GBE KOMPAKT

ROBERT KOCH INSTITUT

Facts and Trends from Federal Health Reporting

Alcohol consumption among adolescents - Current results and trends

Key messages

- Frequent consumption of alcohol during adolescence is linked with risks to health and development and increases the probability of problematic alcohol consumption and the associated consequences in later life.
- There is a higher prevalence of both regular alcohol consumption and binge drinking among boys than among girls.
- Available studies suggest that the consumption of alcohol among adolescents has declined in recent years.
- The average age at which alcohol is consumed for the first time and for first intoxication by alcohol have both increased.
- In 2013, significantly fewer children and adolescents were treated in hospital for acute alcohol intoxication than in the previous year, however case numbers are still twice as high as they were at the start of the new millennium.
- Preventive measures may help to reduce alcohol consumption among adolescents and in the general population.

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Regular alcohol consumption endangers health and is associated with an increased risk of a variety of physical illnesses and mental disorders. Among the diseases for which alcohol consumption has been proven to have a causal relationship are cirrhosis of the liver, brain damage, inflammation of the pancreas and the stomach lining, as well as various cancers. Also the risk of accidents and the likelihood of violent altercations both increase under the influence of alcohol (Rehm et al. 2010, Anderson et al. 2012, Gaertner et al. 2015).

According to extrapolations from the nationwide Epidemiological Survey of Substance Abuse 2012, close to 3.4 million adults aged between 18 and 64 years have an alcohol related disorder and therefore fulfil either the criteria for alcohol abuse or alcohol dependency (Pabst et al. 2013). Estimates assume up to 74.000 people every year in Germany die as a result of their alcohol consumption (John, Hanke 2002). According to cause of death statistics, in 2013 around 15.000 people died of illnesses for which only the consumption of alcohol can be held responsible (Statistisches Bundesamt 2015a). In the same year almost 400.000 people had to be treated in hospital due to illnesses exclusively related to alcohol (Statistisches Bundesamt 2015b). According to estimates, the social economic costs of alcohol consumption that come about as a result of providing care for illnesses associated with alcohol or loss of productivity due to alcohol consumption, amount to 26.7 billion Euros (Adams, Effertz 2011).

In the following, interest is focussed on alcohol consumption during adolescence since young people may be viewed as the most important target group for alcohol prevention measures. Attitudes toward alcohol, drinking motives and consumption patterns that form during adolescence often still exist in adulthood. Studies suggest that starting to drink early and excessive consumption of alcohol at a young age increases the probability of problematic alcohol consumption later in life and increases the risk of alcohol dependency (Dawson et al. 2008, Rossow, Kuntsche 2013).

It is possible to draw on several population-wide studies to illustrate alcohol consumption among adolescents (see information box). Alcohol consumption has been recorded in particular detail in the representative study by the Federal Centre for Health Education (BZgA) (BZgA 2014a) and in the European School Survey Project on Alcohol and Other Drugs (ESPAD) (Kraus et al. 2011) by the Institute for Therapy Research (IFT). Details regarding alcohol consumption were also collected in the German Health Interview and Examination Survey for Children and Adolescents (KiGGS) conducted by the Robert Koch Institute (RKI) (Lampert, Thamm 2007, Lampert et al. 2014) and the study supported by the World Health Organization (WHO) entitled "Health Behaviour in School-aged Children"(HBSC)

(Currie et al. 2012, Richter et al. 2012). Since all of the studies are conducted repeatedly, as well as providing results regarding the current prevalence, they also allow statements to be made on the temporal development or trends in alcohol consumption among adolescents. Statistics from hospital diagnoses are used as a supplementary source of data, providing information concerning the number of adolescents per year treated in hospital for acute alcohol intoxication (Statistisches Bundesamt 2015c). This edition of "GBE kompakt" has been published to mark the occasion of Alcohol Awareness Week in Germany (13-21 June 2015), already in its fifth year. It is the aim of the prevention campaign organised by the German Centre for Addiction Issues (DHS) to raise awareness in the general public using the slogan "Alcohol? Less is better!"and to sensitise the population with regard to the health-related and social consequences of excessive alcohol consumption (DHS 2015). One further topical connecting factor and point of reference is the health target of "reducing alcohol consumption", which was recently published within the framework of the national health targets process - gesundheitsziele.de - (GVG 2015).

