensitive perspectives. As far as expectations of effect were concerned, cannabis users with externalising problem behaviour exhibited a wide variety of different positive expectations. Internalising problems are more likely to be associated with expectations of detrimental and sedative effects. According to the study, the group with exclusively internalising problem behaviour reported the most dependence symptoms.

1.2.2 Reducing the demand for cannabis (T1.2.2)

The illicit drug which is still most commonly consumed both worldwide and in Germany is cannabis. At the same time, intensive cannabis use is linked to risks for mental and physical health. Specialist counselling and treatment of the secondary harm from cannabis use in Germany is for the large part in outpatient facilities. Inpatient admittance and treatment is only provided for serious health disorders or in cases with a high risk of relapse (Hoch et al. 2015). In Germany, according to a study of the EMCDDA, approximately 10% of cannabis users needing treatment (daily or almost daily use) receive it. In a comparison with all other European countries, Germany is, together with Norway, amongst the countries with the highest coverage rate (Schettino et al. 2015).

A series of specific services for cannabis users are laid out in the Treatment workbook.

The data of the documentation system for addiction prevention, Dot.sys, shows that the proportion of specific services for reducing cannabis use has been growing (see Prevention workbook).

1.2.3 High risk cannabis use (T1.2.3)

Estimates of high risk consumption in the general population

The last ESA was conducted in the year 2012 (Pabst et al. 2013). The methodology has already been described in the REITOX Report 2013 (chapter 2); there is a study description in section 0.1. The data on substance related disorders was collected with the help of the written version of the Munich Composite International Diagnostic Interview (M-CIDI) (Wittchen et al. 1995) for alcohol, tobacco, cannabis, cocaine, amphetamine, painkillers, sleep inducing drugs and tranquilisers. For all substances, the criteria for the diagnoses of abuse (not including tobacco) and dependence were collected according to DSM-IV for the period of the previous 12 months.

Based on the overall sample, 0.5% of respondents fulfilled the DSM-IV criteria for cannabis abuse and dependency (approx. 250,000) (Pabst et al. 2013). Between 2000 and 2012, the proportion of cannabis dependent men increased from 0.5% to 0.8%. There are no indications of significant changes over time in respect of the abuse of and dependence on cannabis amongst women (Kraus et al. 2013b).

Data on adolescents and young adults

The high-risk phases for first substance use and the onset of regular use 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 to alcohol). After initial use, the age range from 15-18 years is the decisive period in which the transition to substance use disorders takes place (Wittchen et al. 2008). Behrendt and colleagues (2009) were able to show not only 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 related to a higher risk of developing substance abuse and dependence. However, cannabis use is not necessarily a temporary, youth phenomenon: in people with an increased frequency of use during adolescence, cannabis use often 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. 2008).

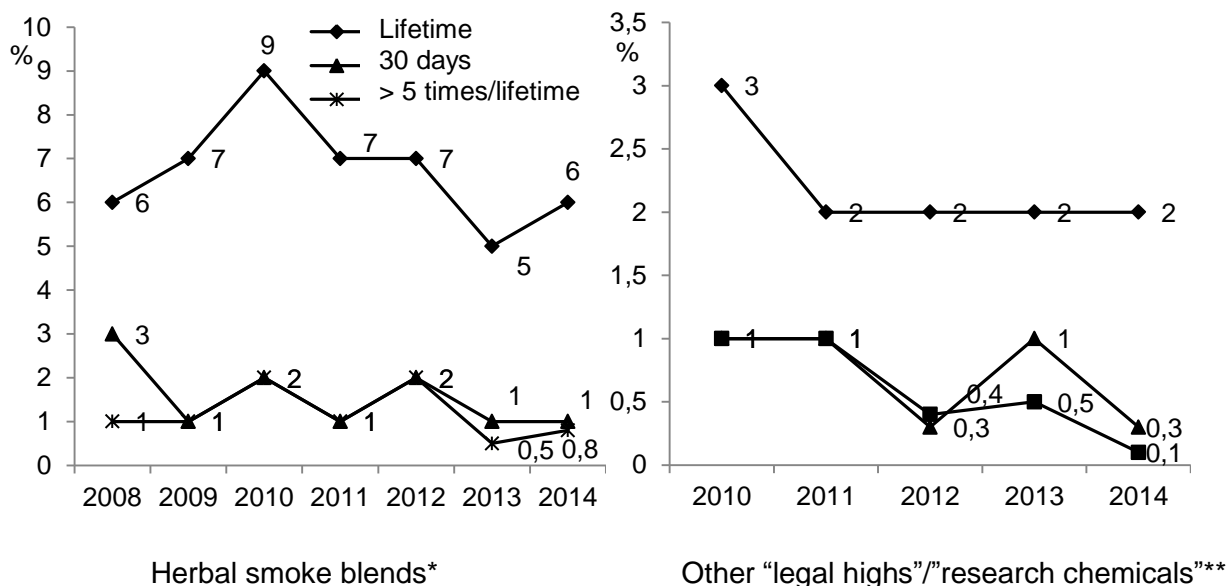
Findings from the latest ESPAD survey 2011 on problem cannabis use are described in the REITOX Report 2012.

According to the BZgA Study on cannabis use amongst adolescents and young adults in Germany (BZgA 2014), in 2012 1.3% of 12-17 year-olds had regularly consumed cannabis in the 12 months prior to the survey, i.e. more than ten times. Regular use of cannabis is much more widespread amongst young adults between the ages of 18 and 25: 3.9% regularly used cannabis in the twelve months prior to the survey. In both age groups, the prevalence of regular cannabis use has remained almost unchanged over time.

When looking at the overall high prevalence of cannabis use amongst adolescents, one must carefully distinguish between experimental use typical of that age and regular or problem cannabis use. According to current epidemiological findings (from the studies, Hamburg SCHULBUS, Frankfurt MoSyD, DAS and ESA) between 1.4% and 7.1% of German adolescents interviewed exhibited cannabis use which would be defined as problematic (Wartberg et al. 2014). The study conducted by Wartberg and colleagues on the decline in performance amongst adolescents as a result of regular cannabis use is presented in the Harms and Harm Reduction workbook.

1.2.4 Synthetic cannabinoids (T1.2.4)

In the context of the Frankfurt pupil survey, school pupils have also been asked about their use of so-called herbal smoke blends since 2008 whilst use of other so-called “legal highs” has been surveyed since 2010. In the current study, 6% of the 15 to 18 year-olds surveyed had consumed a herbal smoke blend with synthetic cannabinoids at least once in their lives, 1% even in the preceding 30 days (see Fig. 4). Other products which contain NPS do not play a role from a quantitative perspective. The lifetime prevalence of herbal smoke blends increased in the reporting year by one percent to 6% but was still below the values from 2009-2012 (7-9%). The 30-day prevalence remains at the level of the previous year at 1% whilst the proportion of persons who had used the drug more than 5 times increased slightly to 0.8%. Overall, the downward trend in the consumption of herb mixtures containing cannabinoids was widely confirmed (Werse et al. 2015).



* Herbal smoke blends: 2002-2007 not recorded; 2008: only "spice".

** Other "legal highs"/"research chemicals": recorded for first time in 2010.

Werse et al. 2015.

Figure 4 Prevalence of the “legal highs” use (herbal smoke blends and others) among Frankfurt pupils (aged 15 to 18), 2002-2014 (MoSyD)

In the scope of the EU project, "Spice II Plus", in which the Freiburg poison control centre was asked for advice, a total of 43 cases of NPS poisoning were analysed (Centre for Drug Research Frankfurt 2015, personal communication). The vast majority of these cases of poisoning occurred in connection with the use of synthetic cannabinoids. Although this in part reflects the prevalence of NPS (Werse et al. 2014; Werse & Morgenstern 2015), the massive over-representation of synthetic cannabis products can be seen as an indication of how dangerous those substances are in comparison to other NPS. Furthermore, cases of poisoning presumably occur more frequently amongst young, less experienced users (Centre for Drug Research Frankfurt 2015, personal communication). For information regarding the most common side effects of NPS see the Harms and Harm Reduction workbook.

