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for Drugs and Drug Addiction



Harms and Harm Reduction

GERMANY

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In addition to the above mentioned authors of the Prison workbook, other experts have also contributed to the preparation of the annual report. These experts serve as contact persons for the DBDD and contribute, by writing texts and giving feedback on draft versions of the individual sections, to the creation of the workbook:

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0 SUMMARY (T0)

Drug-related deaths

According to the German Federal Criminal Police Office (Bundeskriminalamt, BKA), 1,398 people died as a result of the use of illicit drugs in 2019. This is the highest value in the last ten years and corresponds to an increase of 9.6% from the previous year. Opioid poisoning (monodrug or polydrug) continues to be the most frequent cause of death, accounting for a proportion of over 46.5%. This proportion has fallen in recent years, however; in contrast, the proportion of long term consequences has been rising. The latest numbers from the general mortality register are from 2017 and 2018. That has recorded 1,063 people in 2017 and 1,125 in 2018, of which 21.6% were women in 2017, increasing to 24.5% in 2018. After the number of cases in the general mortality register had also shown an increase, in 2017 it fell sharply before slightly increasing again in 2018. No clear trend is therefore discernible.

Drug-related, non-fatal emergencies

Overall, a continuous increase in non-fatal drug-related emergencies admitted to inpatient treatment can be seen in the ten years to 2015, with the number rising from 15,262 admissions in 2009 to 23,839 in 2015 (see Figure 5). Since then, the figures fell slightly, to 22,239 cases in 2018.

In 2018, there were 22,239 cases of drug-related intoxication and poisoning across Germany, which were admitted for treatment on an inpatient basis. The number sharply increased over a ten-year period up to 2015 and has now remained relatively stable or slightly fallen for three years. Toxicological information from admissions must be interpreted cautiously due to large inaccuracies in coding.

In the area of inpatient admissions for poisoning, poisoning through "other opioids" predominates, however the numbers have been falling again since 2011. The next largest group is cannabinoids (however with significantly lower total numbers). In the acute intoxications group, the most commonly coded diagnosis, by some margin, is intoxication due to multiple substance use or use of other psychotropic substances. The numbers of cases for these types of inpatient admissions have steeply increased over the past ten years and account for a large part of the total increase in all non-fatal drug-related emergencies admitted to in-patient hospital treatment in the last decade. The four categories of substance - cannabinoids (incl. synthetic cannabinoids), sedatives/hypnotics, stimulants (excl. cocaine) and opioids - accounted for similarly large proportions of cases in 2018, as they had in previous years, at around 2,000 cases each.

Drug-related infectious diseases

In 2019, 3,093 newly diagnosed HIV infections were reported to the Robert Koch Institute (RKI). This corresponded to a national incidence of 3.7 new diagnoses per 100,000 population. Compared to the previous year, the number of first diagnoses increased by 9.8%. The total number of HIV first diagnoses has thus once again increased for the first time in

three years. The number of new HIV diagnoses with the mode of transmission of injecting drug use has remained stable in the last four years, with slight fluctuations. Injecting drug use as the mode of infection was named in 7% of cases with information as to the risk of infection and thus remains the third most important mode of transmission.

In 2019, a total of 4,903 cases of hepatitis B were reported, with the incidence varying widely in the different *Laender*, from between 4.3 infections per 100,000 population in Mecklenburg-Western Pomerania to 17.0 in Bremen. Injecting drug use was the third most significant mode of transmission, recorded in 20% of cases with information as to the mode of infection.

5,940 cases of hepatitis C were reported in 2019, which corresponds to an incidence of 7.1 first diagnoses per 100,000 population, thus showing no change to the previous year. Men are more than twice as frequently affected as women. Injecting drug use is the most common mode of transmission by some margin, named in 64% of diagnoses with information as to the mode of transmission. 44 further infections included the further specification "injecting drug use in prison".

Harm reduction interventions

Harm reduction measures represent one of the four levels of the National Strategy on Drug and Addiction Policy. Since 2016, the BIS 2030 strategy of the German Federal Government has also been in effect, which has the objective of substantially stemming HIV, hepatitis B and C as well as other sexually transmitted infections by 2030. Injecting drug users are explicitly named as one of the specific target groups of this strategy.

Health aspects of drug use are addressed both in the scope of specific services for drug users as well as within the general health care framework. There is no uniform financing. The costs of most facilities are borne by the municipalities, however there is also some financing from the Federal Government and the *Laender*. The availability of harm reduction measures varies widely in Germany. Overall, it is better in cities and heavily populated regions than in rural areas. Care in prisons is clearly in need of improvement (see, on this point, the Prison workbook).

In order to counteract opioid overdoses, emergency training is currently offered in 18 cities on the use of the emergency medicine naloxone by laypeople; a further programme in a 19th city is due to start before the end of this year. The target groups are drug users and people around them. Availability has been significantly expanded in recent years, however it can by no means be described as comprehensive coverage.

Drug consumption rooms continue to play a crucial role in harm reduction among injecting drug users. To date, 24 fixed sites and three mobile drug use facilities are available across seven *Laender*. There are still no drug consumption rooms in nine *Laender*.

In 2018, there were at least 448 centres dispensing sterile drug consumption apparatus, spread across 62.6% of the administratively independent cities and 24.1% of the administrative districts in Germany. This also includes syringe vending machines; currently, 177 syringe vending machines have been documented in 9 *Laender*.

1 NATIONAL PROFILE (T1)

1.1 Drug-related deaths (T1.1)

1.1.1 Drug-related deaths: Overdose deaths (T1.1.1)

In Germany, there are two different systems for recording drug-related deaths, which differ from one another in various aspects. These are the police data from the "Drugs Data File" (Falldatei Rauschgift, FDR) and the "Statistical report on the causes of death" (Todesursachenstatistik) from the German Federal Statistical Office (Statistisches Bundesamt, Destatis). Both data collection systems are described in more detail in section 5.2.1 and only briefly outlined here:

The data collected by the BKA, the so called FDR shows long-term secondary diseases, suicides and accidents that have come to the attention of the police. The "Statistical report on the causes of death" or the general mortality register (Allgemeine Sterberegister) records all deaths in Germany. The basis for extracting drug-related deaths from this register are the corresponding ICD-10 codes (ICD-10, 2009).

The Cause of Death Statistics (Todesursachenstatistik) is used for comparisons with other European countries, as this register largely follows common European standards. Data from the police register is of great significance for long-term comparisons of national trends and provides important information on categories of substances involved in overdoses. However, it is less suitable for Europe-wide comparisons due to differences in selection criteria and reported age groups.

Neither of the two methods used records all drug-related deaths. In each method, a certain number of relevant cases is not recognised, is unreported or is wrongly assigned. However, a long-term comparison of the two registers reveals similar developments and trends (see section 1.1.4), which can be seen as a sort of cross-validation of the two estimation methods. An empirical analysis of the question as to the extent to which the two systems record the same cases and how far the target groups overlap has not been performed.

Current police data on drug-related deaths

The reliability of information on drug-related deaths strongly depends on the question as to whether autopsies and toxicological reports have been utilised to validate the initial estimate of whether a particular death is drug related. The autopsy rate for all drug-related deaths in the FDR from the BKA in the reporting year 2019 was 48.1%. This is a figure which has declined in recent years (2015: 60.9%). Toxicological reports were created in 44.6% of cases (BKA 2020, data delivery). The rates vary considerably between the individual *Laender*. In some *Laender*, they reach almost 100%, in others the examinations are only carried out sporadically.

In total in 2019, 1,398 people died as a result of using illicit drugs. This is the highest value in the last ten years and corresponds to an increase of 9.6% from the previous year (2018:

1,276 people). The progression over time is set out in detail in section 1.1.4. Due to the changeover to a new police data system and the recording or collection of drug-related facts, no more information is possible over and above the pure number of drug-related deaths and the causes of death (for example on the age and gender of those who died) for the data year 2019.

Current data from the general mortality register

The most up to date figures on drug-related deaths, available from the general mortality register of the Federal Statistical Office, are from 2017 and 2018. In 2017, a total of 1,063 people were recorded; in 2018 the figure was 1,125. Following a sharp decline of 17.5% in 2017 year on year, this was followed by a slight increase of 5.8% in 2018. No clear trend is therefore discernible. Overall in 2017, 230 women and 833 men died in connection with illegal drugs (21.6% women). In 2018, the proportion of female deaths rose to 24.5% (276 women, 849 men).

Comparison of the data from the general mortality register with the police data

In 2016 the general mortality register recorded fewer cases than the parallel BKA register for the first time; this was also the case in 2017 and 2018 (see Figure 1). The difference for the data year 2017 amounted to 204 cases (1,272 cases in the BKA register, 1,063 cases in the general mortality register), in 2018 the difference amounted to 151 cases (1,276 cases in the BKA register, 1,125 cases in the general mortality register); more recent data is not available. Even though the reference populations and case definitions for the two registers are not identical, both registers do exhibit similar trends over the last ten years, which are described in more detail in section 1.1.4. One problematic factor which persists is that the exact number of overdoses in the general mortality register produced by the Federal Statistical Office is not stated, as it remains the situation that too few cases are specifically coded with respect to the acute cause of death and a multicausal code has not become established nationwide. Thus, despite the changes to the WHO coding rules which took effect in 2006, the national mortality register is still seen as of little meaningful value, in respect of the analysis of the substance classes which acutely led to deaths in the case of intoxications, than the categorisation of the causes of death in the BKA figures.

1.1.2 Toxicology of overdose deaths (T1.1.2)

Police data on drug-related deaths

Table 1 gives an overview on the toxicological information on drug-related deaths. Overdosing on heroin/morphine (including poisoning by heroin/morphine in combination with other substances) remains the most common cause of death. At 32.1% of all cases, the proportion of all poisonings remains at a similar level to the two previous years, although it is 13 per cent lower than in 2015 (2016: 38%; 2015: 45%). The proportion of drug-related deaths in which substitution drugs were detected, either alone or in combination with other drugs as the main substance, was at 12.8%, (2018: 16.0%). Poisoning through substances

other than opioids, especially through cocaine/crack and amphetamine/methamphetamine, was the cause of death in 19.1% of cases (2018: 17.9%). The proportion of long-term harms amounts to 22.8% and, having risen continuously in recent years, is now twice as high as four years ago (2015: 10.9%).

It is probable that the numbers of mixed intoxications ("polydrug poisonings") could be underestimated in the representation of substance involvement due to a lack of precise toxicological information. This is supported by the fact that the rate of toxicological reports for opioid poisonings registered as polydrug is 66%, whereas the rate for opioid poisonings registered as monodrug is only half as high, at 31%.

Table 1 Drug-related deaths 2019 by substance, police data

Causes of death	% of Total		Number
	2018	2019	2019
Monodrug poisoning from opioids	20.4	15.5	217
Heroin/Morphine	13.7	11.4	160
Opioid-substitution drugs	3.9	1.7	24
– of which: Methadone/Polamidon	3.4	1.6	22
– of which: Buprenorphine (i.a. Subutex)	0.3	0.1	2
– of which: Other	0.2	0	0
Opioid-based medicines	2.4	2.3	32
– of which: Fentanyl	2.0	1.8	25
Synthetic opioids (i.a. fentanyl derivatives)	0.4	0.1	1
Polydrug poisonings from opioids¹	28.9	31.0	433
Heroin/morphine in connection with other substances (i.c.w.o.s.)	18.0	20.7	289
Opiate-substitution drugs i.c.w.o.s.	12.1	11.1	155
– of which: Methadone/Polamidon i.c.w.o.s.	10.4	8.3	116
– of which: Buprenorphine (i.a. Subutex) i.c.w.o.s.	0.5	1.8	25
– of which: Other i.c.w.o.s.	1.3	1.1	16
Opiate-based medicines	4.2	4.2	58
– of which: Fentanyl	2.2	2.4	34
Synthetic opioids (i.a. fentanyl derivatives) i.c.w.o.s.	0.1	0.1	1
Monodrug poisonings from substances other than opioids/opiates	9.4	8.4	118
Cocaine/crack	3.2	2.6	36
Amphetamine/methamphetamine	3.8	3.9	55
– of which: Amphetamine	2.9	2.7	37

– of which: Methamphetamine	0.9	1.4	20
Amphetamine derivatives	1.0	0.6	8
New Psychoactive Substances (NPS)	0.5	0.6	9
- of which synthetic cannabinoids		0.4	5
- of which other NPS		0.3	4
GHB/GBL		0.4	6
Others (w.e.o. psychoactive medical substances)	0.8	0.3	4
Polydrug poisonings from substances other than opioids/opiates¹	8.5	10.7	150
Cocaine/crack i.c.w.o.s.	4.1	4.4	61
Amphetamine/methamphetamine i.c.w.o.s.	4.0	4.9	69
– of which: Amphetamine i.c.w.o.s.	3.4	4.3	60
– of which: Methamphetamine i.c.w.o.s.	0.7	1.0	14
Amphetamine derivatives i.c.w.o.s.	1.1	1.22	17
New Psychoactive Substances (NPS) i.c.w.o.s.	0.9	0.7	10
- of which synthetic cannabinoids		0.4	6
- of which other NPS		0.3	4
GHB/GBL		0.6	8
Psychoactive medicinal drugs, i.c.w.o.s.	1.6	3.2	45
Other i.c.w.o.s.	0.5	1.1	16
Other causes of death			
Intoxications from psychoactive medicinal substances only (possibly also in connection with alcohol)	2.5	0.8	11
Not specified/unknown poisonings	4.3	4.4	62
Suicides	5.6	6.9	96
– of which: Suicide by way of intoxication (already included in the causes mentioned above)	1.8	3.0	42
– of which: Suicide through means other than intoxication	3.8	3.9	54
Long-term harms	18.0	22.8	318
– of which: Long-term harms in combination with consequences of intoxication	3.0	12.3	172
Accidents	2.2	2.1	29
Other cases	1.9	0.4	6
Total (N)²	1276		1398

¹ In the subcategories, multiple counting is possible.

² The total number comprises the sum of all monodrug and polydrug poisonings plus all suicides not caused by intoxications as well as all long-term harms, accidents and other cases.

Data from the general mortality register

In 2018, the underlying disease (dependence, harmful use of drugs, others from the ICD group F 1x.x) was coded for 59.6% of deaths (2017: 58.0%); however, due to the monocausal registration principle the information on the acute cause of death is lacking for these cases. Thus, the meaningful value of the national mortality register is limited with respect to the substance classes which acutely led to the deaths in the case of intoxications, compared to the police records through the BKA. In 2018, 34.9% of cases were coded as “dependency”, 24.1% as “harmful use”. There has been a trend in recent years to code fewer deaths under their underlying disease and more as “accidental intoxication”. The proportion of intoxications marked as suicide is not increasing.

Evaluations of trends in the coded causes of death can be found in section 1.1.4.

1.1.3 Mortality cohort studies (T1.1.3)

There is no overview available on mortality in the overall population of drug users, nor are there any known current regional cohort studies.

1.1.4 Trends (T1.1.4)

The long term trend in the total numbers of drug-related deaths in Germany has been similar for both registration systems between 2005 and 2016, however they fell below the lows of 2011 and 2012 in 2017, rising only slightly in 2018. The data from the general mortality register for 2017 and 2018 declined more than that of the BKA (see Figure 1). After the BKA figures had roughly stabilised in the previous two years, the increase which had been seen prior to that resumed in 2019. A slight decrease could already be seen in the general mortality register for the data year 2016. As the difference between the two registers now consists of two data years, it still remains to be seen whether the trend will also stabilise in the general mortality register for 2017 and 2018.

