

# Alcohol-Specific Deaths in Northern Ireland, 2021

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**REVISION NOTICE: Data in this report was revised on 14 December 2022 to reflect the outcome of the [review of NI suicide statistics](#).**

This report presents statistics on Northern Ireland (NI) alcohol-specific mortality in 2021. Figures are based on deaths registered in NI that are known to be a direct consequence of alcohol misuse.

## Key points

- The total number of alcohol-specific deaths registered in 2021 was 350. This was one less than the previous year (351) and the second highest since the start of the series, accounting for 2.0% of all deaths registered in 2021.
- Almost two-thirds (64.3%) of the 350 deaths were male, and over one third (35.7%) were female. Similarly, the age standardised mortality rate per 100,000 population of alcohol-specific deaths for males was almost twice that of the rate for females (25.5 and 13.4 respectively).
- Alcohol-specific deaths continue to be more prevalent among the 45-54 and 55-64 age groups, which together accounted for 63.1% of all alcohol-specific deaths registered in 2021.
- Alcoholic liver disease was the most common cause of death, accounting for 70.0% of the 350 deaths registered in 2021.
- Western Health and Social Care (HSC) Trust had the highest age-standardised rate of alcohol-specific deaths of all the HSC Trust areas in Northern Ireland at 24.9 per 100,000 population in 2021.
- The relationship between the number of alcohol-specific deaths and the level of deprivation remains the same in 2021 - as deprivation increases, so too does the rate of alcohol-specific deaths. This is demonstrated by looking at the most recent five years together (2017 to 2021). There were almost four times as many alcohol-specific deaths in the most deprived areas compared to the least deprived areas.

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## What you need to know

Alcohol death figures were first published in Northern Ireland in 2001.

The methodology for selecting alcohol-specific deaths was revised following a consultation led by the Office for National Statistics (ONS) in 2017. The consultation document, [Alcohol Mortality Definition Review](#), is available from the ONS website.

The new definition includes conditions known to be exclusively caused by alcohol (that is, wholly attributable causes) and excludes conditions where only a proportion of the deaths are caused by alcohol (that is, partially attributable causes). Details of these differences are shown in Table 1.

**Table 1: Conditions included in the new definition of alcohol-specific deaths and the previous NS definition of alcohol-related deaths<sup>1,2</sup>**

Condition	ICD-10 Code	Alcohol-specific	Alcohol-related
<b>Wholly attributable conditions</b>			
Alcohol-induced pseudo-Cushing's syndrome <sup>2</sup>	E24.4	X	
Mental and behavioural disorders due to use of alcohol	F10	X	X
Degeneration of nervous system due to alcohol	G31.2	X	X
Alcoholic polyneuropathy	G62.1	X	X
Alcoholic myopathy <sup>2</sup>	G72.1	X	
Alcoholic cardiomyopathy	I42.6	X	X
Alcoholic gastritis	K29.2	X	X
Alcoholic liver disease	K70	X	X
Alcohol-induced acute pancreatitis <sup>2</sup>	K85.2	X	
Alcohol induced chronic pancreatitis	K86.0	X	X
Fetal alcohol syndrome (dysmorphic) <sup>2</sup>	Q86.0	X	
Excess alcohol blood levels <sup>2</sup>	R78.0	X	
Accidental poisoning by and exposure to alcohol	X45	X	X
Intentional self-poisoning by and exposure to alcohol	X65	X	X
Poisoning by and exposure to alcohol, undetermined intent	Y15	X	X

Condition	ICD-10 Code	Alcohol-specific	Alcohol-related
<b>Partially attributable conditions</b>			
Chronic hepatitis, not elsewhere classified	K73		X
Fibrosis and cirrhosis of liver	K74.0-K74.2, K74.6-K74.9		X

Notes:

