

Statistical bulletin

# Alcohol-related deaths in the UK: registered in 2012

Deaths in the UK that are known to be direct consequences of alcohol misuse, such as alcoholic liver disease.



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## 1. Alcohol-related Deaths in the United Kingdom, Registered in 2012

- In 2012 there were 8,367 alcohol-related deaths in the UK, 381 fewer than in 2011 (8,748)
- Males accounted for approximately 65% of all alcohol-related deaths in the UK in 2012
- Death rates were highest among men aged 60 to 64 years (42.6 deaths per 100,000 population) and women aged 55 to 59 years (22.2 deaths per 100,000)
- Of the four UK constituent countries, only in Scotland were male and female death rates in 2012 significantly lower than in 2002
- In England and Wales, 63% of all alcohol-related deaths in 2012 were caused by alcoholic liver disease, with 16% of these deaths occurring among those aged 55 to 59 years
- In England, alcohol-related death rates were highest among regions in the North and lowest among those in the South throughout the period 2002–2012

### 2. Summary

This bulletin presents the latest figures for alcohol-related deaths in the UK, its four constituent countries and regions of England. Comparisons are made between 2012, the latest year, and previously published data from 2002 onwards.

Figures are based on deaths registered in each calendar year rather than those occurring in each year. Since the majority of alcohol-related deaths registered in 2012 also occurred in the same year, registration delays are likely to have no impact on the findings in this bulletin. Please see the section on registration delays for further information.

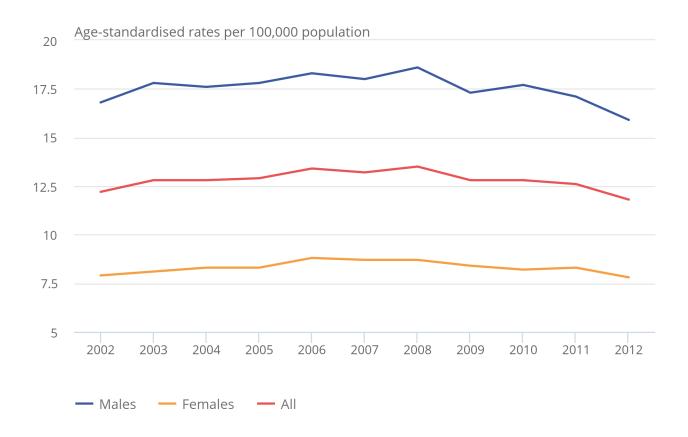
ONS recently revised mid-2002 to 2010 population estimates in light of the 2011 Census. Death rates relating to this period have therefore been revised and may differ from previously published figures. In the previous release, 'Alcohol-related deaths in the United Kingdom, 2011' UK rates were based on a combination of the 2011 Census population estimates for England and Wales and rolled forward mid-year population estimates (from the 2001 Census) for Scotland and Northern Ireland. These rates have now been rebased on 2011 Census populations for each UK constituent country.

#### Figure 1: Alcohol-related death rates, United Kingdom, registered in 2002-2012

#### United Kingdom

## Figure 1: Alcohol-related death rates, United Kingdom, registered in 2002-2012

United Kingdom



#### Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates per 100,000 population, standardised to the 1976 European Standard Population
- 3. Deaths of non-residents are included in figures for the UK
- 4. Figures are for deaths registered in each calendar year
- 5. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

### 3. Context

Alcohol is a potentially addictive psychoactive substance. It is rapidly absorbed into the bloodstream, and its effects on brain function – such as slowed reaction times and loss of inhibition – are felt very quickly. The human body cannot store alcohol; it treats it as a potential poison and detoxifies it in the liver. The speed at which this happens depends on a variety of factors including age and sex (FPH, 2008).

Since alcohol cannot be stored, it is potentially harmful to the liver which is responsible for breaking it down and eliminating it from the body. The harmful effects of alcohol can be acute (immediate) or chronic (longer-term) with these effects being dependent to a large extent on drinking behaviour. Some of the acute effects include alcohol-related accidents and injuries, suicides and violent crime while liver cirrhosis, heart disease and certain types of cancer are associated with long term misuse of alcohol.

Although drinking alcohol is a part of the culture in many societies and a common feature in social gatherings and many people use it sensibly, its misuse has become a serious and worsening public health problem in recent years (<u>FPH, 2008</u>; <u>WHO, 2014a</u>). The harmful use of alcohol results in 2.5 million deaths each year worldwide (<u>WHO, 2014b</u>) with over 8,000 deaths occurring in the UK in each of the last ten years.

Excessive consumption of alcohol is a major preventable cause of premature mortality with alcohol-related deaths accounting for 1.4% of all deaths in England and Wales in 2012. There is therefore widespread policy, professional and public interest in the prevalence of alcohol-related deaths in the UK. The main users of these statistics include the Department of Health and other devolved health administrations, public health observatories and local governments. The figures on alcohol-related deaths are used to monitor and develop policies to protect the health of the public. In November 2010, the government published a White Paper titled ' Healthy lives, healthy people: our strategy for public health in England' (Department of Health, 2010) which outlines the government's commitment to protecting the population from serious health threats and helping people to live longer, healthier and more fulfilling lives. Among other lifestyle and behavioural factors, the paper highlights the harmful effects of alcohol abuse and the associated cost to the NHS. This White Paper led to the Home Office's Alcohol Strategy (2012) which introduced a minimum unit price for alcohol and initiated a consultation on banning multi-buy alcohol discounting in order to reduce the number of people drinking to damaging levels.