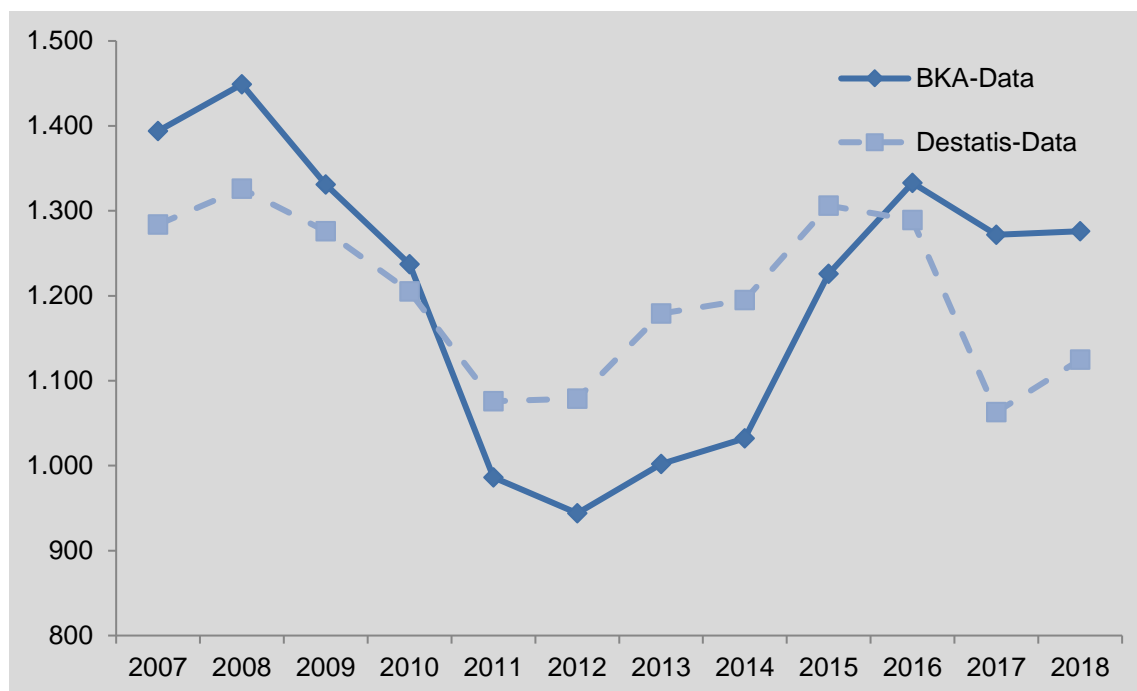


Figure 1 Trends in the number of drug-related deaths: Comparison of BKA and Destatis data, 2007 to 2018

Statistisches Bundesamt, special calculations; Federal Situation Report on narcotics crime from the BKA (Bundeslagebild Rauschgiftkriminalität), most recently 2019 and BKA 2020, data delivery

Data from the general mortality register

The age distribution of drug-related deaths since 2000 has shown a shift to a higher age of death. After hardly any clear age group shift was apparent between around 2013 and 2016, the trend has become more pronounced again in the last two observation years. The proportion of recorded deaths of people over 60 years old was higher than ever before (2017: 12.4%; 2018: 13.2%), while the proportion of under 25-year-olds has remained persistently below 5% since 2016.

Only the coding of drug-induced deaths with the additional X/Y code, provided for in ICD-10 for external causes, allows inferences to be drawn on the substance spectrum involved in instances of intoxication, as this allows a substance-specific breakdown by T-code. For years this has only applied to far fewer than half of the coded cases; in 2017 it was 42% of registered cases, in 2018 the figure was 40.4%. For the vast majority only the underlying illness is coded (F codes, see Figure 2).

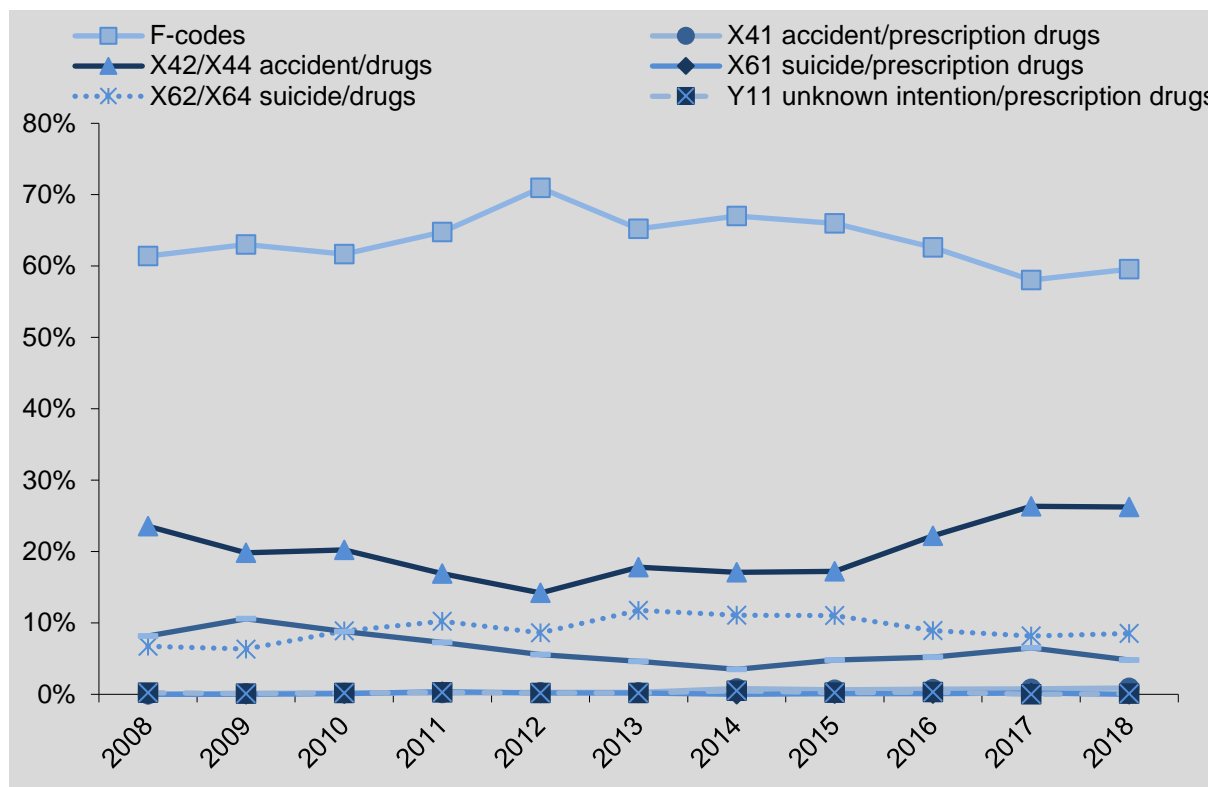


Figure 2 Trend in the Destatis coding of the causes of drug-related deaths, 2008 to 2018

Statistisches Bundesamt, special calculations

Only the coding of drug-induced deaths with the additional X/Y code, provided for in ICD-10 for external causes, allows inferences to be drawn on the substance spectrum involved in instances of intoxication, as this additional code allows a substance-specific breakdown by T-code classification. In 2018, this was true for only 40.4% of registered cases. Purely opioid related deaths in this subgroup accounted for 68.4% of cases in 2018 (2017: 69.0%). This is a significant increase of around 10%, with previous years at mostly stable levels under 60%. Other substance groups were mentioned in 6.5% (2017) and 7.7% (2018) of cases respectively. 25.1% (2017) and 23.3% (2018) of cases involved unspecified intoxications. Further opioid intoxications could be hidden within this latter group. It is not known how many of these classifications are actually based on the findings of complete chemical-toxicological laboratory analyses from post-mortem biomaterials on the spectrum of substances that caused the deaths.

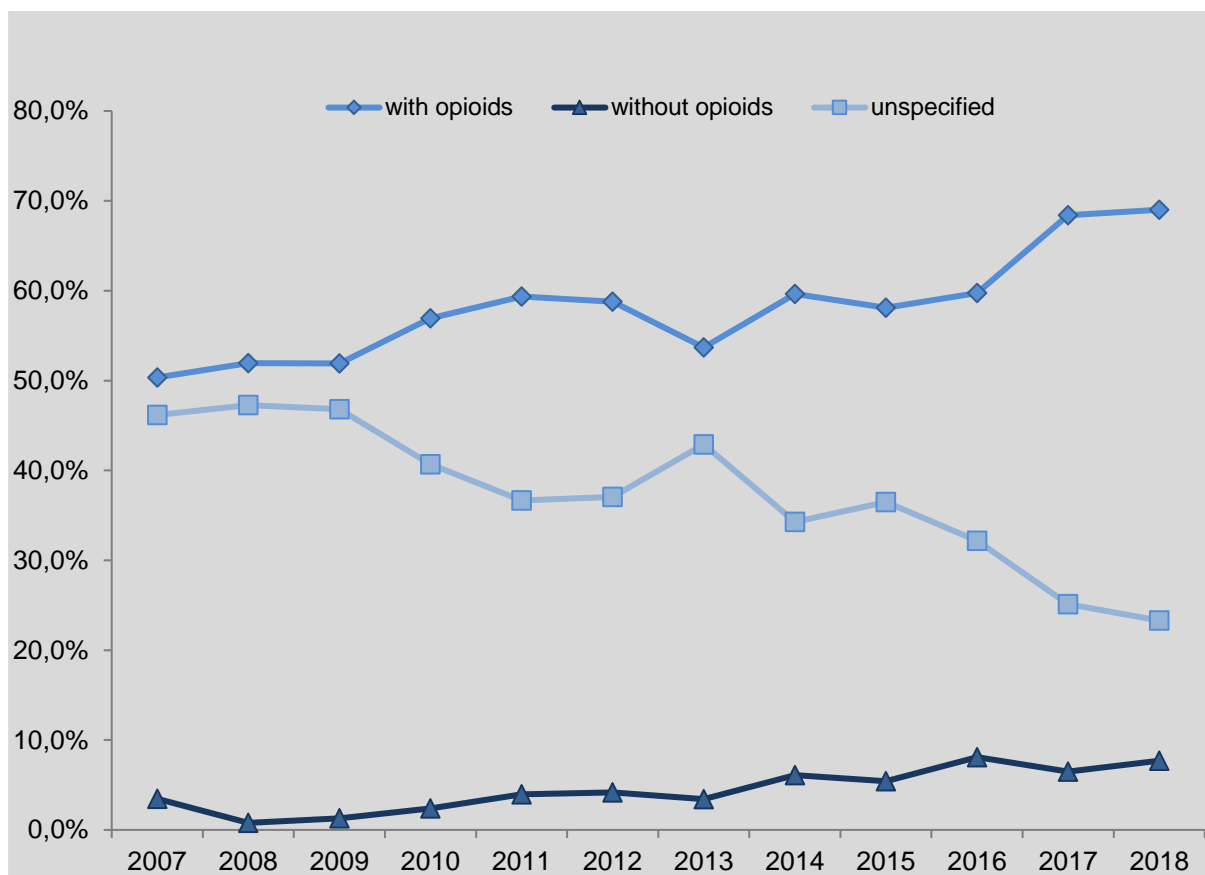


Figure 3 Proportion of opioid intoxication in drug-related deaths, 2008 to 2018

Statistisches Bundesamt, special calculations

Note: The analysis has been modified for all years compared to how it was presented in previous years. Coding for (unspecific) synthetic narcotics has now been classified as opioid-related. In addition, X44, X64 and Y14 codes (in accordance with ICD-10) in combination with particular T-codes have now been differentiated according to their opiate involvement analogously to the WHO coding rules which have been in force since 2006: they show a higher proportion with an opioid connection, meaning that, on the other side, the relative proportion of cases without opioid involvement has fallen. The already identified trend of an increase in cases without opioid involvement has continued, although at a lower level than in the evaluations from previous years.

Police data on drug-related deaths

As the data recording system of the BKA was changed in 2012, trends will only be described from this point onwards. Poisonings from opioids are the main causes of death in that register also. Unlike in the general mortality register, a distinction is drawn between monodrug and polydrug poisonings (see Figure 4). Polydrug poisonings from opioids remain the most frequent cause of death, however their proportion has significantly fallen since 2014, slightly increasing this year for the first time to currently stand at 31.0%. The proportion of monodrug opioid poisonings has fallen continuously since 2012 (26.0%); the 2020 figure is now only 15.5%. Long-term harms is now the second most common cause of death registered; its proportion has more than doubled in the last five years and now stands at 22.8%. This development corresponds to the age of death, which has been increasing for years. The proportion of monodrug poisonings from substances other than opioids has somewhat increased, at a much lower level, since 2015, falling again slightly in 2019 to currently account for 8.4% of poisonings. The proportion of polydrug poisonings from

substances other than opioids has increased in the meantime to just over 11% and stands at 10.7% for 2019.

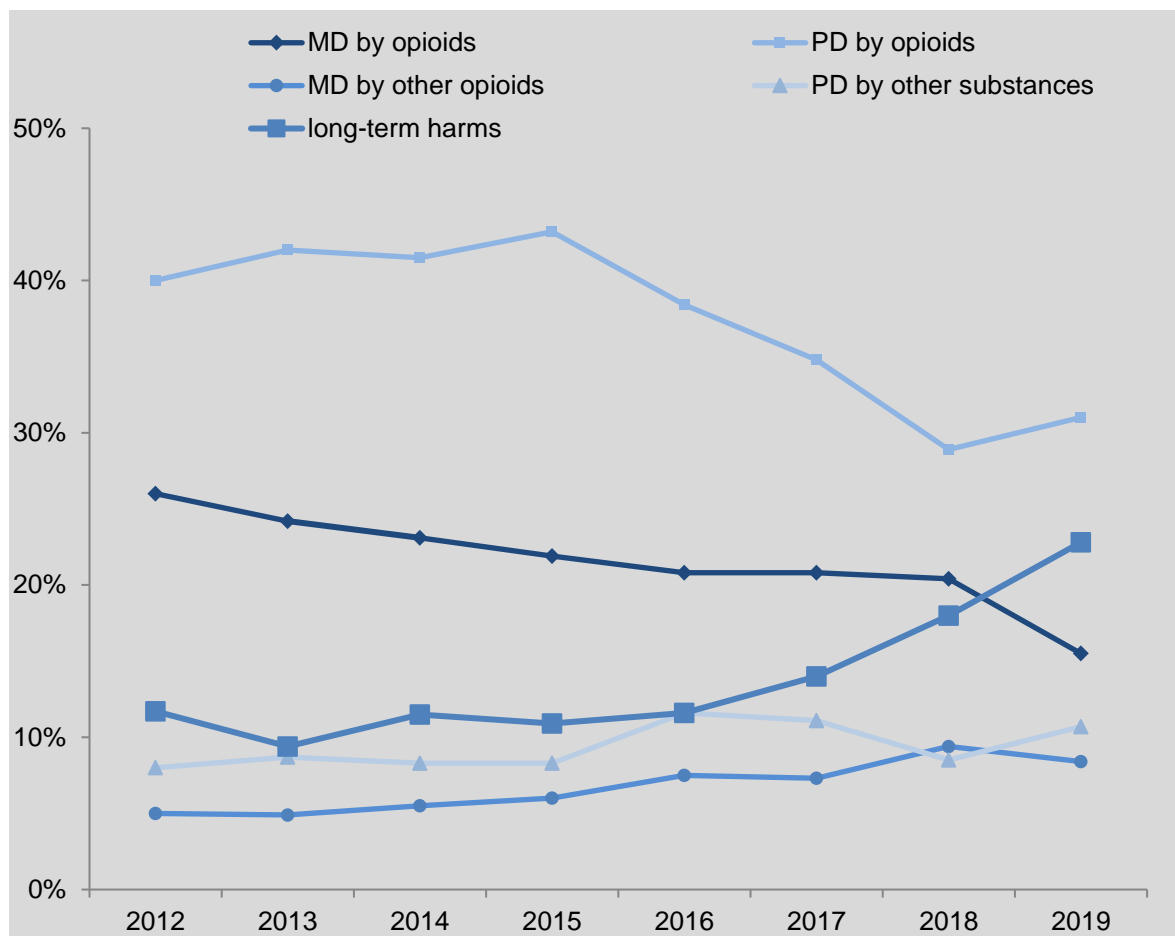


Figure 4 Causes of death, BKA data, 2012 - 2019

MD = monodrug poisoning, PD = polydrug poisoning

BKA 2020, data delivery

1.1.5 Additional information on drug-related deaths (T1.1.5)

There is currently no additional information available.

