

Statistical bulletin

# Alcohol-specific deaths in the UK: registered in 2020

Deaths caused by diseases known to be a direct consequence of alcohol misuse by sex, age, region and deprivation.



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# 1 . Main points

- In 2020, there were 8,974 deaths (14.0 per 100,000 people) from alcohol-specific causes registered in the UK, an 18.6% increase compared with 2019 (7,565 deaths; 11.8 per 100,000 people) and the highest year-on-year increase since the data time series began in 2001.
- Between 2012 and 2019, rates of alcohol-specific deaths in the UK have remained stable, but a statistically significant increase was seen in 2020.
- Consistent with previous years, the rate of alcohol-specific deaths for males in 2020 remained more than double the rate for females (19.0 and 9.2 deaths per 100,000 people respectively, registered in 2020).
- Scotland and Northern Ireland had the highest rates of alcohol-specific deaths in 2020 (21.5 and 19.6 deaths per 100,000 people respectively).
- Comparing with 2019, the alcohol-specific death rate has risen across all four UK constituent countries, but statistically significant increases were only seen in England and Scotland.

If you are struggling with your drinking, please consider visiting [Get help now](#) on the Alcohol Change UK website. Help is available if you are concerned for yourself or on behalf of a family member or friend.

## 2 . Alcohol-specific deaths in the UK

There were 8,974 deaths related to alcohol-specific causes registered in the UK in 2020, equivalent to 14.0 deaths per 100,000 people. That was 1,409 more deaths (a 18.6% increase) than in 2019 when there were 7,565 registered deaths, equivalent to 11.8 deaths per 100,000 people.

Between 2012 and 2019, rates of alcohol-specific deaths in the UK have remained stable, with no statistically significant differences in the year-on-year rates. However, the rates seen in 2020 are statistically significantly higher than 2019 and any other year since 2001, when there were 10.6 deaths per 100,000 people.

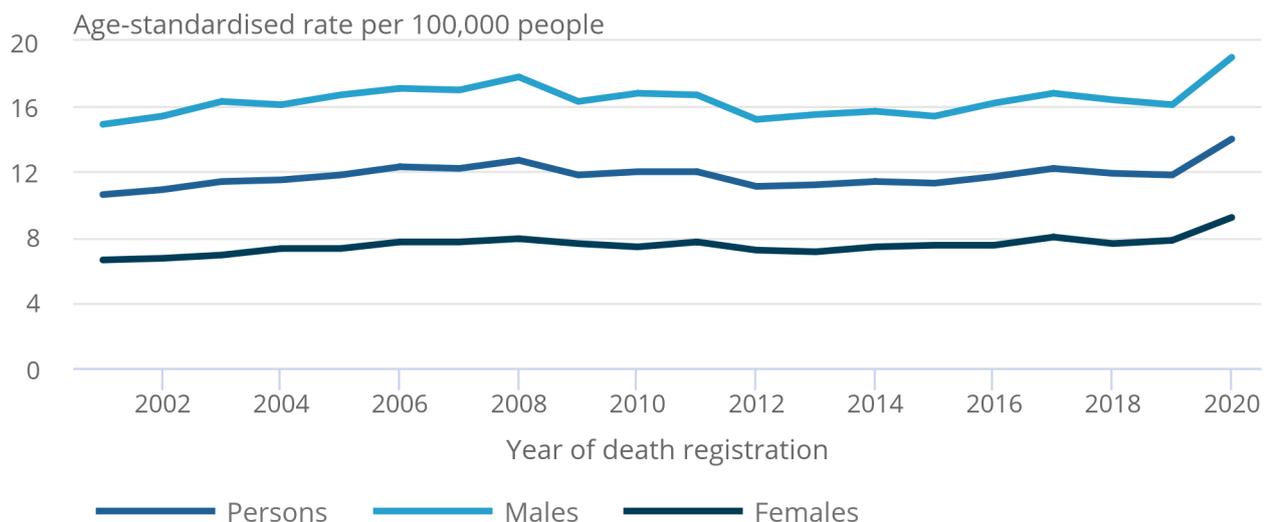
Alcohol-specific deaths only include those health conditions where each death is a direct consequence of alcohol misuse (that is, wholly attributable causes such as alcoholic liver disease). See [concepts and definitions](#) for more information.

