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Drugs

GERMANY

2020 Report of the national

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(Data year 2019/2020)

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0 Summary (T0)

0.1 Drug use and the main illicit drugs (T0.1)

0.1.1 Drug use in the general population

In Germany, epidemiological data on drug use and drug users is available mainly on the basis of repeated national, representative surveys. Several well-established studies make data available at regular intervals on the use of various illicit drugs in the general population. The Drug Affinity Study (Drogenaffinitätsstudie, DAS) (most recently: (Orth und Merkel, 2020)) is an analysis of substance use among adolescents and young adults (age groups: 12-17 and 18-25 years) on a long-term basis. The Epidemiological Survey of Substance Abuse (Epidemiologischer Suchtsurvey, ESA) examines the adult residential population in the age group 18-64 (Seitz et al., 2019b).

According to the population surveys, in 2018 approx. 15.2 million adults between 18-64 (Seitz et al., 2019b) and in 2019 around 479,000 adolescents aged between 12 to 17 years old[1] (Orth und Merkel, 2020) in Germany had used an illicit drug at least once in their life. This corresponds to a lifetime prevalence of 29.5% and 10.6% respectively. Based on the last 12 months, a prevalence of 8.3% of 4.2 million adult and 375,000 adolescent users respectively can be assumed. In the previous 30 days, 3.3% and 4.0% of around 1.7 million adults and 181,000 adolescents respectively had taken illicit drugs (Table 1). Cannabis plays the most prominent role of all illicit drugs among both adolescents and adults. In comparison to other drugs, the substance clearly predominates, with a 12-month prevalence of 8.1% among 12 to 17-year-olds and 7.1% among 18 to 64-year-olds. The proportion of adolescents and adults who have consumed any other illicit drug in the same time period is 1.1% and 2.4% respectively (Table 2).

In contrast to cannabis, the 12-month prevalence rates of all other individual substances is under 1% both for adolescents (DAS) and adults (ESA). Among 12 to 17-year-olds, ecstasy (0.5%) as well as amphetamine and psychoactive plants (0.3% each) and cocaine and LSD (0.2% each) are the most frequently consumed drugs after cannabis. Among adults aged 18-64, amphetamines (1.2%), new psychoactive substances (0.9%) as well as ecstasy and cocaine/crack (1.1% each) are the drugs, in addition to cannabis, which have notable prevalence rates. The same pattern, only at an overall higher level, is seen in the group of young adults (18-25 years old/DAS). The individual 12-month prevalence rates for the other illicit drugs other than cannabis[2] range from 0.1% (heroin and inhalants) to 3.6% (ecstasy) (Orth und Merkel, 2020).

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1 Current results from the DAS on young adults aged 18 to 25 years are presented in Tables 1 and 2.

2 Ecstasy, LSD, amphetamine, crystal meth, cocaine, crack, heroin, new psychoactive substances, inhalants and psychoactive plants.

Table 1 Prevalence of use of any illicit drug in Germany

	Source[1)]	Age	Prevalence	Extrapolation[2)]
Lifetime	ESA 2018	18-64	29.5%	15,206,000
	DAS 2019	12-17	10.6%	479,000
	DAS 2019	18-25	47.2%	3,432,000
12 months	ESA 2018	18-64	8.3%	4,227,000
	DAS 2019	12-17	8.3%	375,000
	DAS 2019	18-25	24.8%	1,803,000
30 days	ESA 2018	18-64	3.3%	1,701,000
	DAS 2019	12-17	4.0%	181,000
	DAS 2019	18-25	12.0%	873,000

1) The values include the substances: ESA: cannabis, amphetamine/methamphetamine, ecstasy, LSD, heroin/other opiates, cocaine/crack, mushrooms, NPS.

DAS: cannabis, ecstasy, LSD, amphetamine, methamphetamine (crystal meth), cocaine, crack, heroin, NPS, inhalants or psychoactive plants or a combination of these substances. The results presented are based on the dual-frame sample with education weighting.

2) Figures are rounded.

Table 2 12-month prevalence of illicit drug use in the general population

Source	Age	Any illicit drug	Cannabis	Drugs other than cannabis[1)]
Total				
ESA 2018	18-64	8.3%	7.1%	2.4%
DAS 2019	12-17	8.3%	8.1%	1.1%
DAS 2019	18-25	24.8%	24.1%	6.2%
Male				
ESA 2018	18-64	10.2%	8.9%	2.9%
DAS 2019	12-17	11.0%	10.8%	1.1%
DAS 2019	18-25	29.5%	28.7%	8.3%
Female				
ESA 2018	18-64	6.4%	5.3%	1.8%
DAS 2019	12-17	5.4%	5.3%	1.0%
DAS 2019	18-25	19.5%	19.0%	3.7%

1) Other drugs include the substances amphetamine/methamphetamine, ecstasy, LSD, heroin/other opiates, cocaine/crack, inhalants (only DAS), mushrooms, NPS.

Drug use in the *Laender*

For each time the ESA survey has been conducted, the *Laender* have had the opportunity to widen the sample, in order to obtain *Land*-specific conclusions on the prevalence of substance

use and related problems. In 2018, five *Laender* took part (Seitz et al., 2020a). The 12-month prevalence of use of any illegal drug fluctuates between 6.5% and 19.7%, with an average rate of 8.3% nationally. The values in Berlin are significantly higher than the national sample, for both men and women (Figure 1).

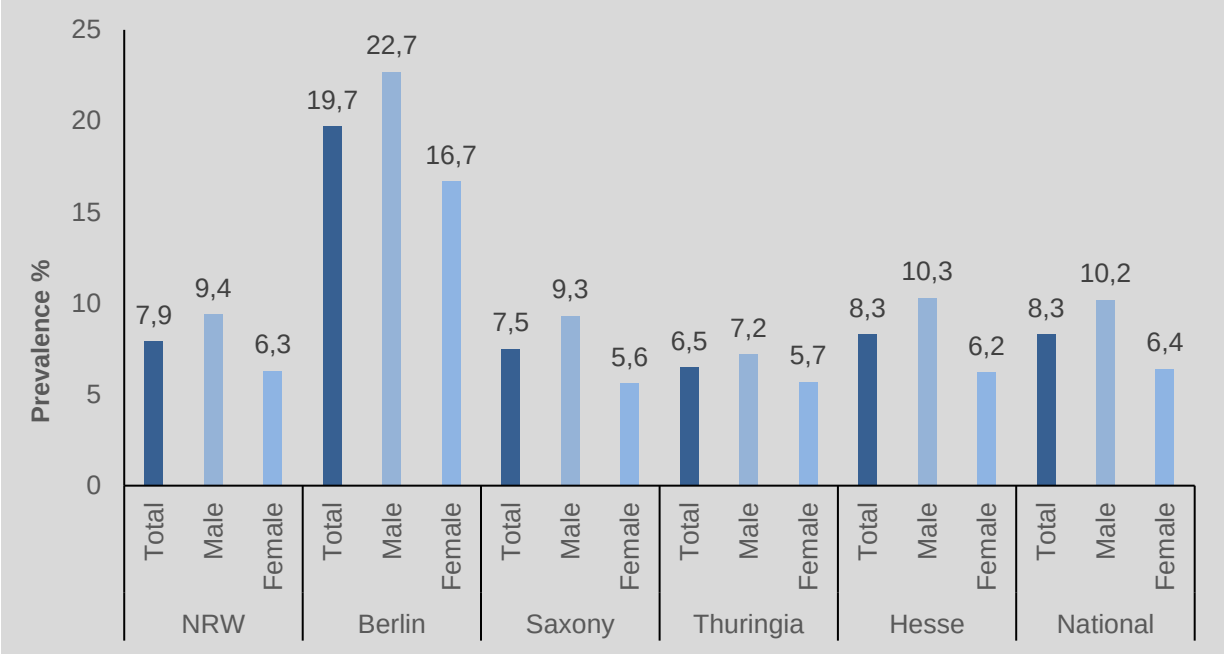


Figure 1 12-month prevalence of use of any illicit drug by gender and Land (ESA 2018)

0.1.2 Clinically relevant and problem drug use

In the ESA 2018, in addition to drug use, indicators on clinically relevant or problem drug use were also collected. Cannabis abuse and dependency according to DSM-IV was present in 0.6% of the total population. There was evidence of amphetamine/methamphetamine abuse according to DSM-IV for 0.1% of 18 to 64-year-old respondents. Dependency was present in 0.2% of respondents. The prevalence rates both for abuse of and dependency on cocaine according to DSM-IV were 0.1% (Atzendorf et al., 2019). The prevalence values for substance-related disorders are currently at a similarly high level to in 1997 and 2000 (Seitz et al., 2019d).[3]

0.1.3 Drug use among school pupils, university students and vocational school students

In Germany, a number of different pupil studies are conducted which make information on substance use available. All studies, with the exception of the Health Behaviour in School-aged Children (HBSC) study on cannabis consumption among 15-year-olds, are regionally

[3] The results of this survey were reported in detail in the 2019 Drugs workbook.

restricted. Data is currently available from the following studies: The HBSC cross-sectional study last took place nationwide in 2017/18. A repeating pupil survey in Frankfurt am Main was carried out in 2019/20, in the scope of the Monitoring System on Drug Trends (Monitoring System Drogentrends, MoSyD) (Kamphausen et al., 2020). In 2019, the German data collection for the European School Survey Project on Alcohol and Other Drugs (ESPAD) (Seitz et al., 2020b) was performed in Bavaria. In Lower Saxony, a regular pupil survey - the Lower Saxony Survey (Niedersachsensurvey) - was continued in 2019.[4] In 2018, the SCHULBUS survey was carried out in Hamburg (Baumgärtner und Hiller, 2019a) and Bavaria (Baumgärtner und Hiller, 2019b), in 2016/17 in the city state of Bremen (Baumgärtner und Hiller, 2017) and in 2015 in Hamburg, Bavaria, Saxony and North Rhine-Westphalia (Baumgärtner und Hiller, 2016). In the study, Young Adults: Survey on Contact with Addictive Substances (JEBUS; Baumgärtner und Hiller, 2018), data was collected for the first time in 2016/17 on the substance use of 18 to 25-year-olds in vocational and higher education in Hamburg as well as major cities in Bavaria and Saxony.[5]

Cannabis clearly dominates, compared to other illicit drugs, among pupils as well (Table 3). The lifetime prevalence of cannabis use in the Bavarian ESPAD study is, at 24.2%, only just below the total prevalence of the use of any illicit drug (27.1%). Comparable figures can be found in the other studies. In all pupil studies, males report a more frequent use of illicit drugs than females.

In the comparison of results from different pupil surveys in particular, it must be taken into account that the underlying studies have considerable methodological differences. For example, the age groups and the year groups surveyed are not uniform. Some of the differences could also be attributable to the differing survey methods or the different wording of the questions. Finally, some considerable regional differences also exist in use behaviour and the characteristics of the markets.

[4] The results from the 2019 survey were not yet available at the time of writing and will be presented in the 2021 report.

[5] Detailed results from the JEBUS study were set out in the 2018 report.

Table 3 Prevalence of illicit drug use among pupils

Source[1] / Region	Age	Time reference	Any illicit drug	Cannabis	Drug other than cannabis[2]
ESPAD 2019					
Bavaria	13-19	Lifetime	27,1%	24.2%	17.3%
MoSyD 2019					
Frankfurt	15-18	Lifetime	n.r.	33%	10%
Frankfurt	15-18	12 months	n.r.	26%	5%
HBSC 2017/2018[3]					
National	15	Lifetime	n.r.	22.6% / 15.5%	n.r.
SCHULBUS 2018					
Hamburg	14-17	Lifetime	n.r.	25.4%	7.8%
Bavaria[4]	14-17	Lifetime	n.r.	26.5% / 23.9%	n.r.
Lower Saxony Survey 2017					
Lower Saxony	M = 14.9	12 months	n.r.	12.9%	2.6%
SCHULBUS 2016/17					
City state Bremen	14-17	Lifetime	n.r.	23.0%	5.4%
SCHULBUS 2015					
Saxony	14-17	Lifetime	n.r.	20.2%	4.3%
North Rhine-Westphalia	14-17	Lifetime	n.r.	17.3%	4.5%

1) In the case of repeated surveys only the most recent results are presented.