Non-government users include charitable organisations such as <u>Drinkaware</u>, and <u>Addaction</u>. These organisations use the statistics to educate people about the risks associated with alcohol consumption, to target support services to vulnerable groups and to inform public opinion and policy. Many of these organisations have also signed up as partners to the government's Public Health Responsibility Deal (Department of Health, 2014) in which public, private and voluntary organisations sign-up and work collaboratively to address key public health issues, including alcohol abuse. Academics and researchers also use the statistics to investigate the causes and the impact of alcohol-related deaths.

The statistics are also used by local and national media to report on geographical and time trends in alcoholrelated deaths and to comment on the effectiveness or potential effectiveness of government policies and are of great interest to the general public.

This statistical bulletin presents figures for the UK, its constituent countries and English Regions. Statistics for Scotland are also published by <u>National Records of Scotland (NRS)</u> while data for Northern Ireland are published by the <u>Northern Ireland Statistics and Research Agency (NISRA)</u>.

### 4. Comparison of age-specific rates in the United Kingdom

Age-standardised rates enable the comparison of trends in alcohol-related deaths over time because they take into account differences in the age structure of the populations being compared. However, as these rates are overall rates, they are not useful in comparing age groups within or across populations. In contrast, age-specific rates allow these comparisons to be made. Data presented in this section are for 2012 only. Rates were not calculated where there were three or fewer deaths in an age group.

In 2012, age-specific alcohol-related death rates for males rose steadily from 0.3 per 100,000 population among those aged 20-24 to a peak of 42.6 per 100,000 at age 60-64 years. The rates fell in subsequent age groups to 19.7 per 100,000 among those aged 85 years and over.

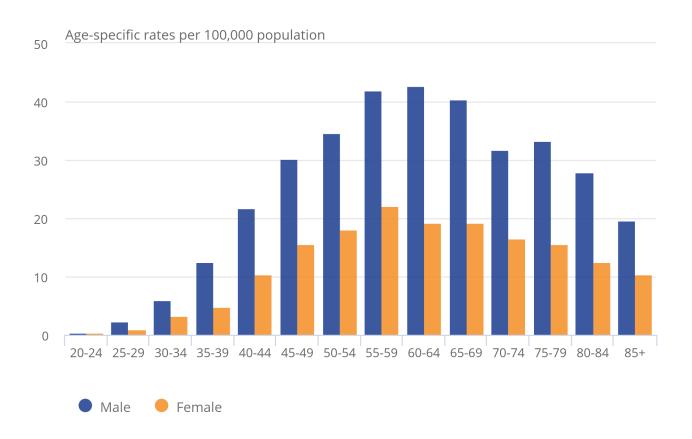
For females, the death rate for those aged 20-24 years was similar to that for males in this age group. However, the disparity between male and female death rates become more evident beyond this age group, with rates among males approximately twice those for females in each age group. Female rates rose steadily to a peak of 22.2 per 100,000 among those aged 55-59 years before dropping off gradually to 10.3 per 100,000 among those aged 85 years and over.

#### Figure 2: Age-specific alcohol-related death rates by sex and age, UK, registered in 2012

#### United Kingdom

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United Kingdom



#### Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates are not calculated for persons aged under 20 due to small number of deaths
- 3. Deaths of non-residents are included in figures for the UK
- 4. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

## 5. Comparison of age-standardised rate trends in the United Kingdom

For males, age-standardised rates for alcohol-related deaths in 2012 fell significantly on the previous year from 17.1 to 15.9 per 100, 000 population. Over the period 2002 to 2012, there were substantial annual fluctuations in the numbers and age-standardised rates for alcohol-related deaths. On the whole, the number of deaths rose from 5,069 in 2002 to a peak of 5,999 in 2008 before falling to 5,473 in 2012. A similar pattern was observed with rates which increased significantly between 2002 and 2008 before falling significantly in 2009 and most recently in 2012.

In general, the number of female deaths from alcohol-related causes increased from 2,632 in 2002 to a peak of 3,032 in 2008. The numbers have since fallen to 2,894 in 2012. Rates also increased between 2002 and 2006 but remained relatively stable afterwards until 2011. In 2012, the alcohol-related death rate for females stood at 7.8 per 100, 000 population, representing the first significant decrease in rates since 2006.

Despite the decreases in the rates and number of deaths for males, a significantly higher proportion of alcoholrelated deaths continue to occur in males than in females. On average, 66% of alcohol-related deaths in the last 11 years have been in males.

The causes of death defined as alcohol-related in this bulletin (see the 'Definition' section for details) are those causes regarded as being most directly due to alcohol consumption. Data on alcohol consumption in Great Britain in 2012 in the Opinions and Lifestyle Survey (OPN) (<u>ONS, 2013</u>, showed although men were more likely to drink than women, there was a steady decline in the proportion of adults (aged 16 years and over) who drank alcohol frequently in the previous week. The proportion fell from 22% in 2005 to 14% in 2012 for men and for women from 13% to 9%. The report also showed that men were more likely to be heavy drinkers than women. Differences in consumption rates and habits are likely to be the main factor responsible for the higher number of alcohol-related deaths observed in males than females.