2 New developments (T3)

2.1 New developments in the use of cannabis (T3.1)

The current national situation and recent studies are reported above (see A1.1 and A1.2). No additional information is available on new developments in the use of cannabis.

3 Additional information (T4)

3.1 Additional sources of information (T4.1)

No additional sources of information are available on this.

3.2 Further aspects of cannabis use (T4.2)

No further information on further aspects of cannabis use is available.

4 Notes and queries (T5)

There are no notes and queries available.

5 Sources and methodology (T6)

5.1 Sources (T6.1)

Important sources used in this workbook are listed in 0.1

5.2 Methodology (T6.2)

The most important surveys and studies used in this workbook are explained in 0.1.

SECTION B: STIMULANTS

1 National profile (T1)

1.1 Prevalence and trends (T1.1)

1.1.1 The relative importance of different stimulants (T1.1.1)

Throughout Germany a similarly high prevalence of consumption of amphetamine (12-month prevalence 0.7%) and of cocaine (0.8%) is reported among adults between 18 and 64 years (see Tab. 6). Overall ecstasy is more rarely consumed (0.4%); the prevalence for crack is once more significantly lower than that (0.1%). However, the importance of individual stimulants varies widely by region and scene as well as between age groups. The significance of amphetamine and methamphetamine appears to have increased in recent years; considerable growth rates have been observed in part for amphetamine, especially in the indicators from law enforcement authorities (users who come to the attention of the police for the first time, relevant offences, seizures) (NB: crimes of low reportability - the more frequently the police perform checks, the higher the number of known or detected crimes). In the treatment realm, for example, considerably increased demand has been reported in recent years from outpatient counselling facilities and specialist clinics for support due to problems in connection with the use of amphetamine/methamphetamine. In national surveys on prevalence of use in the general public, these clear increases are not seen in the same way.

A general problem, in particular with data from the area of health, is that the coding according to ICD-10 often does not allow any differentiation between amphetamine and methamphetamine. Whilst negative effects in connection with methamphetamine can be seen in some regions of Germany both from the counselling/treatment realm and from law enforcement authorities, in other regions this substance has so far not played a role at all or only a minor role. Variables such as availability and regional preferences are also clearly important in relation to the use of stimulants.

1.1.2 Use of stimulants in the general population (T1.1.2)

The ESA survey 2012 revealed that cocaine is the most commonly used stimulant in Germany with the highest levels both for lifetime and for 12-month prevalence (3.4% and 0.8% respectively) (see Tab. 6). The values for the use of amphetamine are slightly lower than that (3.1% and 0.7% respectively), the 30-day prevalence is slightly higher than that for cocaine (0.4% vs. 0.3% respectively). Slightly lower values are reported for ecstasy; the prevalence levels for the use of crack are even lower still. In the case of cocaine, amphetamine and ecstasy, the lifetime prevalence rates differ very clearly from the 12-month and 30-day prevalence rates, which indicates mainly experimental use. For all substances, the prevalence values stated for men are much higher than those for women. The highest values for the use of amphetamine, ecstasy and crack in the last 12 months are reported by

25 to 29 year-olds. Cocaine users are on average somewhat older, the peak value for 12-month prevalence for cocaine use is amongst 30 to 39 year-olds.

Table 6 Lifetime, 12-month and 30-day prevalence of use of stimulants, 18-64 year-olds (ESA 2012)

Lifetime	Total	Gender		Age groups						
		Male	Female	18-20	21-24	25-29	30-39	40-49	50-59	60-64
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
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
12 months	Total	Male	Female	18-20	21-24	25-29	30-39	40-49	50-59	60-64
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
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
30 days	Total	Male	Female	18-20	21-24	25-29	30-39	40-49	50-59	60-64
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
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

Kraus, L. et al. 2014.

Results from the DAS survey 2011 in the age group of 12 to 25 year-olds can be found in Table 2. In this younger age group, the use of amphetamines is the most prevalent (12-month prevalence 0.4% amongst 12-17 year-olds; 1.6% amongst 18-25 year-olds). Ecstasy (0.2% and 1.0% respectively) and cocaine (0.2% and 0.9% respectively) are used more rarely than amphetamine. The use of crack is practically not reported at all (0.0% for both age groups).

1.1.3 Stimulant use in school and in other population groups (T1.1.3)

In the Frankfurt pupil survey, an increase in experience with ecstasy use was observed as well as in the lifetime and 12-month prevalence rates.

According to the scene study of the CDR on the open drug scene in Frankfurt am Main, the use of cocaine products is very widespread in this scene whilst the significance has increased to a new peak level. Crystal meth does not play any meaningful role in the Frankfurt street drug scene: whilst 17% of respondents had tried the substance, only 1% had used it in the last 30 days and no respondents had used it in the previous 24 hours (Werse & Egger 2015).

Current findings from the Phar-Mon project on new trends in substance abuse in the party scene show that for party-goers MDMA/ecstasy (54.2%) and speed (50.4%) were the most commonly used drug after cannabis (74.4%) in the last 12 months (Hannemann & Piontek 2015, personal communication). According to the findings of the current trend scout study of the Frankfurt MoSyD, the use of chemical stimulants and empathogens is almost completely limited to the "electronic dance music" scenes (techno, house, underground parties, goa). The trend scouts report changing patterns of use such that increasing numbers of people are not limiting their use to weekends ("night life settings") but also use on weekdays. Cocaine continues to play a secondary role compared to other party drugs because it is considered by users to be overpriced whilst impairing communication and weakening the effects of other drugs. There are hardly any reports of the use of crystal meth (Werse et al. 2015).

1.1.4 Commentary on stimulant use (T1.1.4)

Increases in the use of stimulants have been recorded for several years in various data sources, whilst this has not been seen in other sources to the same extent. Overall, it is beyond dispute that the use of methamphetamine in particular causes considerable burdens in some regions of Germany, for example in the health care sector. Relatively speaking, the use of stimulants has grown in significance nationally in recent years in the counselling/treatment segment as well as in the data sources, based on indicators from the law enforcement authorities (see B1.1.1 for a comprehensive description of consumption data).

1.1.5 Interactions in the use of different stimulants (T1.1.5)

There is currently no data available on this topic.

1.2 Patterns, treatment and problem / high risk use (T1.2)

1.2.1 Injecting and other routes of administration (T1.2.1)

Information regarding routes of administration can be found in the Harms and Harm Reduction workbook.

1.2.2 Infectious diseases (T1.2.2)

Information regarding infectious diseases can be found in the Harms and Harm Reduction workbook.

1.2.3 Patterns of use (T1.2.3)

Information on high risk patterns of use can be found in B1.2.5. Findings on patterns of use in particular groups in the population from the MoSyD survey have been reported above in B1.1.3.

1.2.4 Treatment: stimulants (T1.2.4)

Amongst stimulants, crystalline methamphetamine ("crystal meth") has gained in significance in recent years in addiction prevention based on its prevalence especially in border regions (to the Czech Republic). For example, the Land Saxony-Anhalt has since 2010 reported a considerable increase in the requests for counselling in relation to crystal meth (SLS 2015). A similar tendency is observed in Bavaria: in some specialised inpatient facilities for addiction support, crystal meth patients occupy up to 90% of the places. In the correctional institutions, the number of inmates who use crystal meth has risen considerably (Voluntary welfare, Bavaria 2015, personal communication).

In 2013, the German Federal Ministry of Health commissioned a study to address the motives of users of (meth)amphetamine. The aim of the study was to identify relevant groups of people with abusive consumption of amphetamine and methamphetamine and to obtain information on their usage biographies, motives and patterns from them as the basis for possible target group specific preventive measures. The study (Milin et al. 2014) is described in chapter 2.5 of the REITOX Report 2014. Findings of the study show that in 16% of the cases (meth)amphetamine was the first illicit drug of the user and that 22% of the use started at the age of 15 or younger. The study concludes that in Germany there is a need for additional research in the area of treatment and prevention of the use of (meth)amphetamine (Milin et al. 2015). Further information can be found in the Treatment and Prevention workbooks.