1.2 Drug-related acute emergencies (T1.2)

1.2.1 Drug-related acute emergencies (T1.2.1)

As an approximation of the number of drug-related, non-fatal emergencies, there is nationwide data available on acute intoxications (ICD-10 diagnoses F1x.0) and poisonings (ICD-10 diagnoses T40.X) treated on an inpatient basis in hospitals from the Statistical Report on Hospital Diagnoses 2018 (Krankenhausdiagnosestatistik) as well as the special calculations of the German Federal Statistical Office (see Table 2). It should be noted that the cases of poisoning (ICD-10 T40.X) could be either an overdose or mistaken administration or ingestion of the wrong substances. Moreover, cases of opioid poisoning, for example, could be caused by (accidental or intentional) overdoses of prescribed medications

containing opioids and not by the consumption of illicit drugs. In addition, this data only allows conclusions to be drawn in respect of drug-related, non-fatal emergencies admitted to hospital on an inpatient basis. Emergency cases, which are either not treated at all or are treated by other facilities, (poison information centres, see section 1.2.2, but also practice-based doctors, emergency medical treatment with no subsequent inpatient treatment) are not covered. Further, it is not clear from the data how seriously pronounced or dangerous the symptoms were and how long the respective treatment lasted; short-stay cases (of less than one day) are also included. The data should therefore only be interpreted with caution.

A further approximation of the number of drug-related emergencies can be taken from the data of the Poison Information Centres and Poison Control Centres (Giftnformationszentrale, Giftnotrufzentrale, GIZ). That data provides information about emergencies that did not lead to hospital admission and will be presented below (see section 1.2.2). In addition, data on drug emergencies treated in drug consumption rooms is available this year; this is presented in section 1.5.3: "Evaluation of emergency statistics from drug consumption rooms".

1.2.2 Toxicology of drug-related acute emergencies (T1.2.2)

Table 2 Number of acute intoxication and poisoning cases, Statistical Report on Hospital Diagnoses, 2018

ICD-10 diagnosis	Total	Age in years				
		<15	15 - 24	25 - 44	45 - 65	65+
Acute intoxication [acute inebriation] (F11.0 to F16.0, F18.0, F19.0)	20,853	436	5,730	10,286	3,641	757
from opioids (F11.0)	1,949	15	197	1,011	483	242
from cannabinoids (F12.0)	2,287	174	1,275	684	483	242
from sedatives/hypnotics (F13.0)	1,853	22	279	756	549	246
from cocaine (F14.0)	830	2	176	560	90	2
from other stimulants (F15.0)	2,332	102	927	1,157	140	5
from hallucinogens (F16.0)	377	7	238	116	13	3
from volatile substances (F18.0)	60	2	13	26	16	3
from multiple substance use or use of other psychotropic substances (F19.0)	11,165	112	2,625	5,976	2,211	241
Poisoning by narcotic drugs and psychodysleptics (hallucinogens) (T40.X)	1,386	67	242	392	288	395
from opium (T40.0)	50	2	4	5	13	26
from heroin (T40.1)	81	0	6	62	12	1
from other opioids (T40.2)	773	36	66	127	204	340

from methadone (T40.3)	71	4	5	37	21	4
from other synthetic narcotics (T40.4)	30	1	8	11	4	6
from cocaine (T40.5)	99	0	19	73	7	0
from other non-specified narcotics (T40.6)	47	3	15	19	3	6
from cannabis (derivatives) (T40.7)	186	18	100	43	17	7
from lysergide (LSD) (T40.8)	15	1	11	3	0	0
from other and non-specified psychodysleptics (T40.9)	34	2	8	12	7	5

Statistisches Bundesamt, special calculations 2019

From the GIZ data:

Data is available from four of the eight GIZ¹ on the documented enquiries on the basis of acute poisoning cases in connection with drugs (not including medicinal drugs, which are recorded separately) from the year 2018 (Giftinformationszentrum-München, 2019, Giftinformationszentrum-Nord, 2019, Seidel und Ganschow, 2019, Tutdibi, 2019).

In these three institutions, a total of 113,657 enquiries on the basis of suspected cases of human poisoning were registered in 2018, of which 2,220 were due to actual or suspected consumption of illicit drugs. The proportion of drug cases is thus 1.95% and remains roughly stable compared to previous years. From this data, however, one cannot ascertain whether the overdoses were as a result of unintended consumption or deliberate drug use. Some of the poison information centres also classify cases in their documentation systems by substance as well as by other variables such as age.

1.2.3 Trends (T1.2.3)

The following trend is based on the nationwide data available on acute intoxication and poisoning cases treated on an inpatient basis in hospitals (ICD-10 diagnoses) from the annual Statistical Report on Hospital Diagnoses of the German Federal Statistical Office (Statistisches Bundesamt, special calculations). This data should be interpreted with great caution; the limitations are explained above (see 1.2.1).

¹ <https://www.klinitox.de/3.0.html> [accessed: 18 Jun. 2020].

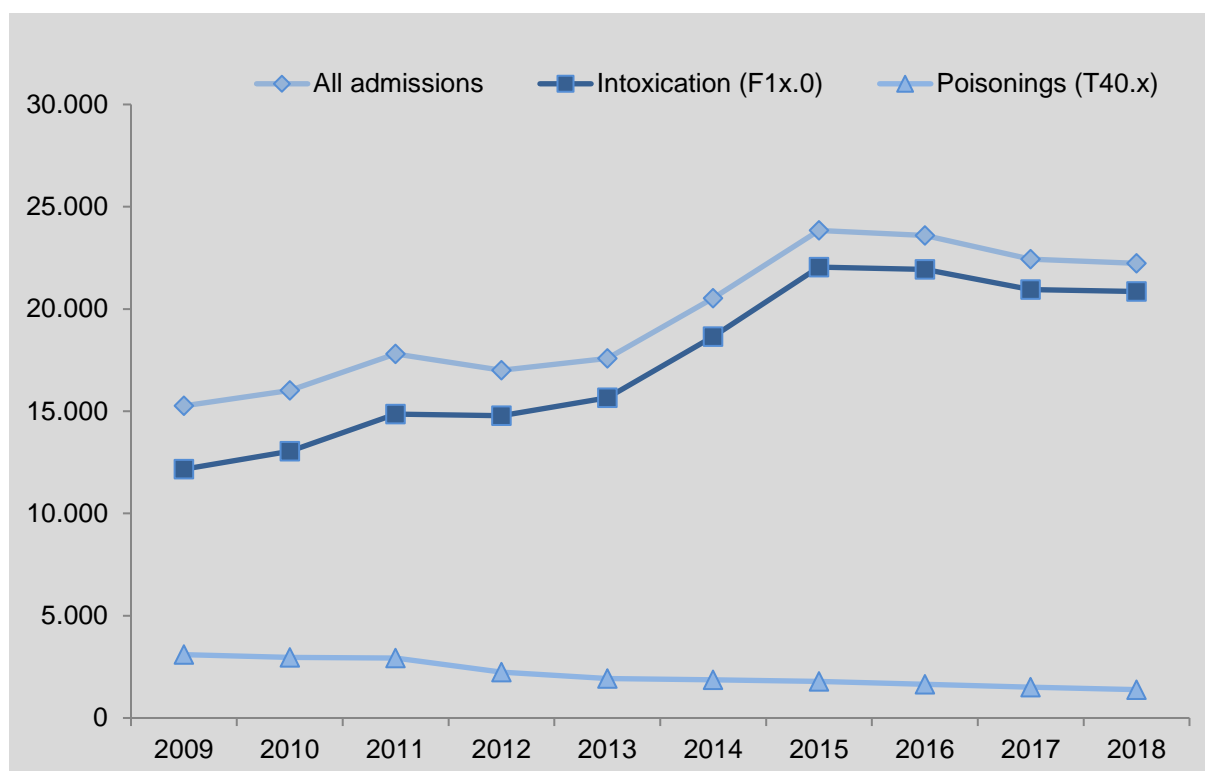


Figure 5 10-year trend in acute drug-related emergencies admitted to inpatient treatment

Statistisches Bundesamt, special calculations

Overall, a strikingly continuous increase in non-fatal drug-related emergencies admitted to inpatient treatment can be seen in the ten years to 2015, with the number rising from 15,262 admissions in 2009 to 23,839 in 2015 (see Figure 5). Since then, the figures have remained stable overall, declining slightly to 22,239 cases in 2018. In the coding, cases of acute intoxication (F coding) represent, by some margin, the overwhelming majority, numbering 20,853 in 2018 and also causing the overall increase of the previous years. The number of coded cases of poisoning, which were already coded at a much lower level in 2009, has fallen even further in the last 10 years, with 1,386 cases in 2018. It remains unclear as to whether this can be explained through coding practices or whether in fact there really were fewer cases of poisoning and more cases of intoxication admitted.

If poisoning and intoxication are considered separately, poisoning through "other opioids" (T40.2) clearly predominates among the significantly more rarely coded inpatient admissions for poisoning (T 40.x codes, see Figure 6) in the last 10 years. Following a considerable increase up to 2011 (1,660 cases), the numbers have since greatly decreased again (2018: 773 cases). Up to 2010, poisoning from heroin (T40.1) was, for many years, the second most common diagnosis in this group, however the number of cases has been decreasing almost constantly for over 10 years and today comprises only a small proportion of poisonings (2018: 81 cases). Since 2011, cannabinoid poisoning (T40.7) has been the second most commonly coded cause of hospital admission, after poisoning by other opioids. However, the trend has stabilised in the last ten years, with slight fluctuations, and at 186 cases in 2018,

the level is still considerably lower than that of opioid poisoning. All other substances, including other/unspecified narcotics, play only a minor role, with up to 100 reported cases.

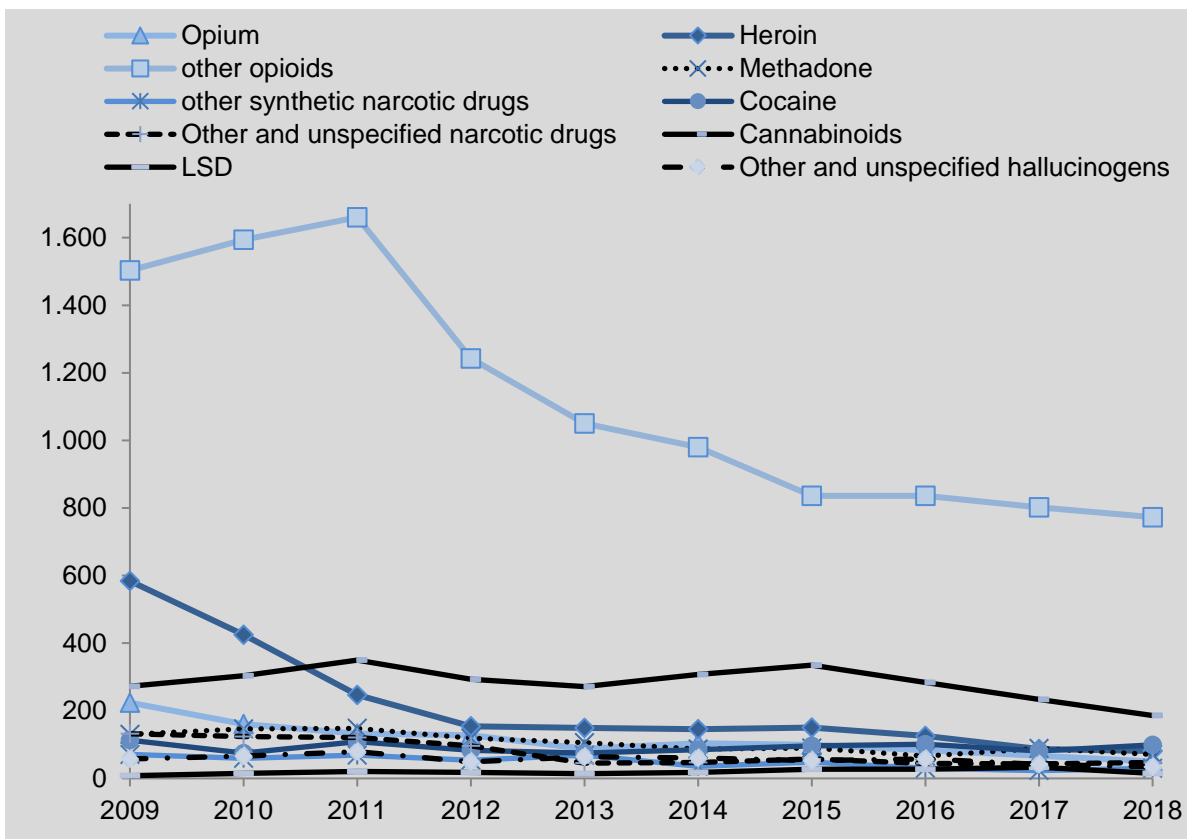


Figure 6 Trend in acute drug-related emergencies admitted to inpatient treatment: poisonings (T40.x-codes) 2009 - 2018

Statistisches Bundesamt, special calculations

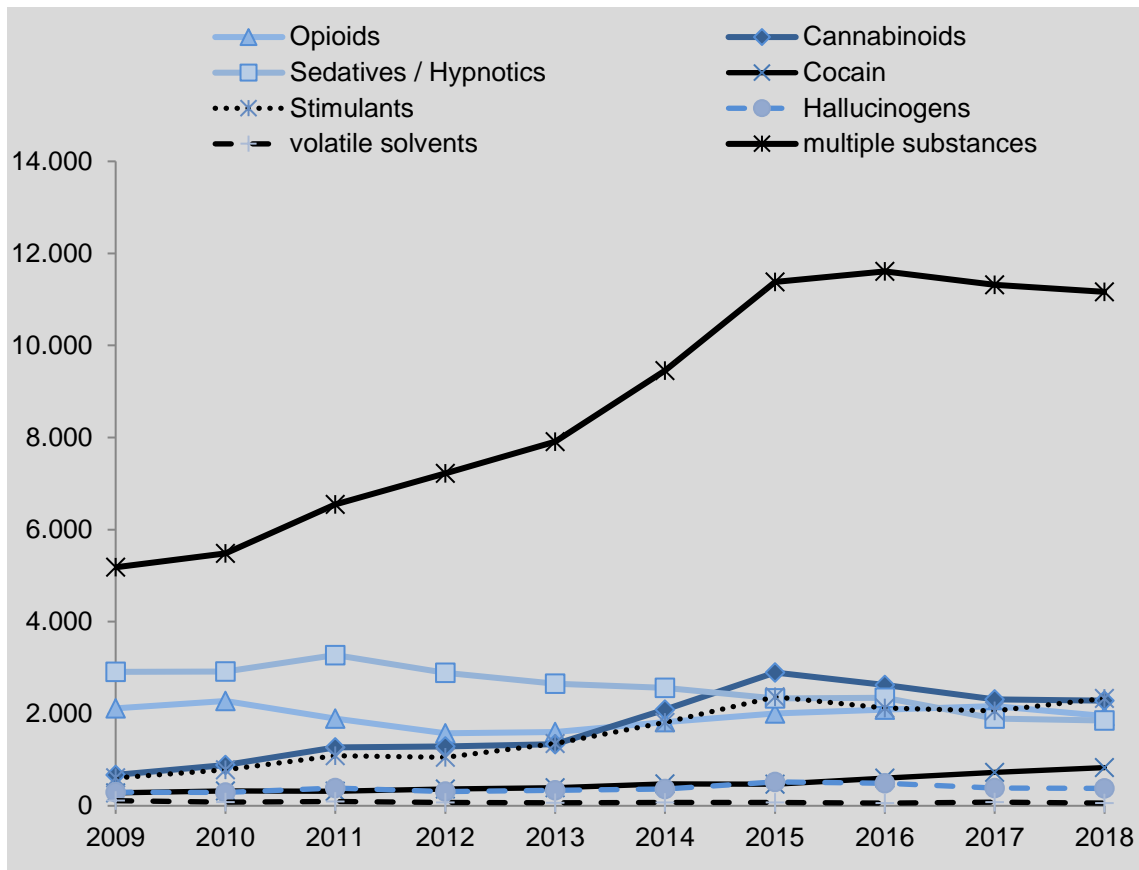


Figure 7 Trend in acute drug-related emergencies admitted to inpatient treatment: acute intoxications (F1x.0-Codes) 2009 - 2018

Statistisches Bundesamt, special calculations

In the acute intoxications group, which is significantly more frequently coded, the most common diagnosis, by some margin, is intoxication due to multiple substance use or use of other psychoactive substances (F19.0, see Figure 7). The number of cases of inpatient admission for this diagnosis steeply increased for ten years before stabilising at a high level from 2015 onwards. They account for a large part of the total increase in all non-fatal, drug-related emergencies admitted to in-patient hospital treatment up to 2015, and in 2018, at 11,165 cases, account for half of all cases. There is sadly no information available on the individual substances which have been coded under "multiple use" or "other psychotropic substances", so no precise conclusions can be drawn as to the use behaviour.