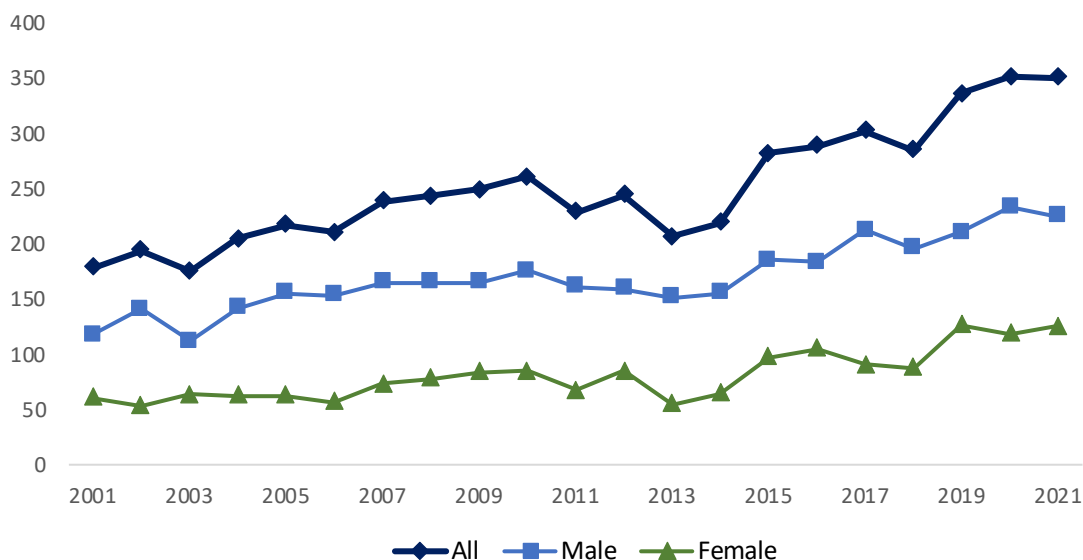
1. The conditions included in each definition are defined using codes from the International Classification of Diseases (10th Revision; ICD-10)
2. Wholly attributable conditions that have been added to the new definition of alcohol-specific deaths

The new definition has been applied to previous years to allow presentation of the current series on a consistent basis. However, historical statistics using the former methodology are also available on the [NISRA website](#).

## Section 1: Sex and Age

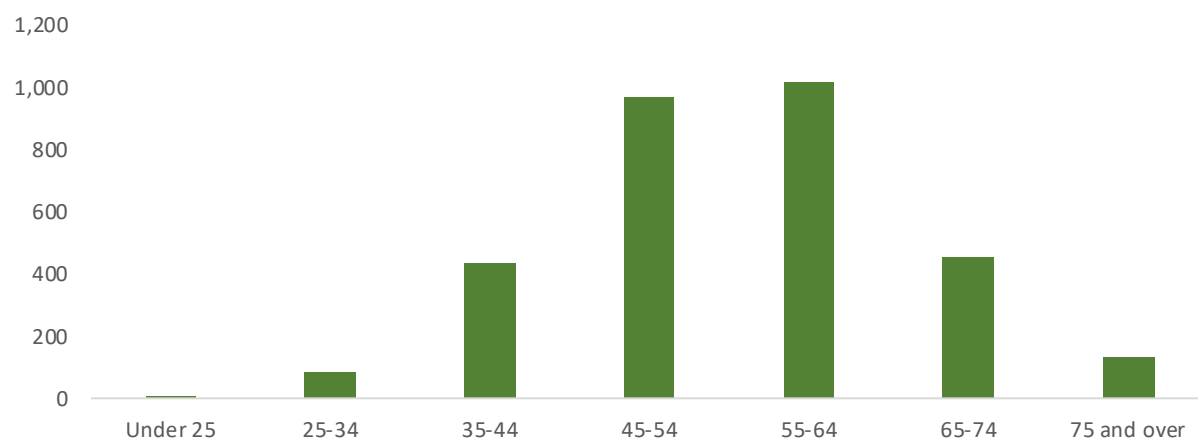
There has been a general increase in the number of alcohol-specific deaths over the last 20 years, from 178 deaths in 2001 to 350 deaths in 2021. The 2021 total of 350 alcohol specific deaths is the second highest on record (after 351 in 2020) and almost double the level in 2001. Figure 1 shows the number of alcohol-specific deaths by year of registration between 2001 and 2021. Males have consistently accounted for more such deaths than females.

