

Information paper

Quality and Methodology Information

General details

Title of output:	Suicide Rates in the United Kingdom
Designation:	National Statistics
Geographic Coverage:	United Kingdom, England and Wales, Regions in England
Date of last SQR or QMI:	Not applicable
Contact details:	mortality@ons.gsi.gov.uk

Executive summary

This report is part of a rolling programme of quality reports that are produced by the Office for National Statistics (ONS) to accompany statistical outputs. The full programme of work being carried out on [Statistical Quality](#)¹ is available on the National Statistics Website. Quality and Methodology Information papers are overview notes which pull together key qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output.

This output presents age-standardised suicide rates per 100,000 population and numbers of suicides for the UK, England and Wales, England, Wales, and Regions in England from 1981 to the latest period. The figures are compiled using death registration data and mid-year population estimates. Rates are standardised using the European Standard Population to ensure comparability between different areas and over time.

Suicide data for England and Wales are held by ONS and data for Scotland and Northern Ireland are supplied by [National Records of Scotland](#)² and the [Northern Ireland Statistics and Research Agency](#)³ respectively. ONS collates the figures and then calculates and quality assures the rates and confidence intervals. These are disseminated annually in a [Statistical Bulletin](#)⁴ and an accompanying Reference Table, which are published on the ONS website.

This document contains the following sections:

- Output quality;
- About the output;
- How the output is created;
- Validation and quality assurance;
- Coherence and comparability;
- Concepts and definitions;
- Other information, relating to quality trade-offs and user needs; and
- Sources for further information or advice.

Output quality

This document provides a range of information that describes the quality of the data and details any points that should be noted when using the output.

ONS has developed [Guidelines for Measuring Statistical Quality](#)⁵; these are based upon the five European Statistical System (ESS) Quality Dimensions. This document addresses these quality dimensions and other important quality characteristics, which are:

- Relevance;
- Timeliness and punctuality;
- Coherence and comparability;

- Accuracy;
- Output quality trade-offs;
- Assessment of user needs and perceptions; and
- Accessibility and clarity.

More information is provided about these quality dimensions in the sections below.

About the output

Relevance

(The degree to which statistical outputs meet users' needs.)

Suicide statistics provide an indicator of mental health and are important for monitoring trends in deaths resulting from intentional (and probable) self-harm. The statistics are widely used to inform policy, planning and research in both public and private sectors and they enable policy makers and support services to target their resources most effectively. Key users include the Department of Health and other devolved health administrations, public health observatories, local and health authorities, academics, and charity organisations.

Each constituent country of the UK has a suicide prevention strategy in place to identify risk factors, take action via cross-sector organisations, and reduce suicide rates.

In September 2012 the [Department of Health](#)⁶ launched [Preventing Suicide in England: a cross-government outcomes strategy to save lives](#)⁷. This strategy aims to reduce the suicide rate and improve support for those affected by suicide and was informed by an earlier [Consultation on preventing suicide in England](#)⁸. The new strategy outlines six areas for action including reducing the risk of suicide in key high-risk groups (for example, people in the care of mental health services, people with a history of self-harm, people in contact with the criminal justice system, and adult men aged under 50), reducing access to the means of suicide, and supporting research, data collection and monitoring.

Following a public consultation in 2009, the [Welsh Government](#)⁹ published [Talk to Me: The National Action Plan to Reduce Suicide and Self Harm in Wales, 2009-2014](#)¹⁰. This is based on a strategic aim 'to deliver co-ordinated action across all sectors of society for improving the mental health and wellbeing of the population of Wales, promoting resilience within individuals and communities, delivering timely and effective services to those people identified as being at risk and thereby reducing the rate of suicide and self harm in Wales'. The aim is underpinned by seven objectives, which include promoting mental health and wellbeing, delivering early intervention, improving information on suicide and suicide prevention, and restricting access to the means of suicide. The Action Plan also highlights a Suicide Prevention Health Gain Target that has been in place since 2002 to reduce the European age-standardised rate by 10% by 2012. Progress towards this target was most recently reported in the [Chief Medical Officer for Wales Annual Report 2011](#)¹¹.