Despite the fall in alcohol consumption, it is likely that it will take a number of years for any resulting reduction in alcohol-related deaths to become apparent. This is because diseases associated with excessive alcohol consumption are often slow to develop. For example, Alcoholic Liver Disease is the most prevalent of all alcohol-related causes of death included in this bulletin and is responsible for approximately 63% of all alcohol-related deaths in England and Wales in 2012. This disease takes several years to develop.

There were large fluctuations in age-standardised death rates within broad age groups in the period 2002–12. Rates were not calculated for those less than 15 years old due to small number of deaths.

For males aged 15-34 years, rates remained largely stable over the period, with the rate in 2012 only significantly lower than that in 2008. (2.1 compared with 2.9 per 100, 000 population). Rates in the 35-54 and 55-74 years age groups were characterised by periods of stability, and significant increases and decreases. For males aged 35-54, death rates increased significantly from 28.0 per 100,000 in 2002 to a peak of 30.8 per 100,000 in 2008 before falling significantly to 24.7 per 100,000 in 2012. Similarly, rates for males aged 55-74 years, increased significantly from 40.0 per 100,000 to a peak of 45.5 per 100,000 in 2008 before falling significantly, in 2012, only for the second time since then. This fall meant that for the first time in three years, the latest death rate for men in this age group was comparable to the rate in 2002. Conversely, for males aged 75 and over, death rates increased significantly between 2010 and 2012. Nevertheless, the 2012 death rate for this group was not significantly different from the rate in 2002.

For females aged 15-34 years, rates have remained largely stable over the 11 year period. Despite a significant increase in rates in 2009, there was no significant difference between the rates in 2002 and 2012 for this age group. Similarly, despite a significant decrease in the death rate of those aged 35-54 years between 2011 and 2012, the latest rate was not significantly lower than that in 2002. A similar picture was observed for females aged 55-74 with deaths rates in 2002 and 2012 not being significantly different despite the fact that a significant increase was observed in 2006 and 2008. Rates for females aged 75 and over remained relatively stable over the period.

#### Figure 3: Alcohol-related death rates by age group, males, UK, registered in 2002–2012

#### United Kingdom

## Figure 3: Alcohol-related death rates by age group, males, UK, registered in 2002–2012

United Kingdom



#### Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

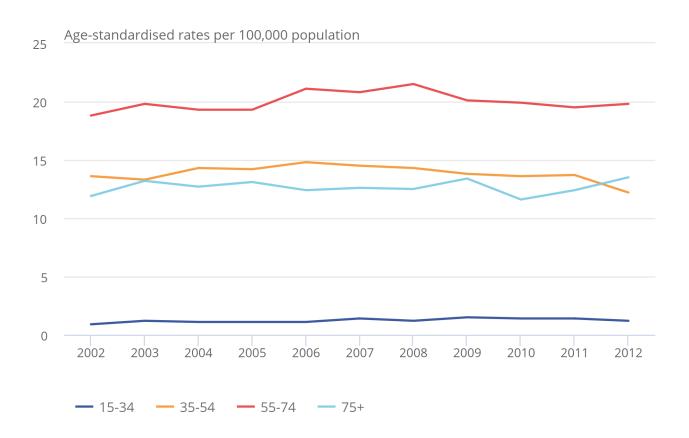
- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates per 100,000 population, standardised to the 1976 European Standard Population
- 3. Rates not calculated for persons aged under 15 due to small number of deaths
- 4. Deaths of non-residents are included in figures for the UK
- 5. Figures are for deaths registered in each calendar year
- 6. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

#### Figure 4: Alcohol-related death rates by age group, females, UK, registered in 2002–2012

#### United Kingdom

## Figure 4: Alcohol-related death rates by age group, females, UK, registered in 2002–2012

United Kingdom



#### Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates per 100,000 population, standardised to the 1976 European Standard Population
- 3. Rates not calculated for persons aged under 15 due to small number of deaths
- 4. Deaths of non-residents are included in figures for the UK
- 5. Figures are for deaths registered in each calendar year
- 6. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

### 6. England

The trend in the annual number of deaths from alcohol related causes in England was similar to that in the UK. The number of deaths rose from 2002, peaking in 2008 and 2007 for males and females respectively before generally falling to date.

For males, the number of deaths in 2012 stood at 4,232, a 6% decrease on the previous year. Annual fluctuations have meant that rates increased and decreased significantly between some years over the period 2002–12. Rates increased significantly from 14.3 per 100, 000 population in 2002 to a peak of 16.6 per 100, 000 in 2008 before falling significantly for the first time since then in 2012 (14.7 per 100, 000).

For females, the number of alcohol-related deaths fell by only 0.4% on the previous year from 2,272 in 2011 to 2,263 in 2012. Although this relatively small decrease meant that the death rates for these two years were not significantly different, the latest figure represents the first significant decrease in rates since 2007.

Despite the latest figures showing a significant improvement in rates for males and females since peaking in 2008 and 2007 respectively, the 2012 figures were still comparable to those observed in 2002.

## 7. Regions of England

Alcohol-related death rates varied significantly by English region and sex.