**Figure 1: Alcohol-specific deaths by registration year and sex**



Looking at the number of deaths by age, the 45-54 and 55-64 age groups consistently account for the majority of alcohol-specific deaths (annually, around two-thirds). Figure 2 illustrates the number of alcohol-specific deaths by age-group in Northern Ireland for the combined years of 2011 to 2021. In 2021 these two age groups accounted for 63.1% of all alcohol-specific deaths, which is almost as much as the average across 2011-2021 (64.2%). The 55-64 age group had the highest rate of alcohol-specific deaths in 2021, at 48.4 per 100,000 population (see table 2 in the accompanying [spreadsheet](#)).

**Figure 2: Alcohol-specific deaths by age, 2011-2021**

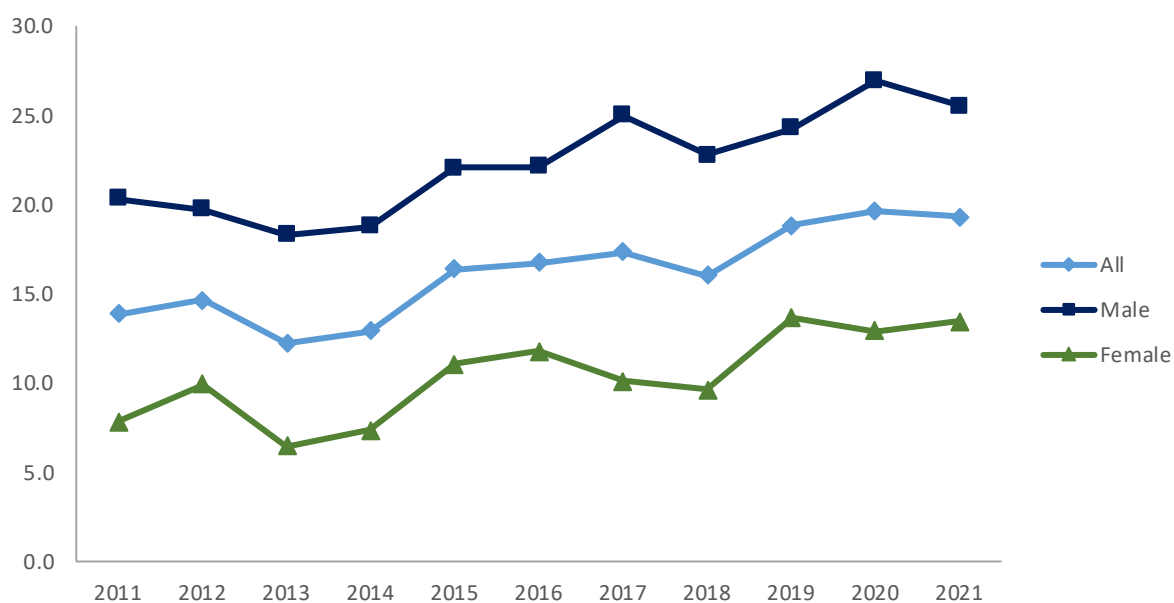


Trends in alcohol-specific deaths by sex can be compared by removing potential impact of the age profile of each sex through standardising for age (see definition for age standardised mortality rate on page 12).

Figure 3 shows the age-standardised mortality rates (ASMRs) by sex for alcohol-specific deaths from 2011 to 2021. The age-standardised mortality rate for males in 2021 was 25.5, almost double the rate for females, which was 13.4 deaths per 100,000 population.

The data also show that between 2020 and 2021 the age-standardised alcohol-specific mortality rate decreased for males but increased for females. The rate for males decreased from 26.9 per 100,000 males to 25.5; for females the equivalent rate increased from 12.9 per 100,000 females to 13.4.

**Figure 3: Age-Standardised Mortality Rate (ASMR) of alcohol-specific deaths by sex, 2011-2021**



## Section 2: Cause of death (ICD-10 code)

The majority (70.0%) of the 350 alcohol-specific deaths registered in 2021 had an underlying cause of alcoholic fatty liver disease (K70). Since 2011 alcoholic fatty liver diseases accounted for an average of two thirds of alcohol-specific deaths.