2) Other drugs include the following substances: ESPAD: amphetamine, methamphetamine, ecstasy, LSD, cocaine, crack, heroin, GHB, magic mushrooms, NPS.

SCHULBUS: ecstasy, mushrooms, LSD, amphetamine, methamphetamine, cocaine.

Lower Saxony Survey: ecstasy, speed, cocaine, LSD, angel's trumpet, magic mushrooms.

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

3) HBSC: First value: boys, second value: girls.

4) SCHULBUS Bavaria: First value: cities, second value: rural districts

n.r. not reported. M = mean value.

0.1.4 Trends in drug use in Germany

The trend in the use of any drug among both 12 to 17-year-olds and 18 to 64-year-olds has followed a similar pattern over the last 20 years (Orth und Merkel, 2020, Seitz et al., 2019a). Following an increase in the prevalence rate from the early 1990s to 2003 and 2004 respectively, use then decreased again in the following years. Since 2011 and 2012 respectively, however, there has been a marked increase again. Among adults, the most marked changes have been seen among 18 to 24-year-olds (see Figure 2). As shown in Figure 3, the trends for male and female adolescents are similar, although the increase among female

adolescents is somewhat flatter.

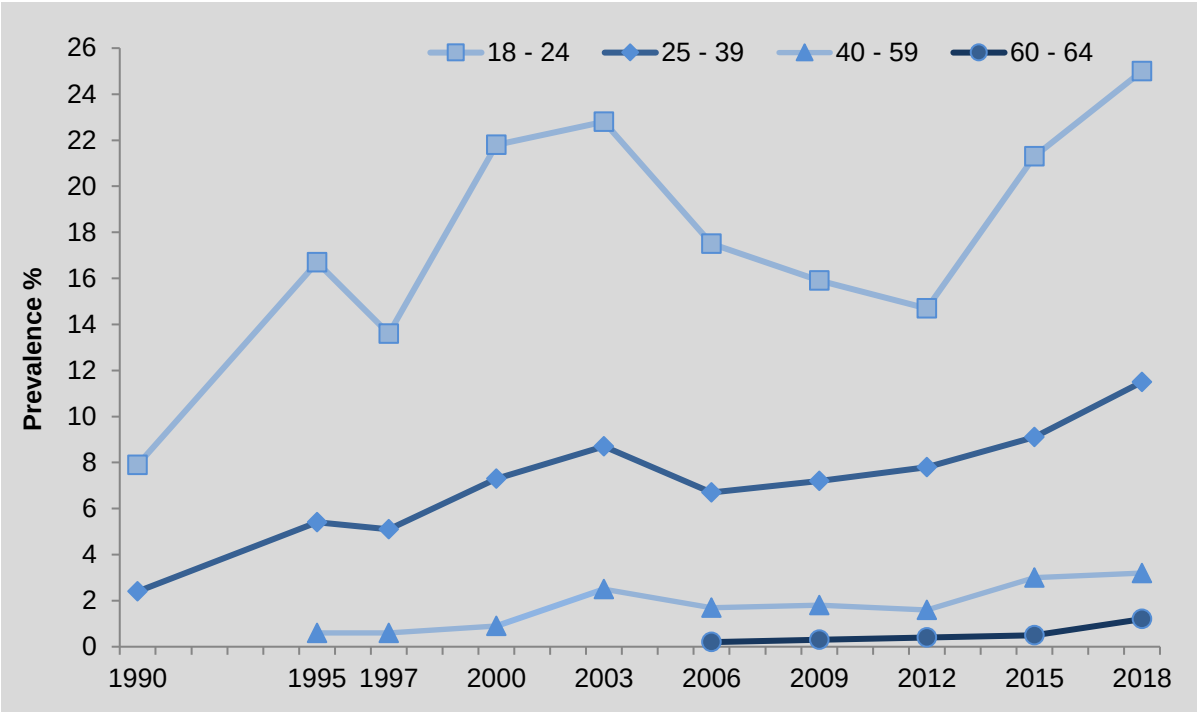


Figure 2 Trends in 12-month prevalence of use of any illicit drug among 18 to 64-year-olds in Germany, 1990-2018 (ESA) by age group

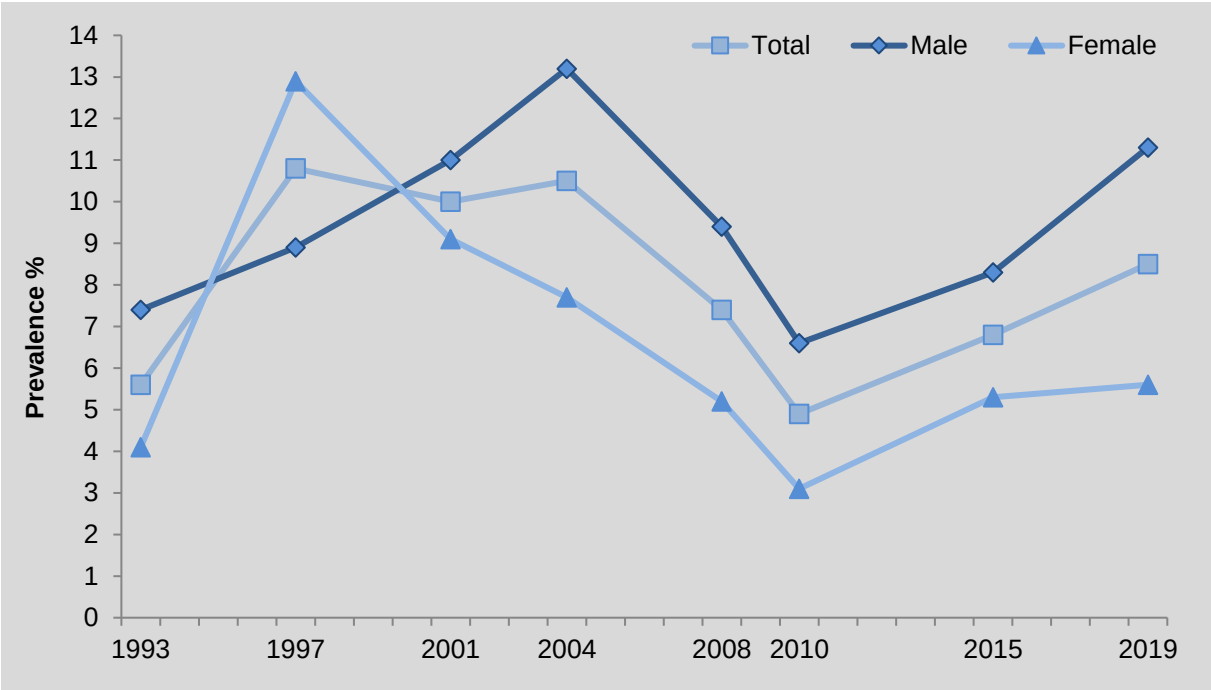


Figure 3 Trends in 12-month prevalence of use of any illicit drug among 12 to 17-year-olds in Germany, 1993-2019 (DAS) by gender

0.2 The use of illicit drugs with alcohol, tobacco and prescription drugs (T0.2)

There is no current information on the combination of illicit drugs with legal substances and prescription medicines. The data from the representative studies in the general population, in schools and in special sub-populations allows evaluations to be made on the combined use of various substances within a defined timeframe (for example whether both alcohol and illicit drugs have been consumed within the last 12 months), whereas data on parallel, i.e. simultaneous, use, which could provide information about patterns of use, is not collected separately.

SECTION A: CANNABIS

1 National profile (T1)

1.1 Prevalence and trends (T1.1)

1.1.1 The relative importance of different types of cannabis (T1.1.1)

A distinction in the prevalence of different types of cannabis in the general population and in schools is not possible from the data currently available in Germany, since this information is not collected. This information is only collected in the MoSyD pupil survey in Frankfurt for the 30-day prevalence of cannabis products. 32% of respondents reported only having smoked marijuana or "grass", a further 42% had consumed marijuana and hashish and 17% only hashish. It is striking that marijuana is no longer the dominant cannabis product among Frankfurt pupils but that it has been replaced by the mixed category (marijuana and hashish). In addition, consumption of hashish alone has seen a statistically significant increase over the overall course of the study. Since 2018, marijuana consumption has increased again, however, a trend which continued in 2019 with a further rise. Nevertheless, marijuana and hashish remains the most frequently mentioned category (Kamphausen et al., 2020).

1.1.2 Cannabis use in the general population (T1.1.2)

Cannabis is the most commonly used illicit drug in Germany by some margin. The frequencies of use are listed in Table 4. 7.1% of adults (Atzendorf et al., 2019) and 8.1% of adolescents have consumed cannabis within the last 12 months, with the 30-day prevalence rates at 3.0% and 3.8% respectively. Cannabis use increases steadily from late childhood to young adulthood (Orth und Merkel, 2020). In all age groups, the substance was consumed by a significantly higher proportion of men and boys than of women and girls.

Table 4 Prevalence of cannabis use in Germany

	Source	Age	Total	Male	Female
Lifetime	ESA 2018	18-64	28.3%	32.9%	23.4%
	DAS 2019	12-17	10.4%	13.1%	7.5%
	DAS 2019	18-25	46.4%	52.7%	39.4%
12 months	ESA 2018	18-64	7.1%	8.9%	5.3%
	DAS 2019	12-17	8.1%	10.8%	5.3%
	DAS 2019	18-25	24.1%	28.7%	19.0%
30 days	ESA 2018	18-64	3.0%	3.8%	2.1%
	DAS 2019	12-17	3.8%	5.0%	2.6%
	DAS 2019	18-25	11.5%	14.6%	8.0%

Over the time period of the last 28 years, the 12-month prevalence of cannabis use among 18 to 64-year-old adults has exhibited, with a wavelike pattern, an overall upward trend (Seitz et al., 2019d). The trend for each age group is shown in Figure 4.

