

Statistical bulletin

# **Suicides in Great Britain: 2016 registrations**

Registered deaths in GB from suicide analysed by sex, age, area of usual residence of the deceased and suicide method.



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# Correction

## 13 September 2017

A correction has been made to Section 1 and Section 3. This was due to a small error with the overall number for Great Britain being reported incorrectly. You can see the original content in the superseded version. We apologise for any inconvenience.

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# 1. Main points

- Around three-quarters of all suicides in 2016 in Great Britain were male.
- In Great Britain, there were 3.4% fewer suicides registered in 2016 than in 2015; this equates to 5,668 in 2016, a decrease from 5,870 deaths in 2015.
- Compared with registration year 2015, the English rate has fallen a significant amount, the Welsh rate has fallen slightly and the Scottish rate has risen a small amount.
- In 2016, the South West had the highest suicide rate for any English region at 11.2 per 100,000 people, whilst London had the lowest at 7.8 per 100,000 people.
- For deaths registered in 2016 in Great Britain, persons aged 40 to 44 had the highest age-specific suicide rate at 15.1 per 100,000 this age group also had the highest rate among males at 23.7 per 100,000; the age group with the highest rate for females was 50 to 54 at 8.1 per 100,000.
- The most common suicide method in Great Britain in 2016 was hanging.

# 2. Things you need to know about this release

### Information for the media

If you are a journalist covering a suicide-related issue, please consider following the <u>Samaritans' media</u> <u>guidelines on the reporting of suicide</u>, due to the potentially damaging consequences of irresponsible reporting. In particular, the guidelines advise including links to sources of support for anyone affected by the themes in the article, such as <u>Samaritans</u>.

### Change in geographical coverage

Previously the suicide bulletin presented suicides for the UK. In order to improve the timeliness of the publication and to produce estimates ahead of <u>World Suicide Prevention Day</u>, we have produced estimates for Great Britain as Northern Ireland data is not yet available. There will be an update later in the year to include deaths from Northern Ireland and produce an overall UK estimate.

### **Suicide definition**

The National Statistics definition of suicide includes all deaths from intentional self-harm for persons aged 10 and over, and deaths where the intent was undetermined for those aged 15 and over. This definition was revised in January 2016 and further information on the impact can be found in the <u>2014 suicide registrations bulletin</u>.

Deaths from an event of undetermined intent in 10 to 14 year-olds are not included because although for older teenagers and adults we assume that in these deaths the harm was self-inflicted, for younger children it is not clear whether this assumption is appropriate. Deaths from an event of undetermined intent cannot be applied to children due to the possibility that these deaths were caused by unverifiable accidents, neglect or abuse.

### **Registration delays**

In common with most other UK mortality statistics, suicide figures are presented for deaths registered in a particular calendar year, which enables figures to be published in a timely manner. The alternative would be to publish statistics based on the year in which the death occurred, however, this would delay the publication, cause repeated revisions to historical data and be inconsistent with other published mortality figures.

Publishing suicide figures based on year of registration means that many deaths appear in the statistics of a year that is later than the year in which the death occurred. Differences in the death registration systems in England, Wales and Scotland mean that the length of registration delays varies between these countries and has implications for the comparability of mortality statistics across Great Britain. That is, the Great Britain suicide figures for deaths registered in 2016 will comprise deaths occurring in different time periods for different countries of Great Britain. However, as suicide trends tend to change relatively slowly over time, this is unlikely to have a great impact on the usability of Great Britain suicide statistics.

### Where to go for help

If you are struggling to cope, please call Samaritans on 116 123 (UK and Republic of Ireland), email <u>jo@samaritans.org</u>, or visit <u>the Samaritans website</u> to find details of the nearest branch. Samaritans is available round the clock, every single day of the year, providing a safe place for anyone struggling to cope, whoever they are, however they feel, whatever life has done to them.

Resources are also available online: <u>U can Cope</u> includes a film and resources that are designed for people in distress and those trying to support them, to instil hope, promote appropriate self-help and inform people regarding useful strategies and how they can access help and support; <u>Staying safe if you're not sure life's worth</u> <u>living</u> includes practical, compassionate advice and many useful links for people in distress.