1.2.5 High risk use of stimulants (T1.2.5)

The refined estimation method of problem drug use was used to undertake calculations for the target group of clients with cocaine and amphetamine problems (categories F14 and F15 of the ICD-10 classification)⁸ on the basis of the treatment data from 2013 (for a description of the estimation method see section C1.1.2). These reveal an estimate of 71,000-84,000 (2005: 29,000-35,000; 2011: 58,000-69,000; 2012: 64,000-76,000). This corresponds to a prevalence of 1.3-1.6 per 1,000 population amongst 15-64 year-olds (2005: 0.5-0.6; 2011: 1.1-1.3; 2012: 1.2-1.4).⁹ This value increased almost without exception from 2005 to 2013. Only in years 2007 and 2009 a slight decrease was recorded compared to the year before respectively. Estimates based on police data and numbers of deaths are not undertaken for this target group, due to the difficulties mentioned in section C1.1.2.

For the Berlin region, there is an estimate from five different data sources¹⁰ from 2010 and 2011 on substance related disorders amongst 15 to 64 year-old Berliners. A differentiation was made between opioid, cocaine and stimulant related disorders. In Berlin, the estimate

⁸ In previous years the estimates were referring to clients with opioid, cocaine and amphetamine disorders.

⁹ It must be pointed out that there is no way to verify injecting or highly consumption of these substances with the data sources. 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.

¹⁰ (1) Hospital statistics, (2) Criminology statistics, (3) Outpatient addiction support, (4) Inpatient addiction support and (5) Drug deaths statistics.

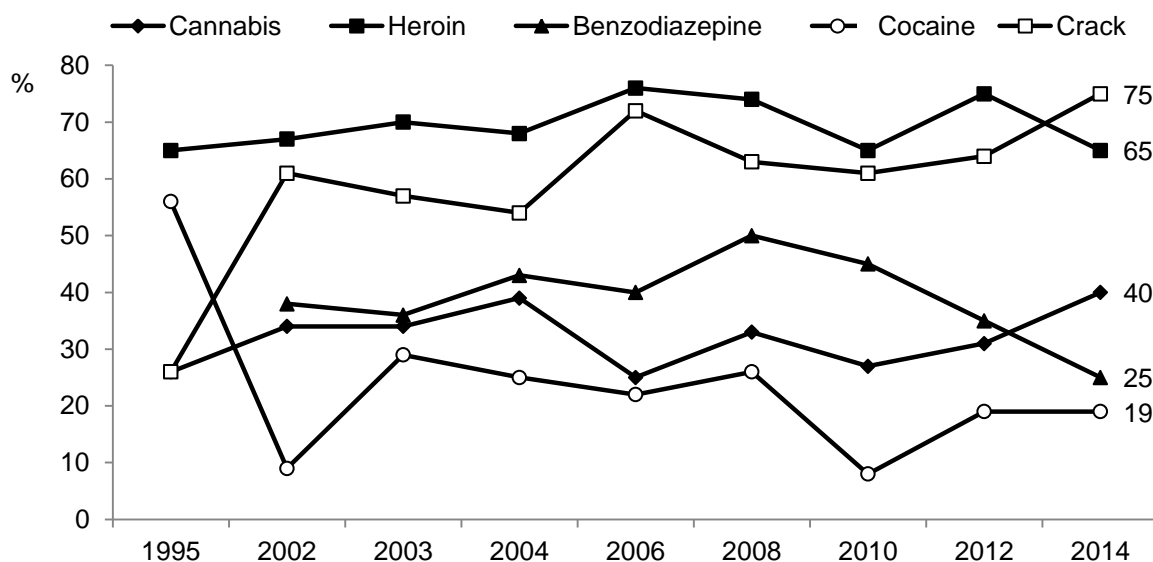
was that there were 5,300-9,500 persons with a cocaine related disorder or a rate of 2-4 disorders per 1,000 population. The existence of stimulant related disorders was estimated at 6,500-9,400 persons or 3-4 disorders per 1,000 population (Kraus et al. 2015).

Estimates in the general population

The most recent ESA survey 2012 revealed figures for the abuse of amphetamines of 0.2% of respondents (approx. 100,000 persons) with a further 0.1% fulfilling the criteria for dependence (approx. 50,000).

Description of the forms of use falling outside of the HRDU definition of the EMCDDA

Figure 5 shows the percentage of respective respondents in the open drug scene in Frankfurt am Main for various drugs (for further information on the study, see section 0.1), that had used that substance intensively - i.e. daily or almost daily - in the last 30 days.



Werse & Egger 2015.

Figure 5 Intensive use of illicit drugs (in %) amongst persons who had used "hard" drugs in the last 30 days, Frankfurt scene study

The highest proportion of intensive users was for the first time seen in connection with crack, at 75%, and not as with previous studies with heroin. In comparison to the previous study, the values have almost precisely swapped, which underlines the current dominance of crack in the street drug scene. Since 1995, the intensive use of crack in the open drug scene in Frankfurt am Main has massively increased overall, whereby a clear jump was observed between 1995 and 2002; this was followed by a slight slowing of the trend which then increased once more before reaching a peak value in the reporting year 2014. For cocaine, in contrast, the opposite trend in intensive use was observed; between 1995 and 2002, the figures for intensive use fell massively before increasing slightly to 2003. Since 2003, the

intensive use of cocaine has stayed roughly constant with some fluctuations (Werse & Egger 2015).

1.2.6 Synthetic cathinones (T1.2.6)

According to the findings of the online survey on the "legal highs" use (for further information and findings of that study, see section D1.1.1), the use of NPS products has switched, without precise declaration, to "research chemicals" with identification of the active substance (Werse & Morgenstern 2015).

The most common symptoms or side effects in relation to NPS were investigated in the scope of the EU project, "Spice II Plus" and are reported in the Harms and Harm Reduction workbook.

2 New developments (T3)

2.1 New developments in the use of stimulants (T3.1)

Current data for the use of stimulants as well as the development in recent years are explained in B1.1.1.

3 Additional information (T4)

3.1 Additional sources of information (T4.1)

Findings of the wastewater analyses conducted in the scope of a European study in 2012 and 2013 confirm large differences between major European cities. In general, the findings agree with the available standard monitoring data. As far as cocaine use is concerned, the findings point to a higher use in large cities compared to smaller towns. In addition, clear geographical differences were determined with higher use in Western Europe and the lowest values in Northern, Eastern and Southern Europe. This is also in line with findings from two similarly sized cities in Germany: values in Dresden (Eastern Germany) are negligible whilst the values in Dortmund (Western Germany) are comparable with the values in Belgian, Dutch and Swiss cities. The German findings confirm the aforementioned trend for geographical differences for the use of amphetamine-like substances - albeit with reversed polarity (higher values in Eastern Germany) (Ort et al. 2014). Additional comprehensive information on this topic and data from wastewater analyses can be found on the EMCDDA website¹¹.

3.2 Further aspects of stimulant use (T4.2)

There is currently no further information available on stimulant use.

4 Notes and queries (T5)

There are currently no notes and queries regarding stimulant use available.

¹¹ <http://www.emcdda.europa.eu/topics/pods/waste-water-analysis> (last accessed: 5 Oct. 2015).

5 Sources and methodology (T6)

5.1 Sources (T6.1)

Important sources used in this workbook are listed in 0.1

5.2 Methodology (T6.2)

The most important surveys and studies used in this workbook are explained in 0.