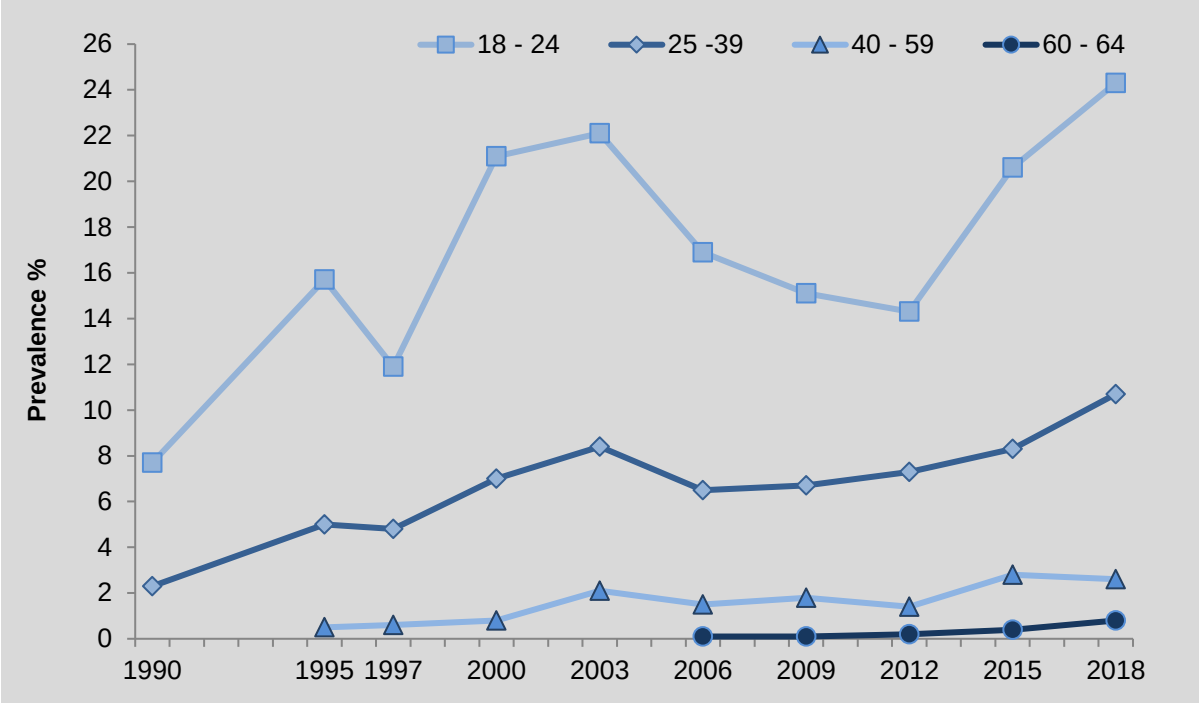
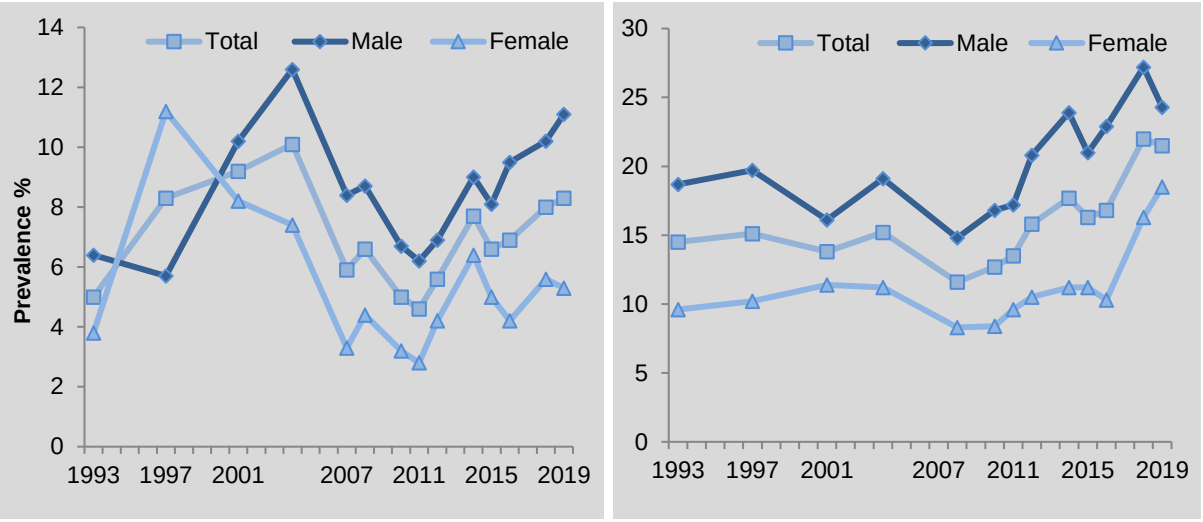


Figure 4 Trends in 12-month prevalence of cannabis use among 18 to 64-year-olds in Germany, 1990-2018 (ESA) by age group

The DAS 2019 shows that the rate of cannabis use has gone up among 12 to 17-year-old adolescents compared to 2011. Increases can be seen in the lifetime and 12-month prevalence rates for both genders. The current lifetime prevalence rates have not yet reached the high level of 2004. In contrast, the 12-month prevalence rates, which indicate more recent use, are, in 2019, once more at a similarly high level to 2004 (differences not statistically significant). Between 2010 and 2019, the 30-day prevalence increased among male adolescents, as did regular use, which significantly increased. Among 18 to 25-year-old women and men, the 12-month prevalence of cannabis use has been increasing since 2008. In 2019, young women reached the highest and young men the second highest 12-month prevalence rates since 1993 (Figure 5) (Orth und Merkel, 2020).



Adolescents 12-17 years old

Young adults 18-25 years old

Figure 5 Trends in 12-month prevalence of cannabis use among 12 to 25-year-olds in Germany 1993-2019 (DAS and AS), by gender

Cannabis use in the *Laender*

In five of the surveyed *Laender*, cannabis is the most widespread illicit drug. There are, however, some significant differences in the prevalence of use. In the time period of the last 12 months, cannabis has been the most frequently used drug in Hamburg, at 17.1%. The prevalence rates for the other *Laender* are between 5.5% in Thuringia and 6.9% in Saxony. In Berlin, the values differed significantly for both men (19.6%) and women (14.6%) from the national data (8.9% and 5.3% respectively) (Seitz et al., 2020a).

In most *Laender*, the prevalence of cannabis use has fluctuated greatly with a general increase between the 1990s and 2018. With the exception of women in Hesse, a continual increase in cannabis use has been seen since 2009. In all surveyed *Laender*, a significant increase in cannabis use has been seen among 18 to 24-year-olds and in Saxony and Berlin among 25 to 39-year-olds.

1.1.3 Cannabis use in school and other sub-populations (T1.1.3)

Cannabis use in schools

Table 5 shows a summary of usage prevalence rates.

The results for Germany from the 2017/2018 HBSC study show that 15.5% (2013/14: 15.6%) of 15 year-old girls and 22.8% (2013/14: 17.8%) of boys have used cannabis at least once in their lives, and 8.3% (girls) and 10.1% (boys) at least once in the last 30 days. Among boys, the lifetime prevalence for cannabis use increases in relation to family affluence. It is more common for girls in families with medium affluence to have used cannabis at some point in their lives than girls in low or high affluence families. For girls, this pattern is also confirmed for the 30-day prevalence. In contrast, as far as 30-day prevalence is concerned, boys from a

medium affluence family have somewhat lower prevalence levels than boys in a high or low affluence family (Bundesministerium des Inneren (BMI), 2020).

In the ESPAD study in Bavaria, 24.2% of pupils in the 9th and 10th grades reported having already used cannabis at least once in their lives (Seitz et al., 2020b). This figure was 21.4% in relation to the last 12 months. Cannabis use was significantly more widespread among boys than girls: 24.0% of schoolboys reported a use in the previous year, versus 18.7% of schoolgirls.

In the latest 2019 Frankfurt MoSyD survey, 33% of 15 to 18-year-olds reported having used cannabis at least once in their lives. This figure was 26% for the previous 12 months and 18% for the previous 30 days. Following the increase in 2018, the decline observed since 2015 in all prevalences resumed in 2019. The figures for the lifetime and 12-month prevalence rates have fallen below the 2017 levels, while the 30-day prevalence rate is higher than that of 2017. Among all prevalence rates, school boys are still markedly ahead of school girls. In 2019, questions about the consumption of CBD flowers or CBD resin were included for the first time. The lifetime prevalence was 14%, and the 30-day prevalence was 4%. 95% of those have tried CBD produts have also had experience of (THC) cannabis use. The average age of first use has increased over time (2002: 14.5) to 15.2 years old in 2019, which is slightly below the 2017 peak (15.3) (Kamphausen et al., 2020).

In the SCHULBUS survey, the cannabis products hashish and marijuana represent the most widely consumed intoxicant among illicit drugs. Almost a quarter of young people in Bremen, Bremerhaven and Hamburg reported having used at least once before. In Hamburg, the lifetime prevalence of cannabis use increased slightly in 2018 compared to 2015 (Baumgärtner und Hiller, 2020). Noteworthy is also the fact that the attractiveness of cannabis has significantly declined since 2005 (Baumgärtner und Hiller, 2017). There is a similar picture in Bavaria. A quarter of young people have experimented with cannabis products at least once in their lives. 15% of adolescents surveyed in metropolitan milieus reported a current use of hashish and/or marijuana, while this figure was 12% of adolescents of the same age in rural districts (Baumgärtner und Hiller, 2019b). The data on the average age of first use for cannabis products over time shows, similar to the MoSyD Study, that since 2012 adolescents have been having their first experience of use with hashish and/or marijuana at a later age on average than even as recently as the mid-2000s (2005: male: 13.6, female: 13.8; 2012: male: 14.7, female: 15; 2018: male: 14.6, female: 15) (Baumgärtner und Hiller, 2019a).

Table 5 Prevalence of cannabis use among pupils 2015 to 2019

Source[1] / Region	Age	Time reference	Total	Male	Female
ESPAD 2019					
Bavaria	13-19	Lifetime	24.2%	26.7%	21.7%
		12 months	21.4%	24.0%	18.7%
MoSyD 2019					
Frankfurt	15-18	Lifetime	33%	39%	27%
		12 months	26%	31%	21%
HBSC 2017/2018					
National	15	Lifetime	n.r.	22.6%	15.5%
		30 days	n.r.	10.1%	8.3%
SCHULBUS 2018					
Hamburg	14-17	Lifetime	25.4%	27.1%	23.4%
		30 days	13.7%	16.0%	10.9%
Bavaria[2]	14-17	Lifetime	26.5% / 23.9%	31.3% / 27.9%	21.0% / 19.5%
		30 days	14.9% / 12.2%	18.6% / 15.3%	10.8% / 8.8%
Lower Saxony Survey 2017					
Lower Saxony	M = 14.9	12 months	12.9%	n.r.	n.r.
SCHULBUS 2016/17					
City state Bremen	14-17	Lifetime	23.0%	27.1%	18.6%
		30 days	11.4%	12.2%	10.2%
SCHULBUS 2015					
Saxony	14-17	Lifetime	20.2%	22.6%	17.7%
		30 days	9.1%	10.9%	7.3%
North Rhine-Westphalia	14-17	Lifetime	17.3%	18.1%	16.5%
		30 days	7.8%	10.1%	5.3%

1) In the case of repeated surveys only the most recent results are presented.

2) SCHULBUS Bavaria: First value: cities, second value: rural districts.

n.r. = not reported. M = mean value

Cannabis use in vocational education and higher education

The JEBUS Study in 2016/2017 (Baumgärtner und Hiller, 2018) was the first time a survey had been conducted in the (occupational) vocational training and higher education setting. For that study, 18 to 25-year-old young adults were recruited in different German regions

(Hamburg, Bavaria and Saxony). Across all regions surveyed, around one in two young adults reported having used cannabis at least once in their lives (48.1% to 53.4%).[6]

Cannabis use in specific sub-populations

A survey of partygoers carried out in the scope of the Phar-Mon plus project also shows a high degree of acceptance of cannabis (Neumeier et al., 2020). With a 12-month prevalence rate of 78.2%, cannabis is the most commonly used illicit substance by some margin.

The results of the 2018 scene study in the scope of the MoSyD (Werse et al., 2019) are presented in the 2019 Drugs workbook.

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

1.2.1 Patterns of cannabis use (T1.2.1)

Several patterns of use of 12 to 17-year-old adolescents can be seen in the current alcohol survey or in the DAS (Orth und Merkel, 2019, Orth und Merkel, 2020). The focus here is, in particular, on frequent use, defined as "more than ten instances of use in the last twelve months". The proportion of adolescents affected overall in 2019 was 2.0% (2018: 1.6%, 2016: 1.5%). The prevalence of regular cannabis use (male: 2.8%; female: 1.2%) is statistically significantly higher for male adolescents than female adolescents. Furthermore, regular cannabis use among boys has increased since 2010, whereas among girls it has fallen.

In the group of Frankfurt pupils who had used cannabis in the previous 30 days, 17% reported intensive (daily) use. This corresponds to 2% of all 15 to 18-year-old respondents in the 2019 survey. This means that the proportion of pupils consuming cannabis intensively has fallen slightly, following the significant increase the previous year (2017: 10%, 2018: 19%). Frequent use (at least 10 times in the previous month) has also decreased, from 7% in 2018 to 5% in 2019 (Kamphausen et al., 2020).

1.2.2 Reducing the demand for cannabis (T1.2.2)

Specialist counselling and treatment of cannabis-related disorders in Germany is, for the most part, provided on an outpatient basis. Admittance and treatment on an inpatient basis is only provided for severe health disorders or in cases with a high risk of relapse (Hoch et al., 2015).

Further information on the treatment of cannabis-related problems can be found in the Treatment workbook.

1.2.3 High risk cannabis use (T1.2.3)

In the ESA 2018, substance-related disorders for cannabis were recorded with the help of the written version of the Munich Composite International Diagnostic Interview (M-CIDI) (Wittchen

[6] Detailed results on the study were reported in the 2018 report.

et al., 1995). Compared to the survey years 1997 to 2018, cannabis abuse and dependence according to DSM-IV has remained broadly constant for both genders (Seitz et al., 2019d) For further results, see the 2019 Drugs workbook.