### Figure 1: The alcohol-specific death rate for 2020 was 18.6% higher than the previous year

Age-standardised alcohol-specific death rates per 100,000 people, by sex; UK, deaths registered between 2001 and 2020

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Age-standardised alcohol-specific death rates per 100,000 people, by sex; UK, deaths registered between 2001 and 2020



Source: Office for National Statistics - Alcohol-specific deaths in the UK: registered in 2020, National Records of Scotland and Northern Ireland Statistics and Research Agency

#### Notes:

1. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
2. Deaths of non-residents are included in figures for the UK.
3. Figures are for deaths registered in each calendar year.

## **Rates of male alcohol-specific deaths are twice those of females**

Consistent with previous years, the alcohol-specific death rate for males in 2020 (19.0 deaths per 100,000 males; 5,957 deaths) was around twice the rate for females (9.2 deaths per 100,000 females; 3,017 deaths).

## **Most alcohol-specific deaths are attributed to alcoholic liver disease**

The [National Statistics](#) definition of alcohol-specific deaths includes only those health conditions where each death is a direct consequence of alcohol misuse (that is, wholly attributable deaths; see Section 8 of the [Quality and Methodology Information](#)). Figure 2 shows the number of alcohol-specific deaths by five-year age group and the following three individual causes, which contributed 96.1% of all alcohol-specific deaths registered in 2020:

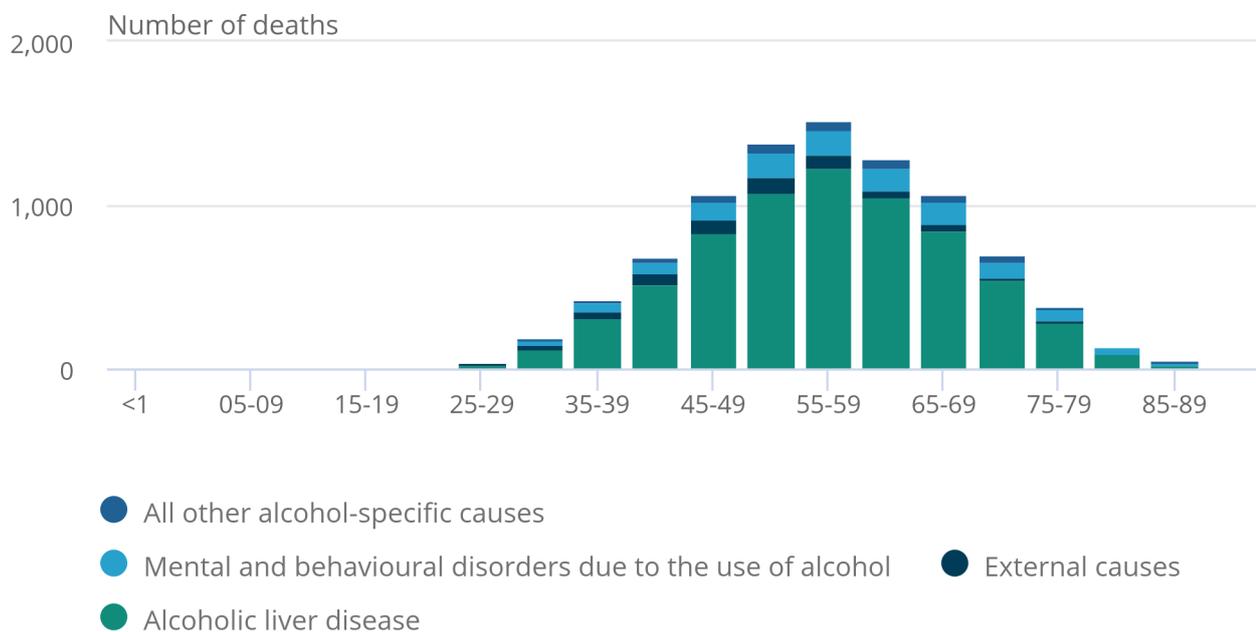
- alcoholic liver disease (International Classification of Diseases: ICD-10 code K70; 77.8% of alcohol-specific deaths)
- mental and behavioural disorders due to the use of alcohol (ICD-10 code F10; 12.1% of deaths)
- external cause of deaths, including accidental poisoning by and exposure to alcohol (ICD-10 code X45, X65, Y15; 6.2% of deaths)