The four categories of substance - cannabinoids (incl. synthetic cannabinoids), sedatives/hypnotics, stimulants (excl. cocaine) and opioids - accounted for similarly large proportions of cases in 2018, as they had in previous years, at around 2,000 cases each. Over time, the significance of individual substance categories has significantly changed, however:

For cannabinoids (including synthetic cannabinoids) as well as for stimulants (excluding cocaine), the last 10 years has seen a very sharp increase in the numbers recorded - in both cases, numbers have nearly quadrupled. Intoxication due to cannabinoids has been the second most commonly coded cause since 2015. In contrast, the number of intoxications

from the substance group of sedatives/hypnotics, which previously had always been the second most common, has fallen overall in the last ten years, with slight fluctuations. The number of intoxications from opioids has remained stable over the last 10 years, with slight fluctuations, at around 2,000 cases per year. Overall, in the area of acute intoxications, a trend towards multiple substance use and an increasing significance of cannabinoids and stimulants is apparent, whereas sedatives/hypnotics in comparison are rather losing significance.

1.2.4 Additional information on drug-related acute emergencies (T1.2.4)

No additional information is currently available on this.

1.3 Drug-related infectious diseases (T1.3)

Throughout Germany, all data on infectious illnesses, the reporting of which is mandatory under the German Protection Against Infection Act (Infektionsschutzgesetz, IfSG), is reported to the RKI and analysed there. This therefore also includes reports of HIV and hepatitis infections. In addition, data is available from the DSHS which should, however, only be interpreted with extreme caution due to a very high rate of missing information. Data from other sources, for example surveys in drug consumption rooms and outpatient addiction support facilities, provides additional insight into the problems of specific, often regional, populations of drug users with HIV and hepatitis. In this respect, special mention should be made of the DRUCK study, which from 2011 to 2015 examined the prevalence of hepatitis B and hepatitis C as well as HIV, unsafe-use behaviours, knowledge about the infections as well as safer use practices among injecting drug users in eight German cities, the results of which were reported in detail in 2017 and 2018 REITOX reports. The follow-up study DRUCK 2 is currently being prepared.

More precise information on the data sources for drug-related infectious diseases can be found in section 5.2.2.

1.3.1 Main drug-related infectious diseases among drug users – HIV, HBV, HCV (T1.3.1)

The following numbers originate from the 2019 RKI reporting data in the infection epidemiology yearbook (Robert Koch-Institut (RKI), 2020). Any statements regarding trends refer to the year books from the corresponding data years.

HIV reporting data

In 2019, 3,093 HIV infections were reported to the RKI, which corresponded to the case criteria and could be identified as first diagnoses. This corresponded to a nationwide incidence of 3.7 new diagnoses per 100,000 population.

Information on infection risk was available for 2,380 of the 3,093 newly diagnosed cases (77%). Where more than one answer was given, this was reduced to the most probable risk. Of the newly diagnosed cases with information as to risk, 61% (1,445) likely involved an

infection contracted via homosexual contact among males, 32% (763) via heterosexual contact and 7% (159) via injecting drug use. 1% (13) of newly diagnosed cases concerned children who had been infected via their mothers.

The number of HIV first diagnoses reported in Germany increased in 2019 following a continuous 3-year decline. The number of new HIV diagnoses with the mode of transmission injecting drug use also increased, albeit at a low level. (Figure 8).

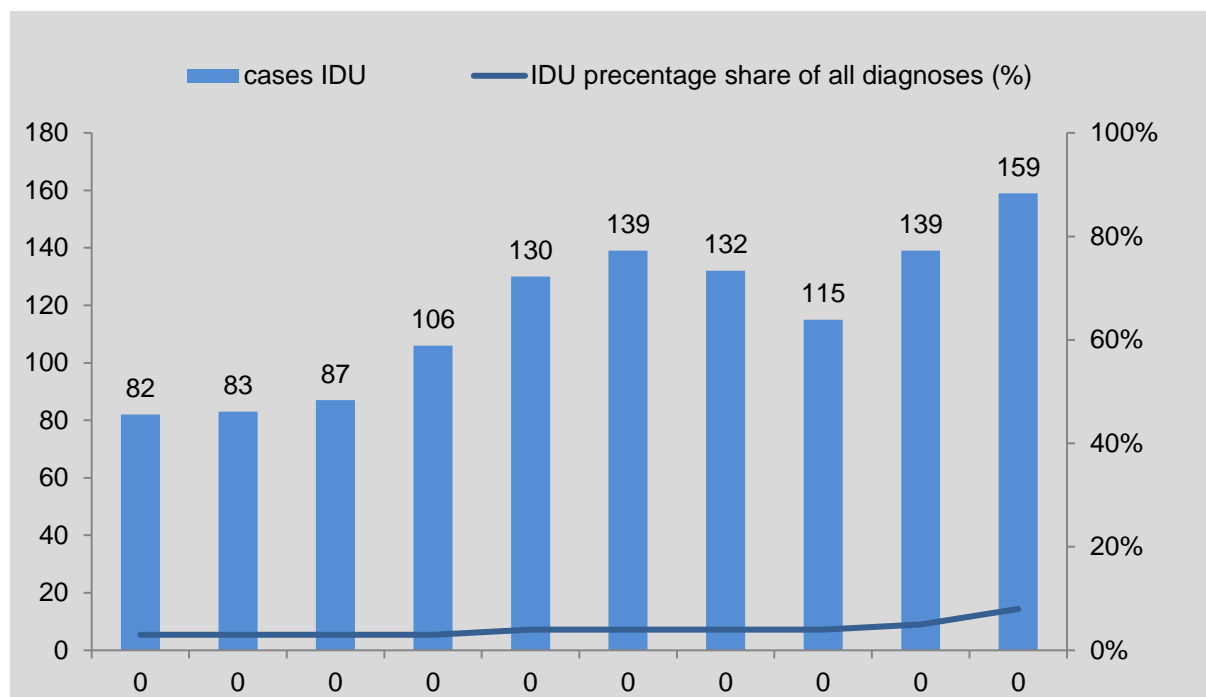


Figure 8 Trend in HIV diagnoses with mode of transmission injecting drug use

RKI infection epidemiology yearbooks, most recently RKI 2020

The situation for people who inject drugs is characterised by sporadically occurring infections which can repeatedly lead, in a number of places, to larger clusters of infections. These then play a significant role due to the relatively small number of infections overall. Following the appearance of such infection clusters in Munich between 2015 and 2017 and in Cologne in 2017 and 2018, an infection situation was observed in 2019 in Bremen and North Hesse. The RKI concludes that more studies are required in order to better understand the conditions for the occurrence of such clusters and be able to take appropriate prevention measures.

Hepatitis B reporting data

The case definitions for a verified hepatitis B diagnosis were changed in 2015, in order to conform to the European case definition and keep track of all active, i.e. infectious and therefore transmissible, HBV infections, irrespective of the current strength of the symptoms. The case definition is described in more detail in section 5.2.2.

Data corrections were made to the reporting data for 2019: with retroactive effect from the 2019 reporting year, all cases transmitted as “chronic” fulfil the reference definition as well as, with retroactive effect from the beginning of the 2015 reporting year, all cases in the case

definition categories D and E, which previously did not fulfil the reference definition because they were reported according to an outdated format.

For 2019, there were a total of 8,903 hepatitis B cases reported according to the reference definition, although multiple answers are possible. The incidence of hepatitis B in Germany differed greatly in the different *Laender*. It ranged from 4.3 infections per 100,000 population in Mecklenburg-Western Pomerania to 17.0 in Bremen. In addition, it is significantly higher among boys and men (12.7) than among girls and women (8.5).

Information on the probable mode of transmission which was sufficient for the analysis was only provided in 426 (5%) of the 8,903 reported cases. In the evaluation, where several modes of transmission were given, these were reduced to the most probable. Shared accommodation with an HBV carrier was the most common mode of transmission (185 cases, 43%), followed by sexual transmission (118 cases, 28%), of which 47 cases were homosexual contact among men and 71 cases of heterosexual contact. Injecting drug use was recorded in 85 cases (20%).

Between 2001 and 2009 a decline was observed in reported acute hepatitis B infections, which is presumably due primarily to an improved level of immunisation through the introduction of general vaccination recommendations for nursing infants in 1995. This trend stagnated, with minor fluctuations, between 2009 and 2014. Since 2015 (change in the case definition), a sharp increase in the numbers of cases can be seen, as expected, as shown in Figure 9. Increased testing of asylum seekers between 2015 and 2017, could also have contributed to the increase in the number of cases. In July, 2017 an amendment to the IfSG came into force, according to which all incidences of laboratory diagnosed hepatitis B must be reported meaning that all active (acute or chronic) infections are captured; the case numbers may also have increased for this reason. It is not precisely quantifiable as to what extent the increase can be attributed to the factors mentioned above or whether it is an actual increase. This would require further analysis. In addition, there is double counting which is not possible to exclude completely. Since 2019, chronic infections have also been published, which has led to a sharp increase in transmitted infections. In previous years, in particular after 2015, chronic cases were partly reported, however they cannot be interpreted as the completeness of these reports is unknown.

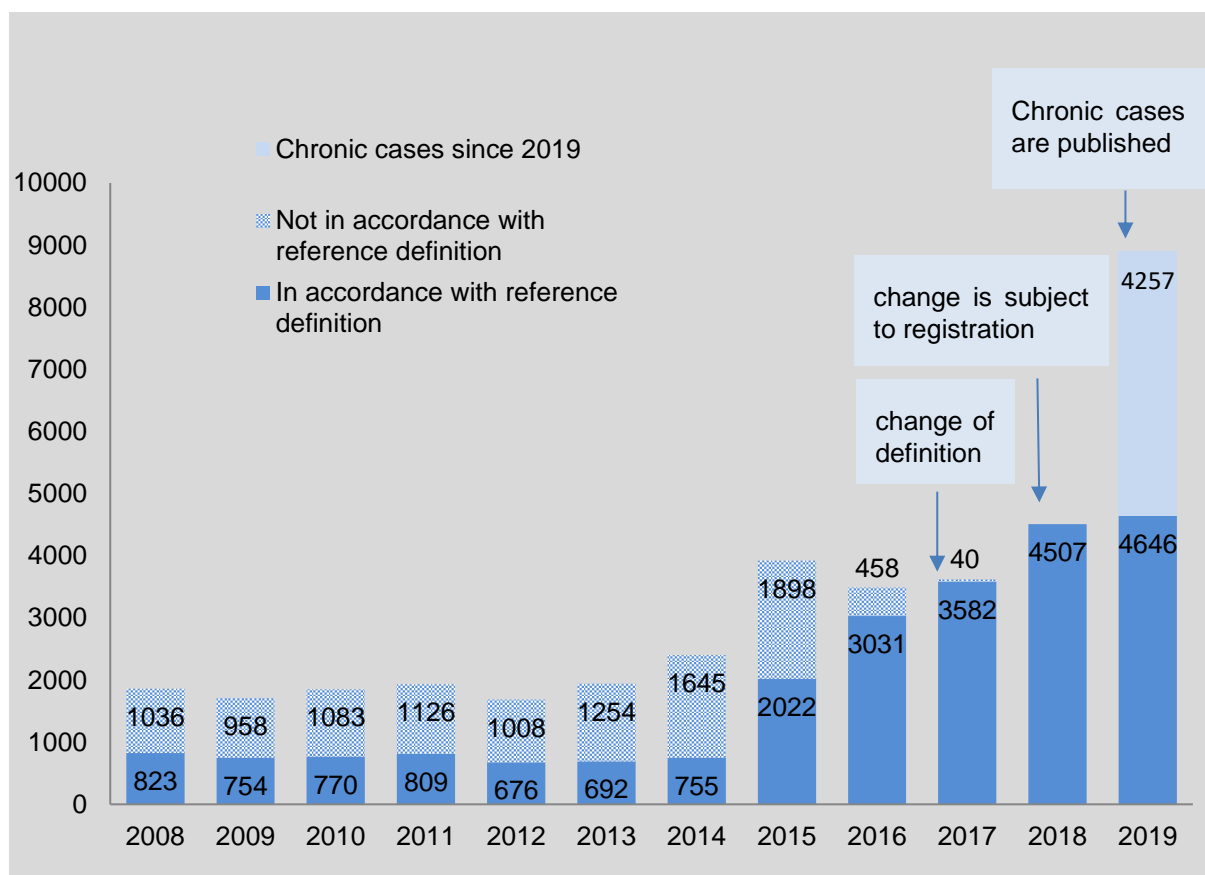


Figure 9 Trend in HBV diagnoses

RKI infection epidemiology yearbooks, most recently RKI 2020

It is strongly recommended that all nursing infants, children and adolescents as well as other, defined at-risk groups are consistently vaccinated. In addition to persons who exhibit sexual behaviour with a high risk of infection, this means primarily injecting drug users (Robert Koch-Institut (RKI), 2020).

Hepatitis C reporting data

As the majority of new hepatitis C infections are asymptomatic, the reference definition includes all cases with a first-time laboratory detection of an HCV infection, irrespective of the clinical picture. Thus, the overall number of cases contains a considerable percentage of already chronic hepatitis C cases (in the sense of a viral replication of more than 6 months); in 2019, 79% of cases, for which sufficient information was available to determine the stage, were chronic.

The trend of hepatitis C infection numbers can only be interpreted with great caution due to the changes in the case definitions. From 2005 onwards, a downward trend in the reporting incidence level and in the absolute numbers of newly diagnosed hepatitis C cases could be seen, a trend which slowed from 2009; in 2014 the case numbers increased for the first time. In 2015, the case definition was changed (only cases with a direct pathogen detection, namely in which an active infection is present, meet the criteria for laboratory diagnostic confirmation), and as expected the figures fell as a result. In 2017 an amendment to the IfSG

came into force, according to which all incidences of laboratory diagnosed hepatitis B must be reported meaning that all active (acute or chronic) infections are captured. Since then, case numbers have been on the increase again. A growing proportion of double and multiple registrations is also conceivable in this context; due to the provisions on deleting personal data, multiple testing of one person by a public health authority cannot always be identified as such. For more information on the methodology see 5.2.2.