In the ESPAD study in Bavaria, problem cannabis use in the last 12 months was recorded, with the help of the Cannabis Abuse Screening Test (CAST) (Legleye et al., 2007), for pupils in the 9th and 10th grades (Seitz et al., 2020b). In relation to the total sample, 2.0% of the pupils, and 9.3% of users who had used cannabis in the past 12 months, were categorised as having problem cannabis use. Intensive cannabis use of 20 times or more within the last 30 days was reported by 14.4% of all users. In the SCHULBUS survey, cannabis dependence is defined as reaching a threshold of 2 points on the “Severity of Dependence Scale” (SDS) (Gossop et al., 1995) (Baumgärtner und Hiller, 2017, Baumgärtner und Hiller, 2019a). In 2018, 5.3% of youths surveyed in Hamburg were thus classed as cannabis dependent. This is true above all for male adolescents and older respondents. Problem use, however, has generally experienced a downward trend among male and female respondents as well as among younger respondents (14 to 15-year-olds) (Baumgärtner und Hiller, 2019a). A similar picture can be seen in the city state of Bremen (2016/2017) (4.8% problem use). If one instead considers the data separately, however, there are differences for Bremerhaven, where almost twice as many pupils are classed as cannabis dependent, at 7.9% (Bremen: 4%) (Baumgärtner und Hiller, 2017). In Bavaria, the proportion of problem cannabis users was remarkably high, at 7% of all respondents in the large cities and 4% in the rural districts, since that means that half or at least a third of the current users are classed as cannabis dependent (Baumgärtner und Hiller, 2019b).

In the Frankfurt MoSyD survey, the value for the question as to subjective estimation with regard to cannabis dependency was 4% in 2019, the same as 2018. In the preceding two years 2016 and 2017, the value was at 2%. In the category of intensive users with daily consumption, a decline can be seen from 4% in 2018 to 2% in the current survey (Kamphausen et al., 2020).

In the Lower Saxony pupil survey, problem cannabis use is defined as use at least several times per month (Bergmann et al., 2019). The proportion of affected pupils in the 2017 survey was 4.1%, thus remaining unchanged since 2013.[7]

According to the 2017 Brandenburg pupil survey[8], 2.9% of female Brandenburg pupils and 5.5% of male pupils regularly consume cannabis (i.e. at least once a week). Between 2005 and 2017, an increase (at a low level) was seen among girls (2005: 1.8%). Among boys, the

[7] Further results on the Lower Saxony pupil survey were set out in the 2019 Drugs workbook.

[8] Brandenburg obtains information on substance use among adolescents from a pupil survey in the 10th grade, which has now been conducted four times, each four years apart. In the 2016/2017 school year, a total of 10,724 pupils from 17 rural districts and administratively independent urban districts and thus around 53% of all 10th grade pupils in Brandenburg took part in the most recent survey, "Brandenburg adolescents and substance use" (Brandenburger Jugendliche imd Substanzkonsum, BJS). The average age is 15.5 years old (Landessuchtkonferenz Brandenburg, 2017). In the 2016/2017 school year, a total of 1,390 LHP pupils were in the 10th grade at public, general education schools; of those, 60% took part in the BJS IV survey.

increase from 2005 (4.8%) to 2017 was within the confidence interval. In absolute numbers, in 2017 there were around 600 adolescents (out of a total of more than 20,000) in the 10th grade with regular, at least weekly, use. Boys used cannabis more frequently than girls at all time reference points, however (Böhm et al., 2020). A similar, slightly increasing trend in cannabis use is reported in the area-based evaluations of the *Land* capital Potsdam (Landeshauptstadt Potsdam, LHP). In 2005, it was 5% of pupils that were classed as high risk cannabis users, in 2017 it was 7% in total (Landeshauptstadt Potsdam, 2018).

1.2.4 Synthetic cannabinoids (T1.2.4)

Specific information on the use of synthetic cannabinoids is available from the two pupil surveys, ESPAD Bavaria and the MoSyD pupil survey, as well as from one survey in the open drug scene. The data collected concerned the prevalence of use of new psychoactive substances for individual groups. The results for the categories "herb mixtures" and "herbal smoke blends", which frequently include, above all, synthetic cannabinoids, are presented. These and further results for NPS in general can be found in section D.

2 Trends (T2)

Not applicable for this workbook.

3 New developments (T3)

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

In the scope of a Germany-wide online survey conducted by the Centre for Drug Research (CDR) at the Goethe University Frankfurt, the situation of regular cannabis users during the coronavirus restrictions between the start of April and the start of May 2020 was examined, with regard to patterns of use, market development and risk behaviour. The survey targeted at least occasional users of illegally procured or cultivated cannabis. A total of 1,146 people filled out the questionnaire completely. The group of predominantly more frequent users of cannabis reflected an overall tendency for increased use during the crisis. Nearly nine out of ten use cannabis at least weekly, 51% of them even daily. 39% use cannabis more than before the crisis; only 16% use it less. At the end of the survey, i.e. as the pandemic progressed, the proportion of people who reported consuming more than before increased. This is explained on the one hand by increased free time, and on the other by compensating stress in the “home office” and fears concerning the pandemic. On the question of (own) infection protection measures, only isolated cases of joint use were reported. The great majority (56%) adhered to protective measures (refraining from shared joints) or used alone (35%) (Werse and Kamphausen, previous unpublished results).

4 Additional information (T4)

4.1 Additional sources of information (T4.1)

The predictors for when people start to use cannabis have already been studied in a variety of ways but there has been little observation of the predictors for stopping this behaviour. Therefore, factors leading to a cessation of cannabis use were examined in a retrospective cohort study with 6,467 current or previous cannabis users (between 15 and 46 years old), who had been using cannabis for at least three years. The data was collected via an online survey. Approximately 16.3% of respondents reported not having used cannabis in the previous 12 months and are therefore considered abstinent. All the others (83.7%) reported at least monthly use. Predictors for the cessation of cannabis use were, i.a., being older, female, not of a migration background, being less sensation-seeking, psychological support, higher use by peers during adolescence and negative first experiences with cannabis. A further factor in predicting cannabis abstinence is a use frequency that does not increase within the first three years of use, which indicates that patterns of use develop early. This insight can be helpful for identifying at-risk groups, and can offer an approach for preventive measures (Seidel und Ganschow, 2020).

Further studies are described in the 2018 and 2019 Drugs workbooks.

4.2 Further aspects of cannabis use (T4.2)

No information on further aspects of cannabis use is available.

SECTION B: STIMULANTS

1 National profile (T1)

1.1 Prevalence and trends (T1.1)

1.1.1 The relative importance of different stimulant drugs (T1.1.1)

Cocaine, ecstasy and amphetamines are the dominant substances among stimulants in Germany. However, the importance of individual stimulants varies widely by region and scene as well as between age groups. The prevalence rates for methamphetamine show that methamphetamine use continues to play a rather subordinate role in the general population. Thus, the data does not confirm (media) fears of a “methamphetamine wave” that have been expressed in previous years (Seitz et al., 2019d). However, there have been indications in recent years of an increasing significance of amphetamine and methamphetamine. Growth rates, some of them considerable, have been observed for amphetamine, especially in the indicators from law enforcement authorities (users who come to the attention of law enforcement for the first time, relevant offences, seizures) (NB: crimes of low reportability - the more frequently the police perform checks, the higher the number of crimes become known or detected) (see on this point the Drug Market and Crime workbook). In the area of counselling/treatment, for example, increased demand has been reported in recent years from outpatient counselling facilities and specialist walk-in clinics for support due to problems in connection with the use of amphetamine/methamphetamine (see on this point the Treatment workbook). In national surveys on prevalence of use in the general public, these clear increases are not seen in the same way, however.

A general problem, in particular with data relating to 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, similarly in the counselling/treatment realm and for 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 Stimulant use in the general population (T1.1.2)

Table 6 offers an overview of the use of stimulants in the general population (adolescents and adults). Among 18 to 64-year-old adults in Germany, cocaine/crack is the stimulant with the highest lifetime prevalence (Seitz et al., 2019b). As far as use in the last 12 months and in the last 30 days are concerned, amphetamine is more prevalent than other stimulants. Ecstasy is the most widely used substance among 12 to 17-year-olds and 18 to 25-year-olds in both the lifetime prevalence (0.6% and 7.8% respectively) and 12-month prevalence (0.5% and 3.6% respectively) categories (Orth und Merkel, 2020).

Table 6 Prevalence of NPS use in Germany

	Source	Age	Total	Male	Female
Amphetamine					
Lifetime	ESA 2018	18-64	3.8%	4.6%	2.9%
	DAS 2019	12-17	0.5%	0.5%	0.6%
	DAS 2019	18-25	6.8%	9.3%	4.1%
12 months	ESA 2018	18-64	1.2%	1.5%	0.9%
	DAS 2019	12-17	0.3%	0.4%	0.2%
	DAS 2019	18-25	2.8%	3.9%	1.6%
Methamphetamine					
Lifetime	ESA 2018	18-64	0.8%	1,0%	0.6%
	DAS 2019	12-17	0.2%	0.3%	0.1%
	DAS 2019	18-25	0.6%	0.7%	0.6%
12 months	ESA 2018	18-64	0.2%	0.3%	0.1%
	DAS 2019	12-17	0.0%	0.0%	0.1%
	DAS 2019	18-25	0.3%	0.2%	0.4%
Ecstasy					
Lifetime	ESA 2018	18-64	3.9%	4.5%	3.2%
	DAS 2019	12-17	0.6%	0.5%	0.7%
	DAS 2019	18-25	7.8%	10.8%	4.4%
12 months	ESA 2018	18-64	1.1%	1.2%	1.0%
	DAS 2019	12-17	0.5%	0.4%	0.5%
	DAS 2019	18-25	3.6%	4.8%	2.2%
Cocaine/Crack					
Lifetime	ESA 2018	18-64	4.1%	5.0%	3.2%
	DAS 2019	12-17	0.3% / 0.0%	0.3% / 0.1%	0.4% / 0.0%
	DAS 2019	18-25	4.7% / 0.2%	6.9% / 0.4%	2.3% / 0.0%
12 months	ESA 2018	18-64	1.1%	1.4%	0.8%
	DAS 2019	12-17	0.2% / 0.0%	0.1% / 0.1%	0.4% / 0.0%
	DAS 2019	18-25	2.9% / 0.2%	4.1% / 0.3%	1.6% / 0.0%

Figure 6 shows the trend in stimulant use among adults since 1990 (Seitz et al., 2019a).

