

Alcohol Deaths in Scotland

December 2018

Definitions of alcohol deaths can be **narrow** (counting deaths that are only caused by alcohol – ‘**wholly attributable**’) or **wide** (counting deaths that are partly caused by alcohol, e.g. cancer – ‘**partially attributable**’).

There are **3 definitions of alcohol deaths** that are used: the ‘new’ National Statistics (NS) definition of **alcohol-specific deaths** (2017 onwards), the ‘old’ NS definition of **alcohol-related deaths** (2006 onwards), and the wider definition of **alcohol-attributable deaths** as used by NHS Health Scotland.

According to the narrow ‘new’ definition, there were **1,045 alcohol-specific deaths in 2015**. The wide definition reports **3,705 deaths attributable to alcohol in 2015**.

Background

The number of deaths that may be due to alcohol can be calculated in various ways, using definitions which range from ‘**narrow**’ (counting only those deaths which are wholly specific to alcohol – e.g. from alcoholic liver disease) to ‘**wide**’ (including deaths which are only partially attributable to alcohol – e.g. from certain types of cancer).

Annual statistics on alcohol deaths are reported by National Records of Scotland (NRS), and in England and Wales by the Office for National Statistics. The number of deaths which are counted as being due to alcohol are on **the basis of two National Statistics (NS) definitions** (which may be referred to as the ‘new’ and the ‘old’ definitions). The new definition of alcohol-specific deaths is the definition that should be used to report on annual deaths, from 2017 onwards.

It must be emphasised that both these definitions are classed as ‘narrow’ because they do not include **all deaths which may be caused by alcohol**; the figures do not include, for example, deaths as a result of road accidents, falls, fires, suicide or violence involving people who had been drinking; or from some medical conditions which are considered partly attributable to alcohol, such as certain forms of cancer. These alcohol attributable deaths figures are reported on a less regular basis by **NHS Health Scotland** in their [‘Burden of Disease Attributable to Alcohol’](#) report, and are described as using a **wide definition**.

Narrow definitions (conditions wholly attributable to alcohol)

The National Statistics (NS) definitions were developed for the purposes of monitoring alcohol-related deaths across all constituent countries of the UK, using consistent methodology **based solely on the information collected at death registration**.

They **primarily concern chronic conditions resulting exclusively from the long-term misuse of alcohol** and, to a lesser extent, **acute effects of alcohol poisoning**. The figures count only deaths for which such conditions was coded as the **underlying cause on the death certificate**. Deaths are coded using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (**ICD-10**).

There are **2 official National Statistics definitions of alcohol-related death**, which are used across the UK. They are referred to as the ‘old’ definition and the ‘new’ definition.

'New' National Statistics alcohol-specific deaths definition (2017 onwards)

Following consultation by the Office for National Statistics, a [new definition](#) was created in 2017 to ensure close alignment with current international consensus and bring consistency to the way in which alcohol-related deaths are reported across the UK (Alcohol Focus Scotland's response to the consultation is [here](#)).

The changes made to the definition were to increase accuracy **to include only deaths that are wholly attributable to alcohol. Unspecified liver disease and unspecified chronic hepatitis were removed** to address over-counting of deaths. Other **wholly attributable conditions were added** that were previously excluded. The full list of included conditions is below (newly added conditions are highlighted in green).

ICD-10 code	Description of condition
E24.4	Alcohol-induced pseudo-Cushing's syndrome
F10	Mental and behavioural disorders due to use of alcohol
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
G72.1	Alcoholic myopathy
I42.6	Alcoholic cardiomyopathy
K29.2	Alcoholic gastritis
K70	Alcoholic liver disease
K85.2	Alcohol induced acute pancreatitis
K86.0	Alcohol induced chronic pancreatitis
Q86.0	Foetal induced alcohol syndrome (dysmorphic)
R78.0	Excess alcohol blood levels
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

The number of deaths counted using the new definition is around 9% lower than the number counted using the old definition. Care should therefore be taken when citing alcohol deaths statistics to ensure figures used are comparable.

'Old' National Statistics alcohol-related deaths definition (2006 onwards)

This [definition](#) of alcohol-related deaths was agreed with the Office for National Statistics in 2006, following wide consultation. As well as conditions that are wholly attributable to alcohol, it included conditions which are *mostly* attributable to alcohol (e.g. unspecified liver disease, of which an estimated 70% of cases are due to alcohol), highlighted in orange.