**Figure 2: More than three-quarters of alcohol-specific deaths were caused by alcoholic liver disease**

Numbers of alcohol-specific deaths, by five-year age group and individual cause; UK, deaths registered in 2020

## Figure 2: More than three-quarters of alcohol-specific deaths were caused by alcoholic liver disease

Numbers of alcohol-specific deaths, by five-year age group and individual cause; UK, deaths registered in 2020



Source: Office for National Statistics - Alcohol-specific deaths in the UK: registered in 2020, National Records of Scotland and Northern Ireland Statistics and Research Agency

**Notes:**

1. Deaths of non-residents are included in figures for the UK.
2. Figures are for deaths registered in each calendar year.

### 3 . Alcohol-specific deaths by UK constituent country

## Scotland and Northern Ireland had the highest rates of alcohol-specific deaths in 2020

Scotland and Northern Ireland were the UK constituent countries with the highest alcohol-specific death rates in 2020, with 21.5 and 19.6 deaths per 100,000 persons respectively. England and Wales continue to have lower rates of alcohol-specific deaths, with 13.0 and 13.9 deaths per 100,000 persons respectively.

However, when compared with the 2019 registrations, the largest year-on-year increases in rates were seen in Wales and England, 17.8% and 19.3% respectively. This substantial increase in the death rates in 2020 was indicated in our [quarterly report](#) for England and Wales.

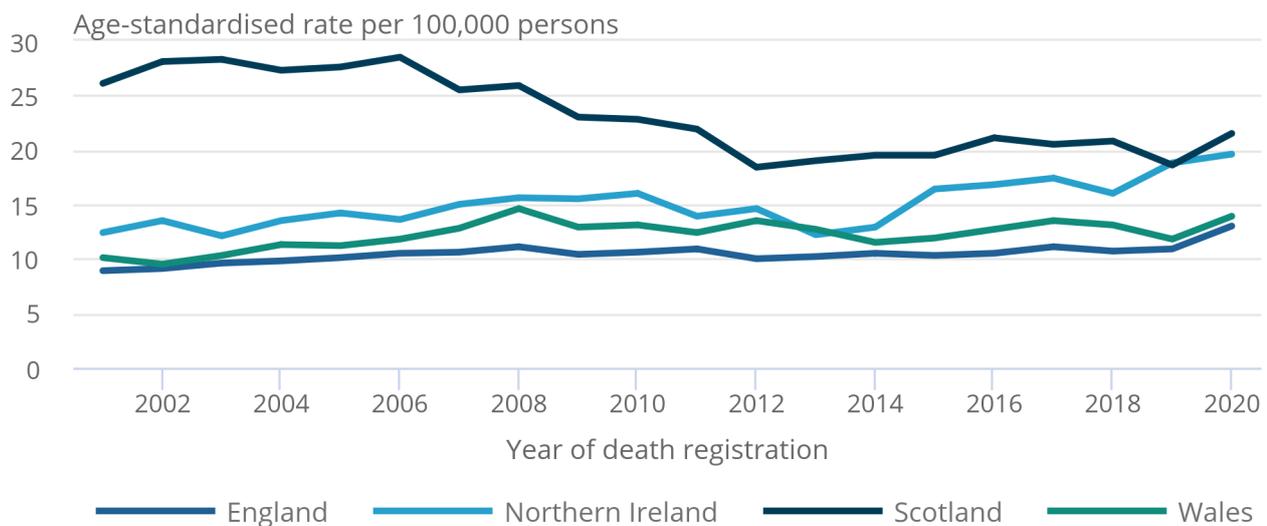
In 2020, Scotland and England were the only UK constituent countries to show statistically significant higher rates when comparing with 2019. In comparison, rates in both Wales and Northern Ireland were not statistically significantly different for the same period.

### Figure 3: Of the four UK constituent countries, rates of alcohol-specific deaths were highest in Scotland in 2020

Age-standardised alcohol-specific death rates per 100,000 people; UK constituent countries, deaths registered between 2001 and 2020

#### Figure 3: Of the four UK constituent countries, rates of alcohol-specific deaths were highest in Scotland in 2020

Age-standardised alcohol-specific death rates per 100,000 people; UK constituent countries, deaths registered between 2001 and 2020



Source: Office for National Statistics - Alcohol-specific deaths in the UK: registered in 2020, National Records of Scotland and Northern Ireland Statistics and Research Agency

#### Notes:

1. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
2. Figures for Scotland and Northern Ireland include deaths of non-residents. However, figures for England and Wales (separately) exclude deaths of non-residents and are based on August 2021 boundaries.
3. Figures are for deaths registered in each calendar year.