SECTION C: HEROIN AND OTHER OPIOIDS

1 National profile (T1)

1.1 Prevalence and trends (T1.1)

1.1.1 The relative importance of different opioids (T1.1.1)

In the context of illicit drugs, the use of opioids in Germany is largely identical to the use of heroin or substances which are employed in the scope of substitution based treatment (Polamidon, methadone, buprenorphine). One regional peculiarity seems to be in the use of the synthetic opioid, "fentanyl", which is clearly mainly (or almost exclusively) used by drug dependent persons in Southern Germany especially Bavaria. In this context, appreciable figures for drug-induced deaths have even been reported in connection with fentanyl.

The counselling and treatment system in Germany remains - in the context of illicit drugs - targeted at many locations towards the needs of heroin users and offers a comprehensive range of counselling, treatment, harm reduction (needle exchange, consumption rooms in some German Laender) and social services (sanitary services and accommodation). Overall, the available indicators suggest an aging population of opioid users. The number of first-time requests for counselling/treatment, the number of users coming to the attention of law enforcement for the first time and the number of violations of the German Narcotic Drugs Act (BtMG) due to the use of heroin and other opioids have been declining for years. In contrast to that, there have been repeated local reports of scenes which have been growing once more. A considerable problem associated with the use of opioids is in the prevalence of communicable diseases amongst affected persons (on this point, see also the Harms and Harm Reduction workbook). Only a small amount of data is available regarding the abuse of medicines containing opioids.

1.1.2 Estimates of opioid use (T1.1.2)

Estimates of prevalence and incidence of HRDU

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

However, as it is not possible to eliminate double counting in the police records in Germany when looking at a number of substances and as valid mortality estimates - based on the three multipliers described below - 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 injecting drug use, this form of use is of particular interest when trying to minimize secondary harm. Heroin is primarily associated with injecting

use in Germany despite a slightly falling proportion of injecting use having been observed for some years amongst clients in addiction support facilities. The different user groups are distinguished according to main drug in the estimates of prevalence just as in the description of clients treated and not according to route of administration.

EMCDDA estimate methods (indirect estimates)

For the year 2014 two multiplier methods were recalculated for which the results for the previous years were also available:

- Estimate on the basis of police contacts
Assuming an average consumption period of 8 to 10 years, the number of heroin users who have come to the attention of the police for the first time (incidence), are added 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 on the basis of drug-related deaths
The total number of users of opioids in the population is extrapolated from the figure for drug-related deaths for the year in the general population through the use of a mortality estimate (calculated from the number of deaths in outpatient treatment).

Moreover, the estimate based on the treatment data for the year 2013 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 after a considerable delay, it is not possible for the current REITOX Report to venture an estimate for this multiplier based on data for the year 2014.

- Estimate based on treatment admissions
For this purpose, the overall number of treated cases is first calculated on the basis of reported client figures in outpatient and inpatient treatment as well as the total number of outpatient and inpatient addiction support facilities. On this basis and with the help of a multiplier to reach the target group, the total number of all opioid users requiring treatment is estimated. A more detailed presentation of the estimation method based on treatment data can be found in chapter 4 of the REITOX Reports 2010 and 2014.

All results are only to be taken as rough approximations as different requirements must be taken into account. In particular, the multipliers employed which are based on small case numbers and selective samples have only limited relevance. The methods have been described elsewhere (Kraus et al. 2003). All multiplier methods are subject in themselves to considerable limitations. Changes in prevalence rates, for example, are not necessarily reflected in the demand for treatment. 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 for drug-related deaths also 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 supported 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 high risk heroin users ranging between 56,000 and 169,000 persons (with the estimates of the year 2013 serving as the basis for the calculation). This corresponds to a rate of 1.1 to 3.2 persons per 1,000 population in the age group of 15 to 64 year-olds (Table 7).

Table 7 Estimate of the prevalence of high risk opioid use from 2006 to 2014 (figures in 1000s, age group 15-64 year-olds)

Data source	Reference year									Prevalence per 1,000
	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Treatment ¹⁾	130-154	110-130	164-195	163-194	167-198	171-203	153-182	143-169	2)	2.7-3.2
Police contacts	117-159	108-149	99-137	89-127	81-117	79-106	74-95	68-90	61-84	1.1-1.6
Drug-related deaths	103-130	99-113	117-178	91-119	82-137	63-91	62-65	57-59	56-75	1.1-1.4

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

2) see above section "Estimates of prevalence and incidence of HRDU" on the missing calculation of estimate for 2014 based on treatment data.

DBDD 2015, special calculation.

The estimate based on the "treatment request" multiplier, rose between 2007 and 2011 before falling once more since 2012. This can be traced back to a decline in the numbers of clients treated in both outpatient and inpatient facilities with a primary opioid problem.

The number of heroin users coming to the attention of law enforcement for the first time has been falling sharply for some years (2000: 7,914; 2014: 1,648). The proportion of drug-related deaths that had previously been recorded as users who had come to the attention of the police for the first time, fell between 2003 (n=52) and 2013 (n=33) but rose again slightly in 2014 (n=43). The estimated values for the multiplier "police contacts" have been falling for years.

The estimates of 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 has increased slightly over the past two years (2012: 1.4-1.5%; 2014: 1.4-1.8%). The latter has also risen slightly in the past two years after falling between 2010 and 2012 (2010: 1,237; 2011: 986; 2012: 944; 2013: 1,002; 2014: 1,032). The estimated values for the multiplier "drug-related deaths" fell between 2008 and 2013, however last year the trend has been consolidated.

According to the estimate for substance related disorders in Berlin (see section B1.2.5), the figure for opioid related disorders was at 11,300-16,700 persons in Berlin which corresponds to a rate of 5-7 per 1,000 population. As such, from a European perspective Berlin is at a medium to low level (Kraus et al. 2015).

1.1.3 Commentary on opioid use (T1.1.4)

Overall, the significance of the use of heroin and other opioids has, according to various data sources which supply information on drug use in Germany, decreased in recent years. In particular for younger persons, the use of opioids no longer seems to be attractive (in contrast, for example, to the use of stimulants) so that clients appearing at counselling and treatment facilities represent an aging cohort. This also fits with indicators such as the fact that the average age of victims of drug-induced deaths has been rising for years (c.f. on this point, the Harms and Harm Reduction workbook). Furthermore, the data from law enforcement statistics suggest a negligible significance of the use of and trafficking in heroin. The total number of affected persons does seem, however, not to have changed dramatically in recent years as such persons can survive for longer than was previously possible due to the good situation in terms of treatment options available to them. Today, a first pilot facility also exists for "old" heroin addicts in Unna. One cause for concern is the stagnating or falling number of doctors who offer outpatient substitution based treatment. In this respect, problems of care provision already exist in some rural regions of Germany.

1.2 Patterns, treatment and problem / high risk use (T1.2)

1.2.1 Injecting and other routes of administration (T1.2.1)

Information on patterns of use in the open drug scene in Frankfurt am Main can be found in the Scene Study 2014 (Werse & Egger 2015). The clear decline in the exclusively injecting use of heroin from 74% in 2012 to 58% in 2014 is of particular note. The reports of nasal use and smoking have risen as has the proportion of those who use heroin by injecting as well as other forms. Injecting use continues to take place in the vast majority of cases (72%) in the drug consumption rooms. Injecting use at home has fallen; the proportion of those who inject heroin primarily on the street (in the area stations) has tripled in recent years and is now at 18%. Information on the routes of administration which predominate in the drug consumption rooms is reported in the Harms and Harm Reduction workbook in section 1.5.3 "Measures for harm reduction".

1.2.2 Infectious diseases (T1.2.2)

Information regarding infectious diseases amongst drug users can be found in the Harms and Harm Reduction workbook.

1.2.3 Patterns of use (T1.2.3)

In the current scene study of the Frankfurt MoSyD, it is evident that heroin (together with crack) remains by far the most commonly used drug in the street drug scene. Almost all

respondents had experience of use in this respect; almost two thirds had used heroin in the previous 24 hours. With that figure, heroin use has slightly fallen and is at a medium level compared to the whole period. As in the previous years, a large proportion of the interviewed members of the scene exhibited polydrug use. On average, the respondents had taken 4.4 different drugs in the previous 30 days and 2.7 different drugs in the previous 24 hours. The value for the previous 24 hours is the highest of all previous surveys. Not only the number of drugs used but also the intensity of use is trending upwards. The proportion of respondents who were using non-prescribed substitution drugs at the time of the survey increased slightly. 19% had taken black market methadone and 11% had taken black market buprenorphine in the previous 30 days (Werse & Egger 2015).