# 3. Great Britain

There were 202 fewer suicides registered for Great Britain in 2016 than in 2015; this is a 3.4% fall. Of the 5,668 suicides registered in 2016, there were 4,287 male and 1,381 female. The age-standardised rate for Great Britain also sees a slight reduction with 10.1 persons per 100,000 dying from suicide in 2016, compared with 10.6 per 100,000 in 2015. It's the third consecutive year where suicide rates have fallen in Great Britain and is the largest fall by rates (Figure 1).

We've observed that age-standardised rates generally fell between years 1981 and 2007, with rates in subsequent years increasing to reach a peak of 11.1 deaths per 100,000 in 2013. It's worth noting that the 2013 peak is still substantially less than the rates seen in the 1980s and 1990s.

If we compare with 2015 figures, the suicide rate has fallen by 3.1% for males and 9.4% for females in Great Britain; as such the current age-standardised suicide rate for Great Britain is 15.7 per 100,000 for males and 4.8 per 100,000 for females.

In 1981, male deaths accounted for approximately 62.4% of all suicides registered. In succeeding years, as the overall numbers of suicides fell, there was a more prominent fall in numbers for females. Therefore, the proportion of male suicides increased and has remained at approximately 75% of all suicides since the early 1990s.

Figure 1: Age-standardised suicide rates by sex, for Great Britain, registered between 1981 and 2016



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population 3 Deaths of non-residents are included in figures for Great Britain.

# 4. By country and region

From 2015 to 2016, the age-standardised suicide rate has fallen for males and females in Great Britain, England and in Wales. In Scotland, we have observed a small increase in the suicide rate for both males and females from 2015 to 2016 (as seen in Figure 2 for males and Figure 3 for females).

In England, the suicide rate has fallen a statistically significant amount from 10.1 in 2015 to 9.5 per 100,000 people in 2016. English males have seen a steady improvement in suicide rates in recent years, peaking in 1988 at 20.8 per 100,000 and at its lowest point in 2007 at 13.9 per 100,000 males. English females saw a large improvement during the 1980s and the rate has since been falling at a measured pace; the 2016 rate is 4.5 per 100,000 females.

The rate in Wales has fallen from 13.0 in 2015 to 11.8 per 100,000 people in 2016. The suicide rate in Wales is generally more erratic than in England, due mainly to having a smaller population, making any long- and short-term trends difficult to identify. Welsh males saw their lowest rate in 2008 at 15.1 and their highest in 2013 at 24.3 suicides per 100,000 males. Similarly to females in England, a large improvement was seen during the 1980s but there has been little change since (Figure 3).

Figure 2: Age-standardised suicide rates by country, for males, registered from 1981 to 2016



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
- 3. Deaths of non-residents are excluded for England and Wales.

The age-standardised suicide rate for Scotland has increased from 14.0 people per 100,000 in 2015 to 15.0 per 100,000 in 2016. Scotland has a higher suicide rate than that of England and Wales. Due to distinct coroner systems between Scotland and England there are differences in how suicides are certified and registered, therefore comparing Scotland with the rest of Great Britain is not appropriate. Historically, in Scotland, we observe the age-standardised rates for males increase during the 1990s and the trend has been gradually falling since. Female rates have been slowly falling since 1981.

# Figure 3: Age-standardised suicide rates by country, for females, registered from 1981 to 2016



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

### Notes:

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population
- 3. Deaths of non-residents are excluded for England and Wales.

In 2016, the South West had the highest age-standardised suicide rate for any English region at 11.2 people per 100,000, whilst London had the lowest at 7.8 people per 100,000. The age-standardised rate for London was significantly lower than all other regions with the exception of the East Midlands and West Midlands (Figure 4).

# Figure 4: Age-standardised suicide rates for GB, constituent countries and English regions, for persons registered in 2016 (with 95% confidence intervals)



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

### Notes:

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
- 3. Deaths of non-residents are excluded in each area except for Great Britain.

Only the East of England and the South West saw an increase in the age-standardised suicide rate if we compare with 2015 figures. London saw the largest fall in suicide rates between 2015 and 2016, from 10.4 to 7.8 per 100,000 respectively (or a 25% fall). The rate for London in 2016 was statistically significantly lower than in 2015. It was the only region to have a significant difference between 2016 and 2015 age-standardised rates.

In 2016, the male suicide rate was highest in the South West, at 17.1 per 100,000 men, with the lowest found in London at 12.0 per 100,000. The female suicide rate was highest in the South West, at 5.6 per 100,000 and lowest in the East Midlands, at 3.6 per 100,000.