The prevalence of alcohol consumption

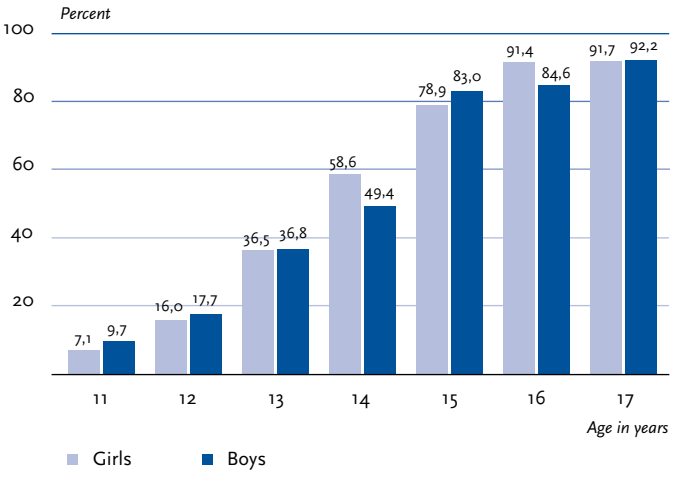
According to data from KiGGS Wave 1, more than half of adolescents aged between 11 and 17 in Germany (54.4 %) have already consumed alcohol (Lampert et al. 2014). Whilst among 11-year-olds one in approximately every twelve has already consumed alcohol, this is true in one in three amongst 13-year-old adolescents and every second 14-year-old. Among 17-year-olds the lifetime prevalence for alcohol consumption is at more than 90 % (Figure 1).

In the 2012 alcohol survey conducted by the BZgA, information was gathered regarding alcohol consumption in the last 12 months and 30 days prior to the survey in addition to lifetime prevalence (BZgA 2014a). According to this, 69.3 % of 12 to 17-year-olds had consumed alcohol at some point, 60.4 % in the past 12 months and 41.1 % in the last 30 days. Those young persons who had already experienced the consumption of alcohol were 13.8 years old on average when they drank their first glass of alcohol. Both the KiGGS and the BZgA data confirm that there is barely any difference between boys and girls regarding the indicators for alcohol consumption observed here. Only with regard to average age on initial consumption was it to be seen on the basis of the BZgA data that girls at an age of 14.0 years were around 5 months older than boys at 13.6 years (BZgA 2014a).

Regular consumption and drinks preferences

Clearly more significant gender differences are to be seen in the regularity of alcohol consumption (Lampert, Thamm 2007, Richter et al. 2012, BZgA 2014a). According to the BZgA data, the percentage of 12 to 17-year-old adolescents who had consumed alcohol at least once a week within the last 12 months was twice as high among boys

Figure 1
Lifetime prevalence of alcohol consumption among 11 - 17-year-old adolescents
Data source: KiGGS Wave 1 (2009–2012), Lampert et al. 2014



at 18.0 % as it was among girls at 9.0 % (BZgA 2014a). Data from the current HBSC study confirms that weekly consumption of alcoholic beverages among 11 to 15-year-old boys is to be encountered significantly more frequently at 11.3 % compared to girls of the same age at 6.2 % (HBSC Team Germany 2012, Richter et al. 2012).

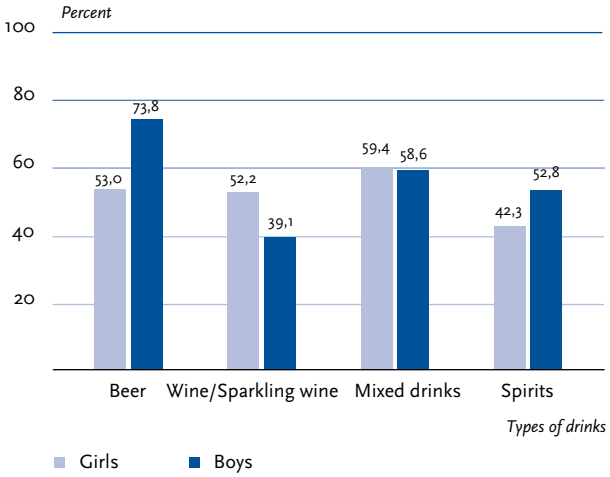
There is also a difference between girls and boys with regard to the preferred groups of drinks consumed (Lampert, Thamm 2007, Kraus et al. 2011, HBSC Team Germany 2012). In the 2011 ESPAD Study, 15 and 16-year-old school pupils were asked which types of drinks they had consumed in the 30 days immediately prior to the survey. Whilst a significantly higher percentage of boys stated they had consumed beers and spirits it was found that girls more frequently drink wine and sparkling wines. Only in the case of mixed drinks no significant gender differences in the 30 day prevalence of consumption could be observed (Figure 2).

Consumption of alcohol quantities posing a risk to health

According to the recommendations of the advisory board at the German Centre for Addiction Issues (DHS), adolescents should largely avoid alcohol (Seitz et al. 2008). Consequently there are no limit values for low risk consumption for this age group. For adults, daily consumption levels of more than 24 grams of pure alcohol for men and 12 grams of pure alcohol for women are considered to be dangerous to health. These threshold values are reached given a daily consumption for men of, for example, 0.5 - 0.6 litres of beer or approximately 0.25 litres of wine. For women only half of these respective quantities of beer or wine suffice.

In population related studies the amount of alcohol consumed is usually recorded by means of a drink-specific Quantity-Frequency-Index, where the average alcohol con-

Figure 2
30 day prevalence of consumption of various types of drinks among 15 and 16-year-old adolescents
Data source: ESPAD Study 2011, Kraus et al. 2011



tent of the various types of drinks is also included in the calculation of average quantities of alcohol per day in addition to the number of days of consumption and quantities consumed (BZgA 2014a). As can be seen from the BZgA data, around 5 % of 12 to 17-year-old adolescents are consuming quantities of alcohol that are deemed hazardous to health for adults. This clearly affects boys more frequently at 6.3 % than it does girls at 3.9 %. Among the 16 to 17-year-olds, the gender-specific differences clearly come into effect (Boys: 16.6 %, Girls: 8.9 %) (BZgA 2014a).