In Scotland, a 10-year [Choose Life](#)¹² suicide prevention strategy and action plan was launched in 2002 by the Scottish Executive with the overarching aim to reduce suicide in Scotland by 20% by 2013. A summary of progress to date and recommended objectives (which are similar to those in England and Wales) for the final phase of the strategy are reported in [Refreshing the National Strategy and Action Plan to Prevent Suicide in Scotland](#)¹³, published by the [Scottish Government](#)¹⁴ in 2010.

In 2006, the [Department of Health, Social Services and Public Safety](#)¹⁵ in Northern Ireland published [Protect Life: A Shared Vision - The Northern Ireland Suicide Prevention Strategy and Action Plan, 2006–2011](#)¹⁶. The strategy includes two targets: (i) to obtain a 10% reduction in the overall suicide rate by 2008; and (ii) to reduce the overall suicide rate by a further 5% by 2011. The aim, objectives and approach are similar to those in other UK countries and specific actions focussing on both the general population and the target population are also highlighted. In 2012 the strategy was refreshed to cover the period 2011-2013 and the [Department of Health, Social Services and Public Safety](#)¹⁵ in Northern Ireland published an Evaluation of the Implementation of the NI Protect Life Suicide Prevention Strategy and Action plan 2006–2011.

The [National Confidential Inquiry into Suicide and Homicide by People with Mental Illness - Annual Report: England, Wales, and Scotland](#)¹⁷ was published in July 2012.

To support monitoring at national and regional level, the Statistical Bulletin [Suicide rates in the United Kingdom](#)⁴ includes figures for the UK, England and Wales, England, Wales, and regions in

England (figures for Scotland and Northern Ireland are produced separately by [National Records of Scotland](#)² and the [Northern Ireland Statistics and Research Agency](#)³ respectively).

Counts of deaths are based on death registrations in calendar years. Suicide rates are split by sex as there are large differences between males and females. Approximately three out of every four suicides in the UK are committed by men. At national level, rates are also split by broad age groups to provide additional detail. Figures for all persons and alternative age groups are available on request (subject to legal frameworks, disclosure control, resources and agreement of costs, where appropriate). Suicide rates for local areas are not routinely calculated by ONS because the numbers are too small in many areas in individual years to calculate robust rates. However, based on ONS data, the [NHS Information Centre](#)¹⁸ produce sub-national suicide rates for three-year rolling periods.

This output only includes data for deaths from suicide. Data on attempted suicides are not routinely collected. Results from the [Adult Psychiatric Morbidity Survey](#)¹⁹ for 2000 and 2007 (the two most recent surveys) estimated that 0.5% of persons aged between 16 and 74 in England attempted suicide in 2000, and 0.7% in 2007.

Timeliness and punctuality

(Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the gap between planned and actual publication dates.)

Suicide rates for the UK are released 13 months after the end of the reference period (for example, suicide rates for 2010 were released in January 2012), following the final release of death registration data for each constituent country. These rates are published annually.

Suicide statistics for England and Wales are available approximately six months after the end of the reference period, as part of the first release of annual [Mortality Statistics: Deaths registered in England and Wales](#)²⁰.

The figures are based on death registrations rather than occurrences in order to be consistent with other mortality outputs. In England and Wales, deaths should be registered within five days of the death occurring. However, deaths considered unexpected, accidental or suspicious will be referred to a coroner who may order a post-mortem or a full inquest to ascertain the reasons for the death. This can lead to delays beyond the usual five days, to months or even years, meaning that some of the suicide statistics presented in the Statistical Bulletin may have occurred in an earlier year. In November 2012 ONS published the report [Impact of registration delays on mortality statistics](#)²¹.