For males, the rate in 2012 was lowest in the East of England at 10.2 per 100,000 population and highest in the North West (20.7 per 100,000). These regions also had the lowest and highest number of deaths respectively, with the North West having more than twice the number of deaths in the East of England (792 compared with 344).

In addition, the North West had the highest male death rate in ten of the last eleven years. Although rates in this region increased significantly from 19.3 per 100,000 in 2002 to 23.4 per 100,000 in 2007 they have remained stable to date. Rates were lowest in the East of England in the majority of years in the period 2002–12. However, the trend over time in this region was also characterised by an initial significant increase in rates to a peak of 12.5 per 100,000 population in 2008 and then a significant decrease in 2012 (10.2 per 100,000).

The rates for females also tended to be highest in the North West and lowest in the East of England over the period. However, in the last two years rates have been lowest in London, standing at 5.5 per 100,000 in 2012.

Compared with 2002, there was a significant change in death rates in only two regions for males (Yorkshire and the Humber and London) and in one for females (London) in 2012. Furthermore, in all regions, the rates in 2012 did not change significantly compared with the previous year.

The regional differences observed in alcohol-related deaths are likely to have largely resulted from regional differences in drinking habits in the past. Consumption data from the OPN (<u>ONS, 2013</u>) showed that the highest proportion of binge drinkers were in the North West (15%) and the lowest in London (8%). In addition, the North West (18%) and Yorkshire and the Humber (19%) were the regions with the highest proportion of heavy drinkers while the East of England had the lowest proportion (10%).

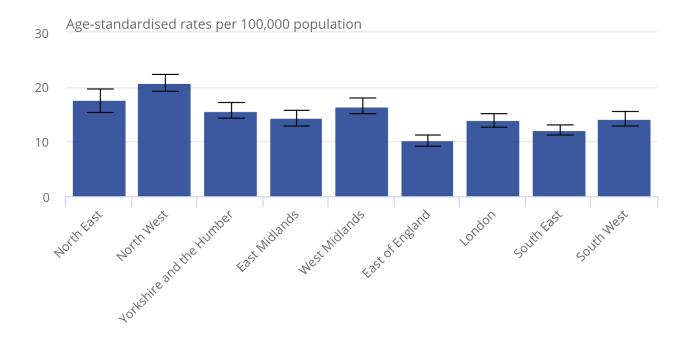
The geographic variation in alcohol-related deaths rates has been well documented in previous research. For example, <u>Breakwell et al. (2007) (2.95 Mb Pdf)</u> reported a strong association in alcohol-related deaths with death rates being higher among those living in the most deprived neighbourhoods in England and Wales. Similarly, <u>Siegler et al. (2011) (353.9 Kb Pdf)</u> demonstrated that alcohol-related deaths varied by socio-economic class with higher death rates in those in the most disadvantaged classes. Erskine et al. (2010) supported these findings and reported a higher risk of alcohol-related deaths in urban areas than rural areas, after accounting for socio-economic status.

#### Figure 5a: Alcohol-related death rates, with 95% confidence intervals, by region, registered in 2012

#### Male

## Figure 5a: Alcohol-related death rates, with 95% confidence intervals, by region, registered in 2012

Male



#### Source: Office for National Statistics

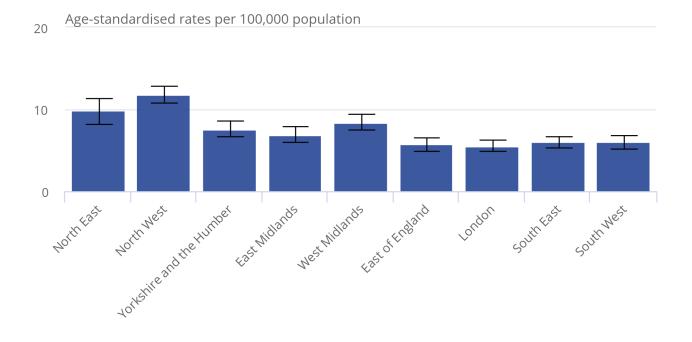
- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates per 100,000 population, standardised to the 1976 European Standard Population
- 3. Deaths of non-residents are excluded
- 4. Figures are for deaths registered in each calendar year
- 5. Confidence intervals give a measure of the statistical precision of an estimate and show the range of uncertainty around the estimated figure. As a general rule, if the confidence interval around one figure overlaps with the interval around another, we cannot say with certainty that there is more than a chance difference between the two figures
- 6. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

#### Figure 5b: Alcohol-related death rates, with 95% confidence intervals, by region, registered in 2012

#### Female

## Figure 5b: Alcohol-related death rates, with 95% confidence intervals, by region, registered in 2012

Female



#### Source: Office for National Statistics

- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates per 100,000 population, standardised to the 1976 European Standard Population
- 3. Deaths of non-residents are excluded
- 4. Figures are for deaths registered in each calendar year
- 5. Confidence intervals give a measure of the statistical precision of an estimate and show the range of uncertainty around the estimated figure. As a general rule, if the confidence interval around one figure overlaps with the interval around another, we cannot say with certainty that there is more than a chance difference between the two figures
- 6. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

### 8. Wales

In 2012, alcohol-related death rates were significantly higher in Wales than in England; 18.0 per 100,000 population compared with 14.7 per 100,000 respectively. The rate for males in Wales increased significantly between 2002 and 2007 but has remained stable to date. However, the relatively wide confidence intervals meant that the rate in 2012 was not significantly higher than in 2002.