1.2.4 Treatment: heroin and other opioids (T1.2.4)

Substitution based treatment is - after detoxification - the most commonly used form of intervention amongst heroin / opioid addicts. In addition to that, there are, in particular in an inpatient context, direct, abstinence based rehabilitation services. Information on the treatment of opioid users can be found in the Treatment workbook.

2 New developments (T3)

2.1 New developments in the use of heroin and other opioids (T3.1)

Aside from the situation described above, there are no known notable current developments.

3 Additional information (T4)

Important sources are described above (see 0.1). Further sources on topics such as injecting behaviour, infectious diseases and harm reduction amongst opioid users can be found in the Harms and Harm Reduction workbook.

3.1 Further aspects of heroin and opioid use (T4.2)

No further information on further aspects of the use of heroin and opioids is currently available.

4 Notes and queries (T5)

There are currently no notes and queries available.

5 Sources and methodology (T6)

5.1 Sources (T6.1)

Important sources used in this workbook are listed in 0.1

5.2 Methodology (T6.2)

The most important surveys and studies used in this workbook are explained in 0.1.

SECTION D: NEW PSYCHOACTIVE SUBSTANCES (NPS) AND OTHER DRUGS

1 National Profile (T1)

1.1 New Psychoactive Substances (NPS), other new or novel drugs and less common drugs (T1.1)

1.1.1 Use of NPS: Prevalence and trends (T1.1.1)

A current phenomenon in connection with the use of psychoactive substances is represented by the so-called "new psychoactive substances" (NPS) which include, amongst other things, "research chemicals" (RC) and "legal highs". According to the CJEU judgement of 10 July 2014, the German Medicinal Products Act (AMG) can no longer be used without further reasons to prohibit the trade with these substances. "Research chemicals" is used in circles of drug users open to experimental use to describe synthetic psychoactive substances of various substance categories (e.g. piperazine, cathinone or cannabinomimetic substances) - often in pure substance form - that have not (yet) been brought within the scope of the German Narcotic Drugs Act (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, such substances are packaged and disguised as "bath salts", "fertiliser tablets", "air fresheners" or the like (without the specific substances contained being indicated) and sold by online traders or even by some brick-and-mortar head shops.

The situation regarding the data on the prevalence of use of so-called "legal highs" and related products remains unsatisfactory. Overall, the (small amount of) data available suggests that the use in the general population remains relatively low. Nevertheless, they seem to have established themselves as a permanent fixture in certain drug scenes. Gathering reliable epidemiological data on this segment is associated with significant difficulties and will certainly be a subject of future studies against the backdrop of changing consumption habits.

According to the expert panel of the Frankfurt MoSyd, NPS continue to play a more minor role in terms of drug use. NPS are primarily purchased via the internet and predominantly in the form of herbal smoke blends as cannabis substitutes. They are only significant amongst experienced "psychonauts" and are purchased and used in this area as research chemicals (pure substances). From a law enforcement perspective, there are few measures which are related to NPS. Overall, NPS are still only used by small numbers of people. One reason for this is likely that the use is associated with high risk due to the unclear health effects (Werse et al. 2015).

Since 2008, school pupils have also been asked in the Frankfurt pupil survey about their use of so-called herbal smoke blends; since 2010 use of other so-called “legal highs” has also been surveyed. The findings show that, 6% of 15 to 18 year-olds had used a herbal smoke blend with synthetic cannabinoids at least once in their lives (see section A1.2.4). Other NPS are insignificant from a quantitative perspective (Werse et al. 2015).

The Centre for Drug Research at the Frankfurt Goethe University conducted an online survey amongst users of NPS in the scope of the EU project "Spice II Plus". This was already the second time it had conducted such a survey. The objective of the survey was to reach a larger sample of persons with experience of use through which differentiated conclusions regarding NPS users would be possible. For the purposes of structuring the survey, three categories of NPS products were used: a) "Research Chemicals", b) "Herbal Smoke Blends" / "Spice Products", and c) Psychoactive Substances such as "Bath Salts", "Plant Fertiliser" etc. ("Other Legal Highs"). In the current survey, a lower use of NPS was reported than in 2011. In general, herbal smoke blends or synthetic cannabinoids are used far more commonly as a result of their legality than is the case for research chemicals; the significance of legal availability as a motivation for use has fallen since the first survey in 2011, however. As early as 2011, there was a considerable regional focal point in Bavaria. In the current survey, there were even higher numbers of Bavarian respondents represented, in particular in the case of the use of herbal smoke blends. In light of the low values for current use, the authors assumed that the NPS phenomenon had exceeded its peak. The use is concentrated more strongly on a small, presumably mostly well-informed, group as well as on regions with more repressive drug policies (Werse & Morgenstern 2015).

According to current findings from the Phar-Mon project on new trends in substance abuse in the party scene, a total of 18.8% of the sample had used NPS in the previous 12 months. Information on the specified NPS was collected and listed in a glossary which contains over 90 novel substances and mentions of medicines (Hannemann & Piontek 2015, personal communication).

The non-representative study on recreational use conducted in the scope of the MAG-NET 2 project¹² indicates a likely low significance of NPS. The sample from the study conducted in 2013-2014 comprised 1,381 validated interviews and investigated various recreational settings. Across all age groups, NPS were only rarely represented (5.5% lifetime prevalence, 49% of whom had not used in the last 12 months) (Kraus, A. et al. 2014).

1.1.2 Harms related to NPS use (T1.1.2)

The most common side effects of NPS were investigated in the scope of the EU project, "Spice II Plus" (see Harms and Harm Reduction workbook, section 1.4)

¹² www.mag-net.eu (last accessed: 5 Oct. 2015).

1.1.3 Use of other drugs: prevalence, trends and harms (T1.1.3)

The trend scout panel of the MoSyD (Werse et al. 2015) also provides information on some drugs which have come to attention recently in Frankfurt. According to the study, ketamine has become established as a party drug in the techno and tech-house scene amongst experienced users. It is used by users open to experimenting in combination with other substances; in particular, combinations with MDMA and/or cocaine are popular. In part, the different drugs are mixed prior to use (instead of being taken one after the other) which makes it difficult to be precise with the dosaging. There are indications that ketamine is also used by some members of the scene during the week as well, as they do not cause a hangover, only have a short effective duration and thus can be easily integrated into daily life.

In a small group within the techno scene, the drug methoxetamine, an illegal ketamine "substitute substance", has emerged which had not established itself in the past as many users found its effects to be unpleasant.

From Frankfurt, an increasing prevalence of the use of mephedrone has been reported, especially amongst homosexual users. According to the reports, the use in Frankfurt occurs mainly amongst relatively older users (around 30 years old) who have already had experience with other drugs.

1.1.4 Medical drug abuse

Overview

In the current publication of the findings of the ESA, it is reported that 3.4% of the 18-64 year-olds polled exhibited the criteria for dependence on painkillers (Pabst et al. 2013). In addition, 1.4% of respondents exhibited an addiction to tranquilisers and 0.8% an addiction to sleep inducing substances. Extrapolating to the total number of all persons dependent on painkillers, sleep inducing substances and tranquilisers in Germany produces a figure of 2.31 million and is thus higher than the value for persons dependent on alcohol (1.77 million).

Estimates from the German Epidemiological Health Survey (DEGS) revealed, in contrast, merely a 12-month prevalence of medication dependence (stimulants, tranquilisers, painkillers and sleep inducing substances) was at 0.5% (Jacobi et al. 2014), which corresponds to 0.3 million persons between the ages of 18 and 79. Due to clear differences in the methodological approach, the inclusion criteria and the medications covered, the findings of the two studies cannot be compared with one another.