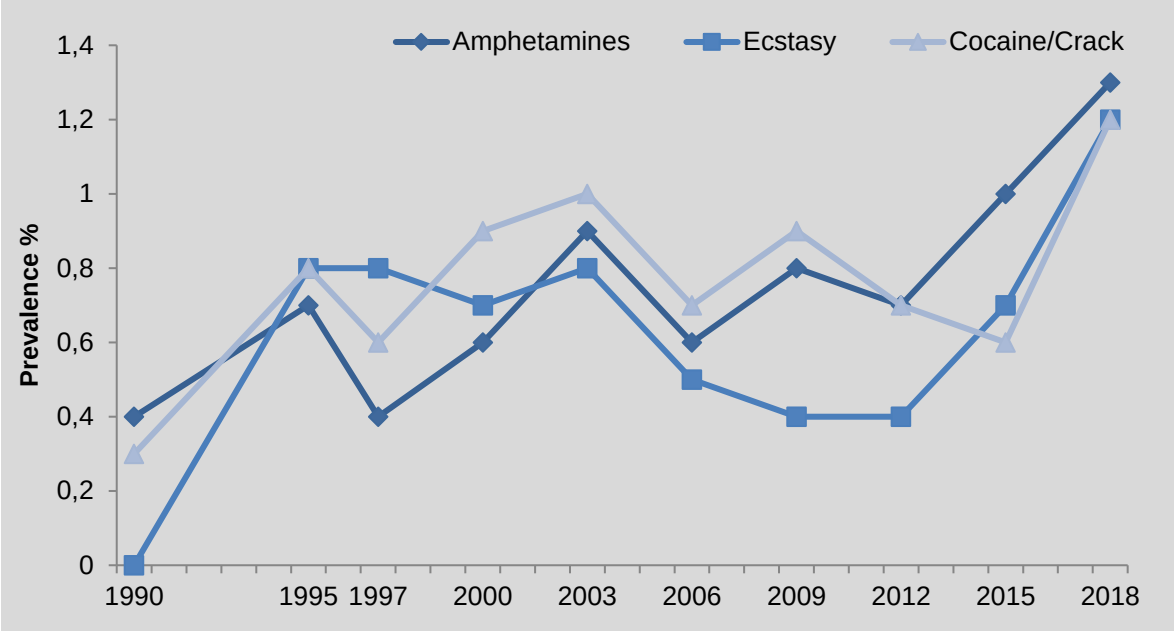
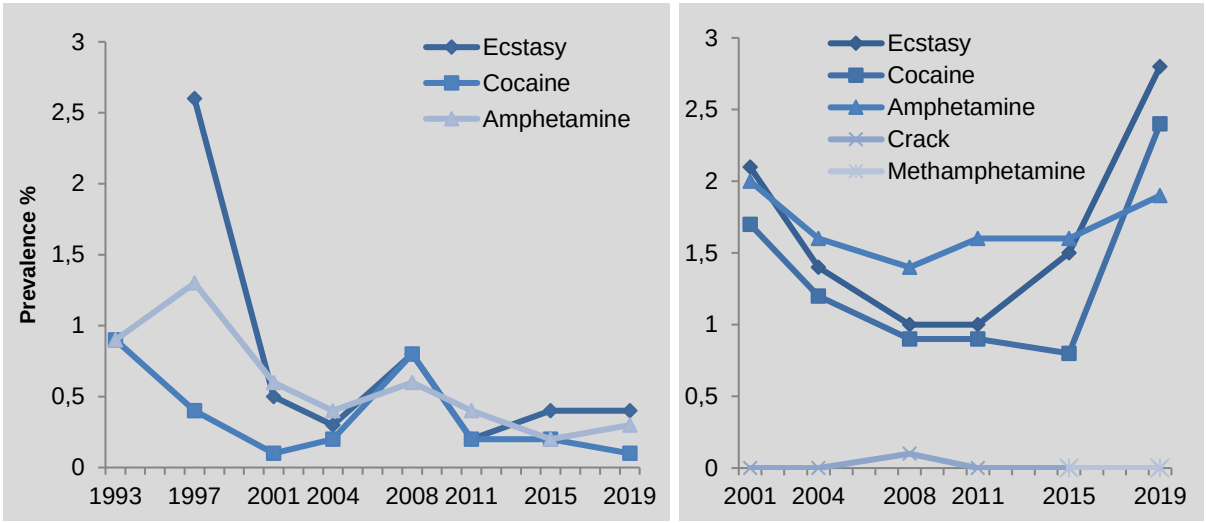


Figure 6 Trends in the 12-month prevalence of stimulant use among 18 to 59-year-olds in Germany, 1990-2018 (ESA)

The use of amphetamines, cocaine and ecstasy has decreased among 12 to 17-year-old adolescents (Figure 7). Whilst in 1997, the figures for use in the previous 12 months were at 2.6% for ecstasy, 1.3% for amphetamine and 0.9% for cocaine, in 2019 these were down to 0.4%, 0.3% and 0.1% respectively. In contrast to this, in the group of 18 to 25-year-olds a decline was seen between 2001 and 2015, however since then ecstasy and cocaine use has once again significantly increased (1.5% to 2.8% and 0.8% to 2.4% respectively).[9] The prevalence rates for amphetamine and crack use have not changed, with crack use remaining very rare. Data on the use of crystal meth has been collected since 2015 and has not changed significantly up to 2019 (Figure 7).

[9] For better comparability, trend analyses for 2014-2019 are based on the information from the landline sample with weighting by region, gender and age.



Adolescents 12-17 years old

Young adults 18-25 years old

Figure 7 Trends in the 12-month prevalence of stimulant use among 12 to 25-year-olds in Germany, 1993 and 2001 to 2019 (DAS)

Stimulant use in the *Laender*

In a comparison between the five *Laender* for which regional results from the ESA are available for 2018, Berlin showed the highest prevalence rates in relation to all of the recorded stimulants (Seitz et al., 2020a). The 12-month prevalence of cocaine or crack use as a national average was 1.1%, while for Berlin the figure was 4.7%. Compared to the national average, there was significantly more use among men (5.9% v 1.4%) and women (3.4% v 0.8%) in Berlin. Use of ecstasy was also most pronounced in Berlin (4.5% v 1.1%). The proportion of male and female users in Berlin (5.7% and 3.2% respectively) was also significantly higher than in the rest of Germany (1.2% and 1.0%). Comparing nationally, the highest values with regard to amphetamine or methamphetamine use in the previous 12 months were in Berlin (4.5%), and the lowest were in Hesse (0.7%).

In the last 20 years, the 12-month prevalence of cocaine/crack use has not shown any significant changes, with the exception of Berlin. In Berlin, use increased significantly, reaching its highest value to date in 2018. The 12-month prevalence of ecstasy use has a relatively constant trend. Upward trends in use have been recorded since 1997 for men in Berlin, Hesse and Saxony, and since 2000 for men and women in North Rhine-Westphalia. For the use of amphetamine, the prevalence rate in the *Laender* was below 2.0% for the whole period; there were significant changes only in Berlin and North Rhine-Westphalia, particularly in 1997 and 2006.

1.1.3 Stimulant use in school and other sub-populations (T1.1.3)

Stimulant use in schools

An overview of stimulant use among school pupils can be found in Table 7. Among Bavarian pupils in the 9th and 10th grades, 3.6% have had experiences with amphetamine, 3.3% with methamphetamine and 3.0% with ecstasy (Seitz et al., 2020b). Furthermore, cocaine has been consumed at least once by 2.2% of adolescents. All substances are used less often by girls than boys. Amphetamine use in Bavarian schools is still significantly lower than 2011. There were no changes in respect of ecstasy and cocaine.

In the last SCHULBUS survey in Hamburg (2018), ecstasy had the highest prevalence rate at 3.4% (Baumgärtner und Hiller, 2019a). The figures for stimulants have risen slightly in comparison to 2015 levels in all categories (with the exception of amphetamine). A (feared) increase in crystal meth use in Bavaria has not been confirmed. The 30-day prevalence values are consistently in fractions of a per cent (cities: 0.7%, rural districts: 0.4%). The Bavaria survey also examined the extent to which pupils are informed about crystal meth, are able to assess its dangers and know about the possible (immediately available) sources of supply. More than two fifths of respondents feel rather badly or very badly informed about the drug crystal meth. More than 90% of them assess the risk of methamphetamine as rather high or very high. Beyond the factually low prevalence of use, and separately from the subjectively (very) high risk classification, two fifths of adolescents nevertheless believe that they can obtain this drug within 24 hours (Baumgärtner und Hiller, 2019b).[10]

In the Frankfurt MoSyD study, ecstasy is the most-used stimulant, with a lifetime prevalence of 4% (12-month prevalence: 3%). This is the first small increase since 2015. For cocaine, the values for both prevalence rates are at the same level as the previous year (3% and 2% respectively), although increased figures for cocaine imports have been recorded. In relation to methamphetamine, a value of over 1% for lifetime prevalence was reached for the first time (Kamphausen et al., 2020).

In the 2017 Brandenburg pupil survey, the lifetime prevalence for amphetamine was 4.7% (school boys) and 4.1% (school girls). Regular (at least once a week) use of amphetamine (speed and/or crystal meth) was reported by 0.5% of girls and 0.8% of boys (Böhm et al., 2020).

[10] Results from the 2016/2017 JEBUS study on use among 18 to 25-year-olds in vocational and higher education in Hamburg and major cities in Bavaria and Saxony (Baumgärtner und Hiller, 2018) were presented in the 2018 Drugs workbook.

Table 7 Lifetime prevalence of stimulant use among pupils in 2015/2019

Source[1] / Region	Age	Substance	Total	Male	Female
ESPAD 2019					
Bavaria	13-19	Amphetamine	3.6%	4.1%	3.1%
		Methamphetamine	3.3%	3.8%	2.9%
		Ecstasy	3.0%	3.3%	2.6%
		Cocaine	2.2%	2.3%	2.1%
MoSyD 2019					
Frankfurt	15-18	Speed	3%	4%	3%
		Methamphetamine	2%	2%	2%
		Ecstasy	4%	6%	3%
		Cocaine	3%	5%	2 %
SCHULBUS 2018					
Hamburg	14-17	Amphetamine	2.1%	n.r.	n.r.
		Methamphetamine	1.1%	n.r.	n.r.
		Ecstasy	3.4%	n.r.	n.r.
		Cocaine	3.0%	n.r.	n.r.
Brandenburg pupil survey BJS					
Brandenburg	16	Amphetamine	n.r.	4.7%	4.1%
SCHULBUS 2015					
Bavaria[2]	14-17	Amphetamine	2.0%	n.r.	n.r.
		Methamphetamine	1.4%	n.r.	n.r.
		Ecstasy	2.5%	n.r.	n.r.
		Cocaine	2.0%	n.r.	n.r.
Saxony	14-17	Amphetamine	0.6%	n.r.	n.r.
		Methamphetamine	0.6%	n.r.	n.r.
		Ecstasy	0.9%	n.r.	n.r.
		Cocaine	1.3%	n.r.	n.r.
North Rhine-Westphalia	14-17	Amphetamine	2.6%	n.r.	n.r.
		Methamphetamine	0.6%	n.r.	n.r.
		Ecstasy	3.0%	n.r.	n.r.
		Cocaine	2.0%	n.r.	n.r.

1) In the case of repeated surveys only the most recent results are presented.

2) SCHULBUS Bavaria 2018: the lifetime prevalence of stimulant use is not reported.

n.r. not reported.

Stimulant use in specific sub-populations

Stimulants play a major role among partygoers (Neumeier et al., 2020). Behind cannabis, the second, third and fourth most frequently consumed substances are ecstasy (MDMA), amphetamine (speed) and cocaine, with 12-month prevalence rates of 57.4%, 48.4% and 37.3% respectively.

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

1.2.1 Patterns of stimulant use (T1.2.1)

The ESPAD study in Bavaria records a frequency of use beyond experimental use, with at least 3 lifetime instances of use. 1.1% of pupils in the 9th and 10th grades reported using amphetamine somewhat frequently. For ecstasy this was 1.0% of respondents (Seitz et al., 2020b).

Results from the ESA 2018 (Seitz et al., 2019b) were presented in the 2019 Drugs workbook.

1.2.2 Treatment for stimulants (T1.2.2)

According to the Statistical Report on Substance Abuse Treatment in Germany (deutsche Suchthilfestatistik, DSHS), a significant increase has been reported in outpatient addiction support facilities in connection with the use of stimulants (6.9% in the reporting year 2016, up from 2.5% in the reporting year 2007) (Thaller et al., 2017). Further differentiation by substance is not possible from the existing data. The greatest increase in the demand for treatment/care was seen among people with a cocaine and stimulant diagnosis. Persons in care with a stimulant diagnosis are therefore on average the youngest group, both in outpatient (29.1 years old) and in inpatient (30.0 years old) settings, after persons in care/treatment with a cannabis diagnosis. Data from individual *Laender* tends to indicate a more regional phenomenon, especially in the Czech border area (Pfeiffer-Gerschel et al., 2019).

More information on the treatment of patients with methamphetamine-related disorders can be found in the 2020 Treatment workbook.

1.2.3 High-risk stimulant use (T1.2.3)

Calculations on the basis of a treatment multiplier for 2018 (for a description of the estimation method see section E1.2) for the target group of clients with cocaine and stimulant problems (F14 and F15 codes according to ICD-10) produce an estimate of 88,000-105,000 (2017: 87,000-103,000).[11] The estimates lie between 1.6-1.9 (per 1,000 population) among 15 to 64-year-olds. This value has significantly increased almost continuously over the last ten years. It fell back for the first time in 2017, although only slightly. It must also be taken into account in this regard that the DSHS Core Data Set (Kerndatensatz, KDS) was changed in 2017. The value increased once again in 2018, but remained below the 2016 level.