The results regarding gender-specific variations in the various studies are admittedly not uniform, which can - among other things - be attributed to differences in methods of recording dangerous levels of alcohol consumption and variances in the age groups. The gender differences in the current ESPAD study are less marked. Apart from this they also suggest an inverse distribution pattern: Among 15 to 16-year-old girls, 11.1 % were above the gender-specific threshold value for low-risk alcohol consumption whereas in boys of the same age, 9.1 % consume correspondingly high quantities of drink (Kraus et al. 2011).

To survey alcohol consumption the AUDIT C Instrument was used, which is comprised of three questions (see information box). If the limit values which are generally used for adults were also to be used here, dangerous alcohol consumption levels were established in a total of 15.8 % of 11 to 17-year-old adolescents (Lampert et al. 2014). There were no conspicuous differences between girls and boys at 16.5 % and 15.1 % respectively. In both genders with increasing age a clear increase in dangerous levels of alcohol consumption emerged (Figure 3).

Binge drinking and drunkenness

Episodic, excessive alcohol consumption is also referred to as binge drinking (Stolle et al. 2009). Depending on the definition, a person is assumed to be binge drinking if consuming more than a certain amount of alcoholic beverages on one occasion, for example at a party (Kraus et al. 2011, BZgA 2014a, Lampert et al. 2014). In KiGGS Wave 1, regular binge drinking was assumed if adolescents consumed six or more

Epidemiological studies on the prevalence of alcohol consumption in adolescents in Germany

German Health Interview and Examination Survey for Children and Adolescents - KiGGS

Data owner:	Robert Koch Institute
Participants:	17,641 (KiGGS baseline study), 12,368 (KiGGS Wave 1)
Age:	0 to 17 yearsahre
Time period:	KiGGS baseline study (2003-2006), KiGGS Wave 1 (2009-2012), KiGGS Wave 2 (2014-2016)
Special feature:	Link with further health themes; Longitudinal
Further informationen:	www.kiggs-studie.de

Representative surveys by the Federal Centre for Health Education (BZgA)

Data owner:	BZgA
Participants:	approx. 5,000
Age:	12-25 years, separate presentation for adolescents (12-17-years-old) and young adults (18-25 years)
Time period:	regularly since 1973; lastly 2012
Special feature:	Long-term time series; additional consideration of young adults
Further information:	www.bzga.de

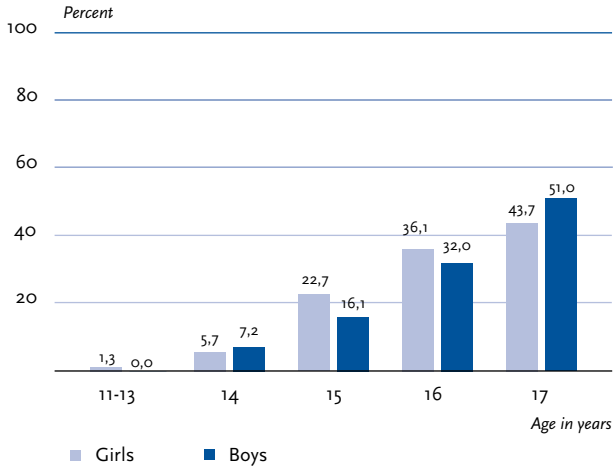
European School Survey Project on Alcohol and Other Drugs (ESPAD)

Data owner:	Institute for Therapy Research (IFT)
Participants:	approx. 6,000
Age:	15 to 16 years
Time period:	since 1995, every four years; German participation since 2003 (five federal states); lastly 2011
Special feature:	international comparison
Further information:	www.espad.org, www.ift.de

Study »Health Behaviour in School-aged Children« (HBSC)

Data owner:	HBSC-Studienverbund Deutschland, Coordination: Martin-Luther University Halle-Wittenberg
Participants:	approx. 5,000
Age:	11 to 15 years
Time period:	Since 1982, every four years; German participation since 1993/94 (initially only NRW); lastly 2009/2010 (15 federal states)
Special feature:	international comparison
Further information:	www.hbsc-germany.de, www.hbsc.org

Figure 3
Percentage of 11 to 17-year-old adolescents with dangerous levels of alcohol consumption (AUDIT-C Overall value: ≥ 4 (girls) or ≥ 5 (boys))
Data source: KiGGS Wave 1 (2009-2012), Lampert et al. 2014



alcoholic beverages in one session at least once every month. The proportion of 11 to 17-year-olds who indulged in regular binge drinking was found to be 11.5 % and increases rapidly with increasing age (Lampert et al. 2014). In the 14 to 17-year-old age group, regular binge drinking is more widespread among boys at 23.2 % in comparison with girls at 16.5 %. In the ESPAD study, binge drinking is defined as the consumption of five or more units of alcohol on a single occasion. Within the 30 days preceding the study more than half of the 15 to 16-year-old pupils surveyed had consumed the corresponding amount of alcohol on at least one single occasion. Approximately one third of the boys and a fifth of the girls even reported having consumed five or more alcoholic drinks on a single occasion at least three times or more during this same period (Figure 4).