ICD-10 code	Description of condition
F10	Mental and behavioural disorders due to use of alcohol
G31.2	Degeneration of nervous system due to alcohol
G62.1	Alcoholic polyneuropathy
I42.6	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 to K74.5 - Biliary 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

Wide definitions (conditions wholly and partially attributable to alcohol)

The number of **deaths attributable to alcohol** can be calculated by using **alcohol attributable fractions** (from looking at the relative risk of alcohol contributing to a condition and the levels of alcohol consumption in the population). This wide definition of alcohol deaths provide us with a **truer picture of the harm caused by alcohol**. Effective policies to tackle mortality rates are more likely to follow when governments and public health agencies have this fuller picture.

In 2009, a report presenting **estimates of the proportion of hospital admissions and deaths attributable to alcohol consumption in Scotland**, '[Alcohol-attributable mortality and morbidity: alcohol population attributable fractions for Scotland](#)', was published by NHS National Services Scotland.

Revised estimates for deaths attributable to alcohol were published in 2018 by NHS Health Scotland through the **Scottish Burden of Disease, Injuries and Risk Factors Study (SBoD)**, for the first time using real Scottish data (see below).

Deaths attributable to alcohol (2015)

Published in February 2018 by NHS Health Scotland, '[Hospital admissions, deaths and overall burden of disease attributable to alcohol consumption in Scotland](#)' quantifies **the alcohol-attributable burden** of conditions deemed both **wholly attributable to alcohol** (i.e. where the cause of disease or death is, by definition, 100% attributable to alcohol) and **partially attributable to alcohol** (i.e. where alcohol consumption accounts for only a proportion of disease or deaths).



- This is **6.5% of the deaths for the whole of Scotland** in 2015 (57,327), or around **1 in 15 deaths** in Scotland related to alcohol
- This is **almost 3 times the number of deaths** reported annually using the narrow definition

These statistics will not be published regularly as this research is resource-intensive. It is intended to be carried out again in the future, but probably not for quite a few years.

Available data

National Records for Scotland publish data on alcohol deaths for both the [new](#) and [old](#) NS definitions (the old definition figures will be published for at least a few years). NRS publish the number of deaths from alcohol registered in Scotland, reported by age and sex, with 5-year moving annual averages at Scotland, Health Board and Local Authority levels. These are available from 1979 onwards.

The number of alcohol deaths registered in Scotland may fluctuate noticeably from one year to the next; 5-year moving average values are therefore be a better guide to the underlying level of deaths and any long-term trend. When looking at trends over time and comparisons between areas, it is **best to use death rates** instead of raw numbers. **European age-standardised rates (EASR)** are often reported for alcohol mortality, to ensure rates are not affected by changes in a population's size or age distribution.

The following table sets out which figures are available on alcohol death rates, what definition is used, and a description of the statistic to aid understanding of how this could be used.