[11] Corrected figures for 2017.

Results on substance-related disorders for cocaine and amphetamine/methamphetamine from the ESA 2018 (Atzendorf et al., 2019) are described in the 2019 workbook.

1.2.4 Synthetic cathinones (T1.2.4)

Specific information on the use of synthetic cathinones is only available from the 2018 Frankfurt MoSyD scene study, which was already reported on in the 2019 workbook (Werse et al., 2019). In that study, 8% of respondents from the open drug scene reported having already tried NPS stimulants at some point (cathinone, "bath salts" and others). Despite the slight increase in comparison to 2016, no significant change can be seen. The 12-month prevalence was 1%, the same as 2016.

1.2.5 Injecting and other routes of administration (T1.2.5)

In the scope of the 2018 MoSyD scene study in Frankfurt, users in the open drug scene were asked about the route of administration (Werse et al., 2019). A significant change can be seen in the routes of administration of cocaine. Exclusively injecting use reached a new low, while nasal use has also decreased at the same time, although, at more than a quarter, more respondents than ever are saying that they administer cocaine both through injection and in other ways. That being said, the relatively low number of cases should be taken into account. In relation to crack, 49% of respondents in 2018 reported exclusively smoking crack, 8% of users reported injecting only and 42% consumed the cocaine derivative both by injection and inhalation.

In the one-time study, carried out in 2017, on the characteristics of crack use in the Frankfurt street drug scene, the following picture emerged: crack was not only smoked by the respondents but frequently also injected (Werse et al., 2018).[12]

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

1.2.6 Infectious diseases (T1.2.6)

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

2 Trends (T2)

Not applicable for this workbook.

[12] Detailed results from the 2018 MoSyD scene study and from the study on the characteristics of crack use were set out in the 2019 report.

3 NEW DEVELOPMENTS (T3)

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

Current data on the use of stimulants as well as the trend in recent years is explained in B1.1.1. Additional information on new developments is not available.

4 Additional information (T4)

4.1 Additional sources of information (T4.1)

Information on adjusting the treatment of methamphetamine-related problems can be found in the 2019 Treatment workbook and in the 2019 Drugs workbook.

Thurn and Wolstein (2020) examined, with the help of mind maps, the motives for using amphetamine-type stimulants. Mapping techniques are widely used in learning research, however their use in the clinical setting is largely unexplored. Based on the qualitative content analysis, a category system was developed based on the 4 motive dimensions. Six independent raters classified 96 patient data sets with more than 1,000 reasons for use into the category system. Independent t-tests were conducted to calculate the mean differences in the motive dimensions according to gender and age. At the start of use, the key motives were reinforcement motives such as curiosity, interest and allure were indicated, as well as fun, kick and intoxication. In addition, conformity motives initially predominated among women, with peer pressure and adaptation being stated as motives. In the final month of use, coping motives such as repression, performance improvement and coping with the dependency syndrome predominated. Furthermore, among young users, social motives in the final month of use were significantly stronger in comparison to older users (<30 years old).

4.2 Further aspects of stimulant use (T4.2)

There is currently no further information available on stimulant use.

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 opioid drugs (T1.1.1)

In Germany, the use of opioids is usually understood to mean the use of heroin or other substances that are used in substitution based treatment (polamidone, methadone, buprenorphine). Overall, there are indications that there is an aging population of opioid users. The estimated numbers of people who use opioids are relatively constant, depending on the indicator used.

1.1.2 Estimates of opioid use in the general population (T1.1.2)

In Germany there is no possibility for directly calculating the number opioid users. Therefore, this number is estimated with the help of various context indicators and different approaches. When interpreting the estimate, several limitations must be taken into account. Due to indicator-specific sources of errors, which can exist from the point of collection of the data used as well as the different areas of focus of the data collected and used for the estimate, in some cases widely differing estimates for the total number of opioid users in Germany can be produced. Calculations on the basis of a treatment muliplier for 2018 lead to an estimate of the number of high-risk users of heroin of between 117,000 and 138,000 people. This corresponds to a rate of 2.2 to 2.6 people per 1,000 population between the ages of 15 and 64 (see Table 8). The estimate rose between 2007 and 2011 but has been continuously falling since 2012 - apart from a slight increase from 2013 to 2014. Overall, the picture remains unchanged despite slight fluctuating values in recent years.

Details and further data on the other multipliers can be found in workbooks from previous years. Detailed remarks on the estimation method as based on the multiplier can be found in section E2, Methodology.

Table 8 Estimate of the prevalence of high risk opioid use from 2013-2018 (figures in 1000s, age group 15 to 64-year-olds)

	Reference Year						Prevalence
Data Source	2013	2014	2015	2016	2017	2018	per 1,000
Treatment[1)]	143-169	147-174	139-165	135-160	130-155*	117-138	2.2-2.6
Police contacts	68-90	61-84	56-77	2)	2)	2)	
Drug-related deaths	57-59	56-75	64-108	58-103	51-66	3)	

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

2) Extrapolations on the basis of the police contacts are no longer possible in the format used to date, due to a change in the drugs data file (Falldatei Rauschgift, FDR).

3) Extrapolations on the basis of drug-related deaths for 2018-2019 are currently not possible due to the revision of the estimation model.

* Corrected numbers for 2017.

(DBDD 2020; special calculation)

In an estimate carried out for the first time in 2016, the figure for Germany is 166,294 people (lower and upper limits: 164,794; 167,794) with an opioid dependency, of whom 123,988 are men (122,968; 125,007) and 42,307 are women (41,826, 42,787). Based on the registered resident population in Germany in 2016 aged between 15 and 64, this produces a rate of 3.05 - 3.11 per 1,000 population (Kraus et al., 2019).[13]

1.1.3 Estimates of opioid use in sub-populations (T1.1.3)

There are currently no estimates of opioid use in other sub-populations.

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

1.2.1 Patterns of heroin/opioid use (T1.2.1)

In the 2018 Frankfurt MoSyD scene study, it is evident that heroin (together with crack) remains by far the most commonly used drug in the street drug scene (Werse et al., 2019, Werse et al., 2017). In the 24 hours before the survey, just under two thirds of respondents had used heroin (63%) and 81% had used crack. Thus, both heroin and crack consumption have slightly fallen (in comparison to 2016). As far as frequency of use is concerned, for heroin there were only minor changes. On average, the respondents had taken 4.0 different drugs in the previous 30 days and 2.6 different drugs in the previous 24 hours (Werse et al., 2019).

Information on comorbidities can be found in the 2018 Drugs workbook.

[13] Further (methodological) details and results were presented in the 2019 workbook.

1.2.2 Treatment for heroin and other opioids (T1.2.2)

Substitution based treatment is - after detoxification - the most commonly used form of intervention in the case of heroin/opioid dependence. 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.

1.2.3 High-risk opioid use (T1.2.3)

In the 2018 MoSyD scene study, 70% of users reported intensive use of heroin, i.e. daily or nearly daily use, somewhat more than in 2016 (67%) (Werse et al., 2019). Further results of the study were described in the 2019 Drugs workbook.

1.2.4 Synthetic opioids (T1.2.4)

There is currently no specific information on the use of synthetic opioids.

1.2.5 Injecting and other routes of administration (T1.2.5)

For heroin, the MoSyD scene study reports a decreasing trend in intravenous use over the course of the survey in relation to the open drug scene in Frankfurt, however this was not confirmed in 2018 (Werse et al., 2019). 59% prefer to inject heroin. Further information was presented in the 2019 workbook.

In the 2018 trendspotter study conducted by the EMCDDA, an increase in the injection of powder cocaine (on its own or in combination with heroin) was observed in drug consumption rooms in France, Switzerland, Germany, Spain and Luxembourg. The results of the ESCAPE study, which analysed, with the help of needle exchange programmes, the remnants in drug paraphernalia, thus providing information on the different substances used, also point in a similar direction. With five needle exchange programme locations, Cologne was the only participating German city. Cocaine and heroin were almost exclusively found in the drug paraphernalia collected (n = 163), with only one case of morphine (Néfau, 2018).

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

1.2.6 Infectious diseases (T1.2.6)

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

2 Trends (T2)

Not applicable for this workbook.

3 New developments (T3)

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

At the end of March 2020, the CDR at the Goethe University Frankfurt began a qualitative online study with the objective of collecting information on the effects of the corona pandemic on people who compulsively use “hard” drugs, as well as on the drug support services dealing with them.[14] From 50 qualitative answers returned from 26 German cities (from mainly central and southern Germany), there was a predominantly worsened mood. The general living conditions for users are primarily complicated by a more severe shortage of money. The drug market was only partly influenced by the corona restrictions, in that illegally traded medicinal drugs increased in price more strongly than illegal substances. Drug use changed as a result of the crisis, presumably because fewer psychoactive substances were used overall but also because more people are turning to legally or illegally available substitution drugs with some also using sedating medicinal drugs and alcohol as generally cheaper substances. Drug support providers greatly reduced their services due to the measures and at the beginning of the crisis had to deal with a lack of protective equipment in some cases. Take home rules were often, but not always, extended to substitution drugs. Consumers often have problems observing distancing and hygiene rules (Werse und Kamphausen, 2020).

4 Additional information (T4)

4.1 Additional sources of information (T4.1)

Important sources are described above. 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.

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

Data from the project “Guidance - addiction counselling for refugees” by the “Emergency service for those at risk of addiction and addicts” (Notdienst für Suchtmittelgefährdete und -abhängige e.V.) is available for the group of substance-using people with a recent immigration or refugee background. In 2018, 518 substance-using people received counselling (99.7% male). Opioids represent the most frequent substance group by some margin, accounting for just over half of counselling needs, cannabis accounts for around a third. Further information on the project can be found in the 2019 Harms and Harm Reduction workbook, and in the 2019 Drugs workbook.

[14] The study will be completed at the beginning of 2021. No interim report is available, however.

SECTION D: NEW PSYCHOACTIVE SUBSTANCES (NPS) AND OTHER DRUGS NOT COVERED ABOVE

1 New psychoactive substances (NPS), other new or novel drugs and less common drugs (T1)

1.1 Use of NPS: Prevalence and trends in NPS use (T1.1)

Use of NPS in the general population

As shown in Table 9, within the adult general population in Germany, 2.6% of those aged between 18 and 64 have already had experience with NPS at least once in their lives. 0.9% have used such substances within the last 12 months. With the exception of Berlin, there are no significant differences between the individual five *Lander* and Germany as a whole. At 2.1%, Berlin showed an increased level (Seitz et al., 2020a).

Among 12 to 17-year-old adolescents, the use of NPS is as good as non-existent. A mere 0.1% have already had experience with this substance group. The prevalence rates among young adults are somewhat higher. Data on the use of NPS has been collected since 2015 and has only marginally changed (Orth und Merkel, 2020). Among adults, men use more frequently than women, whereas for adolescents there are no differences between the genders.

Table 9 Prevalence of NPS use in Germany

	Source	Age	Total	Male	Female
Lifetime	ESA 2018	18-64	2.6%	3.1%	2.0%
	DAS 2019	12-17	0.1%	0.2%	0.1%
	DAS 2019	18-25	2.1%	3.5%	0.5%
12 months	ESA 2018	18-64	0.9%	1.1%	0.8%
	DAS 2019	12-17	0.1%	0.1%	0.1%
	DAS 2019	18-25	0.2%	0.3%	0.2%
30 days[1)]	ESA 2018	18-64	0.1%	0.1%	0.0%

1) Not reported in the DAS study.

NPS use in schools

The Bavarian ESPAD survey showed that NPS had the highest prevalence rate of all illegal drugs except cannabis, at a level of 8.4% (Seitz et al., 2020b)

The most prevalent form of NPS use among adolescents is herb mixtures (3.6%). 1.7% of pupils reported using NPS in the form of powder or crystals, 1.3% in liquid form and 2.8% in

other forms. At 3.0%, synthetic cannabinoids were the most frequently stated, followed by hallucinogenic substances (1.7%) and stimulating substances (1.4%). Synthetic cathinones were stated by 1.0% of pupils. 1.5% of those questioned reported having used NPS more than 3 times in their lives.