# 5. By age

As seen in Figure 5, the 2016 age-specific suicide rates increase with age from teens to middle age; they then fall significantly until the early 70s before increasing again for older age groups.

For deaths registered in 2016 in Great Britain, persons aged 40 to 44 had the highest age-specific suicide rate at 15.1 per 100,000. This age group also had the highest rate among males at 23.7 per 100,000, whilst females aged 50 to 54 had the highest rate at 8.1 per 100,000.

Figure 5: Age-specific suicide rates by sex and 5-year age groups, Great Britain, registered in 2016



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
- 3. Deaths of non-residents are included in figures for Great Britain
- 4. Rates are not calculated where there were fewer than 3 death.

Overall the male age-specific suicide rate is around three times higher than the female. The greatest disparity is between men and women aged 80 to 84, where men in this age group are more than four and a half times more likely to die by suicide. Males aged 15 to 19 are only two and a half times more likely to die from suicide than females. As in previous years, the suicide rate for middle-aged men, notably those aged 40 to 44, and 90 and over, is particularly high.

In Figure 5, the suicide rate increases from ages 80 years and over for both males and females. Many factors contribute to this widely seen phenomenon around the world (<u>World Health Organisation</u>) such as the deterioration of mental and physical health, bereavement, social loneliness and poverty. Figure 6 shows that, from 1981 to 1990, men aged 75 and over had the highest age-specific suicide rate. Between 1981 to 2016 (Figure 6), the male rate of suicide for this age group has more than halved.

From 1995 to 2012, men aged 30 to 44 had the highest rates; there has been little change in the rates for this age group in following years. From 2007 onwards, we can see a considerable rise in the age-specific rate for men aged 45 to 59, from 17.9 per 100,000 in 2007 to 24.7 per 100,000 in 2013. Middle-aged men are more likely to be affected by economic adversity, alcoholism and isolation; furthermore are less inclined to seek help. For more information see: <u>Men, Suicide and Society: Why disadvantaged men in mid-life die by suicide</u>.

Since 2001, males aged under 30 had the lowest suicide rate of any age group, in 2016 the rate stands at 10.1 deaths per 100,000 population.

Figure 6: Age-specific suicide rates by broad age groups, males, Great Britain, registered between 1981 and 2016



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

### Notes:

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
- 3. Deaths of non-residents are included in figures for Great Britain.

In Figure 7, the most noticeable change over time for female age-specific suicide rates by broad age group is the substantial fall for all those aged over 45; from 1981 to 2016 the female rate had fallen by 52.7% for those aged 45 to 59, by 72.6% for those aged 60 to 74 and by 74.8% for those aged 75 and over.

Another notable trend is how little the rates have changed for those aged 10 to 29, which have not fallen below 2.0 per 100,000 or risen above 4.0 per 100,000 people since 1981.

# Figure 7: Age-specific suicide rates by broad age groups, females, Great Britain, registered between 1981 and 2016

Figure 7: Age-specific suicide rates by broad age groups, females, Great Britain, registered between 1981 and 2016



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
- 3. Deaths of non-residents are included in figures for Great Britain.

# 6. Suicide methods

In 2016, the most common method of suicide for both males and females was hanging, suffocation or strangulation (all grouped together). A proportion of 59.3% of males either hanged, suffocated or strangulated, this compares with 43.2% for females (Figure 8).

A larger proportion of females poisoned themselves (35.4%) than males (17.2%).

It's fairly uncommon for anyone to drown or fall.

These proportions have been calculated for Great Britain. In previous years proportions were published for the UK, it would not be appropriate to compare two different geographical areas.

# Figure 8: Proportion of suicide by method and sex, Great Britain, registered in 2016



Source: Office for National Statistics, National Records of Scotland

### Source: Office for National Statistics, National Records of Scotland

### Notes:

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Deaths of non-residents are included in figures for Great Britain.

<u>A study by the World Health Organisation (WHO)</u> in 2008, which compared methods of suicide by country, found that methods vary between countries and that this difference is driven primarily by the availability of means. For example, while hanging was the most common method in the majority of countries, suicide involving firearms was the most common method in the United States and jumping from a height was the most common method in Hong Kong.

The report also highlighted differences in method between the sexes, with males tending to choose a more violent mechanism, such as hanging or suicide by firearm, whereas females choose less violent mechanisms such as poisoning.