Similarly, the death rate for females in Wales was significantly higher than in England in 2012 (10.4 compared with 7.3 per 100,000 population respectively). For females in Wales rates increased significantly from 7.3 per 100,000 in 2002 to 10.4 per 100,000 in 2012, despite fluctuations in rates within this period.

Overall, the number of alcohol-related deaths in Wales increased between 2002 and 2012 for both sexes; however, the percentage increase was greater for females than for males. While the number of deaths for males increased by 24% from 236 in 2002 to 311 in 2012, the corresponding increase for females was 34% from 127 to 193 deaths.

Although the proportion of adults who drink was shown to be higher in England than in Wales, (<u>ONS, 2013</u>), the drinking habits in both countries were somewhat different. While the proportion of adults who binge drink in England and Wales were similar (12% and 11% respectively) there was a higher proportion of heavy drinkers in Wales than in England (16% compared with 13% respectively).

## 9. Comparison of age-standardised rate trends by UK country

For males, age-standardised alcohol-related death rates tended to be lowest in England and highest in Scotland over the period 2002–12. Nevertheless, while death rates in England increased by approximately 2% from 14.3 to 14.7 per 100,000 population between 2002 and 2012, in Scotland they fell by 37% from 39.5 to 24.8 per 100,000. Rates in Wales increased by 15% while Northern Ireland experienced an 8% fall, although this decrease was not statistically significant compared with 2002.

For females, death rates were also lowest in England over the period. Although the rate was significantly higher in Scotland than in any other UK country in 2002, a 34% decrease compared with increases in England, Wales and Northern Ireland meant that the rate in Scotland in 2012 was not significantly different from the rate in Wales and Northern Ireland.

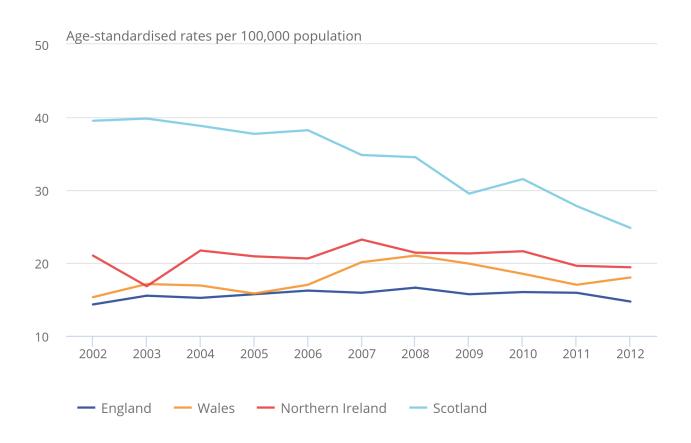
Of the four UK constituent countries, only in Scotland were male and female death rates in 2012 significantly lower than in 2002.

#### Figure 6: Alcohol-related death rates, Males, UK constituent country, registered in 2002-2012

#### England

## Figure 6: Alcohol-related death rates, Males, UK constituent country, registered in 2002–2012

England



#### Source: Office for National Statistics

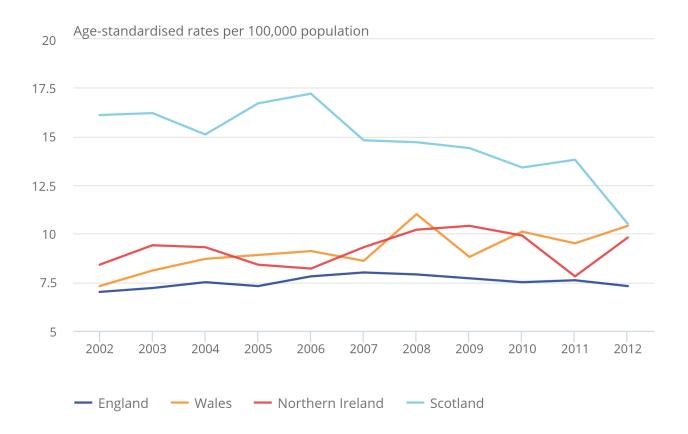
- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates per 100,000 population, standardised to the 1976 European Standard Population
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#### Figure 7: Alcohol-related death rates, females, UK constituent country, registered in 2002-2012

#### United Kingdom

## Figure 7: Alcohol-related death rates, females, UK constituent country, registered in 2002–2012

United Kingdom



#### Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

- 1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information
- 2. Rates per 100,000 population, standardised to the 1976 European Standard Population
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#### Table 1: Male alcohol-related death rates: by UK country and region of England, 2002-2012 (1,2,3,4,5,6)