In the 2019 Frankfurt MoSyD survey, a total of 4% of the 15 to 18-year-old respondents reported having consumed a herbal smoke blend at least once in their lives. For 2%, this was also the case for the previous 30 days, while 1% of adolescents reported a use of more than five times in their lives. Compared to the previous year, only the 30-day prevalence changed, from 1% to 2%. In response to the question about other legal high products ("bath salts", "fertiliser tablets" and similar products as well as "research chemicals" (RCs), namely pure active substances), 3% of respondents reported having tried a preparation of this nature on at least one occasion (2018: 2%). 1% (2018: 0.5%) of respondents also reported having taken other legal highs within the previous month. The figure for over five instances of use changed from 0.2% in 2018 to 1% in the current survey. Thus, all three categories showed an increase at this relatively low level. At the same time, the authors of the study interpret these values as "maximum values", as it has been observed that a large proportion of the pupils who answer yes to these questions, name established illegal drugs and medicinal drugs that can be abused in the open question and thus did not actually mean NPS as per the definition (Kamphausen et al., 2020).

In Hamburg and Bremen, NPS use in schools is recorded in the SCHULBUS study. NPS lifetime prevalence in Hamburg is at 4.4% - first place in the category of illicit drugs excluding cannabis. The value has increased from 2015 (2.7%) (Baumgärtner und Hiller, 2019a). In Bremen and Bremerhaven, 2.3% of respondents had already tried these substances before and for 0.5% the last use was not more than 30 days previously (Baumgärtner und Hiller, 2017). In Bavaria, the 30-day prevalence rates remain significantly under two percent (2018: 1.5%) (Baumgärtner und Hiller, 2019b).

The JEBUS Study (Baumgärtner und Hiller, 2018) collected data on the use of NPS in vocational and higher education among 18 to 25-year-olds in Hamburg, Saxony and Bavaria. This revealed a lifetime prevalence of 10.8% in vocational education and a significantly lower lifetime prevalence of 6.4% in higher education. Vocational students also reported significantly higher values for the 12-month prevalence, at 1%, than students in higher education, at 0.3%.[15]

NPS use in specific sub-populations

In the scope of the Phar-Mon plus project, information on the use of NPS in different at-risk populations was collected. In addition to partygoers, clients from different addiction support facilities were interviewed and urine analyses were taken in a correctional institution on

[15] Further results from the 2016/2017 JEBUS study on NPS use by 18 to 25-year-olds in vocational and higher education in Hamburg and major cities in Bavaria and Saxony (Baumgärtner und Hiller, 2018) were presented in the 2018 Drugs workbook.

suspicion of NPS use (Neumeier et al., 2020). 13.2% (150 of n=1,134) of the partygoers reported having consumed NPS within the previous 12 months. In 137 cases, specific information was provided on at least one NPS used by them. In comparison to conventional substances, NPS take a subordinate role. Around a half (51.1%) reported using research chemicals, in particular hallucinogens (41.6%), within the previous 12 months. The use of LSD analogues (1P-LSD, 1B-LSD or ALD-52) and 2C-X derivatives (2CB, 2C-C or 2C-E) was desribed very frequently. 10.2% reported the use of stimulating research chemicals, followed by sedating research chemicals (6.6%). The use of smoking/herb mixtures was reported by 26.3%. Pre-made mixtures such as “Scooby Snax” were increasingly described. 6.6% of respondents reported having consumed NPS sold as bath salts. The majority reported having consumed NPS out of curiosity (51%), followed by their greater availability (33%) and the (presumed) legality of the substances (26%).

In 2019, data was collected on 301 persons from the cooperating outpatient addiction support facilities. 37 people reported the use of at least one new psychoactive substance in the previous 12 months. 14 people provided specific information on the smoking/herb mixture used, 16 on research chemicals, and one person on bath salts (Charge+). Spice (n = 6) was the most-consumed smoking/herb mixture, and MDPHP or MDPV (each n = 4) the most named among research chemicals. Smoking quality, legality and curiosity were the most frequently stated reasons for use (information from 28 people) (Neumeier et al., 2020). The interviews revealed an overall decrease in NPS use but a constantly high use of synthetic cannabinoids and a trend towards synthetic cannabinoids in the form of e-liquids. Data was collected on 92 people in 2019 in the Wittlich correctional institution that took part in the project. In the scope of the study, NPS use was detected and documented by way of urine tests. All NPS used can be attributed to the group of synthetic cannabinoids. The most frequently used substance by some margin was 4F-MDMB-BINACA (n = 70), followed by 4F-MDMB-PICA (n = 30) (Neumeier et al., 2020).

The one-off 2016 study on the characteristics of NPS users, on patterns and motives of use, on how NPS are obtained and on perceptions of prevention (Korf et al., 2019), conducted in six European countries, is described in detail in the 2019 workbook.

1.2 Health harms related to NPS use (T1.2)

The data collected by the Phar-Mon plus project on partygoers and inmates of Wittlich correctional institution also contained information on subjective experiences of unwanted side effects of NPS. In total, 75 NPS users provided information on unwanted side effects they had experienced in the previous 12 months. In connection with the use of research chemicals, 4 people described side effects such as memory loss, immediately falling asleep, nausea, slight circulatory problems, restlessness and being overloaded. Side effects such as derealisation, complete loss of social relations and listlessness were reported in relation to herbal smoke blends (Neumeier et al., 2020). In 47 suspected cases in Wittlich prison, in which the use of NPS was detected in a urine test, stomach problems were frequently reported, in the form of

nausea or vomiting, as well as cardiovascular complaints and impairments in perception and consciousness.

Most of the NPS side effects varied considerably and were additionally intensified by increased potency levels, e.g. with synthetic cannabinoids and fentanyl. On top of that, the risk of acute overdose is very high (e.g. due to high potency levels) and the long term risks are largely unknown. Due to the frequent lack of information as to the causative substance and mostly evidence based effective measures, the treatment of intoxications is difficult. There is a lack of systematic study of the frequency of unidentified NPS intoxications (Wodarz et al., 2019).

1.3 Prevalence, trends and harms related to other drug use (T1.3)

In most representative population surveys and pupil surveys, use behaviour in relation to other drugs (e.g. LSD, psychoactive mushrooms, inhalants) is also recorded. These substances do not reach notable prevalence values among either adults or adolescents.

Further data on the use of medicinal drugs from ESA 2018 (Seitz et al., 2019c) was described in the 2019 Drugs workbook.

In the scope of a review, Wolter (2020) examined prescription frequency, abuse and dependency in relation to benzodiazepine, Z-drugs and opioid analgesics. Approximately 3% of the global population chronically uses benzodiazepine and Z-drugs. In contrast to most western industrialised nations, a decline in prescriptions of both benzodiazepines and Z-drugs was recorded in Germany between 2006 and 2016, although benzodiazepines are still prescribed significantly more frequently. It should be noted, however, that these numbers only relate to SHI-prescriptions and not the 30-50% of private prescriptions, which significantly increases the number of unreported cases. Due to a lack of diagnoses in epidemiological studies, no population based conclusions on abuse and dependence on benzodiazepines and Z-drugs can be obtained.

2 Trends (T2)

Not applicable for this workbook.

3 New developments (T3)

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

No information beyond that reported above is available.

4 Additional information (T4)

4.1 Additional sources of information (T4.1)

The project "HaLT - Hart am Limit" (approx. "HaLT - Close to the limit") is a nationwide prevention project for children and adolescents with high-risk alcohol consumption. On the basis of the observation that in recent years increasing numbers of adolescents have been

admitted to hospital with an intoxication caused by NPS or mixed use, this problem is given special attention in Bavaria, through the dedicated training of project staff. The goal is for the conversation strategy in an acute situation with adolescents who have consumed NPS (and alcohol) to be improved.

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

In relation to the results on NPS use in the general population and in schools, indications are present that would suggest that the prevalence is possibly overestimated. It was noted, particularly in the scope of the MoSyD pupil survey, that the answers to the question as to use of other legal highs or research chemicals must still be viewed with extreme reservation, as to a large extent erroneous, nonsensical or no information at all was given (Kamphausen et al., 2020). Furthermore, according to the results of the current NPS-t study, onen initial limitation is the ambiguity of the term NPS. Consequently, a large practical challenge consisted in finding a suitable definition for NPS. In addition, a common difficulty was that users themselves did not understand the definition of NPS. In view of these findings it is not unlikely that NPS use in prevalence studies, for example in school surveys or European barometer surveys, is too often over-stated (Korf et al., 2019).

Online, the website www.legal-high-inhaltsstoffe.de[16] has been tackling harm reduction in relation to NPS use since 2012, in that it lists the substances contained in NPS and provides areas for users and their parents and/or relatives as well as experts. It is based on an acceptance-oriented approach and provides reliable information (Benschop et al., 2017).

4.3 Non-specific drug use and polydrug use (T4.3)

There is currently no further information available on this issue.

[16] Accessed: 8 September 2020.

SECTION E: SOURCES AND METHODOLOGY

1 Sources and methodology (T6)

1.1 Sources (T6.1)

In Germany, epidemiological data on drug use and drug users is available mainly on the basis of regular national, representative surveys and prevalence studies. These are complemented by mostly regional, quantitative and qualitative studies, which often focus on individual substances and/or specific user groups. Pupil studies and surveys of specific sub-populations in which individual *Laender* or regions participate are described in the following.

National studies in the general population

Epidemiological Survey of Substance Abuse, ESA: The ESA is a combined written, telephone and online survey on the use of psychoactive substances and their consequences, their assessment as well as on other underlying data (Atzendorf et al., 2019). The study has been conducted every three to four years since 1980 on the basis of a representative sample of the resident population. The survey has been conducted by the Institute for Therapy Research (Institut für Therapieforschung, IFT) in Munich since 1990 with funding from the BMG. Since 1995, the ESA has covered the adult population of 18 to 59-year-olds, and since 2006 18 to 64-year-olds. The sampling in the 2018 ESA was based on a two-stage, random selection process. Overall, the adjusted sample comprised 9,267 people, which corresponds to a net response rate of 41.6% (Atzendorf et al., 2019)[17]. Some of the *Laender* have provided funding for a regional expansion of the sample to ensure an adequate statistical basis for *Land* specific analysis. In 2018, Berlin, Hesse, North Rhine-Westphalia, Saxony and Thuringia took part in this additional survey (Seitz et al., 2020a).

Drug Affinity Study, DAS: The DAS carried out by the BZgA investigates, on a long term basis, the use, motives for use and situational conditions with regard to tobacco, alcohol and illegal intoxicants among adolescents and young adults (age group 12-25 years). The study has been carried out every three to four years since 1973. In the 2019 study a representative sample of 7,000 test persons was questioned via computer-assisted telephone interviewing (CATI). Like the DAS 2015, the current study was conducted using a dual-frame approach, i.e. the sample was obtained via landline and mobile telephone numbers and interviewed via landline and mobile telephone. The response rate of the landline sample was 43.2% and of the mobile telephone sample was 30.4% (Orth und Merkel, 2020).

In addition to the DAS, the BZgA has conducted representative surveys on cannabis use among 12 to 19-year-old adolescents and 12 to 25-year-olds every two to three years since 2007. From 2010 onwards, the surveys were conducted in the scope of the Alcohol Survey. In

[17] The results of the most recent survey were reported in the 2019 Drugs workbook.

2018, a representative sample of 7,002 adolescents and young adults was surveyed. The current Alcohol Survey was carried out using the dual frame sampling approach, as it had been in the 2014 and 2016 surveys. The response rate of the landline sample was 47.1% and of the mobile telephone sample was 30.9% (Orth und Merkel, 2019). Detailed results from the study were reported in the 2019 report.