The increase in the proportion of suicides from hanging seen in the UK, particularly in women, may be related to restrictions on the availability of other methods, such as drugs used in overdose and to a <u>misconception that</u> hanging is a quick and painless way to die (Biddle et al, 2010). Analysis conducted using our data by Hawton et al in 2012 revealed that there was a <u>major reduction in deaths involving the pain-killing drug co-proxamol</u> following its withdrawal in 2005. In a separate study published in 2013, Hawton et al found that UK legislation to reduce the size of paracetamol packages was followed by a <u>significant reduction in the number of deaths due to paracetamol overdose.</u>

# 7. Registration delays

In common with most other UK mortality statistics, suicide figures are presented for deaths registered in a particular calendar year, which enables figures to be published in a timely manner. The alternative would be to publish statistics based on the year in which the death occurred, however, this would delay the publication, cause repeated revisions to historical data and be inconsistent with other published mortality figures.

Publishing suicide figures based on year of registration means that many deaths appear in the statistics of a year that is later than the year in which the death occurred. Differences in the death registration systems in England, Wales and Scotland mean that the length of registration delays varies between these countries and has implications for the comparability of mortality statistics across Great Britain. That is, the Great Britain suicide figures for deaths registered in 2016 will comprise deaths occurring in different time periods for different countries of Great Britain. However, as suicide trends tend to change relatively slowly over time, this is unlikely to have a great impact on the usability of Great Britain suicide statistics.

For more information see Impact of registration delays on mortality statistics, 2011.

The median registration delay for England in 2016 was 149 days, a 3.5% increase compared with the 2015 figure, which was 144 days. Of the 4,575 suicides registered in 2016 for England, 2,522 also occurred in 2016 (55.1%). Registration delays in England have increased 46.1% between 2001 and 2016.

The median registration delay for Wales in 2016 was 126 days, a small improvement from the 2015 delay of 127 days. Of the 322 suicides registered in 2016 in Wales, 174 also occurred in 2016 (54.0%). Registration delays in Wales have increased 9.6% between 2001 and 2016.

The median registration delay for Scotland in 2016 was 7 days. Scotland has a different registration system to England and Wales, which results in far more timely registrations, almost all suicides in Scotland are registered in the year that they occur (Figure 9).

# Figure 9: Median registration delay for suicides, deaths registered between 2001 and 2016



### Source: Office for National Statistics, National Records of Scotland

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. The registration delay is calculated as the difference between the date each death occurred and the date it was registered, measured in days.
- 3. The median is defined as is the middle value if the delays were sorted by size.
- 4. Deaths of non-residents are excluded in figures for England and Wales.

Figure 9 presents data on the length of time taken to register a death (also known as the registration delay) for suicides. This is calculated as the difference between the date each death occurred and the date it was registered, measured in days. Data where the exact date of death was unknown were excluded from this analysis. Approximately 0.02% of the data were excluded for this reason.

Analysis showed that the data were positively skewed, which suggests that taking the mean is not appropriate and also contained some deaths with very long registration delays. Therefore, the registration delay has been presented using the median value, as this is not influenced by extreme values. The median is defined as the middle value if the delays were sorted by size. The lower and upper quartiles are also presented in Reference table 18 in the Suicide registrations in Great Britain dataset to give an indication of the spread of registration delays that are found with suicides. The lower quartile is the smallest value below which 25% of the values lie; the upper quartile is the smallest value below which 75% of the values lie.

Additional information on registration delays for suicides, including separate figures for males and females and an indication of the range of registration delays (the lower and upper quartile) can be found in Reference table 18 in the Suicide registrations in Great Britain dataset. Table 1 gives an indication of how many suicides are both occurred and registered in the same year and how some suicides take years to be registered. There is also a <u>dataset based on occurrence year</u> published alongside this bulletin. In the occurrence dataset figures are not presented for 2016 as they are too incomplete, figures for 2015 will be a slight underestimate of the eventual number of suicides occurring in this year (this is shown in Table 1).