							F	Rate pe	r 100,0	00 popi	ulation
Country/Region	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United Kingdom	16.8	17.8	17.6	17.8	18.3	18.0	18.6	17.3	17.7	17.1	15.9
England	14.3	15.5	15.2	15.7	16.2	15.9	16.6	15.7	16.0	15.9	14.7
North East	17.6	17.5	20.9	20.0	21.7	21.3	22.5	20.5	22.5	21.5	17.6
North West	19.3	20.7	21.0	21.2	21.2	23.4	22.7	22.1	21.0	22.9	20.7
Yorkshire and The Humber	12.2	14.9	15.8	16.9	16.9	16.4	16.6	16.0	16.4	16.3	15.7
East Midlands	11.8	13.7	12.3	13.9	14.2	13.3	16.1	14.7	16.1	15.5	14.3
West Midlands	16.7	19.0	17.6	18.6	18.9	18.5	21.2	18.3	18.3	18.6	16.5
East of England	10.0	10.7	9.9	10.0	11.2	11.7	12.5	11.4	11.7	11.8	10.2
London	18.0	18.1	17.0	16.2	18.3	14.4	15.4	14.7	15.3	14.0	13.9
South East	12.4	13.5	12.3	13.0	13.2	13.0	12.5	12.9	12.9	12.9	12.1
South West	11.7	12.4	12.7	14.4	12.9	14.0	14.5	13.9	14.2	14.0	14.1
Wales	15.3	17.1	16.9	15.8	17.0	20.1	21.0	19.9	18.5	17.0	18.0
Scotland	39.5	39.8	38.8	37.7	38.2	34.8	34.5	29.5	31.5	27.8	24.8
Northern Ireland	21.0	16.8	21.7	20.9	20.6	23.2	21.4	21.3	21.6	19.6	19.4

Source: Office for National Statistics

Notes:

1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information

2. Rates per 100,000 population standardised to the 1976 European Standard Population

3. Deaths of non-residents are included in figures for the UK, but excluded in figures for England, Wales and regions

4. Figures are for deaths registered in each calendar year

5. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

6. Figures for 2002 to 2010 are based on mid-year population estimates, revised in light of the 2011 Census

Table 2: Number of male alcohol-related deaths: by UK country and region of England, registered in 2002-
2012 (1,2,3,4)

Country/Region	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United Kingdom	5,069	5,443	5,431	5,566	5,768	5,732	5,999	5,690	5,865	5,792	5,473
England	3,635	3,968	3,922	4,103	4,271	4,234	4,476	4,315	4,439	4,503	4,232
North East	233	236	278	269	294	291	310	287	314	303	255
North West	676	719	742	750	761	845	826	811	780	863	792
Yorkshire and The Humber	308	381	414	446	447	439	447	437	451	456	449
East Midlands	266	311	280	327	334	318	388	362	399	391	363
West Midlands	455	522	484	518	533	521	601	529	535	554	500
East of England	286	314	297	299	343	360	389	360	372	388	344
London	572	564	541	517	601	477	524	510	544	499	504
South East	525	574	534	570	584	583	569	597	616	621	591
South West	314	347	352	407	374	400	422	422	428	428	434
Wales	236	269	266	254	271	326	344	334	309	287	311
Scotland	1,023	1,056	1,037	1,021	1,040	959	971	837	909	815	741
Northern Ireland	165	132	174	171	173	199	185	187	191	177	178

Source: Office for National Statistics

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1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information

2. Deaths of non-residents are included in figures for the UK, but excluded in figures for England, Wales and regions

3. Figures are for deaths registered in each calendar year

4. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

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Country/Region	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United Kingdom	7.9	8.1	8.3	8.3	8.8	8.7	8.7	8.4	8.2	8.3	7.8
England	7.0	7.2	7.5	7.3	7.8	8.0	7.9	7.7	7.5	7.6	7.3
North East	7.4	10.8	10.5	9.3	9.7	11.3	11.7	10.5	10.2	10.4	9.8
North West	10.4	10.4	11.3	11.1	12.0	12.3	12.5	11.6	11.5	10.8	11.8
Yorkshire and The Humber	5.8	6.8	7.2	6.8	8.4	8.2	7.1	7.7	7.4	8.9	7.6
East Midlands	6.9	6.9	8.2	7.2	6.8	7.8	7.7	7.8	6.8	7.3	6.9
West Midlands	8.2	7.4	8.7	9.0	9.0	9.4	10.1	9.0	9.4	9.5	8.4
East of England	5.3	5.1	5.5	5.9	6.3	6.2	5.3	5.2	5.5	5.6	5.7
London	7.2	7.5	6.1	6.3	6.1	6.3	5.8	5.8	6.3	5.3	5.5
South East	6.0	6.1	6.2	6.1	6.8	6.2	6.2	6.5	6.0	6.3	6.0
South West	5.8	5.5	5.4	5.5	6.5	6.5	6.8	6.7	6.1	6.5	6.0
Wales	7.3	8.1	8.7	8.9	9.1	8.6	11.0	8.8	10.1	9.5	10.4
Scotland	16.1	16.2	15.1	16.7	17.2	14.8	14.7	14.4	13.4	13.8	10.5
Northern Ireland	8.4	9.4	9.3	8.4	8.2	9.3	10.2	10.4	9.9	7.8	9.8

## Table 3: Female alcohol-related death rates: by UK country and region of England, registered in 2002-2012 (1,2,3,4,5,6)

Rate per 100 000 population

Source: Office for National Statistics

Notes:

1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information

2. Rates per 100,000 population standardised to the 1976 European Standard Population

3. Deaths of non-residents are included in figures for the UK, but excluded in figures for England, Wales and regions

4. Figures are for deaths registered in each calendar year

5. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

6. Figures for 2002 to 2010 are based on mid-year population estimates, revised in light of the 2011 Census

2002–2012 (1,2,3,4)				y on o	Suntry			Lingian	u, rogit		
Country/Region	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
United Kingdom	2,632	2,721	2,790	2,820	2,990	2,992	3,032	2,974	2,925	2,956	2,894
England	1,957	2,016	2,114	2,094	2,246	2,310	2,295	2,267	2,230	2,272	2,263
North East	106	151	148	133	141	164	175	163	155	158	150
North West	381	389	425	423	448	465	486	438	449	433	469
Yorkshire and The Humber	165	190	204	203	235	239	208	229	221	261	226
East Midlands	169	171	202	178	170	194	194	205	180	188	187
West Midlands	242	216	258	259	268	288	307	280	286	296	276
East of England	171	170	186	193	214	214	180	180	193	198	211
London	262	263	217	227	222	227	215	226	244	205	225
South East	284	297	297	304	337	310	308	327	306	322	320
South West	177	169	177	174	211	209	222	219	196	211	199
Wales	127	143	150	152	159	151	197	159	185	172	193

## Table 4: Number of female alcohol-related deaths: by UK country and region of England, registered in

Source: Office for National Statistics

Notes:

Scotland

Northern Ireland

1. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information

441

81

492

75

506

75

440

84

440

91

445

96

409

93

432

75

339

92

2. Deaths of non-residents are included in figures for the UK, but excluded in figures for England, Wales and regions

3. Figures are for deaths registered in each calendar year

464

73

469

82

4. In 2012 the average number of days between date of death and death registration in England and Wales was four days for alcohol-related causes

### 10. Registration delays

The information used to produce mortality statistics is based on the details collected when deaths are certified and registered. In England and Wales, deaths should be registered within five days of the death occurring, but there are some situations which result in the registration of the death being delayed. Deaths considered unexpected, accidental or suspicious will be referred to a coroner who may order a post mortem or carry out a full inquest to ascertain the reasons for the death.

Alcohol-related death statistics are presented based on the number of deaths registered in each calendar year, rather than the number of deaths that actually occurred in that year. This method is used because there is a requirement for consistent and timely data, despite a potential limitation in data quality caused by registration delays.

In 2012, fewer alcohol-related deaths were registered within five days than deaths from all causes (61% compared with approximately 76% respectively). On average, the median registration period for alcohol-related deaths was 4 days, with a range of 0 to 2026 days. The majority (83%) of deaths were registered within one month while a small proportion (4.9%) was delayed by six months or more.

## Table 5: Registration period for alcohol-related deaths and all-cause mortality, England and Wales, deaths registered in 2012 (1,2,3,4)

**England and Wales** 

				Proporti	on of deaths registe	red (per cent)
Cause	Deaths Within registered 5 days in 2011	Six days to one month (6-30 days)	One to three months (31 - 91 days)	Three to six months (92 - 183 days)	Six months to one year (184 - 365 days)	Over 1 year (over 365 days)
Alcohol- related	7,017 61.0%	22.1%	4.9%	7.2%	4.0%	0.9%
All- cause	499,322 75.7%	18.5%	1.4%	2.1%	1.6%	0.6%

Source: Office for National Statistics

Notes:

1. All cause mortality was extracted based on the underlying cause of death, defined using the International Classification of Diseases, tenth revision (ICD-10)

2. A common definition of alcohol-related death is used across the United Kingdom; see the 'Definition' section for further information

3. Figures include deaths of non-residents

4. Deaths where the day and/or month of death are missing have been excluded

### 11. Definition

The National Statistics definition of alcohol-related deaths only includes those causes regarded as being most directly due to alcohol consumption, as shown in Box 1 below. It does not include other diseases where alcohol has been shown to have some causal relationship, such as cancers of the mouth, oesophagus and liver. The definition includes all deaths from chronic liver disease and cirrhosis (excluding biliary cirrhosis), even when alcohol is not specifically mentioned on the death certificate. Apart from deaths due to poisoning with alcohol (accidental, intentional or undetermined), this definition excludes any other external causes of death, such as road traffic and other accidents. The definition allows for consistent comparisons over time for those deaths most clearly associated with alcohol consumption.

#### National Statistics definition of alcohol-related deaths (ICD-10)

ICD-10 code	Text
F10	Mental and behavioural disorders due to use of alcohol
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
l42.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K73	Chronic hepatitis, not elsewhere classified
K74	Fibrosis and cirrhosis of liver (Excluding K74.3-K74.5 - Billiary cirrhosis)
K86.0	Alcohol induced chronic pancreatitis
X45	Accidental poisoning by and exposure to alcohol
X65	Intentional self-poisoning by and exposure to alcohol
Y15	Poisoning by and exposure to alcohol, undetermined intent

### 12. Results on the Office for National Statistics website

Figures for alcohol-related deaths for the UK, England, Wales and regions of England can be found in Microsoft Excel workbooks on the Office for National Statistics website at:

The two workbooks contain:

- Results for the UK age-standardised rates per 100,000 (with 95% confidence intervals) and numbers of alcohol-related deaths for the period 1991 to 2012. Figures are available split by sex and broad age groups (All ages, 1¬-14, 15-34, 35-54, 55-74 and 75 and over)
- Results for England and Wales age-standardised rates per 100,000 (with 95% confidence intervals) and numbers of alcohol-related deaths for England and Wales, England, Wales and regions of England for the period 1991-2012. Figures are available split by sex and broad age groups (All ages, 1-14, 15-34, 35-54, 55-74 and 75 and over; figures presented by sex only for regions of England)

Statistics for Scotland, published by National Records of Scotland and statistics for Northern Ireland, published by the Northern Ireland Statistics and Research Agency (NISRA) are available in the links below.