For 2019, a total of 5,940 cases of hepatitis C were reported. This represented a national incidence of 7.1 reported new diagnoses per 100,000 population which corresponds to the previous year’s reporting incidence. As in previous years, boys and men, at 9.9 infections per 100,000 population, are more than twice as frequently infected as girls and women (4.3).

Figure 10 shows information on the most probable mode of transmission. This information is available for 1,539 infections, corresponding to 22% of the 5,940 reported infections. Multiple mentions were reduced to the most probable mode of transmission. Injecting drug use, which has a high probability of being causally related to any detected hepatitis C, was reported for 984 infections (64% of cases with information as to the mode of transmission). The additional specification “injecting drug use in prison” was recorded for 44 of these. Injecting drug use has for many years represented the most common mode of transmission for hepatitis C, by some margin; injecting drug users remain an extremely vulnerable group.

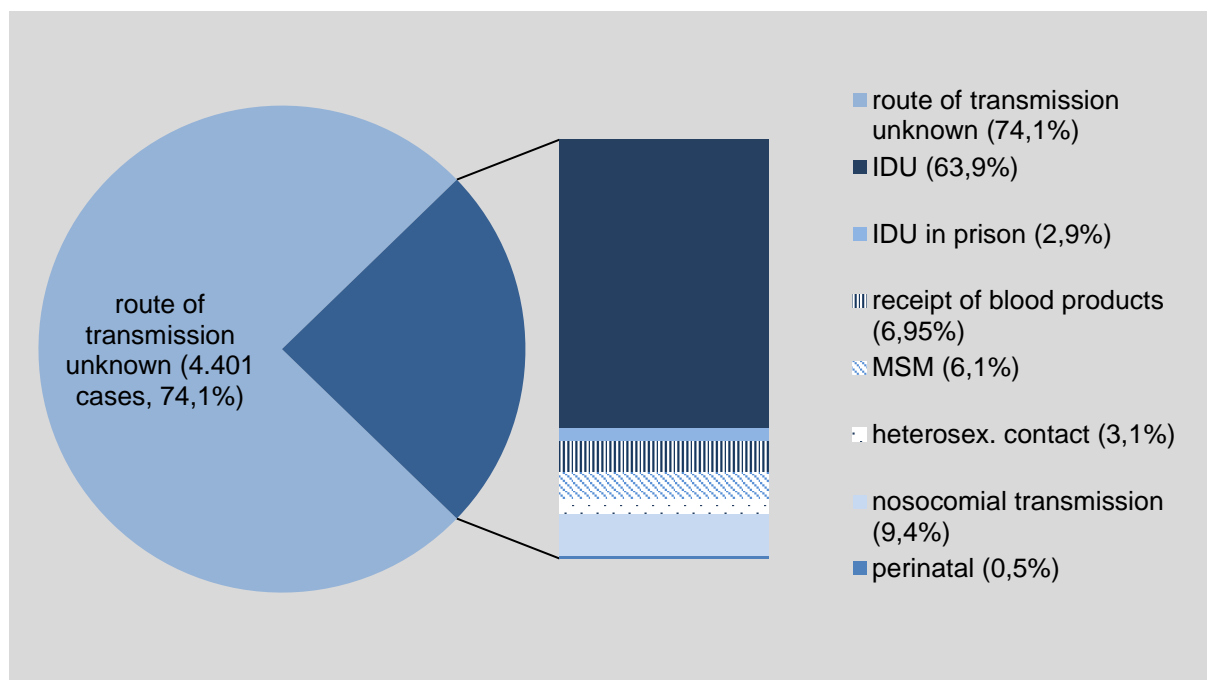


Figure 10 Modes of transmission for HCV diagnoses, 2019

RKI, 2020

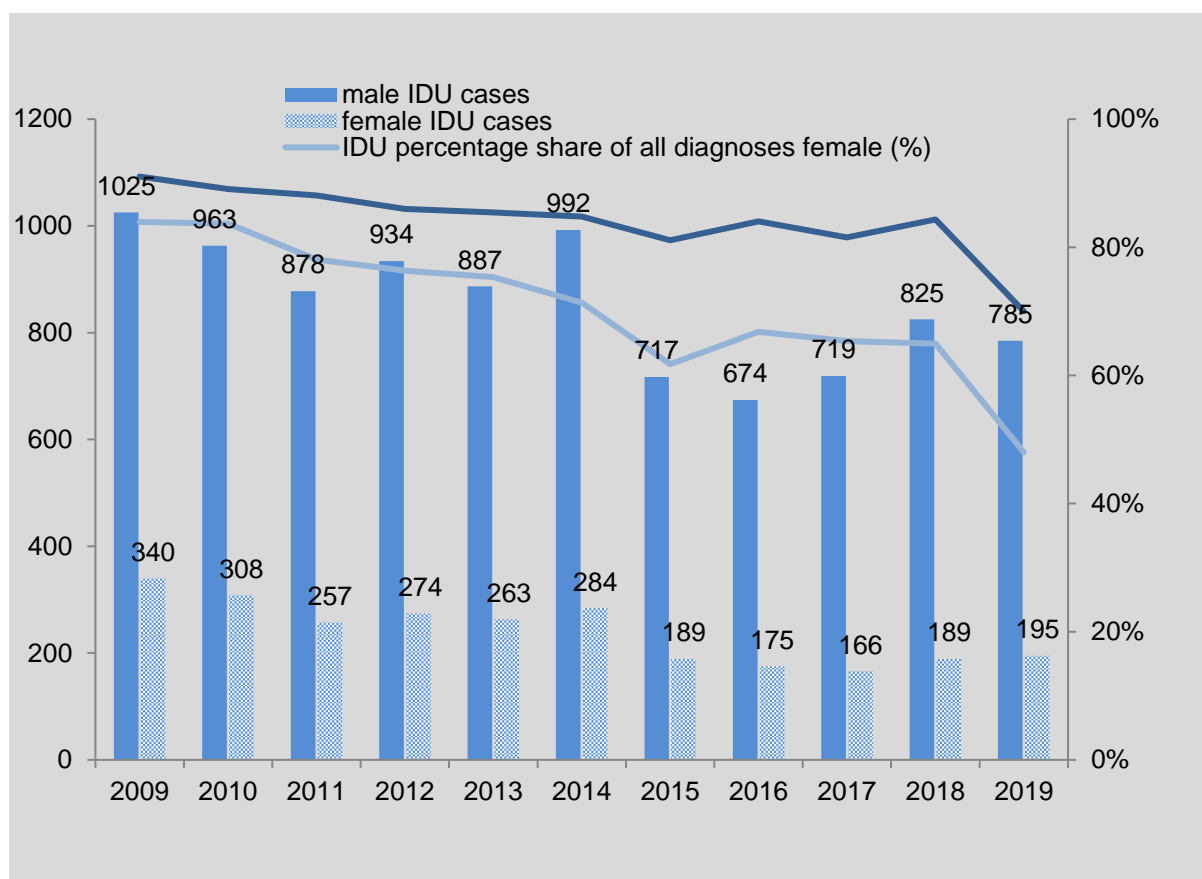


Figure 11 Trend in HCV diagnoses with mode of transmission injecting drug use for men and women

RKI infection epidemiology yearbooks, most recently RKI 2020

As in the previous years, the incidence was markedly higher among men than women (see Figure 11). The fact that men use drugs more frequently than women do and that this is the most commonly reported mode of transmission, explains, among other things, the considerably higher incidence of new diagnoses of hepatitis C among men. To assess the most probable mode of transmission, where more than one was stated this was reduced to the most probable mode of transmission. Unlike in previous years, all reported data was evaluated, so that infections were also included in the information for the first time: transmission from piercing/tattoo, operative-diagnostic intervention, medical injection abroad, occupational exposure with patients/material and organ transplantation are identified. As a result, the proportion of cases with information on the mode of transmission has slightly increased and the relative proportions of information in other categories are slightly lower than in previous years.

Germany has committed to the WHO goal of eliminating viral hepatitis by 2030. In order to reach this goal, there is a need for further improvement in case detection, prevention and access to treatment, particularly among drug users and other groups with increased prevalence and incidence.

1.3.2 Notifications of drug-related infectious diseases (T1.3.2)

No further information is currently available on this.

1.3.3 Prevalence data of drug-related infectious diseases outside the routine monitoring (T1.3.3)

The DRUCK study, which examined 2,077 injecting drug users in eight major cities in Germany between 2011 and 2014, has produced data on prevalence rates of HIV, HBV and HCV. The results of the study were detailed in the 2015 and 2016 Harms and Harm Reduction workbooks (Dammer et al., 2016, Pfeiffer-Gerschel et al., 2015) and are only referred to here as comparative values. The follow-up study DRUCK 2 is running at the moment.

HIV: Data outside the routine monitoring

Annually collected data on the HIV status of opioid users is available in the Hamburg basic documentation on outpatient addiction support (BADO, Martens et al., 2019) as well as from consumption room users in Frankfurt am Main (FFM) in the Consumption Room Documentation, which covers four consumption rooms in Frankfurt (Stöver und Förster, 2019). Both documentation systems collect self reports from clients.

In 2018, 3,858 people in the BADO data were recorded as stating that they mainly had an opioid problem. The largest proportion of those reported polytoxic drug use patterns, however. Of these, information on the HIV status is available for 3,153 people (834 women, 2,319 men). The somatic and psychological comorbidities are set out in greater detail in section 1.4.1.

The 2018 FFM documentation relates to 4,523 consumption room users (676 women and 3,846 men, 1 person of unknown gender). This is not a purely opioid clientele, however around 77% of the instances of use (also) involved opioids; the use of crack is also widespread. 1,759 people reported an HIV test result. The trends from both documentations together are presented in the following.

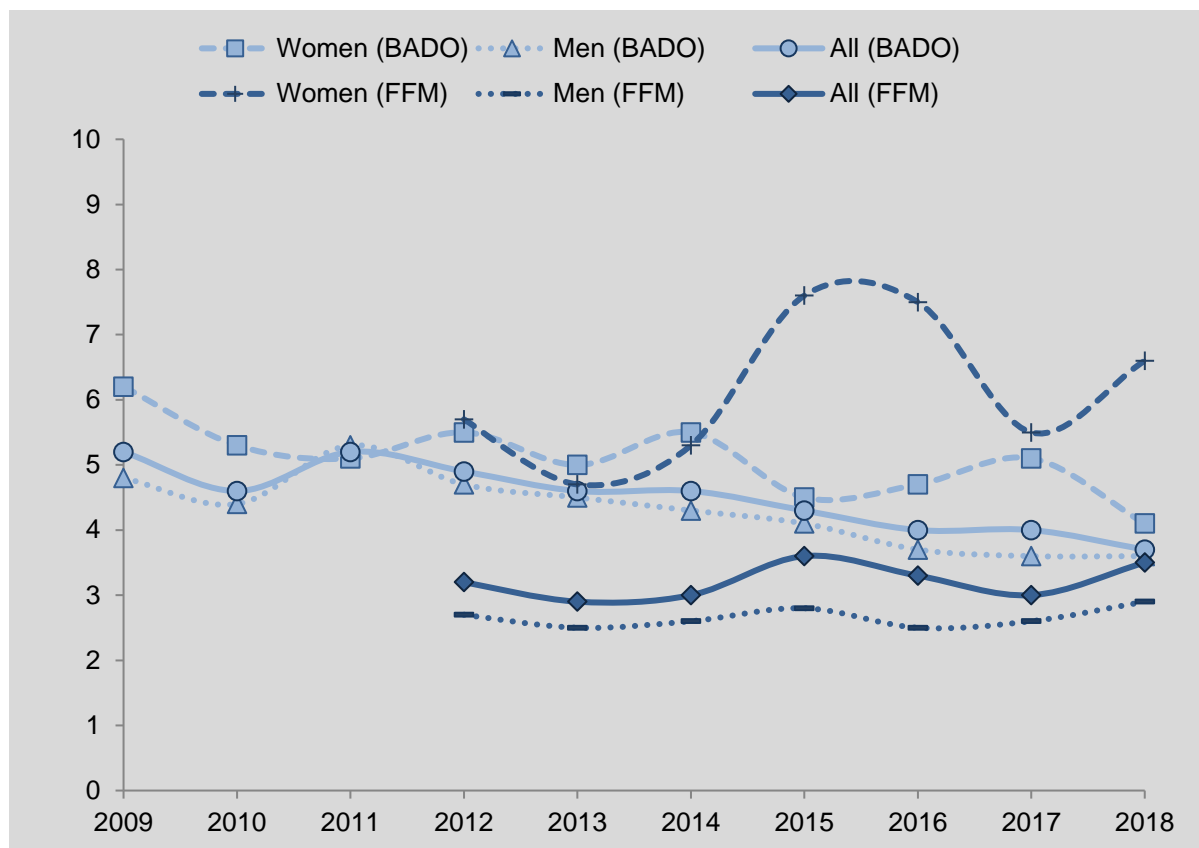


Figure 12 HIV infection rates among opioid users receiving treatment in Hamburg and FFM, 2009 - 2018

Graph based on the annually produced documentations in Hamburg (BADO, Martens et al., 2019) and FFM (Stöver und Förster, 2019)

Data has been available from FFM since 2012, from the Hamburger BADO it is possible to show a ten-year trend. As shown in Figure 12, the infection rate in Hamburg has slightly fallen overall over the years, with slight fluctuations. The FFM documentation shows, with slight fluctuations, a rather stable trend since 2012. Over the years, women in both documentations have exhibited a higher infection rate than men. The DRUCK study also showed higher HIV infection rates among women than men (Robert Koch-Institut (RKI), 2016).

The data can only be interpreted very cautiously. The data is provided by way of self reporting, the validity of which is influenced, among other things, by how high the test rate is and how up to date the test results are. It is also conceivable that some people do not want to report a test result, for example for fear of being stigmatised or otherwise disadvantaged. In the BADO, 7.6% of the opioid-dependent clientele reported that they had not yet taken an HIV test, in FFM this figure was 13.9%.

If one summarises the findings from Hamburg and FFM, the resulting average HIV prevalence rate among opioid users ranges from approximately 3% to 4%, whereby values for women were higher. The values must be interpreted with caution due to the aforementioned limitations. In the open drug scene, the value is significantly higher, at 9%, however all values overall are in the range of those collected in the DRUCK study (Robert

Koch-Institut (RKI), 2016), which recorded an HIV prevalence rate at between 0.0% and 9.1% (depending on the study city). The DRUCK study also showed that women were more frequently infected than man (7% vs. 4%). In the new pilot project “HIV? Hepatitis? I CHECK that!” (HIV? Hepatitis? Das CHECK ich!) which is described in detail in section 3.3, 0.9% of the rapid tests conducted among low-threshold addiction support clients were positive with a re-confirmation of the tests even at only 0.5% (Gerlich et al., 2020).

Hepatitis C: Data outside the routine monitoring

Data is available on hepatitis C infection status from FFM and Hamburg (see, for the data sources, the above section on HIV data).