Subjectively experienced episodes of drunkenness are sometimes also used as indicative of problematic alcohol consumption. The results of the HBSC Study provide evidence that repeated episodes of drunkenness (2 or more) are more frequently reported by 13 and 15-year-old boys than by girls of the same age (HBSC Team Germany 2011, Richter et al. 2012). According to the ESPAD Study more than half of 15 and 16-year-olds had been drunk at least once in their life already or in the past 12 months (Kraus et al. 2011). More than every fourth boy (26.3 %) and around every sixth girl (17.4 %) reported being drunk on at least one occasion in the previous 30 days. 6.5 % of boys and 2.2 % of girls report having been drunk on at least three occasions in this relatively short period of time (Figure 4).

When comparing both the 30 day prevalence of binge drinking and of subjectively experienced drunkenness it is noticeable that more than half of the adolescents who indulged in binge drinking were not drunk - according to their own perception. This discrepancy is also reflected in the BZgA data (BZgA 2014a). In the 2012 Alcohol Survey, 8.1 % of 12 to 17-year-old boys and 4.9 % of girls of the same age reported having been drunk within the previous 30 days, however 18.7 % of the boys and 16.1 % of the girls had consumed more than five and/or more than four alcoholic beverages on a single occasion during the same period. The average age at which 12 to 17-year-olds who had experienced intoxication by alcohol had been drunk for the first time was 14.9 years both for girls and for boys (BZgA 2014a).

Recording of potentially hazardous alcohol consumption in KiGGS Wave 1

Frequency and quantity of alcohol consumption was surveyed as part of KiGGS Wave 1 using the AUDIT-C-Instrument 2013; (Bush et al. 1998 Rumpf et al. 2013). This is a short questionnaire as part of the Alcohol Use Disorders Identification Test (AUDIT) which was developed on behalf of the World Health Organization (WHO) and which was also deployed as part of the Robert Koch Institute's "German Health Interview and Examination Survey for Adults– DEGS" (Hapke et al. 2013).

The three AUDIT-C instrument questions are as follows:

"How often do you have a drink containing alcohol?"Response categories: "Never", "Once a month or less frequently", "2 to 4 times per month", "2 to 3 times per week", "4 times per week or more often"

"If you drink alcohol, how many alcoholic drinks do you usually drink in a day?"Response categories: "1 to 2", "3 to 4", "5 to 6", "7 to 9", "10 or more alcoholic drinkske«

"How often do you drink six or more alcoholic drinks on one occasion, for example at a party?" Response categories: "Never", "Less often than once a month", "Every month", "Every week", "Every day or almost every day"

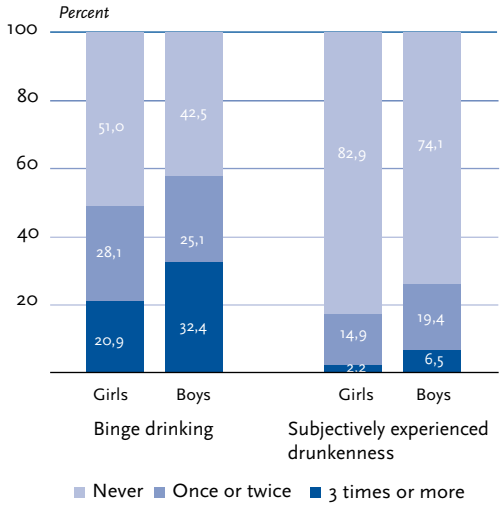
For each of the above questions an advisory note was given that an alcoholic drink was understood to mean a small bottle of beer (0.33 l), a small glass of wine (0.125 l) or a double measure of spirits (0.04 l) for example (Lampert et al. 2014). In accordance with the instrument instructions, the response categories for the three individual questions were each allocated ascending point scores from 0 to 4 and then totalled.

The range of the total scores established in this way therefore lies between 0 and 12. Hazardous alcohol consumption can be assumed given a total AUDIT-C score of ≥ 4 for girls and ≥ 5 for boys (Gual et al. 2002, Reinert, Allen 2007).

Social determinants of alcohol consumption

In order to be able to direct prevention measures toward specific target groups, information is required with regard to alcohol consumption among adolescents as to what extent social differences become apparent. Social characteristics which may be observed in this context are, for example, social status or the level of affluence of the family of origin, the type of school frequented by the young per-

Figure 4
30 day prevalence of binge drinking and subjectively experienced drunkenness in 15 and 16-year-old adolescents
Data source: ESPAD Study 2011, Kraus et al. 2011



sons or their immigrant background. Overall the available study results indicate that in contrast to tobacco consumption, for example, no or only minor differences specific to population groups can be established with regard to the majority of indicators for alcohol consumption during adolescence (Lampert, Thamm 2007, Kraus et al. 2011, Richter et al. 2013, BZgA 2014a, Lampert et al. 2014). Accordingly, the social status of the family of origin, established from details provided by parents regarding education, profession and income, is neither related to regular alcohol consumption investigated as part of the KiGGS baseline study (Lampert, Thamm 2007) nor to hazardous consumption or regular binge drinking investigated as part of KiGGS Wave 1 (Lampert et al. 2014).

