

Alcohol-related Deaths

Background

These figures do not include all deaths which some might regard as related to alcohol - for example, they do not include 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.

The reasons for this include the need to be able to provide reasonably consistent trends over time and for different parts of the United Kingdom (UK). The definition includes only those causes of death which are regarded as being most directly due to alcohol consumption and for which figures can be obtained from the statistics of registered deaths, due to lack of consistent statistical information about (e.g.) accidental deaths, suicides and homicides which are directly due to the consumption of alcohol.

Including appropriate proportions of deaths from causes such as road accidents and certain forms of cancer would produce considerably higher figures for alcohol-related deaths. Further information about this is available on the Information Services Division (ISD) Scotland website page '[Alcohol attributable mortality and morbidity: alcohol population attributable fractions for Scotland](#)', published in June 2009.

A range of information is available from the death certificate (as described on the Vital Events '[Death Certificates and Coding the Causes of Death](#)' page of the National Records of Scotland website). The figures for alcohol-related deaths which are given here have been produced on the 'underlying cause' basis - so they are the numbers of deaths for which the disease or injury which initiated the chain of morbid events leading directly to death (or in the accident/act which produced the fatal injury) was one of those which are listed in the definition.

[Chart 1](#) shows that the number of alcohol-related deaths in Scotland may fluctuate from one year to the next. Therefore, in addition, it provides a 5-year moving average value, which should be a better guide to the underlying level of such deaths and any long-term trend.

The chart also shows the likely range of values around the moving average. This likely range of statistical variability in the figures is estimated by assuming that the numbers represent the outcome of a Poisson process, with the underlying rate of occurrence in each year being the same as the value of the 5-year moving average which is centred on that year. 'Upper' and 'lower' boundaries of an approximate '95% confidence interval' around the moving average are calculated by adding/subtracting twice the standard deviation (for a Poisson distribution, the mean and the variance are the same, so the standard deviation is simply the square root of the moving average). For the period from 1981 to 2009 (inclusive), only one of the 29 years has a figure which is outwith this range - and this is broadly in line with what one would predict based on statistical theory (as only about 5% of observations would be expected to fall outwith an approximate 95% confidence interval).

The numbers of deaths for areas within Scotland may be subject to large percentage year-to-year fluctuations. Therefore, as well as the figures for the individual years, [Table 2](#) gives 3- and 5-year moving averages for NHS Board areas, and [Table 3](#) includes 5-year moving averages for Council areas, as these should provide a better guide to the underlying level, and any long-term trend, than the figure for any given year, or the change between one year and the next.