The prescription numbers from the statutory health insurance providers can provide indications of how widespread a medicinal product is as well as information on trends of medicinal product misuse. In the last few years, there have been noticeable changes in the structure of prescribing psychotropic pharmaceutical drugs in Germany. Prescriptions of sedatives/hypnotics fell by 76% between 1992 and 2012 (Schwabe & Paffrath 2013). At the same time, the number of private prescriptions for this category of pharmaceutical drugs rose (Glaeske & Schick Tanz 2012; Hoffmann & Glaeske 2014). There are even indications that

doctors are prescribing these substances on private prescriptions beyond the health provider data deemed as transparent, at least for zolpidem and zopiclone (Hoffmann et al. 2009). In 2012, a total of 105 million defined daily doses (DDD) of benzodiazepines and z-drugs were prescribed (Schwabe & Paffrath 2013). Zolpidem is prescribed on private prescription more frequently than zopiclone which can be taken as an indication of a greater misuse and dependence potential of zolpidem. At the same time, z-drugs are considered by British and German family doctors to be more effective, safe and much less prone to misuse when compared to benzodiazepines (Hoffmann & Glaeske 2014). As far as painkillers are concerned, opioid analgesics were prescribed three times as often in 2012 as in 1997, so that a peak of 403 DDD was reached (Schwabe & Paffrath 2013).

In the scope of treatment of medication dependence, a current pilot project was produced covering outpatient withdrawal treatment of benzodiazepine dependent patients. The objective of the project was to enable local and low threshold offers of outpatient withdrawal treatment for older patients in cooperation with the doctor and pharmacist. 45% of the patients were abstinent after the project finished and a further 28% were able to reduce their dosage levels. 80% of the patients who became abstinent or were able to reduce their doses, reported that they had not suffered a relapse three months after the end of the intervention (ABDA 2013).

Data from the Phar-Mon monitoring system

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 2014, data was collected from N=32 reference facilities participating in the project. 31 of the facilities contacted reported a total of 970 mentions of a misuse of medical drugs by 737 clients. These mentions come mostly from men (71.5%) and persons with the main diagnosis of addiction or harmful use of opioids (n=538, 73.0%).

The most commonly misused category of medical drug was substitution substances at 51.2% (n=497). In second and third place were sedatives/hypnotics at 23.2% (n=225) and analgesics at 10.5% (n=102). The most common mentions of individual active substances in the total sample were methadone (n=242, 24.9%), buprenorphine (n=154, 15.9%), diazepam (n=130, 13.4%) and levomethadone (n=101, 10.4%).

As the patterns of use varied widely according to main diagnosis of the clients, cases of misuse in the Phar-Mon are presented separately according to the main diagnosis groups, alcohol, opioids and sedatives/hypnotics.

The main diagnosis group of alcohol features an abuse of various different types of medicinal drug whilst abuse in the main diagnosis groups of opioids and sedatives/hypnotics are

relatively concentrated on a few types. Amongst clients with alcohol related disorders, the most commonly abused substances were sedatives/hypnotics (n=30, 39.5%), including above all benzodiazepines. The second most commonly abused type of medicinal drug was analgesics (n=21, 27.6%). Z-drugs were misused more rarely (n=7, 9.2%). Amongst the active ingredients, the most common mentions were for diazepam (n=10, 13.2%) and lorazepam (n=9, 11.8%) as well as ibuprofen (n=10, 13.2%).

Amongst clients with the main diagnosis of dependence or harmful use of opioids, substitution substances were most commonly misused (n=450, 62.6%) whereby methadone was most commonly mentioned (n=227, 32.1%), followed by buprenorphine (n=130, 18.4%) and levomethadone (n=93, 13.2%). Amongst the other types of medicinal drugs, misuse is seen in particular in connection with sedatives/hypnotics at 17.8% (n=126) and anticonvulsants at 9.3% (n=66). For active ingredients, diazepam (n=99, 14.0%) and clonazepam (n=49, 6.9%) were the dominant substances.

In line with the main diagnosis of sedatives/hypnotics, clients in this group most commonly (50.0%, n=30) misused sedatives/hypnotics. In second and third place of the misused type of medicinal drugs were analgesics at 20.0% (n=12) and substitution substances at 10.0% (n=6). As far as the active substances were concerned, the most mentions were for the opioid analgesics tramadol (n=5, 8.3%) and tilidine (n=3, 5.0%) (Phar-Mon 2015, personal communication).

Data from Frankfurt

According to the current findings from the Frankfurt scene study the clear decline in use of benzodiazepine continued in 2014. Only 13% of users in the open drug scene in Frankfurt reported having used those substances in the previous 24 hours; in 2010 the proportion was almost half of the respondents. Flunitrazepam, which was brought within the German Narcotic Drugs Act (BtMG) in 2011, hardly plays a role today, with a 24-hour prevalence rate of 1%, due to a lack of availability. The overall decline in prevalence is likely primarily due to the fact that other benzodiazepines are not as popular as flunitrazepam; they are, at least, used to a much lesser extent despite very good availability and low prices (Werse & Egger 2015).

According to the findings of the current Frankfurt pupil survey, 4% of respondents had taken psychoactive medicinal drugs at some time in the past, with the aim of becoming intoxicated or influencing their performance. Less than 1% (n=4) of those had used those medicines in the previous 30 days (Werse et al. 2015).

Data from other sources

In a systematic literature review by Erbe and Bschor (2013), the risks of diphenhydramine (DPH) dependence were raised. A PubMed research project between 1972 and 2012 revealed proven evidence of the addiction potential of DPH, in particular amongst patients with a history of dependence.

2 New developments (T3)

2.1 New developments in the use of NPS and other drugs (T3.1)

No information beyond that reported above is available.

3 Additional information (T4)

3.1 Additional sources of information (T4.1)

In the scope of an EU funded INTERREG project (Germany / Austria), alcohol and benzodiazepine consumption among the elderly in hospitals and nursing homes in the project region (The Austrian State (Land) of Salzburg and the administrative districts of Berchtesgadener Land and Traunstein) was studied. In that project, in addition to third party reports and self reports, for the first time objective biomarkers such as ethyl glucuronide in urine and hair as well as a laboratory analysis using liquid chromatography to test for benzodiazepine.

The findings from the hair analysis showed that 34.2% of the nursing home residents and 28.6% of patients in hospitals used benzodiazepine. For 68% of the residents of the nursing homes who tested positive for benzodiazepine, the care staff assumed that no benzodiazepine is prescribed. The situation is similar in respect of excessive alcohol consumption which is considerably underestimated by 60% of the care staff. The demographic development of the population poses new challenges for addiction support and care for the elderly and requires increased attention on the topic of addiction in old age. The authors conclude that there is a need for new methods to measure addiction problems in old age and a range of age specific therapy and treatment programmes should be established in the support systems (Kunz et al. 2014).

3.2 Further aspects of NPS and other drug use (T4.2)

No further information on further aspects of the use of NPS and other drugs is currently available.

4 Notes and queries (T5)

There are currently no notes and queries available.

5 Sources and methodology (T6)

5.1 Sources (T6.1)

Important sources used in this workbook are listed in 0.1

5.2 Methodology (T6.2)

The most important surveys and studies used in this workbook are explained in 0.1.