Only with regard to lifetime prevalence do the results of KiGGS Wave 1 seem to suggest that young persons of high social status have more frequently consumed alcohol at some point than those of low social status. According to the HBSC data, the percentage of 15-year-old adolescents who regularly drink alcohol is also somewhat greater amongst those from more affluent families than those of the same age from less affluent families (HBSC Team Germany 2012, Richter et al. 2013). The results regarding the significance of the type of secondary school attended by the young persons are not always clear and depend, amongst other things on the alcohol consumption indicator, age and gender of the adolescents, as well as the respective study (Lampert, Thamm 2007, Kohler et al. 2009, Kraus et al. 2011, Orth, Töppich 2012, BZgA 2014a).

Whilst barely any differences emerge in the HBSC Study and the BZgA surveys with regard to type of school in relation to alcohol consumption (Orth, Töppich 2012, Richter et al. 2013, BZgA 2014a), the results of the KiGGS baseline survey suggest that 14 to 17-year-old boys attending a German Hauptschule or Realschule (secondary general or intermediate school) more frequently drink alcohol on a regular basis than those attending Gymnasien (grammar schools) (Lampert, Thamm 2007). The results of the ESPAD Study indicate that the percentage of 15 and 16-year-old pupils who had indulged in binge drinking at least three times in the 30 days prior to the study was greater in Hauptschulen and Realschulen at 33.2 % and 29.8 % respectively than in Gymnasien at 21.8 % and Gesamtschulen (comprehensive schools) at 20.5 % (Kraus et al. 2011). Adolescents with an immigrant background drink alcohol less often and in lesser quantities than others of the same age without such a background (Lampert, Thamm 2007, Kohler et al. 2009, Orth, Töppich 2012, BZgA 2014a).

This is particularly true of those with an immigrant background on both sides (RKI 2008, Kolip et al. 2012). These individuals either immigrated to Germany themselves and have at least one parent who was born in another country, or both parents were born outside Germany and/or do not have German citizenship (RKI 2008). In contrast, adolescents with unilateral immigrant background, i. e. where the above is true with regard to only one parent, actually tend to resemble those without an immigrant background in their drinking behaviour. Whilst according to the data from the KiGGS baseline survey only 17.9 % of adolescents with two-sided migration background drink alcohol on a regular basis, this is true of 33.6 % of young persons with unilateral immigrant background and 40.8 % among non-immigrants (RKI 2008, Kohler et al. 2009).

More extensive analyses of the KiGGS data reveal that particularly those young persons from Islamic countries such as Turkey drink comparatively less alcohol (RKI 2008). The BZgA data also confirms that young persons from these countries of origin more frequently live in abstinence and a significantly smaller proportion of them tend to consume dangerous levels of alcohol and engage in binge drinking (Orth, Töppich 2012, BZgA 2014a).

Temporal development taking hospital diagnoses statistics into consideration

Studies based on survey data mostly consistently indicate that in the interim, adolescents in Germany drink less alcohol now than they did even just a few years ago (Kraus et al. 2011, Richter et al. 2012, BZgA 2014). This can be established using various indicators. According to the KiGGS Study the percentage of 11 to 17-year-old adolescents that have consumed alcohol at some point fell during the period of 2003–2006 to 2009–2012 from 62.8 % to 54.4 % (Lampert et al. 2014).

Also on the basis of the BZgA and ESPAD data, a clear fall in the lifetime, as well as the 12 month and 30 day prevalences is to be seen (Kraus et al. 2011, BZgA 2014a). At the same time the average age among 12 to 17-old-olds at which alcohol is consumed for the first time increased in the period from 2004 to 2012 by almost one year from 13.0 to 13.8 years (BZgA 2014a). As far as statements regarding regular

alcohol consumption are concerned, it is possible to look back over a period of more than 30 years using the BZgA data, though it must be borne in mind here that until 1990 the data only refers to the old West German states (Figure 5).

The percentage of 12 to 17-year-olds who drink alcohol regularly fell significantly in the first instance up to 1997. Following a recent increase until 2007 the prevalences have since returned to the original 1997 values among boys and have fallen to an even lower level among girls. A trend toward lower prevalences can also be confirmed for the consumption of dangerous amounts of alcohol and regular binge drinking (Kraus et al. 2011, BZgA 2014a). Whilst in 2007, 20.0 % of 12 to 17-year-old girls and 30.7 % of boys of the same age still maintained to have consumed five or more alcoholic drinks in one go on at least one occasion in the 30 days preceding the survey, the most recent results indicate the figures to be now only 10.5 % of girls and 18.7 % of boys (Figure 6) (BZgA 2014a).