Pupil studies

European School Survey Project on Alcohol and Other Drugs, ESPAD: The ESPAD has been conducted in numerous European countries every four years since 1995. The survey, initiated by the Pompidou Group at the Council of Europe and initially coordinated by CAN (Swedish Council for Information on Alcohol and Other Drugs, Stockholm) and since 2013 coordinated by the EMCDDA, uses Europe-wide common standards for data collection. Germany participated in the ESPAD Study in 2003 at a federal level. A number of *Laender* took part in the subsequent surveys in 2007 and 2011. Bavaria was the only *Land* in which data was collected in the 2015 and 2019 surveys. In the course of the data collection, pupils from the cohort who reach their 16th birthday in the respective survey year (in Germany pupils of the 9th and 10th school year group in regular schools) were interviewed. For Germany, this enables data analysis by birth cohort as well as by school year. The data collection was carried out in April 2019 as a written questionnaire to classes of school pupils. The adjusted sample size was 3,185 pupils from 168 year groups, which corresponds to a response rate of 74.2% following data cleansing (Seitz et al., 2020b).

SCHULBUS: In 2018 the pupil and teacher surveys on contact with addictive substances (SCHULBUS) were carried out among 14 to 17-year-old students in Hamburg (for the seventh time since 2004) and Bavaria within the scope of the “Local Monitoring System” (LMS) at schools providing general or vocational education (unweighted sample 2018: Hamburg: n = 1,033; Bavaria[18] cities: n = 3,850 and rural districts: n = 1,851). The survey was expanded on a one-time basis to the Hanseatic city of Bremen in 2005 and when it was repeated in 2016/17 it was expanded to the entire city state (unweighted sample 2016/17: n = 1,570) (Baumgärtner und Hiller, 2017). The regions of Bavaria and Saxony that border the Czech Republic and a rural district of North Rhine-Westphalia on the Dutch border were included in 2015 due to increasing use of methamphetamine. The SCHULBUS survey is not designed as a representative survey, rather it takes into account regionally specific factors in order to be able to provide local political decision makers, addiction prevention professionals working locally and above all teachers with data on which to base strategies for action (Baumgärtner und Hiller, 2016). The tried and tested concept and related methodology of the SCHULBUS study

[18] The study took place in the large cities of Munich and Nuremberg, and in the rural districts of Miltenberg, Dillingen and Weilheim-Schongau.

was applied to the JEBUS survey in 2016/17 for the target group of 18 to 25-year-olds in Saxony, Bavaria and Hamburg (Baumgärtner und Hiller, 2018).[19]

Monitoring System Drug Trends, MoSyD, pupil survey: A source that has been continuously providing information on drug trends at a local level for many years is the MoSyD from Frankfurt am Main. The MoSyD is made up of several components: a representative pupil survey, a trend scout panel, a scene survey and an expert survey. As part of the MoSyD broad pupil survey, a representative sample of respondents in late adolescence (15 to 18) are surveyed. In 2019, the pupil survey was conducted for the sixth time using tablet PCs and special software. In the current pupil survey, a total of 1,485 questionnaires were included in the analysis (based on all respondents from the 10th-12th grades or in the 1st-3rd years of a traineeship); 1,141 respondents were between 15 and 18 years old (Kamphausen et al., 2020).

Health Behaviour in School-aged Children, HBSC: The HBSC study, funded by the WHO, aims to collect international comparisons of the health and health-related behaviour of young people. It is carried out every four years and has today grown to include 44 countries in Europe and North America. Germany participated for the first time in 1993/94 with its most populous *Land*, North Rhine-Westphalia. Data was collected from all 16 *Laender* for the second time in the current wave of surveys from 2017/18. The HBSC study is designed as a cross-sectional study. The target population of the survey is pupils from the 5th, 7th and 9th year groups across all types of school. The sample for 2017/18 amounted to 4,347 pupils from 146 general education schools; a sample size of at least 1,500 was realised across all age groups (11, 13 and 15 years old). The response rate of schools was 15.6%, and of pupils it was 52.7%. Questions on (cannabis) drug use were only put to 15 year-olds (HBSC-Studienverbund Deutschland, 2020).

Lower Saxony survey: Since 2013, the *Land* of Lower Saxony has been carrying out a 2-yearly, representative survey throughout Lower Saxony of around 10,000 9th grade students, in cooperation with the Criminological Research Institute of Lower Saxony (Kriminologischen Forschungsinstitut Niedersachsen, KFN), in order to examine the hidden side of youth crime. In addition to many other factors, drug consumption is also recorded. The 2017 survey reached 8,938 students in the ninth grade (2015: 9,512, 2013: 10,638). The response rate achieved was acceptable, at 59.2%, although it was somewhat lower than the first two surveys (2013: 64.4% and 2015: 68.5%) (Bergmann et al., 2019). The most recent data collection took place in 2019. [20]

[19] In total, more than 11,000 young adults were able to be surveyed in various German cities, with regard to, among other things, their existing drug use experiences. For detailed results from the JEBUS survey, see the 2018 report.

[20] Results from the 2017 Lower Saxony survey were reported in the 2019 Drugs workbook. The results from the most recent survey were not yet available at the time of reporting and will be presented in the 2021 report.

Studies in specific sub-populations

Phar-Mon plus: in the scope of the Phar-Mon plus project, a monitoring system was implemented in 2019 for 2 years. It enables the rapid and reliable identification of new trends, as well as monitoring of and reporting on the use of established and new psychoactive substances, and the improper use of medicinal drugs (Neumeier et al., 2020). Data on the use of new and established psychoactive substances was collected through various cooperations partners: by way of illustration through peer prevention projects directly at parties and music festivals and additionally in the first of a total of four planned “data collection weeks” involving as many important actors as possible from the areas of substance use and addiction support. To this end, drug users in addiction support were interviewed about their use behaviour through a questionnaire and qualitative interviews were conducted with staff from addiction support and other fields who come into contact with users. This data is supplemented by information supplied by external partners: from the project “HaLT - Hart am Limit" of the Bavarian Academy for Addiction and Health Issues (Bayerischen Akademie für Sucht- und Gesundheitsfragen, BAS), the North Poison Information Centre (Giftinformationszentrum-Nord, GIZ-Nord) and Wittlich correctional institution. Information from the forum work in the project “Legal high ingredients” and the EMCDDA Early Warning System (EWS) will also be taken into account. Data collection in the course of cooperation with party projects took place via the respective prevention projects. In 2019, a total of 1,134 questionnaires could be included in the analysis. The cooperating addiction counselling facilities provided outpatient support services for clients with substance-related problems. In this respect, 301 clients were interviewed in the counselling centres on their use behaviour. 92 data sets on the use of new psychoactive substances in correctional institutions are available through the cooperation with a correctional institution, which conducts analyses in the scope of an internal project on NPS use (Neumeier et al., 2020). The GIZs are the central contact partners for different types of poisonings. Both affected individuals and hospitals or doctors who have attended to patients with corresponding symptoms provide information to the centres on the affected persons and the substances which caused the poisoning. All GIZ-Nord (North GIZ) cases in which the poisoning was due to NPS were included in the project (n = 823). In the scope of the HaLT project, data was collected from a total of 1,988 patients in the period 2017-2019. The way the project was conducted in 2020 was modified in line with the new limitations and circumstances caused by the COVID-19 infection situation and simultaneously expanded to record the new situation and its effects on use behaviour and the addiction support system and thus to be able to derive future recommendations for action for drug and addiction support policy.[21]

Monitoring System Drug Trends, MoSyD, scene study: The scene study carried out in the scope of the Frankfurt MoSyD enables insight to be gained into the situation of the Frankfurt street drug scene, from the beginning of June to the end of July 2018 (Werse et al., 2019). The surveys have been carried out every two years since 2002; in addition, an - externally funded

[21] Initial results will be published in spring 2021.

- survey was carried out in 2003. Topic areas of the survey are (1) practised patterns of drug use, (2) coping with everyday life, (3) state of health and (4) availment of drug support. In 2018, the MoSyD scene study was carried out for the third time using an electronic questionnaire (n = 150). Of the respondents, 62 were recruited outside of the low-threshold drug support facilities, i.e. directly in the street/drug scene; 88 respondents were approached in the contact areas of consumption rooms or other areas of low-threshold drug support. In 2017, a one-time survey was also conducted on the levels of crack consumption. 30 people (of whom 12 were women) from the scene of marginalised users of “hard” drugs were surveyed using qualitative interviews. The survey intensively examined the social situation, day-to-day life and underlying motives of crack users in Frankfurt (Werse et al., 2018).[22]

1.2 Methodology (T6.2)

Basic terms

Drug use at some point during a person's life (lifetime prevalence), is largely based on experimental use and should therefore be regarded more as an indicator for this type of use. In contrast, drug use in the 12 months prior to the survey (12-month prevalence) is a suitable indicator of current user numbers and is often cited in the relevant literature as a reference value. The 12-month prevalence is limited to a sufficiently manageable time frame of past consumption and provides interpretable prevalence values. The 30-day prevalence of the use of illicit drugs often only produces, with the exception of cannabis, extremely low figures which are of little to no interpretable value and are an indicator for short-term use.

High-risk drug use (HRDU) is defined by the EMCDDA as the use of psychoactive substances (cannabis, opioids, amphetamines) with high-risk routes of administration (e.g. injecting use), intensively in relation to frequency or of long duration or regular, usually within the last 12 months. The following characteristics are associated with these patterns of use: (a) the use is recurrent; (b) There are actual harms (negative consequences) for the person (e.g. dependence but also other health, psychological or social problems) or (c) the use increases the probability/risk of the user suffering such harms.

In various surveys, the concept of "problem" or "high-risk" use (for example of cannabis) has been investigated. However, the terminology and operationalisation of the respective concept differ from study to study, hence comparability of information is only possible to a limited extent. A detailed presentation 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).

Estimates of prevalence and incidence of high-risk drug use

The EMCDDA has compiled and further developed a series of methods for estimating the prevalence of high-risk drug use at a national level. The selection of the target groups for these

[22] Results from both studies were reported in the 2019 Drugs workbook.

methods is based on the definition of high-risk drug use as being "injecting or long-term/regular use of opioids, cocaine or amphetamines" (Kraus et al., 2003). In view of the particular risks inherent to injecting drug use, this form of use is of considerable interest when trying to minimize secondary harms. In Germany, injecting use is still primarily associated with heroin, despite a slightly falling proportion of injecting use having been observed for some years amongst clients in addiction support facilities. When it comes to the estimates of prevalence, the various user groups are differentiated according to primary drug just as they are in the description of treated clients and not according to route of administration.

EMCDDA estimation methods (indirect estimates)

A multiplier method was calculated for the 2018 reporting year:

- Estimate *based on admissions to treatment*

For this, the overall number of treated cases is first calculated using reported client numbers in outpatient and inpatient care 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. Since some of the data that is needed for this estimation process (diagnostic data of patients in hospitals) is generally only available after a considerable delay, the most recent estimate for this multiplier is based in each case on data one year older than the multiplier for drug-related deaths.

For the estimate *based on drug-related deaths*, the total number of opioid users in the population is extrapolated from the figure for drug-related deaths for the year in the general population, by using a mortality estimate (calculated from the number of deaths in outpatient counselling). Extrapolations for 2018-2019 are currently not possible due to the revision of the estimation model. The aim of the revision is to make the estimation model more robust to changes in the data set.

The estimate reported in previous years *on the basis of police contacts* cannot be continued from 2016 onwards due to a change to the FDR, produced by the BKA. This estimate was based on assumptions of an "average duration of use" (8 to 10 years) and the number of heroin users who have come to the attention of law enforcement for the first time (incidence), which are added up over the respective years. The proportion of drug-related deaths accounted for by persons already known to police is used in each case to calculate the estimated number of unknown cases.

All results should only be taken as rough approximations as different requirements must be taken into account. In particular, the multipliers employed, which are based on small numbers of cases and selective samples, only have limited relevance. All multiplier methods are subject in themselves to considerable limitations. Other estimation methods (e.g. nationwide capture-recapture studies or other multiplier methods) have not been used since necessary parameters were not available in a timely, empirically supported form.

SECTION F: ANNEXES

1 Bibliography (T6.3)

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2 Tables

3 Figures