## 4 . Alcohol-specific deaths by English region

### Six English regions had significant increases in rates of alcohol-specific deaths in 2020

For deaths registered in 2020, regional age-standardised rates of alcohol-specific deaths ranged from 9.2 deaths per 100,000 people in the East of England to 20.0 deaths per 100,000 people in the North East. For the seventh consecutive year, the North East had the highest rate of any English region. As discussed in our quarterly provisional release, [2020 had elevated rates of alcohol-specific deaths](#). When comparing the rates of alcohol-specific deaths in 2020 to deaths registered in 2019, six out of nine English regions have seen statistically significant increases in rates:

- West Midlands (from 12.1 to 16.1 deaths per 100,000 people, an increase of 33.1%)
- South West (from 8.7 to 11.5 deaths per 100,000 people, an increase of 32.2%)
- London (from 7.9 to 9.9 deaths per 100,000 people, an increase of 25.3%)
- North East (from 16.6 to 20.0 deaths per 100,000 people, an increase of 20.5%)
- North West (from 14.4 to 17.2 deaths per 100,000 people, an increase of 19.4%)
- South East (from 9.2 to 10.9 deaths per 100,000 people, an increase of 18.5%)

While comparing males' and females' rates of death, the ratio between male and female rates of death was greatest in London, as has been the case for 15 consecutive years. In 2020, the male rate for London was 15.1 deaths per 100,000 people, over three times the female rate of 5.0 deaths per 100,000.

### Figure 4: In 2020, the alcohol-specific death rate for the West Midlands was 33.1% higher than the previous year

Age-standardised alcohol-specific death rates per 100,000 people, by sex; English regions, deaths registered between 2001 and 2020

#### Notes:

1. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
2. Figures for English regions exclude deaths of non-residents and are based on August 2021 boundaries.
3. Figures are for deaths registered in each calendar year.

Download this chart

[.XLSX](#)

## 5 . Factors that could be associated with the 2020 increase in alcohol-specific deaths

When trying to understand the elevated rates of alcohol-specific deaths seen since April 2020, there will be many complex factors, and it may be some time before we fully understand all of these.

Data from Public Health England show that [consumption patterns have changed since the onset of the coronavirus \(COVID-19\) pandemic](#). Alcohol consumption is a contributing factor to hospital admissions and death.

For further discussion see our [quarterly releases](#).

## 6 . Alcohol-specific deaths in the UK data

### Figures by geographical area

#### [Alcohol-specific deaths in the UK](#)

Dataset | Released 7 December 2021

Annual data on age-standardised and age-specific alcohol-specific death rates in the UK, its constituent countries and regions of England.

### Figures by individual cause of death

#### [Alcohol-specific deaths by sex, age group and individual cause of death](#)

Dataset | Released 7 December 2021

Annual data on number of alcohol-specific deaths by sex, age group and individual cause of death, UK constituent countries.

### Supplementary analysis

#### [Alcohol-specific deaths in the UK: liver diseases, the impact of deprivation and registration delays](#)

Dataset | Released 7 December 2021

Annual data on deaths caused by unspecified hepatitis, and fibrosis and cirrhosis of the liver in the UK. Age-standardised rates for alcohol-specific deaths by deprivation quintile in England and Wales, and median registration delays by region.

## 7 . Glossary

### Alcohol-specific deaths

This bulletin uses the National Statistics definition of alcohol-specific deaths; it includes those health conditions where each death is a direct consequence of alcohol misuse (that is, wholly attributable deaths). This is explored in greater detail in Section 8 Concepts and definitions of the [Quality and Methodology Information](#).

Figures are based on deaths registered in each calendar year, rather than the date of which the death occurs. On a national level, trends are broadly similar whether the data are analysed by year of occurrence or year of registration. Registration delays can have greater influence on smaller geographical areas.