According to the HBSC data, the percentage of 13 and 15-year-old pupils reporting two or more episodes of intoxication caused by alcohol during their lifetime was also significantly higher in 2002 than in 2010 (Richter et al. 2012). In view of this finding, it is also fitting that the average age at which a state of drunkenness is experienced in the case of both sexes has increased during the period 2004 to 2012 from approximately 14.3 years to 14.9 years (BZgA 2014a). Hospital diagnoses statistics provide information as to the development in the number of children and adolescents requiring hospital admission to treat acute alcohol intoxication (Federal Statistical Office 2015c). Whilst in the year 2000 in the 10 to 19-year-old age group just under 10,000 cases of acute alcohol intoxication were registered, this figure increased gradually year on year until 2008 (Figure 7).

From 2008 to 2012 approximately 26,000 children and adolescents per year were treated in hospital with a diagnosis of "acute alcohol intoxication" - corresponding therefore to more than double the number at the start of the new millennium. For the first time, 2013 saw a significant decline in the number of cases of around 13 % compared to the previous year since the beginning of this series of studies. The development in both girls and boys was largely parallel although at an overall percentage of around 60 % each year, more boys than girls had to be treated for alcohol intoxication. The reduction in case numbers in 2013, however, was far less pronounced among girls at -7.6 % than it was in boys at -16.1 % (Figure 7).

International comparison

Not only in Germany but in many other countries, the rates of alcohol consumption among adolescents have fallen in the past ten years (Johnston et al. 2014, Livingston 2014). Consequently the percentage of 11 to 15-year-old pupils already regularly drinking alcohol on a weekly basis has declined in 20 out of 28 participating countries surveyed as part of the HBSC Study in the period from 2002 to 2010 (Looze et al. 2015). Based on the ESPAD data, a reduction of between three and seven percentage points can be seen with regard to lifetime, 12 month and 30 day prevalences for the period 2003 to 2011 across all participating nations (Hibell et al. 2012). International comparison reveals that the percentage of adolescents who drink alcohol in Germany is relatively

Figure 5
Temporal development of regular alcohol consumption (at least once a week over the past 12 months) among adolescents aged between 12 and 17 years
Data source: BZgA Representative Surveys 1979–2012 (BZgA 2014a)

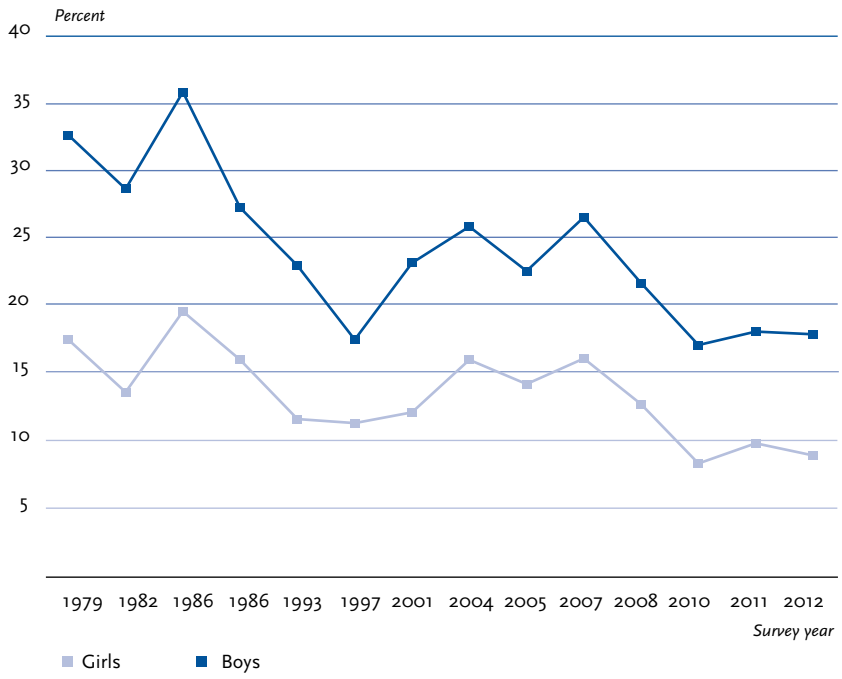
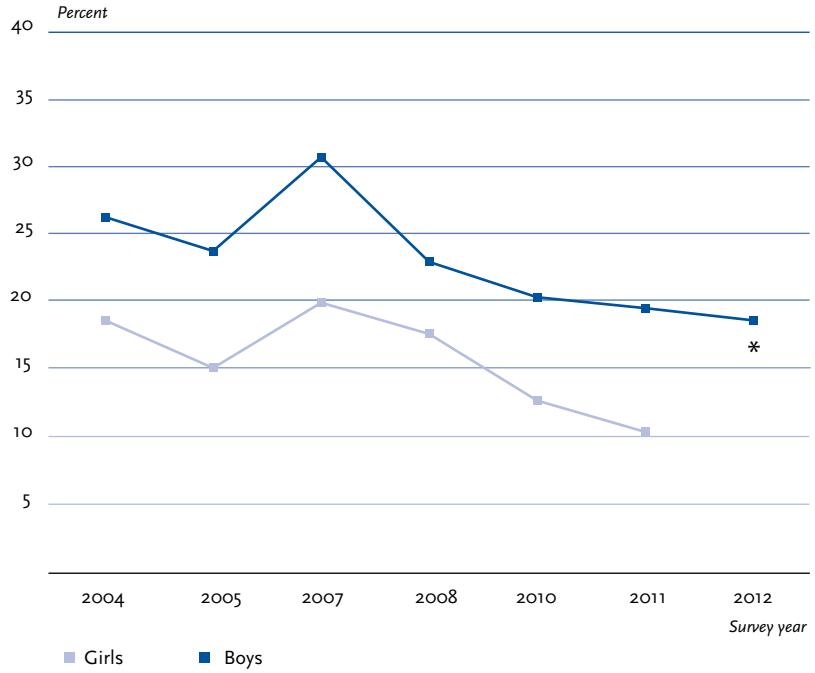