Mental and behavioural disorders due to use of alcohol has consistently been the second most common cause of death among alcohol-specific deaths in Northern Ireland. In 2021, 68 deaths were due to this cause.

**Table 2 Number of alcohol-specific deaths by underlying cause of death, 2021**

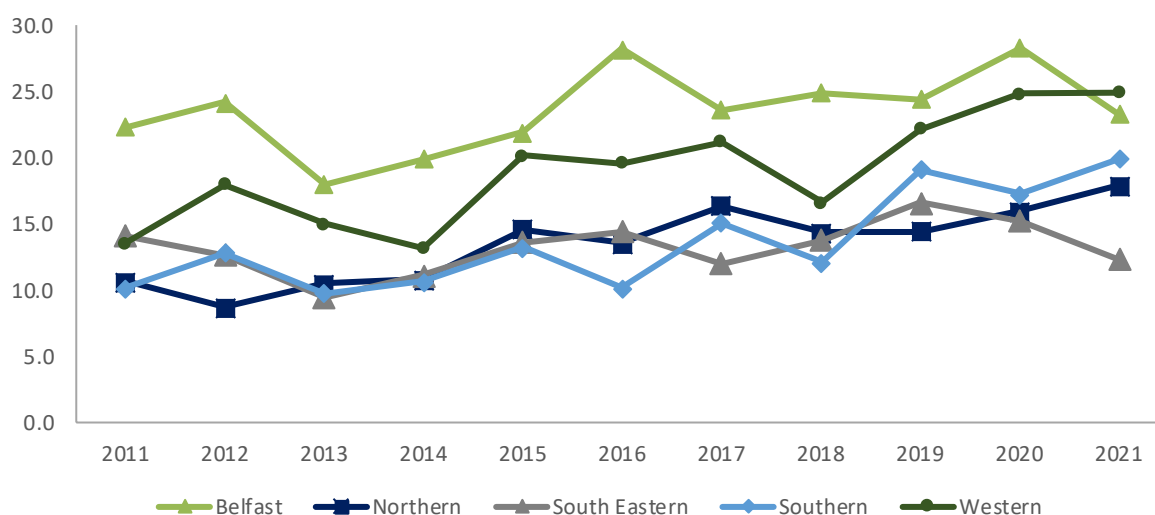
<b>Underlying Cause of Death</b>	<b>Number of deaths registered in 2021</b>
Alcoholic liver disease (K70)	245
Mental and behavioural disorders due to use of alcohol (F10)	68
Accidental poisoning by and exposure to alcohol (X45)	22
Intentional self-poisoning by and exposure to alcohol or poisoning by and exposure to alcohol, undetermined intent (X65, Y15)	0
All other alcohol-specific deaths (E24.4, G31.2, G62.1, G72.1, I42.6, K29.2, K85.2, Q86.0, R78.0, K86.0)	15
<b>Total</b>	<b>350</b>

### Section 3: Health and Social Care Trust (HSCT)

The Northern HSCT had the highest number of alcohol-specific deaths in Northern Ireland in 2021, however the Western HSCT had the highest *rate* of alcohol-specific deaths once adjusted for age. Table 4 in the accompanying [spreadsheet](#) shows the number of deaths and rate per 100,000 population for Northern Ireland between 2011 and 2021. In most years, Belfast HSCT has had the highest number of alcohol-specific deaths, however in 2021 it was second to the Northern HSCT.

When age-standardised, Figure 4 shows that in all years except 2021, the Belfast HSCT had the highest rate of alcohol-specific deaths. Meanwhile, the Northern, South-Eastern and Southern Trusts have lower age-standardised rates of alcohol-specific deaths of 17.9, 12.3, and 19.9 deaths per 100,000 population in 2021 respectively. However, in the last three years the Western Trust has experienced rates more similar to the Belfast Trust level. In 2021 the ASMR for alcohol-specific deaths in the Western HSCT was highest at 24.9 and for the Belfast HSCT it was 23.3.