For more details on related releases, the [UK National Statistics Publication Hub](#)²² is available online and provides 12 months' advance notice of release dates. In the unlikely event of a change to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time, as set out in the [Code of Practice for Official Statistics](#)²³. Historically, the provisional date for release of the Statistical Bulletin [Suicide rates in the United Kingdom](#)⁴ has also been the final date of publication.

How the output is created

The Statistical Bulletin [Suicide rates in the United Kingdom](#)⁴ is compiled using information supplied when a death is registered. Information about all deaths registered in England and Wales is held on the ONS Death Registrations Database. Further details about the information held on this database, as well as the methods used to quality assure the data can be found in [Mortality Metadata](#)²⁴. Deaths data for Scotland and Northern Ireland are provided by [National Records of Scotland](#)² and the [Northern Ireland Statistics and Research Agency](#)³ respectively.

All deaths are coded by ONS according to the [International Classification of Diseases \(ICD\)](#)²⁵ produced by the [World Health Organisation \(WHO\)](#)²⁶. Since 1993, ONS has stored the text of death certificates on a database, along with all ICD coding relating to causes of death identified on the death certificate. ONS uses a combination of ICD codes and this text to identify death certificates that meet the National Statistics definition of Suicide as outlined in the Statistical Bulletin.

There are two types of rates reported in this bulletin; age-specific and age-standardised. A Microsoft Excel [template](#)²⁷ illustrating the method used by ONS to calculate mortality rates and 95% confidence intervals is available on the ONS website.

Mortality rates are calculated using the number of deaths and latest mid-year population estimates (MYPE) provided by the Population Estimates Unit at ONS. Information about the methods used to calculate MYPEs can be found in the [Mid-year population estimates short methods guide](#)²⁸.

Age-specific rates may be calculated for given age groups and are defined as the number of deaths in the age group per million (or thousand) population in the same age group. While these rates can be compared between times, places, and sub-populations, the tables containing them are usually large and may be difficult to assimilate. In addition, where there are very few deaths these rates will be imprecise and may be difficult to interpret.

The figures presented in the bulletin have been age-standardised using the direct method of standardisation. In this method, the age-specific rates for each country are applied to a standard population structure to obtain the number of cases expected in each age group in the standard population. The numbers of expected cases are then added up across all age groups and divided by the total standard population to obtain a summary rate figure.

In the bulletin, the European standard population (ESP) has been used as the standard population structure. This is a hypothetical population, which is the same for both males and females, allowing comparisons to be made between sexes and geographical areas. The ESP was first introduced in 1976 and its suitability as a standard population has not been reviewed since its introduction. Demographic changes since the population was developed may mean that it is no longer representative of the European population structure and work has begun to update it.

Rates are not calculated when there are fewer than 10 deaths in a category, as rates based on such small numbers are susceptible to inaccurate interpretation.

Validation and quality assurance

Accuracy

(The degree of closeness between an estimate and the true value.)

The National Statistics definition of suicide includes deaths given an underlying cause of injury or poisoning of undetermined intent. In England and Wales, it has been customary to assume that most injuries and poisonings of undetermined intent are cases where the harm was self-inflicted but there was insufficient evidence to prove that the deceased deliberately intended to kill themselves (Adelstein and Mardon, 1975)²⁹. This convention has been adopted across the UK. However, this cannot be applied to children due to the possibility that these deaths were caused by unverifiable accidents, neglect or abuse. Therefore, only adults aged 15 years and over are included in the figures.

Annually, there are around 30,000 coroner's inquests held in England and Wales that conclude with a verdict. 'Short form' verdicts such as accident or misadventure, natural causes, suicide and homicide make up the majority of all verdict conclusions. 'Narrative' verdicts can be used by a coroner or jury instead of a short form verdict to express their conclusions about the cause of death following an inquest. In recent years, there has been a large increase in the number of narrative verdicts returned by coroners in England and Wales. ONS does not always have a clear indication from a narrative verdict of whether the fatal injury or toxic substance was self-administered, or if there was deliberate intent to self-harm. The rules of coding cause of death dictate that, where no indication of intent has been given by the coroner, deaths from injury or poisoning must be coded as accidents.