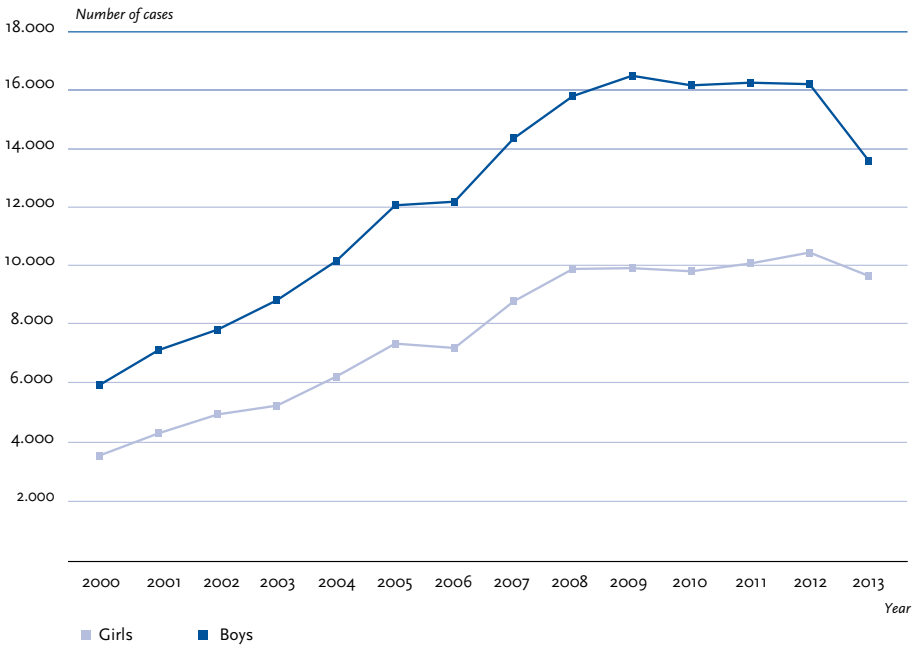
Figure 6
Temporal development in the 30 day prevalence of binge drinking in adolescents aged 12 to 17-years
Data source: BZgA Representative surveys 2004–2012, BZgA 2014a



* Since 2012 the BZgA has been surveying binge drinking among girls using amended limit values (≥ 4 instead of ≥ 5 glasses of alcohol on a single occasion); the 2012 prevalence of 16.1% is therefore not comparable with values obtained in previous years.

high (Steketee et al. 2013, Soellner et al. 2014). According to the data from the 2011 ESPAD Study, which permits comparisons of a total of 36 European countries, higher 12 month and/or 30 day prevalences for alcohol consumption were only achieved in the Czech Republic and Denmark (Hibell et al. 2012). With regard to all other indicators such as regu-

Figure 7
Temporal development in children and adolescents aged between 10 and 19 years requiring hospital treatment for acute alcohol intoxication
Data source: Hospital diagnoses statistics 2000 to 2013, Statistisches Bundesamt 2015c



lar alcohol consumption or repeated subjective intoxication experiences, which were reported as part of the 2010 HBSC Study, Germany ranks mid-table out of all participating countries (Currie et al. 2012). The percentage of 15-year-old adolescents who drink alcohol at least once a week or who have already been drunk more than twice in their lifetime is slightly lower among girls and only slightly higher in boys in Germany than the average among all HBSC participating countries (Table 1).