**Scotland** 

Northern Ireland

### 13. References

Breakwell C, Baker A, Griffiths C, Jackson G, Fegan G and Marshall D (2007) <u>Trends and geographical variations</u> in alcohol-related deaths in the United Kingdom, 1991-2004. Health Statistics Quarterly 33, 6-22. (2.95 Mb Pdf)

Department of Health (2010) Healthy lives, healthy people: our strategy for public health in England

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Erskine, S., Maheswaran, R., Pearson, T. & Gleeson, D. (2010) Socioeconomic deprivation, urban-rural location and alcohol-related mortality in England and Wales. BMC Public Health, 10:99

Faculty of Public Health (2008) Alcohol and Public Health. Position statement

Home Office (2012) Alcohol Strategy.

ONS (2013) Opinions and Lifestyle Survey, Drinking Habits Amongst Adults, 2012.

Siegler V, Al-Hamad A, Johnson B And Wells C (2011) <u>Social inequalities in alcohol-related adult mortality by</u> <u>National Statistics Socio-economic Classification, England and Wales, 2001-03. Health Statistics Quarterly 50.</u> (353.9 Kb Pdf)

World Health Organisation (2014a) [Health Topics – Alcohol]9http://www.who.int/topics/alcohol\_drinking/en/ "Health Topics – Alcohol").

World Health Organisation (2014b) Alcohol factsheet

### 14. Background notes

- Statistics on mortality are derived from the information provided when deaths are certified and registered. Further information about the methods and quality of these statistics can be found in the <u>Quality and</u> <u>Methodology Report (382.3 Kb Pdf)</u>.
- 2. In England and Wales, deaths should be registered within five days of the death occurring, but there are some situations which result in the registration of the death being delayed, for instance if a death is considered unexpected, accidental or suspicious. In 2012 the average number of days between date of death and death registration was four days for alcohol-related causes. Further information on the impact of registration delays on data quality is available.
- 3. ONS holds mortality data for England and Wales. Figures for the UK include data kindly provided by National Records of Scotland and the Northern Ireland Statistics and Research Agency.
- 4. The tenth revision of the International Classification of Diseases (ICD-10) was introduced in Scotland in 2000 and in England and Wales and Northern Ireland in 2001.
- 5. The introduction of ICD-10 in England and Wales in 2001 had a significant effect on mortality rates for some diseases, causing a discontinuity in mortality trends for these causes of death. However, the change resulted in a difference of less than 1% in the number of deaths from alcohol-related causes.
- 6. Figures are for deaths registered in each calendar year.
- 7. This bulletin presents age-standardised rates calculated using the direct method of standardisation while the 1976 European Standard Population was used as the standard. These make allowances for differences in the age structure of the population, over time and between sexes. The age-standardised rate for a particular cause of death is that which would have occurred if the observed age-specific rates for that cause had applied in the given standard population.
- 8. Mid 2002–10 population estimates have been revised in light of the 2011 Census for each UK constituent country. UK rates for this period have therefore been rebased on these revised population estimates and may differ from previously published figures for the period.

- 9. Within this bulletin, a difference which is described as 'statistically significant' has been assessed using 95% confidence intervals. If a difference is said to be statistically significant, it is unlikely that it could have occurred by chance alone. Confidence intervals give a measure of the statistical precision of an estimate and show the range of uncertainty around the estimated figure. As a general rule, if the confidence interval around an estimate overlaps with the interval around another, there is no significant difference between the two estimates.
- 10. Alcohol-related death rates included in this bulletin are presented with 95% confidence intervals in the reference tables [link] accompanying this release.
- 11. Special extracts and tabulations of alcohol-related death (and other causes of mortality) data for England and Wales are available to order for a charge (subject to legal frameworks, disclosure control, resources and agreement of costs, where appropriate). Such requests or enquiries should be made to:

Mortality Analysis Team, Life Events and Population Sources Division Office for National Statistics Government Buildings Cardiff Road Newport Gwent NP10 8XG

Tel: 01633 456736 E-mail: mortality@ons.gsi.gov.uk.

The ONS charging policy is available on the ONS website.

- 12. As a valued user of our statistics, we would welcome feedback on this release. In particular, the content, format and structure. Please send feedback to the postal or e-mail address above.
- 13. Details of the policy governing the release of new data are available from the Media Relations Office.
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- 15. Details of the policy governing the release of new data are available by visiting <u>www.statisticsauthority.gov.</u> <u>uk/assessment/code-of-practice/index.html</u> or from the Media Relations Office email: <u>media.relations@ons.</u> <u>gsi.gov.uk</u>

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