Age-standardised suicide rates are standardised to the European Standard Population to allow comparison between areas and over time for populations of different sizes and age structures. As the rates are not true values and are therefore prone to error, 95% confidence intervals are calculated to give an indication of the size of this error. Confidence intervals allow those differences which are statistically significant (the confidence limits of the two areas do not overlap) to be distinguished from those which could be the result of chance (the confidence limits overlap). Rates are not calculated when there are fewer than 10 deaths in a category, as rates based on such small numbers are susceptible to inaccurate interpretation.

For information on accuracy checks on underlying data, please see [Mortality Statistics in England and Wales](#)³⁰.

Coherence and comparability

(Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain for example geographic level.)

[Eurostat](#)³¹ publishes suicide figures for European countries based on a broadly comparable definition of deaths from intentional self-harm only. These are available for all ages and rates for males and females are age-standardised to the European Standard Population. Age-specific rates for particular age groups are also available.

[WHO](#)²⁶ publishes [suicide figures](#)³² for countries around the world. The information presented represents official figures made available to [WHO](#)²⁶ by Member States or by their national officers responsible for suicide prevention. In turn, these are based on actual death certificates signed by legally authorised personnel, usually doctors and, to a lesser extent, police officers. Although they are not all directly comparable or timely, the suicide figures published by the [WHO](#)²⁶ give an overall perspective of the extent of suicide deaths around the world.

The methodology used to calculate results for the latest and historical bulletins have remained unchanged. Age structures used to calculate rates are specific to these reports and this allows for comparisons of rates to be made over time. The methodology of how rates are calculated has also remained consistent, using the European age-standardised method where the age groups used for deriving the standardised rates are those defined by the European Standard Population.

Deaths of non-residents are included in the figure for England and Wales, but excluded for England and Wales figures when presented separately. Therefore, the sum of the number of deaths in England and Wales separately does not equal the figure for England and Wales combined. Figures for individual countries have been calculated using consistent methods and definitions over time and are therefore comparable.

In the UK, causes of death are coded according to the ICD produced by [WHO](#)²⁶. The Ninth Revision of ICD was used in Scotland until 1999 and in England and Wales and Northern Ireland until 2000. The Tenth Revision has since been in use. Consequently, for the year 2000, results for England and Wales are not directly comparable with those for Scotland.

The suicide statistics presented in the Statistical Bulletin [Suicide rates in the United Kingdom](#)⁴ are not always comparable with those produced by other countries because definitions and suicide registration methods vary. For example, deaths from injuries and poisonings of undetermined intent are included in UK suicide figures based on the assumption that these deaths were self-inflicted but there was insufficient evidence to prove that the deceased deliberately intended to kill themselves (Adelstein and Mardon, 1975)²⁹.

Concepts and definitions

(Concepts and definitions describe the legislation governing the output and a description of the classifications used in the output.)

The National Statistics definition of suicide includes deaths given an underlying cause of intentional self-harm or an injury/poisoning of undetermined intent. In England and Wales, it has been customary to assume that most injuries and poisonings of undetermined intent are cases where the harm was self-inflicted but there was insufficient evidence to prove that the deceased deliberately intended to kill themselves (Adelstein and Mardon, 1975)²⁹. This convention has been adopted across the UK. Although coroners can legally return a verdict of suicide for people aged 10 years and over, the inclusion of undetermined intent deaths into the definition of suicide means the definition cannot be applied to children due to the possibility that these deaths were caused by unverifiable accidents, neglect or abuse. Therefore, only adults aged 15 years and over are included in the figures.

In the UK, deaths are currently coded using the [International Classification of Diseases, Tenth Revision \(ICD-10\)](#)²⁵. The codes used to define the suicide figures presented in this bulletin are shown below:

ICD-10	Description
X60–X84	Intentional self-harm
Y10–Y34 ¹	Injury/poisoning of undetermined intent
Y87.0 / Y87.2 ²	Sequelae of intentional self-harm/injury/poisoning of undetermined intent

1 Excluding Y33.9 where the coroner's verdict was pending in England and Wales, up to 2006. From 2007, deaths which were previously coded to Y33.9 are coded to U50.9.