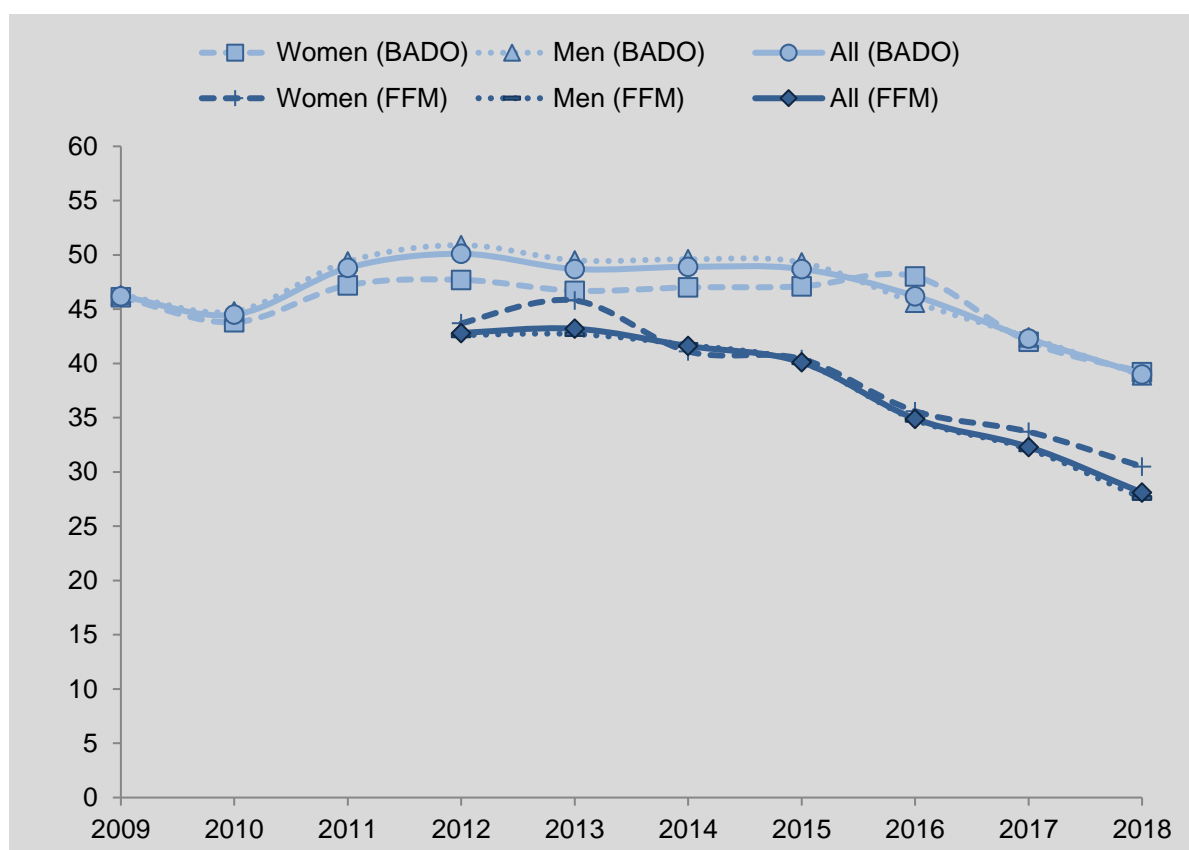


Figure 13 Hepatitis C infection rates among opioid consumers receiving treatment in Hamburg and FFM, 2009 - 2018

Graph based on the annually produced documentations in Hamburg (BADO, Martens et al., 2019) and FFM (Stöver und Förster, 2019)

In 2018, the HCV status was documented in the BADO for 3,179 opioid users. In the Frankfurt Consumption Room Documentation, information is available from 1,766 people on their HCV and HBV infection status. 28.1% of those reported being infected with HCV, a further 0.7% reported an HCV and HBV co-infection. The reported rates of HCV infections have fallen in FFM since 2012; in Hamburg, the numbers were rather stable until 2016, declining only in the last two years (see Figure 13). The infection rates in both documentation systems do not differ greatly between men and women.

In FFM, 12.5% reported never having been tested; in Hamburg that figure is 6.1%. As already noted in relation to the HIV data, any interpretation of the data must be carried out with extreme caution (see above). The situation regarding hepatitis C is further complicated by the different options for testing, the details of which are likely rarely known to clients.

In a sample of substituting patients receiving substitution treatment for at least five years, chronic hepatitis C was documented for 37.5% of them (Zippel-Schultz et al., 2019).

In summary, the resulting estimate of the prevalence of hepatitis C among opioid users is between one third and one half of all those treated, whereby the numbers have tended to decline in recent years. The DRUCK study (Robert Koch-Institut (RKI), 2016) showed an overall HCV prevalence of 42% to 75% over the eight study cities for the years 2012 to 2014. Men were on average more frequently affected than women (42% vs. 38%). In the new pilot project "HIV? Hepatitis? I check that!" (see section 3.3), 36.2% of the drug users tested had an HCV infection, 26.8% were active and thus potentially in need of treatment (Gerlich et al., 2020).

Hepatitis B: Data outside the routine monitoring

The BADO contains no information on hepatitis B. The Frankfurt Consumption Room Documentation shows a very low HBV infection rate of 0.9%, with a further 0.7% HBV and HCV co-infection. Against this background, the data is of limited informative value due to the unclear test status and complicated hepatitis B detection.

The DRUCK study showed, at 1.4% of people with a chronic HBV infection in FFM, a similar value to the Consumption Room Documentation, however the latter established a presumed, previously resolved HBV infection² for a further 27%, in the sense of lifetime prevalence (Robert Koch-Institut (RKI), 2016).

1.3.4 Drug-related infectious diseases - behavioural data (T1.3.4)

Of all types of use, injecting drug use involves the highest probability of becoming infected with diseases. In the 2018 BADO, 53.9% of opioid users reported having injected drugs at some point in the past. 26.8% reported having shared a syringe with someone at some point and 5.0% reported having done so in the previous 30 days (2017: 54.8%, 27.1% and 5.9% respectively; 2016: 60.7%, 30.3% and 5.4% respectively) (BADO, Martens et al., 2019).

Detailed data is available from the DRUCK study on risk behaviour and knowledge of risks and protection possibilities for injecting drug users, which was presented in detail in the Harms and Harm Reduction workbooks in 2015 and 2016.

² The authors of the DRUCK study examine in greater detail the problem of differentiating, in terms of differential diagnosis, between cured HBV infections and occult infections without current viraemia. For the presentation of the results however, they have chosen the option of treating the cases as cured infections. The presentation in this report is based on that decision, see the final report of the DRUCK study, pp. 80 et seqq.

1.3.5 Other drug-related infectious diseases (T1.3.5)

There is currently no additional information available on other drug-related infectious diseases.

1.3.6 Additional information on drug-related infectious diseases (T1.3.6)

There is currently no additional information available on this.

1.4 Other drug-related health harms (T1.4)

1.4.1 Other drug-related health harms (T1.4.1)

In addition to the suffering caused by the infectious diseases described above, drug users are to a considerable extent affected by a series of other somatic and psychological comorbidities. Comprehensive national or representative studies on this topic are not available. In the DSHS, data is collected on comorbidities, however since data is missing for a large majority of all documented patients, no serious estimate as to comorbidities can currently be made on the basis of the few remaining data points.

Comorbid somatic and psychological disorders amongst opioid users in Hamburg

In the BADO 2018, there is information on both the physical and mental health of clients treated which cannot claim to be representative, however which does offer an insight into this specific, heavily impacted clientele (BADO, Martens et al., 2019). The 3,858 opioid users frequently exhibited additional substance-related and non-substance-related addictions. On average, a further 4.1 problem areas were documented.

The assessment by the people providing the care as to the physical health effects suffered by opioid users presents a stable picture of significant harm over the years: around one quarter of users (2018: 25%) each year are deemed to be suffering significant or extreme physical health effects, with a further third (2018: 33%) classified as suffering from a medium level of health impairment. In 2018, a degree of disability of at least 50% is documented in 10% of cases. Data on HIV and hepatitis status can be found under section 1.3.3.

For years, the psychological harm suffered by clients has also been consistently classified as high by the persons providing the counselling, with women having higher rates than men. In 2018, 39% of clients were classified as considerably or extremely burdened (women 49%, men 36%). The rate of suicide attempts has also been consistently high for years; 32% of clients reported at least one suicide attempt in the past (women 44%, men 29%).

1.5 Harm reduction interventions (T1.5)

1.5.1 Drug policy and main harm reduction objectives (T1.5.1)

Harm reduction measures represent one of the four levels of the National Strategy on Drug and Addiction Policy (Die Drogenbeauftragte der Bundesregierung, 2012)³. Various targeted approaches are used in an attempt to prevent deaths caused by drug use:

- Informing and educating on the risks of overdosing,
- Providing effective treatment measures for drug users, including substitution (see Treatment workbook) and improving retention rates,
- Improving transition management after release from prison (see Prison workbook),
- Providing drug consumption rooms,
- Improving the reaction of bystanders in the case of drug emergencies (first aid training, naloxone programmes).

More detailed information on the National Strategy can be found in the Drug Policy workbook.

Since the decision of the German Federal Cabinet of 6 April 2016, the BIS 2030 strategy of the Federal Government has also been active, which seeks to reduce HIV, HBV, HCV and other sexually transmitted infections substantially by 2030 (Bundesministerium für Gesundheit (BMG) und Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, 2016). Injecting drug users are explicitly mentioned as one of the specific target groups of this strategy, for whom needs-based services are to be created or expanded and integrated services are to be developed⁴.

Recommendations for the further development of harm reduction in Germany on the basis of the DRUCK study also indicate ways in which infectious diseases and other drug-related damage to health can be combated. The detailed recommendations can be found in the final report of the DRUCK study (Robert Koch-Institut (RKI), 2016).

Due to Germany's federal structure, political decisions at *Land* and municipal level also play an essential role in harm reduction interventions. For example, the possibility of opening drug consumption rooms is governed by *Land* regulations; since 2019, this has been possible in eight *Laender*.

³ The strategy can also be accessed online, see http://www.drogenbeauftragte.de/fileadmin/dateien-dba/Drogenbeauftragte/2_Themen/1_Drogenpolitik/Nationale_Strategie_Druckfassung-Dt.pdf [accessed: 17 Jun. 2020].

⁴ The strategy is available online at https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/Publikationen/Praevention/Broschueren/Strategie_BIS_2030_HIV_HEP_STI.pdf [accessed: 17 Jun. 2020].

1.5.2 Organisation and funding of harm reduction services (T1.5.2)

Health aspects of drug use are addressed both in the scope of specific services for drug users as well as within the general health care framework. Data on general health care does not provide any information which can be specifically attributed to the target group of drug addicts. Therefore, other than a few individual cases, there is no data available on the number of emergency responses due to overdoses or other life-threatening conditions caused by drug use. Nor is there any data on the treatment of other secondary diseases carried out in GP surgeries or clinics. The costs are generally borne by the health insurance providers, however this information is not collected or published separately.

Information on the extent and type of specific services for drug users is only available for some of the measures, as these are provided by specialised facilities or as part of special programmes. There is no uniform financing. The costs of most facilities are borne by the municipalities, however there is also some funding from the Federal Government and the *Laender*, with a proportion of own funds (for example financed through donations), as well as various hybrid forms.

The availability of harm reduction measures varies widely in Germany. Experts rate them as being much better in cities and heavily populated regions than in rural areas. This has been confirmed, in relation to the provision of consumption apparatus, by the findings of a new survey (see 1.5.3). Care in prisons is particularly poor (see the Prison workbook). As set out in section 1.5.1, the availability is also strongly determined by decisions made at *Land* and municipal level.

1.5.3 Harm reduction interventions (T1.5.3)

Provision of opportunities for testing for infectious diseases

There is no systematic, Germany-wide screening for infectious diseases. The testing possibilities within low-threshold facilities vary widely and are often dependent on financial circumstances. There is no Germany-wide data on services, even if it can be assumed that testing is offered in some low-threshold facilities, at least for HIV, HBV and HCV. Results from the new pilot project “HIV? Hepatitis? I CHECK that!” are presented in section 3.3.

Some low-threshold facilities cooperate with public health authorities for such testing. In the BADO and Frankfurt Consumption Room Documentation, usually around 90% of respondents state that they have been tested for these infections (see 1.3.3). However, only around one third of respondents in the Frankfurt Consumption Room Documentation state that their HIV test is up to date, hence it cannot be assumed that there is sufficient testing frequency. In the case of inpatient stays, there is frequently the possibility to be tested for various infectious diseases. Generally, any person in Germany can be tested for HIV anonymously and free of charge through their public health authority. This service does not exist for hepatitis infections, however.

Provision of syringes and other safer use equipment

Prevention of drug-related infectious diseases in low-threshold drug support facilities consists primarily of providing information on infectious diseases and risks as well as distributing safer-use equipment. Provision of syringes and syringe exchange in low-threshold work is explicitly permitted under the BtMG and is also practised by many facilities.

The German Aids Service Organisation (Deutsche Aidshilfe, DAH) provides a website⁵ containing an overview of the locations of syringe vending machines it is aware of. Issuing syringes in low-threshold and other facilities is not documented on the website, however. According to the website, syringe vending machines are only available at all in nine *Laender*; seven *Laender* do not even have a single documented syringe vending machine. Of the 177 syringe vending machines listed by the DAH, over 100 are located in North Rhine-Westphalia (NRW) and 17 in Berlin. From this it is clear that the distribution of locations for the whole of Germany still cannot be described as comprehensive coverage by any means. Nonetheless, it must be assumed that the documentation of the syringe vending machines in the other *Laender* is incomplete, which could be a factor contributing to a distortion of data in favour of NRW and Berlin. Therefore, the current data really cannot be described as an exhaustive count of all syringe vending machines in Germany.

Nationwide data on the provision of syringes is now available for the first time. North Rhine-Westphalia (NRW) was previously the only *Land* which is not a city state where a regular survey is conducted on a local level on the distribution of disposable syringes by the AIDS service.

Recording the provision of consumption apparatus in Germany 2018

In a collaboration between the German Monitoring Centre for Drugs and Drug Addiction (DBDD), RKI and DAH, the provision of safer use equipment either via syringe vending machines or direct from addiction support facilities or outreach work was recorded for the first time. Dispensing via pharmacies was not recorded. In future, the intention is to capture data every two years on which locations dispense consumption apparatus. In addition, a questionnaire will ask what type of consumption apparatus is being dispensed, and how frequently. The methodology of the project is described in section 5.2.3.

Regional coverage: Research was carried out for a total of 403 dispensing centres⁶ that dispensed consumption apparatus in 2018. These are shown in Figure 14 and are distributed across around one third of German administrative districts and administratively independent cities. Around half of the German population lives in these areas. A striking city vs rural disparity was revealed, which coincides with assessments expressed by experts for years: in 62.6% of independent cities (these are, overall, relatively large cities with a high number of

⁵ <http://www.spritzenautomaten.de> [accessed: 17 Jun. 2020].

⁶ In the previous year, 475 dispensing locations were listed. This number of been reduced through the cleanup of duplicate entries but this does not change the regional coverage.

inhabitants), in which 89.2% of people living in administratively independent cities live, at least one syringe dispensing location was found. In contrast, dispensing facilities could only be found in 24.1% of the rural districts (in which 34.5% of people registered in rural districts live). This information represents a minimum estimate because, despite the detailed research, it is possible that some dispensing locations were not found. However, the results clearly point to a very limited availability of sterile consumption apparatus in rural areas.