Discussion

Studies based on survey data suggest that the consumption of alcohol among adolescents has declined in recent years. This can be determined, for example, through lower lifetime prevalence, a reduction in the 30 day prevalence for binge drinking and higher age levels for starting to drink alcohol. The number of children and adolescents requiring hospital treatment due to acute alcohol poisoning also fell for the first time in 2013 compared to the

Table 1
Percentage of 15-year-old adolescents who drink alcohol at least once a week or who have been drunk more than twice as an international comparison
Data source: HBSC Study 2009/2010, Currie et al. 2012

Country / Region	Weekly alcohol consumption (in %)		Experienced intoxication (at least twice) (in %)	
	Girls	Boys	Girls	Boys
Czech Republic	33	44	40	46
Greece	34	43	19	26
Ukraine	30	44	24	38
Croatia	27	43	26	44
Austria	28	37	31	39
Italy	26	39	14	19
Wales	29	35	50	47
Scottland	25	29	46	40
Slowenia	20	33	36	45
England	22	31	43	38
Hungary	20	32	35	47
Belgium (Flemish-speaking)	16	32	23	32
Belgium (French-speaking)	20	27	23	25
Romania	11	36	18	47
Latvia	21	26	42	51
Spain	22	23	36	31
Slovakia	16	28	31	39
Denmark	17	26	56	55
Germany	15	28	27	35
Netherlands	18	25	17	19
Lithuania	17	25	47	57
Luxembourg	15	26	17	20
Switzerland	13	26	20	27
France	13	25	17	26
Armenia	11	27	8	37
Macedonia	12	23	8	19
Estonia	13	20	42	48
Canada	13	17	35	33
Poland	11	17	27	35
Irland	9	13	28	30
Russia	9	13	19	24
Norway	9	11	28	26
Sweden	9	11	27	21
USA	9	11	13	15
Portugal	6	12	18	23
Finland	8	7	44	37
Greenland	8	6	52	41
Iceland	5	8	16	18
HBSC Average	**17**	**25**	**29**	34

previous year. Due to the considerable social and health-related consequences of regular alcohol consumption, the current figures with regard to the prevalence and consumption patterns among adolescents do however indicate this topic's high degree of relevance to public health.

From the point of view of the WHO, health policy in itself is not solely responsible for effective alcohol prevention. On the contrary, the inclusion of all relevant policy areas and multiple players or stakeholders is required (WHO 2010). Within the framework of the global strategy to reduce the burden from the harmful use of alcohol, ten action and target areas have been defined. In addition to the need for political support and increased awareness of the problem on the part of relevant stakeholders, health service measures and community actions, measures in connection with the availability, marketing and pricing of alcohol are suggested (WHO 2010).

Furthermore political measures to limit alcohol in road traffic, as well as reducing the health-related and social consequences of dangerous alcohol consumption are detailed, along with emphasis being placed on the need for regular monitoring and surveillance. The fields of action defined by the WHO have been taken up in the National Health Target "Reduce Alcohol Consumption"and backed up with concrete goals and sub-goals. With regard to adolescents, the important goals stated are the reduction of alcohol consumption and binge drinking as well as the design of living environments or contexts such as schooling and educational training being both healthy and free from alcohol. Further goals relate for example to increasing problem awareness both politically and socially, guaranteeing effective early recognition and early intervention, improving counselling and treatment on offer, as well as supporting families plagued by addiction problems - and their children (GVG 2015).

As a next step, goals are to be added to the field of action regarding "advertising, pricing and availability". Currently the responsible working group is preparing suggestions for measures to implement goals and sub-goals. The current legal regulations in Germany relate above all to the availability of alcohol for adolescents. In Section 9 of the German Youth Protection Act it is stipulated, among other things, that in public houses/restaurants, sales outlets or other public places, spirits or drinks containing spirits may not be served to adolescents nor should the consumption thereof be permitted. An age limit of 16 years is in place for the serving of other alcoholic drinks. In addition to the above, Section 6 of the German Licensing Act stipulates that in all public houses at least one alcohol-free drink shall be offered as cheaply as the cheapest alcoholic drink.

This is so that alcoholic drinks are not consumed because they are cheaper than non-alcoholic beverages. In Baden-Württemberg the sale of alcohol is prohibited between 22.00 and 05.00 hours in petrol stations and supermarkets (Marcus, Siedler 2015). For these regulations to work however, they require effective monitoring as well as sensitisation and information of all stakeholders and player such as in the campaign "Jugendschutz: Wir halten uns daran" ("Youth Protection: We'll stick to it") which was conducted by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth - (BMFSFJ).

The existing behaviour-related prevention measures are aimed at informing young people about the risks associated with alcohol consumption and thus enabling them to drink alcohol responsibly. Since 2009 and in conjunction with the Association of Private Health Insurance (PKV), the BZgA has been organising the largest nationwide campaign for alcohol prevention for young persons called "Alcohol? Know your limit." (Alkohol? Kenn dein Limit - BZgA 2014b). Another BZgA campaign entitled "Zero Alcohol - Full Power" has the goal of encouraging a critical attitude towards alcohol amongst children and adolescents up to the age of 16 and delaying their starting to drink alcohol (Null Alkohol – volle Power, BZgA 2014c). The alcohol prevention project "HaLT" ("Hart am Limit" - approx. Close to the Limit) is directed especially at those adolescents who have already become conspicuous because of dangerous levels of alcohol consumption, e.g. because of hospital admission due to alcohol intoxication (Kuttler, Lang 2010). Attitudes toward alcohol, drinking motives and consumption patterns that develop and strengthen during adolescence often still exist in adulthood. Alcohol prevention measures that start during childhood and adolescence and which combine behavioural and structural measures, as well as encouraging social discussion with regard to the negative social and health-related consequences of alcohol consumption therefore appear all the more important.

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