2 Y87.0 and Y87.2 are not included for England and Wales.

ICD-9	Description
E950–E959	Intentional self-harm
E980–E989 ¹	Injury/poisoning of undetermined intent

1 Excluding E988.8 for England and Wales

Other information

Output quality trade-offs

(Trade-offs are the extent to which different dimensions of quality are balanced against each other.)

Suicide statistics are based on deaths registered in a particular calendar year, rather than the year the death occurred. This allows more timely publication of the statistics. The disadvantage of using registration-based figures is that it is harder to examine the relationship between suicides and other, external factors. Further information about the delay between occurrence and registration is available in the report [Impact of registration delays on mortality statistics](#)²¹.

Assessment of user needs and perceptions

(The processes for finding out about uses and users, and their views on the statistical products.)

Feedback from users is invited in the statistical bulletin with the inclusion of a standard statement within the background notes: 'We welcome feedback from users on the content, format and relevance of this release. The Health and Life Events User Engagement Strategy is available to download from the ONS website. Please send feedback to the postal or e-mail address at the end of this document.'

In addition, user feedback is requested at the bottom of all e-mails sent by customer service teams within the division: 'We welcome feedback on the content, format and relevance of the data provided. Please provide any feedback and state whether you would like your contact details to be added to our list of users. All known users will be invited to participate in any consultations that are run.'

Feedback is also received through regular attendance of ONS researchers at user group meetings and conferences. In addition, the views of a wide range of users were sought as part of the [UK Statistics Authority assessment of mortality statistics](#)³⁴.

Sources for further information or advice

Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the release details, illustrations and accompanying advice.)

Statistics on suicides can be accessed free of charge on the [ONS website](#)³⁵.

Provisional release dates are announced on the [National Statistics Publication Hub](#)²² 12 months in advance and final dates at least four weeks in advance. This enables equal access to these statistics for all users and signposts the location of the statistics on the ONS website.

The bulletin contains a summary of government policy relating to drug-related deaths and also information on users and uses of the data. It also includes statistical commentary, which describes the data and offers explanations of key trends. This narrative helps users to interpret and make appropriate use of the statistics.

ONS's recommended format for accessible content is a combination of HTML webpages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. The ONS website also offers users the option to download the narrative in PDF format. In some instances other software may be used, or may be available on request. Available formats for content published on the ONS website but not produced by the ONS, or referenced on the ONS website but stored elsewhere, may vary. For further information please refer to the contact details at the beginning of this document.

For information regarding conditions of access to data, please refer to the links below:

- [Terms and conditions \(for data on the website\)](#)³⁶,
- [Copyright and reuse of published data](#)³⁷,
- [Pre-release access \(including conditions of access\)](#)³⁸, and
- [Accessibility](#)³⁹.

In addition to this Quality and Methodology Information, Basic Quality Information relevant to each release is available in the background notes of the relevant [publication](#)⁴.

Useful links

[Coroners Statistics](#)⁴⁰ (including statistics on the verdicts returned at inquest).
[Mortality Metadata](#)³⁰.