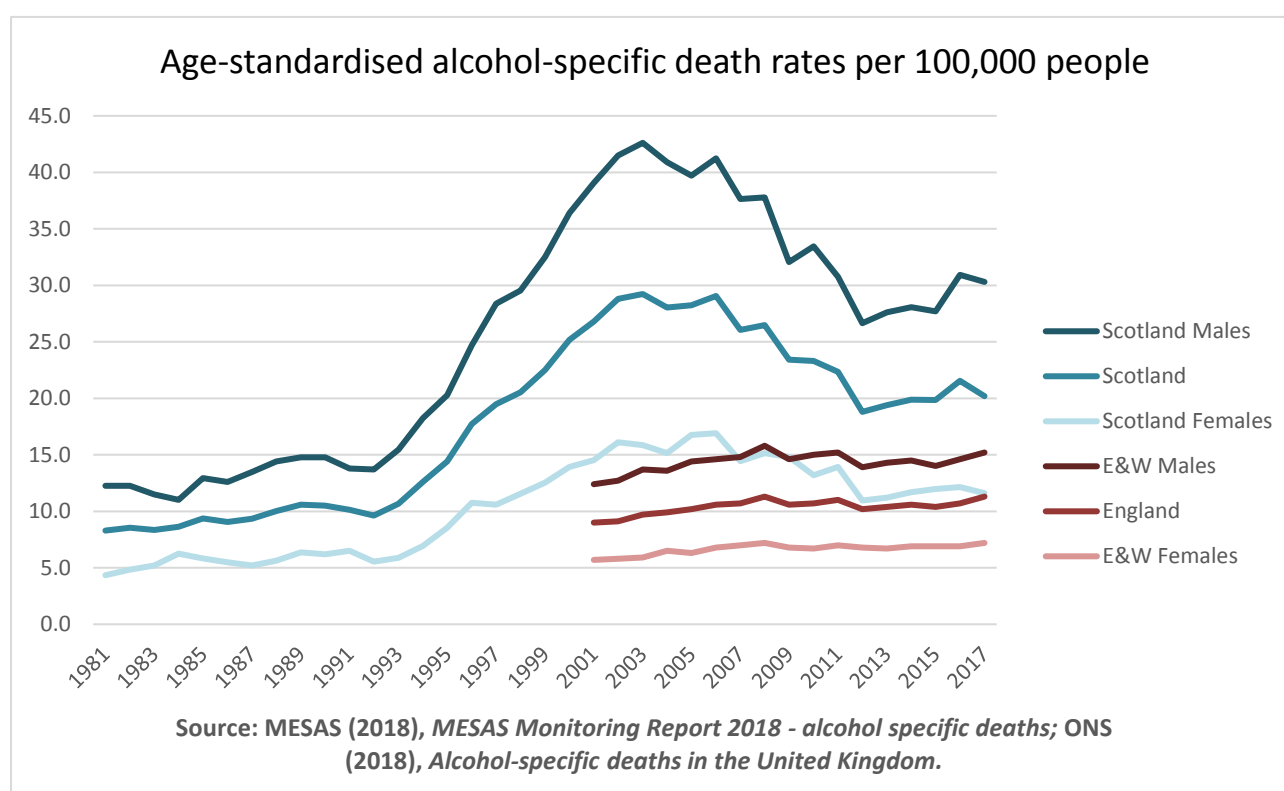
Data sources for alcohol death rates

Statistic	Published by / available from	Definition used (old/new)	Description
5 year average age-standardised death rates	Scottish Public Health Observatory (ScotPHO) Online Profiles Tool - 'alcohol-related mortality' indicator	New	<ul style="list-style-type: none">• From 2002-2006 to 2013-2017.• Available for the following geographies: Scotland, health board, health and social care (HSC) partnership, HSC locality and council.• In areas with small annual numbers of deaths, year-on-year rates can fluctuate hugely, so use caution when reporting on these.• Comparable rates for England and Wales separately have been obtained from the Office of National Statistics, available here
Age-standardised death rates by sex and Scottish Index of Multiple Deprivation (SIMD) quintile	National Records of Scotland	Both old and new	<ul style="list-style-type: none">• From 1994 to 2017 by sex and all persons (Table 1)• From 2001 to 2017 by deprivation quintile (Table 9).
Age-standardised death rates and numbers, by sex	NHS Health Scotland	Both old and new	<ul style="list-style-type: none">• From 1981 to 2016.• Provides the longest time series of death rate data (shows long-time trend).• Only by sex (no rates provided for all persons).
Age-standardised death rates, by sex	Office for National Statistics	New	<ul style="list-style-type: none">• From 2001 to 2017.• Available for the following geographies: UK, Scotland, England and Wales, England, Northern Ireland.

Trends in alcohol death rates

The chart below displays data from NHS Health Scotland and ONS (as referenced in the table above) for alcohol-specific death rates in Scotland and England and Wales.

- In 2017, rates of alcohol-specific deaths were **2.4 times higher than in 1981**.
- **From 1992 sharp increases in rates of alcohol-specific death were seen in both men and women** in Scotland.
- Rates peaked in 2003 for men and 2006 for women. Following this peak a **relatively prolonged downward trend was seen**.
- **Since 2012, the downward trend** in alcohol-specific death rates in Scotland **has stalled**. Over the last 5 years **the general trend has been upward for both men and women** (although with a small decrease in the last year); this has been driven by increases in rates in the older age groups, particularly those aged 55 years and older.
- Scotland has historically experienced **higher rates of alcohol deaths than England and Wales**. In 2017, **rates of alcohol-specific deaths were 1.8 times higher in Scotland**, 2 times higher for men and 1.5 times higher for women.



If you have any questions on alcohol deaths statistics or would like to discuss the content of this briefing, please contact Nicola Merrin, Senior Coordinator (Policy and Research) on 0141 572 6295 or at nicola.merrin@alcohol-focus-scotland.org.uk.