SECTION E: BIBLIOGRAPHY

1 Bibliography

- ABDA (Bundesvereinigung Deutscher Apothekerverbände) (2013). Modellprojekt Ambulanter Entzug Benzodiazepin-abhängiger Patienten in Zusammenarbeit von Apotheker und Hausarzt, Berlin.
- Baldus, C., Haevelmann, A., Reis, O. & Thomasius, R. (2014). Internalisierendes Problemverhalten und Cannabiskonsum: Zusammenhänge und Einflussvariablen in einer Querschnittsuntersuchung 14- bis 23-jähriger Cannabiskonsumenden. Praxis der Kinderpsychologie und Kinderpsychiatrie **63** (3) 200-218.
- Baumgärtner, T. (2013). "Risikogruppen in der aktuellen Hamburger SCHULBUS-Studie. **Schüler- und Lehrerbefragungen zum Umgang mit Suchtmitteln**", in *DZSKJ-Fachtagung 2013 "Risikogruppen in der Suchtprävention"*, Büro für Suchtprävention der Hamburgischen Landesstelle für Suchtfragen e.V., Hamburg.
- Baumgärtner, T. & Kestler, J. (2013). Die Verbreitung des Suchtmittelgebrauchs unter Jugendlichen in Hamburg 2004 bis 2012. Basisauswertung der SCHULBUS-Daten im jahresübergreifenden Vergleich. Kurzbericht. Büro für Suchtprävention der Hamburgischen Landesstelle für Suchtfragen e.V., Hamburg.
- Baumgärtner, T. & Kestler, J. (2014). Suchtmittelgebrauch, Computerspielverhalten, Internetnutzung und Glücksspielerfahrungen von Jugendlichen in Hamburg und drei kommunalen Modellregionen in Deutschland - Deskriptive Ergebnisse der SCHULBUS-regional-Studie 2012. Büro für Suchtprävention der Hamburgischen Landesstelle für Suchtfragen e.V., Hamburg.
- Behrendt, S., Wittchen, H.-U., Höfler, M., Lieb, R., & Beesdo, K. (2009). Transitions from first substance use to substance use disorder in adolescence: Is early onset associated with a rapid escalation? Drug and Alcohol Dependence **99** (1-3) 68-78.
- BZgA (Bundeszentrale für gesundheitliche Aufklärung) (2007). Cannabiskonsum der Jugendlichen und jungen Erwachsenen in Deutschland. Ergebnisse der Repräsentativbefragungen der Bundeszentrale für gesundheitliche Aufklärung. Kurzbericht Juni 2007. BZgA, Köln.
- BZgA (Bundeszentrale für gesundheitliche Aufklärung) (2011). Der Cannabiskonsum Jugendlicher und junger Erwachsener in Deutschland 2010. Ergebnisse einer aktuellen Repräsentativbefragung und Trends. BZgA, Köln.
- BZgA (Bundeszentrale für gesundheitliche Aufklärung) (2012). Die Drogenaffinität Jugendlicher in der Bundesrepublik Deutschland 2011. Der Konsum von Alkohol, Tabak und illegalen Drogen: aktuelle Verbreitung und Trends. BZgA, Köln.
- BZgA (Bundeszentrale für gesundheitliche Aufklärung) (2014). Der Cannabiskonsum Jugendlicher und junger Erwachsener in Deutschland 2012. Ergebnisse einer aktuellen Repräsentativbefragung und Trends. BZgA, Köln.
- DHS (Deutsche Hauptstelle für Suchtfragen) (2010). Deutscher Kerndatensatz zur Dokumentation im Bereich der Suchtkrankenhilfe. Definitionen und Erläuterungen zum

- Gebrauch. Stand: 05.10.2010 [online]. Hamm. Available: http://www.dhs.de/fileadmin/user_upload/pdf/Arbeitsfeld_Statistik/KDS_Manual_10_2010.pdf [last accessed: 05.10.2015].
- Dilling, H., Mombour, W. & Schmidt, M. H. (2005). Internationale Klassifikation psychischer Störungen. ICD-10 Kapitel V(F). Klinisch-diagnostische Leitlinien. 5. durchges. und ergänzte Aufl. Huber, Bern.
- Erbe, S. & Bschor, T. (2013). Diphenhydramin-Abhängigkeit und -Entzug. Psychiatrische Praxis **40** (5) 248-251.
- Glaeske, G. & Schickanz, C. (2012). GEK-Arzneimittel-Report 2012. Asgard-Verlagsservice GmbH, Siegburg.
- Gomes de Matos, E., Kraus, L., Pabst, A. & Piontek, D. (2014). Trends im Substanzkonsum Jugendlicher: Gibt es regionale Unterschiede? Sucht **60** (3) 163-172.
- Hoch, E., Bonnet, U., Thomasius, R., Ganzer, F., Havemann-Reinecke, U. & Preuss, U. W. (2015). Risiken bei nichtmedizinischem Gebrauch von Cannabis. Deutsches Ärzteblatt **112** (16) 271-278.
- Hoffmann, F. & Glaeske, G. (2014). Benzodiazepinhypnotika, Zolpidem und Zopiclon auf Privatrezept. Verbrauch zwischen 1993 und 2012. Der Nervenarzt **85** (11) 1402-1409.
- Hoffmann, F., Scharffetter, W. & Glaeske, G. (2009). Verbrauch von Zolpidem und Zopiclon auf Privatrezepten zwischen 1993 und 2007. Der Nervenarzt **80** (5) 578-583.
- Jacobi, F., Höfler, M., Strehle, J., Mack, S., Gerschler, A., Scholl, L., Busch, M. A., Maske, U., Hapke, U., Gaebel, W., Maier, W., Wagner, M., Zielasek, J. & Wittchen, H.-U. (2014). Psychische Störungen in der Allgemeinbevölkerung. Studie zur Gesundheit Erwachsener in Deutschland und ihr Zusatzmodul Psychische Gesundheit (DEGS1-MH). Der Nervenarzt **85** (1) 77-87.
- Kleiber, D. & Soellner, R. (1998). Cannabiskonsum. Entwicklungstendenzen, Konsummuster und Risiken. Juventa, Weinheim.
- Kraus, A., Both, L., & Paulos, C. (2014). "Freizeitkonsum in der Großregion. Aktivitäten, Ergebnisse und offene Fragen", in *Jahresabschlussitzung Beirat Saarbrücker Gesundheitsforum und Runder Tisch Kindergesundheit*.
- Kraus, L., Augustin, R., Frischer, M., Kümmeler, P., Uhl, A. & Wiessing, L. (2003). Estimating prevalence of problem drug use at national level in countries of the European Union and Norway. Addiction **98** (4) 471-485.
- Kraus, L., Pabst, A. & Piontek, D. (2012). Europäische Schülerstudie zu Alkohol und anderen Drogen 2011 (ESPAD). Befragung von Schülerinnen und Schülern der 9. und 10. Klasse in Bayern, Berlin, Brandenburg, Mecklenburg-Vorpommern und Thüringen. IFT-Berichte Bd. 181. IFT Institut für Therapieforchung, München.
- Kraus, L., Piontek, D., Pabst, A. & Gomes de Matos, E. (2013a). Studiendesign und Methodik des Epidemiologischen Suchtsurveys 2012. Sucht **59** (6) 309-320.
- Kraus, L., Pabst, A., Piontek, D. & Gomes de Matos, E. (2013b). Substanzkonsum und substanzbezogene Störungen: Trends in Deutschland 1980-2012. Sucht **59** (6) 333-345.
- Kraus, L., Pabst, A., Gomes de Matos, E. & Piontek, D. (2014). Kurzbericht Epidemiologischer Suchtsurvey 2012. Tabellenband: Prävalenz des Konsums illegaler