**Figure 4: Age-Standardised Mortality Rate (ASMR) of alcohol-specific deaths per 100,000 population by Health and Social Care Trust, 2011-2021**



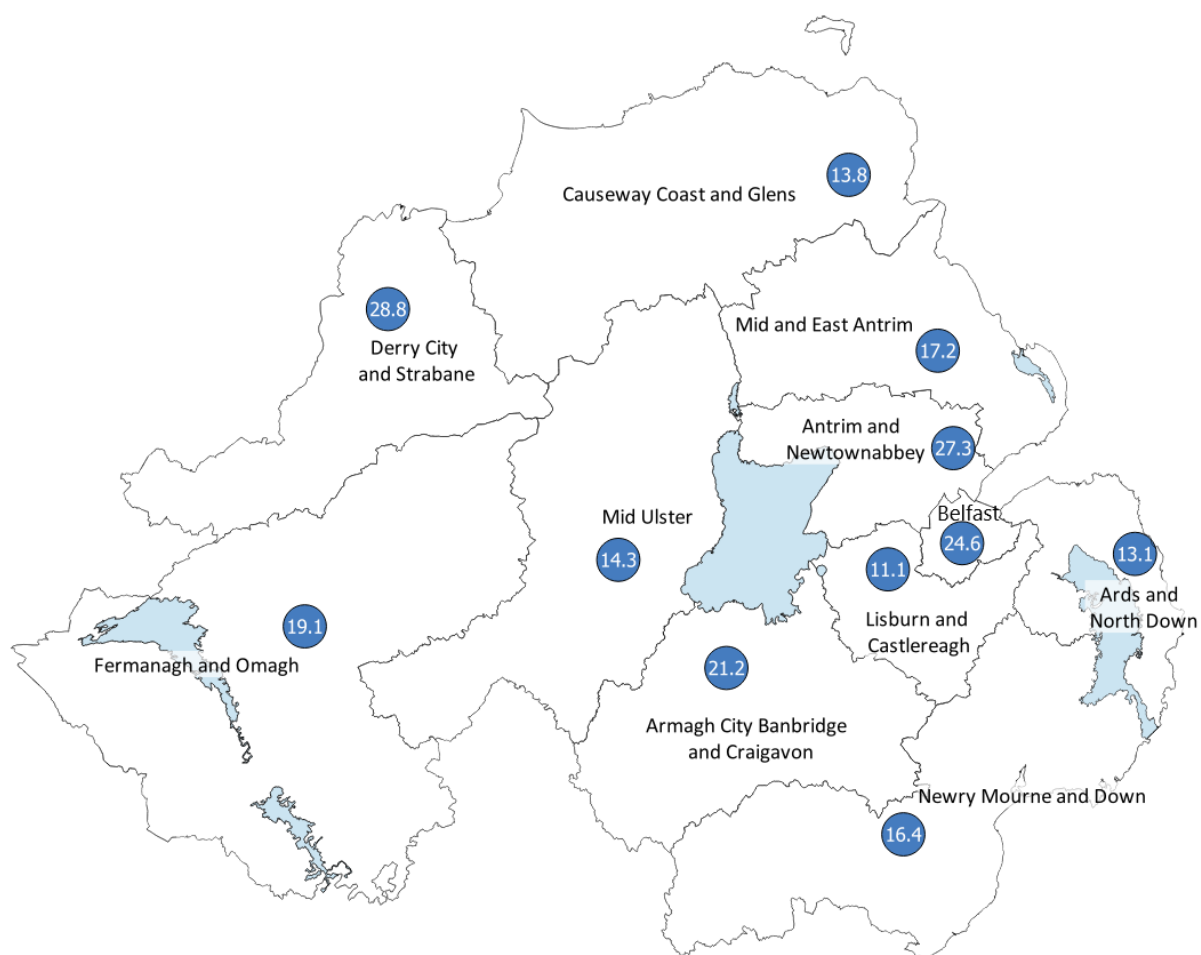


## Section 4: Local Government District (LGD)

Belfast LGD had the highest number of alcohol-specific deaths registered in Northern Ireland in 2021, accounting for over a fifth (21.4%) of all alcohol-specific deaths. Conversely, Lisburn and Castlereagh had the lowest number at 16, or 4.6% of the total 350 alcohol-specific deaths (see table 5 in accompanying [spreadsheet](#)).