### Age-specific mortality rates

Age-specific mortality rate is the total number of deaths per 100,000 people of a particular age group, used to allow comparisons between specified age groups.

## Age-standardised mortality rates

Age-standardised mortality rates allow for differences in the age structure of populations and therefore allow valid comparisons to be made between geographical areas, the sexes and over time. In this bulletin, age-standardised mortality rates are presented per 100,000 people and standardised to the 2013 European Standard Population.

## Statistical significance

The term "significant" refers to statistically significant changes or differences based on unrounded figures. Significance has been determined using the 95% confidence intervals, where instances of non-overlapping confidence intervals between figures indicate the difference is unlikely to have arisen from random fluctuation (or chance).

For further information see our pages on [statistical uncertainty](#).

# 8 . Measuring the data

## Quality and methodology

Statistics on mortality are derived from the information provided when deaths are certified and registered. These statistics are assessed fully compliant with the [Code of Practice for Statistics](#) and are therefore designated as [National Statistics](#). Office for National Statistics (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](#).

Numerous changes were made to death certification and registration under the [Coronavirus Act 2020](#). We have previously explored the [impact on the quality of death registration data](#) in England and Wales. Further information about the methods and quality of these statistics can be found in the Mortality statistics in England and Wales [Quality and Methodology Information](#) (QMI) report and the [User guide to mortality statistics](#).

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the Alcohol-specific deaths in the UK [Quality and Methodology Information](#) (QMI) report.

## Registration delay

Figures are for deaths registered, rather than deaths occurring in each calendar year.

In England and Wales, 89.3% of alcohol-specific deaths registered in 2020 occurred in the same year and 67.4% of those deaths were certified by doctors; when looking at deaths from all causes, the percentages were 94.9% and 84.3% respectively for the same period.

The amount of time it takes to complete an inquest creates what is known as a "registration delay", which is a lag between the date of death and the date of death registration. For alcohol-specific deaths registered in 2020, the average (median) time between death occurrence and registration was six days in England and Wales, six days in England, five days in Wales, four days in Scotland and five days in Northern Ireland. Within England, the median delays range from four days in the North East to seven days in the East of England, London and the South East.

## Populations

Mortality rates are calculated using the number of deaths and [mid-year population estimates](#) provided by the ONS Population Estimates Unit. Population estimates are based on the decennial UK census estimates and use information on births, deaths and migration to estimate the mid-year population in non-census years.

## 9 . Strengths and limitations

Following our [consultation](#) in 2017, the [definition](#) was changed to include only alcohol-specific deaths, meaning that those conditions where death is only partially attributable to alcohol are excluded, they can include certain forms of cancer. The definition of alcohol-specific deaths is a more conservative estimate of the harms related to alcohol misuse.

### Strengths

- Consistent methodology across the UK, allowing for robust and comparable estimates of trends in alcohol mortality to be made.
- The precision of the alcohol-specific definition reduces the uncertainty that arises when estimating the total number of alcohol-attributable deaths.
- Using the alcohol-specific definition figures can be produced regularly and reliably from routinely collected data.

### Limitations

- The alcohol-specific definition underestimates the true extent of alcohol-attributable mortality.
- The largely chronic nature of the conditions defined as wholly attributable to alcohol means that there may be a delay between changes in alcohol consumption and behaviour and the resulting change in the number of alcohol-specific deaths.

## 10 . Related links

### [Quarterly alcohol-specific deaths in England and Wales](#)

Bulletin | Published 6 May 2021

Alcohol-specific deaths in England and Wales by quarter: 2001 to 2019 registrations and Quarter 1 (Jan to Mar) to Quarter 4 (Oct to Dec) 2020 provisional registrations.

### [Alcohol-specific deaths, Scotland](#)

Statistics | Published 17 August 2021

National Records of Scotland (NRS) statistics on the most recent official death registration data available on alcohol-specific mortality across Scotland.

### [Alcohol-specific deaths, Northern Ireland](#)

Statistics | Published 2 February 2021

Northern Ireland Statistics and Research Agency (NISRA) statistics on the most recent official death registration data available on alcohol-specific mortality across Northern Ireland.

### [Deaths registered in England and Wales: 2020](#)

Bulletin | Released 6 July 2021

Registered deaths by age, sex, selected underlying causes of death and the leading causes of death. Contains death rates and death registrations by area of residence and single year of age.