- Drogen, multipler Drogenerfahrung und drogenbezogener Störungen nach Geschlecht und Alter im Jahr 2012 [online]. IFT Institut für Therapieforschung, München. Available: [http://esa-survey.de/fileadmin/user_upload/Literatur/Berichte/ESA 2012 Drogen-Kurzbericht.pdf](http://esa-survey.de/fileadmin/user_upload/Literatur/Berichte/ESA_2012_Drogen-Kurzbericht.pdf) [last accessed: 05.10.2015].
- Kraus, L., Steppan, M. & Piontek, D. (2015). Schätzung der Prävalenz substanzbezogener Störungen in Berlin: Opioide, Kokain und Stimulanzien. IFT Institut für Therapieforschung, München.
- Kunz, I., Dreher, M., Schmidt, V., Lang, S., Hoffmann, R., Auwärter, V., Yegles, M., Kühberger, A., Laireiter, A., Iglseider, B., Thon, N. & Wurst, F. M. (2014). Alkohol- und Benzodiazepinkonsum bei älteren und hochbetagten Menschen - Ergebnisse aus dem INTERREG-Projekt Alter und Sucht. Suchttherapie **15** (3) 105-112.
- Lampert, T., Kuntz, B. & KiGGS Study Group (2014). Tabak- und Alkoholkonsum bei 11- bis 17-jährigen Jugendlichen. Ergebnisse der KiGGS-Studie - Erste Folgebefragung (KiGGS Welle 1). Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz **57** (7) 830-839.
- Lampert, T. & Thamm, M. (2007). Tabak-, Alkohol- und Drogenkonsum von Jugendlichen in Deutschland - Ergebnisse des Kinder- und Jugendgesundheitsveys (KiGGS). Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz **50** (5/6) 600-608.
- Landschaftsverband Westfalen-Lippe, LWL-Koordinationsstelle Sucht (2014). Suchtmittelkonsum und suchtbezogene Problemlage von Kindern und Jugendlichen in stationärer Jugendhilfe, Forum Sucht Sonderband 8. LWL-Koordinationsstelle Sucht, Münster.
- Legleye, S., Piontek, D., Pampel, F., Goffette, C., Khat, M. & Kraus, L. (2014). Is there a cannabis epidemic model? Evidence from France, Germany and USA. International Journal of Drug Policy **25** (6) 1103-1112.
- Milin, S., Lotzin, A., Degkwitz, P., Verthein, U. & Schäfer, I. (2014). Amphetamin und Methamphetamin - Personengruppen mit missbräuchlichem Konsum und Ansatzpunkte für präventive Maßnahmen. Sachbericht. Zentrum für Interdisziplinäre Suchtforschung (ZIS) der Universität Hamburg, Hamburg.
- Milin, S., Lotzin, A., Degkwitz, P., Verthein, U. & Schäfer, I. (2015). "Methamphetamine user groups in Germany: results of a nationwide study", in *18th Annual Conference of the European Association of Substance Abuse Research (EASAR)*.
- Ministerium für Umwelt, Gesundheit und Verbraucherschutz des Landes Brandenburg (2014). Suchtproblematik im Land Brandenburg, Inpuncto 05/2014. Ministerium für Umwelt, Gesundheit und Verbraucherschutz des Landes Brandenburg, Potsdam.
- Ort, C., van Nuijs, A. L. N., Berset, J.-D., Bijlsma, L., Castiglioni, S., Covaci, A., de Voogt, P., Emke, E., Fatta-Kassinos, D., Griffiths, P., Hernández, F., Gonzálo-Marino, I., Grabic, R., Kasprzyk-Hodern, B., Mastroianni, N., Meierjohann, A., Nefau, T., Östman, M., Pico, Y., Racamonde, I., Reid, M., Slobodnik, J., Terzic, S., Thomaidis, N. & von Thomas, K. (2014). Spatial differences and temporal changes in illicit drug use in Europe quantified by wastewater analysis. Addiction **109** (8) 1338-1352.

- Orth, B. & Töppich, J. (2015). Der Alkoholkonsum Jugendlicher und junger Erwachsener in Deutschland 2014. Ergebnisse einer aktuellen Repräsentativbefragung und Trends. BZgA, Köln.
- Ottova, V., Hillebrandt, D., Kolip, P., Hoffarth, K., Bucksch, J., Melzer, W., Klocke, A., Richter, M., Ravens-Sieberer, U. & das HBSC-Team Deutschland (2012). Die HBSC-Studie in Deutschland - Studiendesign und Methodik. Das Gesundheitswesen **74** (Suppl 1) S8-S14.
- Pabst, A., Kraus, L., Gomes de Matos, E. & Piontek, D. (2013). Substanzkonsum und substanzbezogene Störungen in Deutschland im Jahr 2012. Sucht **59** (6) 321-331.
- Perkonig, A., Bühringer, G., Arnold, M., Böhm, M., Antoni, J., Gorgas, B., Hirtsiefer, F., Kronthaler, F., Küfner, H., Lubinski, A., Rieger, W., Sonntag, D., Tretter, F., Wiggerhauser, K. & Wittchen, H.-U. (2008). Verbesserung in der Suchthilfe durch evidenzbasierten Wissenstransfer. Suchtmedizin in Forschung und Praxis **10** (3) 151-163.
- Pfeiffer-Gerschel, T., Jakob, L., Stumpf, D., Budde, A. & Rummel, C. (2014). Bericht 2014 des nationalen REITOX-Knotenpunkts an die EBDD. Neue Entwicklungen und Trends. Deutschland. Drogensituation 2013/2014. Deutsche Beobachtungsstelle für Drogen und Drogensucht (DBDD), München.
- Schettino, J., Leuschner, F., Kasten, L., Tossmann, P. & Hoch, E. (2015). Treatment of cannabis-related disorders in Europe. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), Luxembourg.
- Schwabe, U. & Paffrath, D. (Hrsg.) (2013). Arzneiverordnungs-Report 2013. Springer-Verlag, Berlin, Heidelberg.
- SLS (Sächsische Landesstelle gegen die Suchtgefahren e.V) (2015). Sucht 2014. Bericht der Suchtkrankenhilfe in Sachsen. SLS, Dresden.
- ter Bogt, T. F., de Looze, M., Molcho, M., Godeau, E., Hublet, A., Kokkevi, A., Kuntsche, E., Gabhainn, S. N., Pejnovic Franelic, I., Simons-Morton, B., Sznitman, S., Vieno, A., Vollebergh, W. & Pickett, W. (2014). Do societal wealth, family affluence and gender account for trends in adolescent cannabis use? A 30 country cross-national study. Addiction **109** (2) 273-283.
- Tretter, F. & Kraus, L. (2004). Stadtspezifische Prävalenz des Drogenkonsums und ihre Ursachen. Sucht **50** (1) 5-7.
- Wartberg, L., Thomsen, M. & Thomasius, R. (2014). Gedächtnis- und Aufmerksamkeitsfunktionen bei Jugendlichen mit intensivem regelmäßigem Cannabiskonsum. Zeitschrift für Neuropsychologie **25** (3) 165-176.
- Werse, B. & Egger, D. (2015). MoSyD Szenestudie 2014. Centre for Drug Research, Goethe Universität Frankfurt am Main, Frankfurt am Main.
- Werse, B. & Morgenstern, C. (2015). Der Trend geht zur Reinsubstanz - Entwicklungen im Konsum von "Legal Highs"/neuen psychoaktiven Substanzen (NPS) auf Basis zweier Online-Befragungen. Suchttherapie **16** (1) 36-41.
- Werse, B., Morgenstern, C., & Sarvari, L. (2014). MoSyD Jahresbericht 2013. Drogentrends in Frankfurt am Main. CDR Centre for Drug Research, Frankfurt am Main.

- Werse, B., Kamphausen, G., Egger, D., Sarvari, L. & Müller, D. (2015). MoSyD Jahresbericht 2014. Drogentrends in Frankfurt am Main. CDR Centre for Drug Research, Frankfurt am Main.
- Wittchen, H.-U., Beloch, E., Garczynski, E., Holly, A., Lachner, G., Perkonig, A., Pfütze, E.-M., Schuster, P., Vodemaier, A., Vossen, A., Wunderlich, U. & Zieglgänsberger, S. (1995). Münchener Composite International Diagnostic Interview (M-CIDI), Paper-pencil 2.2, 2/95. Max-Planck-Institut für Psychiatrie, Klinisches Institut, München.
- Wittchen, H.-U., Behrendt, S., Höfler, M., Perkonig, A., Lieb, R., Bühringer, G. & Beesdo, K. (2008). What are the high risk periods for incident substance use and transitions to abuse and dependence? Implications for early intervention and prevention. International Journal of Methods in Psychiatric Research **17** (S1) S16-S29.

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