References

Reference No.	Title of reference	Website location or publication reference
1	Statistical Quality	http://www.ons.gov.uk/ons/guide-method/method-quality/quality/index.html
2	National Records of Scotland	http://www.nrscotland.gov.uk/
3	Northern Ireland Statistics and Research Agency	www.nisra.gov.uk
4	Suicide Rates in the United Kingdom	http://www.ons.gov.uk/ons/rel/subnational-health4/suicides-in-the-united-kingdom/index.html
5	Guidelines for Measuring Statistical Quality	http://www.ons.gov.uk/ons/guide-method/method-quality/quality/guidelines-for-measuring-statistical-quality/index.html
6	Department of Health	http://www.dh.gov.uk/en/index.htm
7	Preventing Suicide in England: a cross-government outcomes strategy to save lives	http://www.dh.gov.uk/health/files/2012/09/Preventing-Suicide-in-England-A-cross-government-outcomes-strategy-to-save-lives.pdf
8	Consultation on preventing suicide in England	http://consultations.dh.gov.uk/mental-health-and-disability-division/suicideprevention
9	Welsh Government	http://wales.gov.uk
10	Talk to Me: The National Action Plan to Reduce Suicide and Self Harm in Wales, 2009–2014	http://wales.gov.uk/topics/health/improvement/index/talk/?lang=en
11	Chief Medical Officer for Wales Annual Report 2011	http://wales.gov.uk/topics/health/cmo/publications/annual/report2011/?lang=en
12	Choose Life	http://www.chooselife.net/
13	Refreshing the National Strategy and Action Plan to Prevent Suicide in Scotland	http://www.scotland.gov.uk/Publications/2010/10/26112102/0
14	Scottish Government	http://home.scotland.gov.uk/home
15	Department of Health, Social Services and Public Safety	http://www.dhsspsni.gov.uk/
16	Protect Life: A Shared Vision – The Northern Ireland Suicide Prevention Strategy and Action Plan, 2006–2011	http://www.dhsspsni.gov.uk/suicide-prevention

17	National Confidential Inquiry into Suicide and Homicide by People with Mental Illness – Annual Report: England, Wales, and Scotland	http://www.medicine.manchester.ac.uk/mentalhealth/research/suicide/prevention/nci/inquiry_reports
18	NHS Information Centre	http://www.ic.nhs.uk/
19	Adult Psychiatric Morbidity Survey	http://www.ic.nhs.uk/pubs/psychiatricmorbidity07
20	Mortality statistics: deaths registered in England and Wales	http://www.ons.gov.uk/ons/rel/vsob1/mortality-statistics--deaths-registered-in-england-and-wales--series-dr-/index.html
21	Impact of Registration Delays on Mortality Statistics	http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/impact-of-registration-delays-on-mortality-statistics/index.html
22	National Statistics Publication Hub	http://www.statistics.gov.uk
23	Code of practice for official statistics	http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html
24	Mortality Metadata	http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/mortality-metadata.pdf
25	International Classification of Diseases (ICD)	http://www.who.int/classifications/icd/en/
26	World Health Organisation	http://www.who.int/en/
27	Age-standardised mortality rate calculation template	http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/age-standardised-mortality-rate-calculation-template.xls
28	Mid-year population estimates short methods guide	http://www.ons.gov.uk/ons/guide-method/method-quality/specific/population-and-migration/pop-ests/mid-year-population-estimates-short-methods-guide.pdf
29	Adelstein and Mardon, 1975	'Suicides 1961–1974' in Population Trends Volume 2, 48-55, Office for National Statistics (1975)
30	Mortality Statistics in England and Wales	http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/quality-and-methodology-information-reports-by-theme/population/quality-and-methodology-information-for-mortality-statistics-in-england-and-wales.pdf
31	Eurostat	http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/
32	WHO, International suicide figures	http://www.who.int/mental_health/prevention/suicide/suicide_prevent/en/
33	UK Statistics Authority assessment of mortality statistics	http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html
34	UK Statistics Authority Assessment reports	http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html
35	Office for National Statistics	http://www.ons.gov.uk
36	Terms and conditions	http://www.ons.gov.uk/ons/site-information/information/terms-and-conditions/index.html
37	Copyright and reuse of published data	http://www.ons.gov.uk/ons/site-information/information/creative-commons-license/index.html
38	Pre-release access	http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/code-of-practice/pre-release-access/index.html
39	Accessibility	http://www.ons.gov.uk/ons/site-information/information/accessibility/index.html
40	Coroners' Statistics	http://www.justice.gov.uk/publications/statistics-and-data/coroners-and-burials/deaths.htm