In the last ten years Belfast has consistently had the highest number of alcohol-specific deaths. However, in terms of mortality rates per 100,000 population (adjusted for age) Belfast LGD had the third highest at 24.6 in 2021. Derry City & Strabane District Council area had the highest alcohol-specific death rate of the LGDs in 2021 at 28.8, followed by Antrim and Newtownabbey at 27.3 alcohol-specific deaths per 100,000 population.

**Figure 5 – Map of NI showing alcohol-specific death rates by Local Government District, 2021**



## **Section 5: Multiple Deprivation Measure (MDM)**

Areas in the most deprived 20% of areas (quintile) in Northern Ireland experienced the highest number of alcohol-specific deaths at 591 (36.4%) in the last 5 years, compared with 157 (9.7%) in areas in the least deprived quintile. There is a positive relationship between deprivation and alcohol-specific deaths. That is, the more deprived areas have higher levels of alcohol-specific deaths. The Age standardised rates will become available after the publication of 2021 population estimates at super output areas.

## Definitions and further information

### National Statistics definition of Alcohol-specific deaths [Note 1]

The definition of alcohol-specific deaths includes any death that has an underlying cause listed below.

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	Fetal 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

[Note 1] The definition, agreed via a 2017 user consultation, includes conditions that are wholly attributable to alcohol, based on codes from the International Classification of Diseases (10th Revision; ICD-10).

**Underlying cause:** underlying cause of death is the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury.

**MDM:** The Measure of Multiple Deprivation in Northern Ireland (MDMNI) for 2017. Northern Ireland is split into 890 spatial areas known as Super Output Areas (SOAs), with an average population of around 2,100 people. Distinct types, or domains, of deprivation are made up from one or more indicators. The 7 domains of deprivation are:

- Income Deprivation Domain
- Employment Deprivation Domain
- Health Deprivation & Disability Domain
- Education, Skills & Training Deprivation Domain
- Access to Services Domain • Living Environment Domain

- Crime & Disorder Domain

The indicators in each domain were analysed to produce a domain specific deprivation ranking of the 890 SOAs in Northern Ireland, from 1 (most deprived) to 890 (least deprived). The ranks of the 7 domains were weighted and combined, to provide a ranking of multiple deprivation (MDM) for the 890 SOAs.

More information on the 2017 MDMNI is available from the [NISRA website](#).

**Quintile:** The 890 SOAs have been divided in 5 even groups, or quintiles, according to their MDM ranks, with quintile 1 representing the most deprived areas in Northern Ireland.

**Crude Mortality Rate:** The crude rate is calculated by dividing the number of deaths by the population and multiplying by 100,000. This is the number of deaths per 100,000 population. This rate has not been adjusted to account for any differences in the age structures of the populations being compared.

**Age-standardised mortality rates (ASMRs)** Age-standardised mortality rates adjust 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.

## Links to relevant publications

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

[Alcohol-specific deaths registered in Scotland](#)

[Deaths in Ireland \(including cause\)](#)

## List of Tables

Data accompanying this bulletin are available from the NISRA website in Excel format. The [spreadsheet](#) includes the following tables.

- Table 1: Number of Alcohol-specific deaths by sex and registration year (including age-standardised death rates), 2001-2021
- Table 2: Number of Alcohol-specific deaths by age and registration year, 2011-2021
- Table 3: Number of Alcohol-specific deaths by underlying cause of death and registration year, 2011-2021
- Table 4: Number of Alcohol-specific deaths by Health and Social Care Trust and registration year, 2011-2021
- Table 5: Number of Alcohol-specific deaths by deprivation quintile NIMDM17, 2017-2021

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The UK Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs
- are well explained and readily accessible
- are produced according to sound methods
- are managed impartially and objectively in the public interest

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

### Contact Details

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### Feedback

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