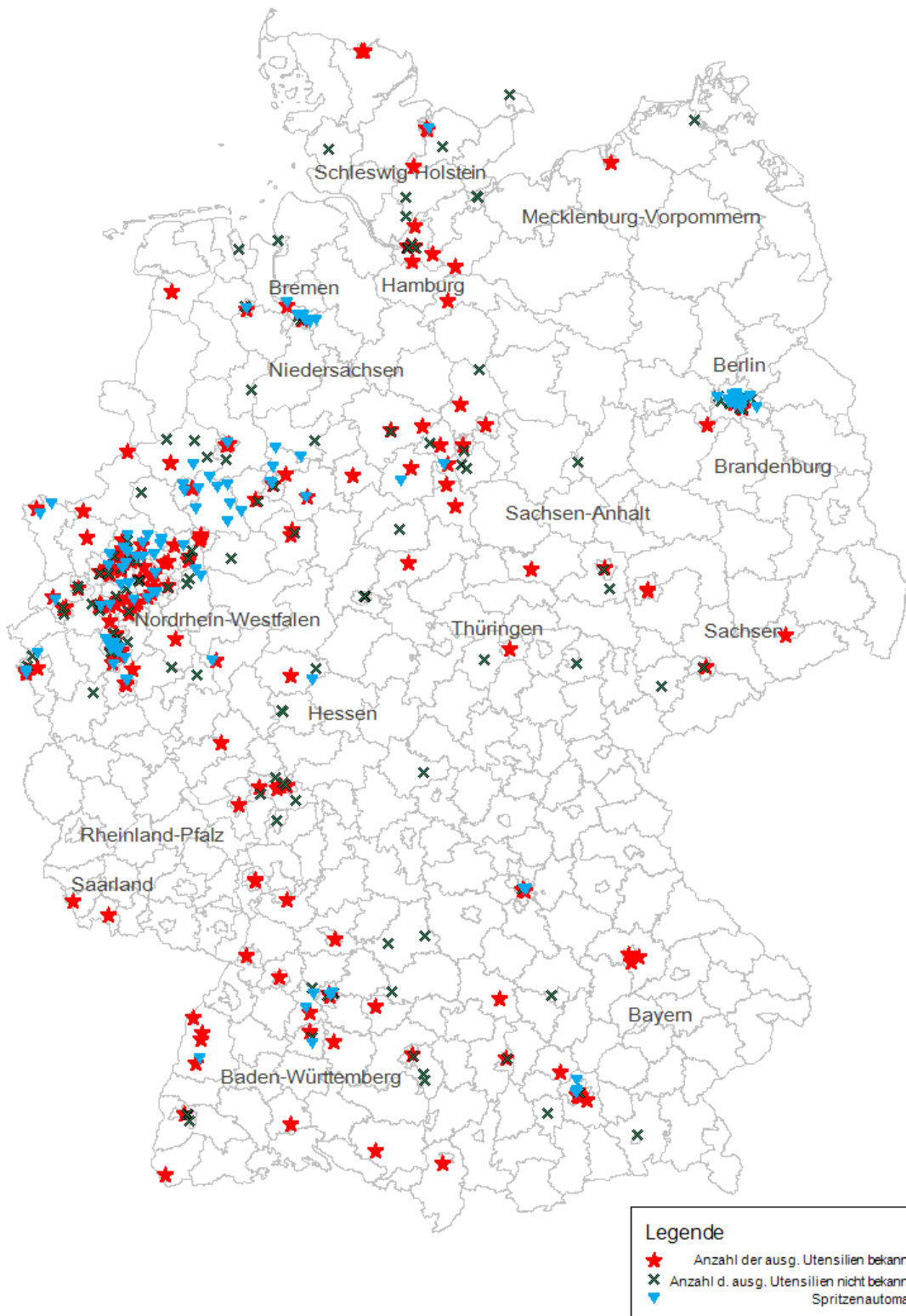


Figure 14 Drug consumption equipment dispensing locations, 2018

Project consumption apparatus dispensing

Drug consumption equipment dispensed: There are 154 valid questionnaires on the quantity of consumption equipment dispensed in 2018 (these points are marked as red stars in Figure 14). Drug consumption rooms play an especially important role in connection with the provision of equipment, since they dispense on average more consumption apparatus than other types of facility. Answers have been received from 22 of the 25 consumption rooms in 2018 (including mobile facilities).

The available data refers most frequently to dispensing from low-threshold facilities (59.7% of agencies mentioned dispensing from these types of facilities), followed by vending machines (41.6%) and outpatient counselling centres (38.3%). Outreach work and consumption rooms were named less frequently. Many questionnaires came from facilities or agencies which dispense consumption apparatus from more than one location, therefore the percentage figures add up to over 100%.

The agencies provided information about which equipment was dispensed. An overview can be found in

Table 3. Almost all participating facilities dispensed syringes and needles (the few exceptions to this describe being more directed towards party settings and the nasal/inhalative consumption which predominates there). Other apparatus used for injecting use are also relatively widespread. In contrast, apparatus for nasal and inhalative consumption are dispensed much less frequently. Snorting tubes are named by 28.8% of the responding agencies, pipes or individual mouthpieces for pipes by only 5.9% and 3.3% respectively.

Table 3 Consumption apparatus dispensed

	%	n
Syringes	97.4	150
Needles	94.2	145
Disinfectant wipes/towels	88.9	136
Condoms	85.6	131
Vitamin C/ascorbic acid	79.1	121
Aluminium foil	66.7	102
Filters	59.5	91
Small pans and single-use spoons	57.5	88
Sterile water	47.1	72
Lubricant	29.4	45
Snorting tubes	28.8	44
Vein ointment	26.1	40
Lighters	24.8	38
Tourniquets	20.3	31
Disposal containers	16.3	25

Sodium carbonate	15.0	23
Low dead space syringes	9.8	15
Card to finely chop the cocaine	7.2	11
Crack pipe	5.9	9
Mouthpiece for pipe	3.3	5
Nasal ointment	2.6	4

Project consumption utensil dispensing (Projekt Konsumutensilienvergabe)

Of the 154 responding agencies, 129 provided information on the number of syringes dispensed, and 124 provided information on the number of needles dispensed. These are mostly estimates, for example on the basis of annually ordered quantities, as syringes/needles dispensed individually are not usually counted.

Based on this information, n=4,197,853 syringes and n=6,180,470 needles were dispensed in 2018. There were also 188,950 of the significantly less frequently dispensed low dead space syringes.

These numbers represent an underestimation of the actual number of consumption apparatus dispensed, as not all dispensing locations provided answers. However, almost all of the well-known, largest agencies are covered in the survey. In addition, several agencies have noted that consumption apparatus that originate from DAH campaigns and therefore have not been purchased by the agencies themselves are not in the figures as they are not included in the inventory. An extrapolation of the available figures to all dispensing centres is methodologically not possible at present due to these uncertainties. However, the figures can serve as an initial indication of the national supply situation. In the next survey (planned for the end of 2020), the aim will be to grow the number of participants and thus increase the meaningful value of the numbers.

Safer-use services in prison

According to health care experts, safer-use services in prison in Germany are still lagging far behind what is possible. The available information on this topic is presented in the Prison workbook.

Emergency training and naloxone take-home programme

In Germany, there were 1,398 drug-related deaths in the reporting year 2019. Of these, 46.5% were due to monodrug or polydrug opioid overdoses (BKA 2020, data delivery). This proportion has fallen in recent years, however opioid poisoning remains the most frequent cause of death among drug-related deaths by some margin. The opioid antagonist naloxone, which has been successfully employed in emergency medicine in the case of opioid overdoses for over 40 years, can also be administered by a layperson and save lives. Therefore the WHO, EMCDDA and the Federal Government Commissioner on Narcotic Drugs recommend dispensing naloxone to people who are frequently present when opioids are used (Die Drogenbeauftragte der Bundesregierung, 2014, European Monitoring Centre

for Drugs and Drug Addiction (EMCDDA), 2015, World Health Organization (WHO), 2014). This means opioid users themselves, but also friends and family.

The dispensing of naloxone to laypeople is only sporadically practised in Germany but has been expanded in recent years, both through a *Land* project and by engaging individual funding agencies. It is made more difficult by the question of financing and is not integrated into regular healthcare. NGOs are making efforts to clarify and improve the legal situation for naloxone programmes in order to break down barriers to appropriate treatment and thus enable nationwide availability in the future. At the time of reporting, ongoing programmes were known in 18 cities, as well as one further project in a 19th city scheduled to start in 2020. Their geographic distribution is illustrated in Figure 15. This shows a clear focus of care in the west and south of Germany.

All naloxone programmes in Germany consist of drug emergency training, in which, for example, first aid techniques are taught and information is provided on the risks and signs of an overdose as well as on naloxone itself. In addition, specific exercises are carried out on the administration of the medicine. After the training sessions, if participants are willing and provided a prescription has been given by a doctor, the emergency kits are issued. These contain, in addition to the medicinal drugs, the administration utensils and often single-use gloves and resuscitation face shields. Since September 2018, a naloxone preparation in the form of a nasal spray has come onto the market in Germany, which is used in many projects. Two manuals on the implementation of the naloxone projects are available online⁷. Results from the Bavarian pilot project, for which an interim evaluation is available, are reported in section 3.3.1.

⁷ <http://www.akzept.org/uploads2013/NaloxonBroschuere1605.pdf> and <http://www.akzept.org/uploads1516/NaloxonJESnrw17.pdf> [accessed: 17 Jun. 2020].



Figure 15 Naloxone projects in 2020

Condrops e.V., poster: "Save lives with naloxone! We're on board!" (Leben retten mit Naloxon! Wir sind dabei), own modification and addition of four cities (Bielefeld, Kehl, Constance and Pforzheim). The project start in Pforzheim is planned for 2020. Condrops e.V., 2020 personal communication; Plan B gGmbH, 2020 personal communication.

Provision of drug consumption rooms

Due to the continuing very high-risk patterns of use of heroin, cocaine and crack as well as other illicit drugs, drug consumption rooms and low-threshold drug support facilities are important places for affected persons to go. In the drug consumption rooms, the drugs are brought by the drug users themselves. Infection prophylaxis is an intrinsic part of the service provided. Paraphernalia which the drug users bring with them to the consumption rooms may not be used. The aim of the service is the survival and stabilisation of the health of its users. This is also true for immediate intervention in the case of overdoses. In addition, cessation oriented support can thus be offered to people with drug dependence who would otherwise be unreachable. On the basis of Sec. 10a BtMG, which stipulates the minimum statutory requirements for such facilities, the governments of the *Laender* may pass ordinances regulating the issuing of licences to operate drug consumption rooms.

Currently, there are a total of 25 drug consumption rooms across 17 cities in eight German *Laender* (Baden-Württemberg, Berlin, Hamburg, Hesse, Lower Saxony, North Rhine-

Westphalia, Bremen and Saarland) as well as three mobile drug consumption rooms in Berlin⁸. In NRW and Saarland, the use of drug consumption rooms is now permitted for substituting clients. An analysis comparing users and non-/former users of drug consumption rooms in Berlin came to the conclusion that the exclusion of substituting people in Berlin drug consumption rooms limits the scope of the service (Stöver et al., 2020).

A relatively regular survey on the utilisation and clientele of consumption rooms is now available for a large proportion of facilities which publish their annual reports on the internet. For the four drug consumption rooms in Frankfurt, they are published annually (Stöver und Förster, 2018); an annual report from the Saarbrücken drug consumption room is also available. The most recent published documentation available for NRW (10 cities with consumption rooms) is 2017⁹. In summary, one can say that the most important substances documented in the consumption rooms are opioids (above all heroin), crack and cocaine, which are frequently consumed in combination. There is an overarching trend towards less injecting use. The most common alternative type of use is inhalation; nasal use is reported to a lesser extent. A detailed presentation of the available 2017 data can be found in last year's workbook.¹⁰

Evaluation of emergency statistics from drug consumption rooms

This year, an evaluation compiled by DAH is available on the emergency statistics for 14 consumption rooms and one mobile consumption room from 11 cities (Kuban, 2020). Data from 2013 and 2017 is used for comparison. As the number of participating consumption rooms and cities fluctuates each year, only percentage figures are used for comparison purposes.

In 2019, a total of 655 emergencies were documented in the 15 consumption rooms. Of those, 80% affected men and 20% women; this corresponds approximately to the gender ratio of the users. The proportion of emergencies that occurred without prior use of the consumption room (for example use in the vicinity of the facility) increased. In 2017, the relevant figure was 16%, for 2019 it was 26%. Compared to previous years, a proportionately higher number of serious emergencies was also documented. While in 2013 39% of emergencies were classified as serious, in 2017 it was 43% and in 2019 53%. The estimate of the degree of severity is based on the information provided by employees. In the event of a serious emergency, it is assumed that a very high proportion of those affected would have died without immediate emergency assistance. The author of the article cites the rising age of users as a possible explanation for the increase in the number of emergencies considered to be serious. Older users are often in worse overall health than younger ones. This

⁸ <https://www.drogenkonsumraum.net/> [accessed: 12 Jun. 2020].

⁹ https://www.drogenkonsumraum.net/sites/default/files/documents/dkr_jahresbericht_20171.pdf [accessed: 12 Jun. 2020].

¹⁰ Most recently <https://drogenhilfezentrum.de/dhz/wp-content/uploads/2019/07/KB-2018.pdf> [accessed: 12 Jun. 2020].

explanation corresponds with the numbers of drug-related deaths due to long-term harms, which have been increasing for years in the police data (see section 1.1.2). In addition, the author points out that a high degree of purity, especially for heroin and cocaine, and above all also high fluctuations in purity were determined, which makes consumption less predictable. Moreover, the relatively high rate of refusal of users (mainly for disciplinary reasons) is listed in the article as a risk factor for a serious emergency (Kuban, 2020).

Measures to prepare inmates for release from prison

Within the Bavarian naloxone pilot project, naloxone training of inmates was carried out for the first time. Detailed information on this and on other measures for the reintegration of drug users and for the prevention of overdoses after release from prison can be found in this year's Prison workbook.

Treatment of hepatitis C among drug users

The new generation of HCV medicines has significantly increased the chances of recovery from an HCV infection and comes with a considerably improved side effect profile, meaning that the infection, which is very widespread among drug users, is now more treatable than even just a few years ago. These new developments were reported in detail in the respective workbooks of previous years. It is not known how many drug users, who make up the largest group of those with HCV in Germany, actually receive new medicinal drugs and accordingly benefit from the described innovations.

In the pilot project "HIV? Hepatitis? I CHECK that!" (see section 3.3), information was collected on obstacles to initiating and maintaining treatment and possible solutions. For this purpose, among other things, 9 clients were interviewed, most of whom had known of their HCV infection for many years, some even for decades, and who had now started treatment with the support of the pilot project, some of whom had already completed it. The clients interviewed reported that they had often had problems in the past with initiating treatment, i.e. making an appointment and attending the initial consultation. Another hurdle revealed was the lack of information about the new HCV drugs with few side effects. The continuous, low-threshold counselling in the pilot project was found to be very helpful, firstly with regard to dealing with test results, which were sometimes perceived as very stressful, and secondly through the comprehensive explanation provided about the much better chances of treatment. The support in establishing contact with treating doctors and being accompanied to the initial medical consultation, was also perceived as helpful; the latter was not always feasible however in the everyday work of low-threshold facilities for reasons of time. According to the project workers, a possible solution for this could lie in people being accompanied by peers, i.e. other drug users who already have treatment experience. As a barrier to starting treatment, the project workers reported that some doctors had reservations about delivering HCV therapies to active drug users or substituting people who also consume alcohol or other substances. In addition, the benefit of the antiviral HCV therapy is partly called into question because of possible re-infection (Gerlich et al., 2020). This attitude contradicts various study results showing a comparable effectiveness of the therapy among

control groups, substituting people and drug users, as well as a relatively low re-infection rate (see most recently the meta-analysis by Graf et al. (2019)). Some difficulties were encountered, especially at the beginning of the pilot project, in establishing cooperations with infectiological practices that were willing to provide HCV therapy for (active) drug users. Two doctors interviewed in the project, who have carried out HCV therapies for years in the target group, stated that allocating appointments promptly, or postponing them at short notice was helpful in increasing the retention rate, as well as lodging prescriptions for collection. In order to keep distances as short as possible for patients, the dispensing of drugs by (substituting) doctors or pharmacists who are already providing treatment has also proven to be successful. The project generally recommends expanding the cooperation with addiction medicine practices, which to date have played a rather subordinate role in carrying out HCV therapies. These could, where applicable, also be considered as treatment sites themselves (Gerlich et al., 2020).

1.5.4 Harm reduction services: availability, access and trends (T1.5.4)

Since nationwide data has only just been collected for the first time on the number of syringes given out, national trends cannot yet be reported in this area. This will be reported on in next year's workbook.

1.5.5 Additional information on harm reduction activities (T1.5.5)

There is no further information currently available.

1.6 Targeted interventions for other drug-related health harms (T1.6)

No additional information is currently available on this.

1.6.1 Targeted interventions for other drug-related health harms (T1.6.1)

There is currently no additional information currently available

1.7 Quality assurance for harm reduction services (T1.7)

1.7.1 Quality assurance for harm reduction services (T1.7.1)

There are currently no binding national guidelines on the quality assurance of harm reduction services. Individual projects are, however, always being evaluated. Several projects are presented in the Best Practice workbook.

1.7.2 Additional information on any other drug related harms data (T1.7.2)

No further information is currently available.

2 TRENDS (T2)

Not relevant in this section. Included above.

3 NEW DEVELOPMENTS (T3)

3.1 New developments in drug-related deaths and acute emergencies (T3.1)

The current status and trends in the area of drug-related deaths are presented in section 1.1. The current status and trends in the area of non-fatal drug-related emergencies can be found in section 1.2. No new findings are available.

3.2 New developments in drug-related infectious diseases (T3.2)

For the current situation regarding drug-related infectious diseases, see section 1.3. With the introduction of new medicines, the chances of success of hepatitis C treatment have significantly improved also for drug users. New developments on testing and treatment in the area of infectious diseases is reported in section 3.3.2.

3.3 New developments in harm reduction interventions (T3.3)

3.3.1 Measures to prevent overdoses

Overdose Awareness Day

On International Overdose Awareness Day, which has taken place on 31 August every year since 2001, national actions took place for the first time in 2019 (Deutsche AIDS-Hilfe e.V. (DAH), 2019). They were organised by an alliance of professional associations, patient organisations and low-threshold facilities in over 30 cities. The aim of the day is to raise awareness and provide information on the subject of overdoses and how to help in emergencies. Low-threshold facilities offered first aid training, naloxone training and safer use brief interventions. There were also posters and postcards in several languages, art campaigns and discussion groups.

New developments in the naloxone take-home programmes: Pilot project in the *Land of Bavaria*

General information on the current situation with regards to naloxone take-home programmes in Germany are detailed in section 1.5.3, where an overview of the geographic distribution of the projects can also be found. The start of a new take-home programme in Pforzheim is planned for 2020.

The Bavarian pilot project, on behalf of the Bavarian State Ministry of Public Health and Health-Care, started as planned. Scientific monitoring is carried out as an observational study, in which data is collected by means of standardised questionnaires distributed to participants. Following naloxone use, structured interviews are carried out. It is planned to train at least 500 people in the five largest cities nationally and inmates in prisons in the course of the project (1 September 2018 to 31 August 2020). On the reference date of 21 November 2019, 373 people had already been trained in 94 training sessions, including users, people undergoing substitution treatment and drug support employees. 28 naloxone

uses were recorded up to the reference date. First aid measures were carried out during all naloxone uses and the provided naloxone spray was used, as confirmed by emergency doctors and paramedics that were called to the emergencies (Wodarz, 2020). The prison training carried out is reported on in the Prison workbook.

3.3.2 Testing and treatment of drug-related infectious diseases

Reduced conditions for low-threshold testing

Since 1 March 2020, carrying out a quick test for HIV, hepatitis C and syphilis no longer requires the presence of medical personnel¹¹. This makes offering testing at low-threshold facilities simpler, as a doctor no longer has to be on site. In the event of a positive test result to the quick test, a doctor must still be consulted for further diagnostics (and subsequent treatment). To implement the testing services in low-threshold facilities, a handbook has been available since 2019 from Aidshilfe NRW and the DAH¹².

Pilot project “HIV? Hepatitis? I CHECK that!”

The pilot project on counselling and HIV/HCV tests for drug users was conducted by the BZgA in cooperation with the RKI and the DAH in low-threshold drug support facilities. It is based on the DRUCK study recommendations, Robert Koch-Institut (RKI) (2016), see also workbooks from previous years). The objectives pursued were to implement a tailored counselling service, improve access to free of charge and anonymous tests for HIV and HCV (quick and laboratory tests, confirmation tests) for drug users, especially injecting drug users, as well as to promote the transition to medical treatment for this target group (Gerlich et al., 2020). From January 2018 to the end of August 2019 (20 months) weekly counselling and test services lasting two to four hours took place in six German cities, in established low-threshold drug support facilities. In addition, support was offered in transitioning to medical HIV or HCV therapy.

A detailed accompanying evaluation took place which as well as the quantitative survey on the use of the services, also contained a focus group with project employees and telephone interviews with doctors from infectiological practices. In addition, HCV-positive drug users who had started treatment in the scope of the project or were being evaluated, were personally interviewed. At the end of the project, a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was carried out at each location with the project employees. The results presented below relate to five of the six locations; at the sixth location, the

¹¹ See https://saferuse-nrw.de/Saferuse-NRW/front_content.php?idcat=2417&idart=7337 [accessed: 18 Jun. 2020]

¹² Accessible online at: https://saferuse-nrw.de/Saferuse-NRW/upload/homepage/pdf/downloads/butub_final_standard.pdf [accessed: 18 Jun. 2020]

counselling and tests only began significantly later meaning they could not be included in the current evaluation.¹³

In total, 1,034 counselling sessions were carried out over 20 months. As test counselling sessions lasted up to 60 minutes and up to three tests per week were carried out at the larger locations, the time contingent of two to four hours' counselling time per week was fully utilised. It was therefore only possible for patients to be accompanied to the treating doctors in individual cases.

A total of 306 people were tested for HCV, of which 82 people (26.8%) had a viraemic infection, i.e. were active, and thus potentially needing treatment for the HCV infection. It is recorded that 70 of the 82 people collected their test results. No longitudinal study was carried out, hence the number of people who subsequently began treatment is not systematically recorded. At least 25 people reported to project workers that they had started HCV treatment during the course of the project, however, and at least 16 treatments were able to be concluded while the project was running. 430 people were tested for HIV. Four of these people (0.9%) tested positive, but only 2 (0.5%) of the test results were able to be confirmed. At least six people were able to be placed in HIV treatment during the course of the project; for some of them positive test results were already available before the end of the project.

In addition to counselling and testing, there was another focus of the project: to improve the transition into therapy in the event of a positive HIV or HCV test result. Problems that arise, and possible solutions, are listed in section 1.5.3 ("Treatment of hepatitis C among drug users").

4 ADDITIONAL INFORMATION (T4)

Various measures were carried out in reaction to the COVID-19 pandemic to maintain supplies for drug users. There are lots of anecdotal reports that low-threshold facilities adapted their service, for example by introducing new hygiene rules and, where possible, carrying out counselling over the phone and via video. Scientific findings on the effects of the changes to the services are not available at the time of reporting.

Information on the introduction of substitution treatment in a low-threshold facility in Hamburg can be found in the Treatment workbook. Information on legal changes is set out in the Legal Frameworks workbook.

¹³ The detailed final report is available at: <https://www.liebesleben.de/fachkraefte/sexualaufklaerung-und-praeventionsarbeit/richtigen-zugang/> [accessed: 4 Aug. 2020].

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5.2 Methodology (T5.2)

5.2.1 Recording drug-related deaths

In Germany, there are two general, comprehensive systems for recording drug-related deaths, which differ from one another in various aspects. These are the police data from the "Drugs Data File" (Falldatei Rauschgift, FDR) and the "Statistical report on the causes of death" (Todesursachenstatistik) from the German Federal Statistical Office (Statistisches Bundesamt, Destatis).

Drugs Data File (Falldatei Rauschgift, FDR)

In general, drug-related deaths are recorded by the individual *Land* Offices of Criminal Investigation (Landeskriminalämter), whilst the Federal Criminal Police Office (Bundeskriminalamt, BKA) has access to the base of data, performs data quality control and summarises the figures. Data collection modalities and the basis for the assessment of drug-related deaths differ between the individual *Laender*. The proportion of autopsied drug-related deaths as a measurement for the quality of the classification as "drug-related death" ("Drogentote") varies (in some cases considerably) between the *Laender*. The toxicological examination of bodily fluids and tissue plays an important role in establishing the cause of death, as only this can provide sufficient information on the drug status at the time of death. Autopsy reports and toxicological reports are generally produced by different institutions. Since the latter in particular are often only available after a long delay, they are only taken into account in the classification of drug-related deaths to a limited extent.

In order to facilitate the recording of drug-related deaths and reduce errors, the following categories for drug-related fatalities were defined in a leaflet by the (Bundeskriminalamt (BKA), 1999):

- Drug-induced deaths caused by unintended overdose,
- Death as a result of damage to health (physical decline, HIV or hepatitis C, organ weakness) caused by long term drug abuse (= "long term harm"),
- Suicide out of despair over living circumstances or under the influence of withdrawal symptoms (e.g. delusions, strong physical pain, depressive mood)
- Fatal accidents of persons under the influence of drugs.

General Mortality Register¹⁴

In Germany, a death certificate is completed for every case of death, containing, alongside the personal details, information on the cause of death. The death certificate is passed on to the health authority and then to the *Land* statistical office. Aggregation and evaluation at national level is undertaken by the German Federal Statistical Office ("Statistical report on the causes of death", Todesursachenstatistik). Often, this data source also does not take into account the results of delayed toxicological reports when classifying the drug-related deaths.

Cases are selected from the general mortality register, for the purposes of reporting to the EMCDDA, which meet the definition of "direct causality". The goal here is to record cases of death which shortly follow the use of opioids, cocaine, amphetamine (derivatives), hallucinogens and cannabinoids, - i.e. in particular fatal poisonings, as sensitively as

¹⁴ The use of the term "General Mortality Registry" is based on the terminology of the EMCDDA. The data reported here is from the "Statistical report on the causes of death" ("Todesursachenstatistik") of the German Federal Statistical Office (Special series 12, part 4).

possible. The selection is based on the requirements set out by the EMCDDA (the so-called ICD-10 Code Selection B). As a basis for assignment to the group of drug-related deaths, the assumed underlying disorder (ICD10-codes F11-F19) or the assumed cause of death in the case of accidents and suicides (ICD10-codes X, T, and Y) is used respectively. This means that long-term secondary diseases, accidents not directly caused by poisoning and suicides are not covered by this definition, although individual cases of this type presumably may indeed be included due to erroneous death certificates or coding errors. In 2006, an amendment to the coding rules of the World Health Organisation (WHO) entered into force. The objective of the change was to code, instead of the F1x.x codes, the acute cause of death where possible, namely the substances on which the intoxication was based. In Germany, the new coding has, however, not yet had an effect in respect of the desired increase in specificity, meaning that many F-codes still exist.

5.2.2 Notifications of drug-related infectious diseases

Under the IfSG, which came into force on 1 January 2001, data on infectious diseases, including on HIV and viral hepatitis, are reported to the RKI. Corresponding data is published at regular intervals¹⁵. According to the German Ordinance on Laboratory Reports (Laborberichtsverordnung) and the IfSG, all laboratories in Germany are obliged to report confirmed HIV-antibody tests anonymously and directly to the RKI. These laboratory reports are completed by supplementary anonymous reports from the attending doctors. In this way, HIV reports ideally contain information on age and gender, town/city of residence, route of transmission of the infection as well as information on the stage of the disease and HIV-related basic laboratory parameters. In addition, the AIDS-Case-Register collects together epidemiological data on diagnosed AIDS cases in anonymised form, based on voluntarily reports by the attending doctors. Due to changes in the collection of data regarding new HIV-diagnoses, it is now easier to exclude (formerly unrecognised) duplicate entries.

Since the introduction of the IfSG, data on possible modes of transmission of HBV and HCV has also been collected. This is done by the health authorities, which investigate the case persons themselves, or on the basis of data passed on by the reporting laboratories and doctors. The current data is published by the RKI in the "Yearbook – Infection epidemiology of notifiable infectious diseases" (Infektionsepidemiologisches Jahrbuch meldepflichtiger Krankheiten) or respectively in the Epidemiological Bulletin of the RKI.

Since 2007, the DSHS has included data on the HBV and HCV status of patients in addition to the HIV status. Since the number of facilities which report this data is very small and only patients for whom a test result is available are taken into account, this data requires cautious interpretation. The recording of infectious diseases has been improved in the new Core Data Set.

¹⁵ <https://www.rki.de> [accessed: 4 Sep. 2019].

Changes to the case definition of hepatitis B reports

The case definitions of the RKI were changed in 2015, such that now only the direct detection of the hepatitis B pathogen meets the criteria for a laboratory diagnostic detection. HBe antigen detection has been added as a confirmation test for HBs antigen detection. The detection of anti-HBc IgM antibodies, which, according to the case definition up to 2014, was sufficient as an isolated serological marker to fulfil the laboratory diagnostic criteria of the case definition, is no longer used and is only collected as additional information. Among the cases, which were recorded according to the new case definition, now it is not only cases confirmed through clinical and laboratory diagnostics that meet the reference definition but also infections proven through laboratory diagnostics alone, for which the clinical picture is not fulfilled or not known. The described changes not only enable an alignment with the European case definitions but also aim to investigate active, i.e. infectious and therefore transmissible, hepatitis B infections, regardless of the strength of the symptoms. Following the introduction of the new reference definition, the number of published hepatitis B cases is, as expected, higher than previous years.

Changes to the case definition of hepatitis C reports

As it is barely possible from a laboratory diagnostic or a clinical perspective to distinguish between acute and chronic HCV infections, all newly diagnosed infections are included in the statistics of the RKI. Cases for which an earlier HCV laboratory confirmation already exists are excluded. Thus, the total number of reported cases contains a considerable percentage of already chronic hepatitis C cases (in the sense of a virus replication of more than 6 months).

The case definition for hepatitis C was changed on 1 January 2015 in respect of the criteria for laboratory diagnostic proof. In the estimation of the RKI, the previous case definition, according to which (confirmed) antibody detection on its own was sufficient, led to the reporting of infections, in an unknown proportion of cases, which had already been spontaneously cured or been successfully treated as well as to an unknown number of multiple reports. Only cases with a direct pathogen confirmation fulfil the new case definition (nucleic acid detection or HCV core antigen detection). Therefore, the reporting of the RKI now only analyses HCV infections which are active. This enables a better approximation of the true incidence of new diagnoses. However, it does not capture possible cases that were not supplied to further diagnostic investigation by means of direct pathogen detection after positive antibody screening. As the treatment options have significantly improved in recent years, it can be assumed, however, that diagnostics in Germany is carried out in full in most cases. Currently, initial diagnoses of hepatitis C transmission are - in the absence of better data sources on the incidence rate - currently the best possible estimation of the current incidence of infection.

However, the numbers of cases reported under the new case definition are only comparable to a certain degree to those from previous years, such that trend evaluations are only possible to a limited extent. A decrease in the reported numbers of cases occurred as

expected due to the change in case definitions. The implementation of the new case definition among public health authorities is complete; all cases are now reported according to the new case definition.

5.2.3 Harm reduction interventions

Survey of consumption apparatus dispensed and dispensing facilities in Germany

Extensive research has been carried out in a collaboration between the DBDD, RKI and DAH, with the aim of capturing all facilities which dispense consumption apparatus. Of 2,158 facilities identified as potentially dispensing consumption apparatus, responses were received from 1,178 facilities (54.6%). In other words, responses were not forthcoming from 980 institutions, despite multiple attempts at contact. Out of the facilities which did respond and provide an answer to the question as to whether they dispense consumption apparatus, 475 answered “yes”, 703 “no”. The number of facilities answering in the affirmative reduced to 403, after adjusting for duplicate entries.

The dispensing facilities received a questionnaire in which information was collected as to the type and number of paraphernalia dispensed. It was based on the DAH recommendations on dispensing consumption apparatus. In addition, assessments were collected on budgets, the number of people supplied and on the relevance of pharmacies. The plan is to repeat the survey every two years and thus to be able to determine trends in supply on a long-term basis.

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