											Number of deaths
					_		_		_		Total registered
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
2007	2,404										2,404
2008	1,835	2,581									4,416
2009	179	2,036	2,426								4,641
2010	53	184	1,929	2,327							4,493
2011	21	45	179	2,106	2,514						4,865
2012	9	17	40	166	2,018	2,628					4,878
2013	3	7	16	44	198	2,290	2,583				5,141
2014	1	1	6	17	33	228	2,217	2,651			5,154
2015	0	0	1	2	13	50	213	2,048	2,872		5,199
2016	0	1	1	1	2	5	28	144	2,037	2,720	4,939
Occurred	4,505	4,872	4,598	4,663	4,778	5,201	5,041	4,843	4,909	2,720	

Table 1: Suicide occurrences by the year they were registered, England and Wales, 2001 to 2016 1,2,3,4,5

Source: Office for National Statistics

Notes:

1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information

2. Deaths of non-residents are included in figures for England and Wales.

3. Due to the length of time it takes to complete a coroner's inquest, it can take months or even years for a suicide to be registered. More details can be found in the 'Suicides in the UK' bulletin

4. Due to footnote 4, deaths for years occurring are not complete and may be revised upwards as more deaths are registered. This table shows all deaths that occurred between the registered period January 2001 until December 2016.

In England and Wales, all suicides are certified by a coroner following an inquest. The death cannot be registered until the inquest is completed, which can take months or possibly years and we are not notified that a death has occurred until it is registered. The only exception to this is when someone will be charged in relation to a death in this instance the coroner must adjourn the inquest and they may carry out an "accelerated registration". The full details of these deaths are not recorded until the inquest is completed, but the majority are eventually coded as assaults and therefore would not be included in the suicides data.

In Scotland, a death must be registered within 8 days. The Procurator Fiscal has a duty to investigate all sudden, suspicious, accidental, unexpected or unexplained deaths and any death occurring in circumstances that give rise to serious public concern, and a Fatal Accident Inquiry may follow. If the results of toxicological tests or a post-mortem are not yet known, the cause of death can be given as "unascertained, pending investigations" and the actual cause of death will be entered at a later date. Therefore, National Records of Scotland (NRS) receive notification of deaths more quickly than us at the Office for National Statistics (ONS) and the Northern Ireland Statistics and Research Agency (NISRA).

However, although NRS may know what caused the death (for example, hanging, poisoning), they may not be told whether it was due to an accident, assault or intentional self-harm until after the statistical database has been "frozen" for the year. So NRS may have to code the death as an event of undetermined intent, which would be counted as a probable suicide. Consequently, Scotland has proportionally more deaths coded as being due to events of undetermined intent (and hence as probable suicides), compared with England, Wales and Northern Ireland. For more information, <u>visit the NRS website</u>.

ONS holds mortality data for England and Wales. Figures for Great Britain include data kindly provided by National Records of Scotland.

# 8 . Narrative conclusions in England and Wales

There are around 30,000 coroner's inquests held in England and Wales each year. In 2016, around 91% of these inquests received a "short form" conclusion such as accident, misadventure, natural causes, suicide or homicide. The remaining 9% were "narrative conclusions", which can be used by a coroner or jury instead of a short form conclusion to desribe their findings on the cause of death.

In 2016, around half (52.8%) of all narrative conclusions in England and Wales resulted from an external cause of death (an injury or poisoning) rather than a disease. Some narrative conclusions clearly state the intent (for example, accidental) and mechanism (for example, hanging, poisoning) of death. However, in other cases, the coroner may not indicate unambiguously whether the fatal injury was accidental, intentional or otherwise. We define deaths where the intent has not been specified as "hard-to-code". The rules for coding cause of deaths mean that, if no indication of intent has been provided by the certifier, a death from injury or poisoning must be coded as accidental.

							%
	2010	2011	2012	2013	2014	2015	2016
England	11.5	6.1	6.9	7.9	8.3	6.8	5.7
North East	7.7	2.1	2.7	2.9	2.7	2.2	2.3
North West	15.2	6.3	6.7	7.4	10.1	9.4	7
Yorkshire and The Humber	9.8	8.8	10.5	10.1	10.1	8.1	5.7
East Midlands	10.6	5.1	7.8	10	11.4	10.5	7.5
West Midlands	20.2	7.8	7.8	8	5.4	3.1	3.7
East England	13.1	9.9	11	11.6	9.3	6.9	8.4
London	8.4	5.8	6.4	8.4	9.4	6.9	6.4
South East	7.8	4.7	4.6	6.6	7.1	6.1	5.2
South West	7.5	4.5	5.6	6.8	7.7	6.4	5.4
Wales	7.6	4	4.7	4.2	13.3	5.6	4.3

Table 2: Hard-to-code narrative conclusions as a percentage of all inquest verdicts by country and Region, deaths registered between 2010 and 2016

Source: Office for National Statistics

Notes:

1. Narrative conclusions are a factual record of how, and in what circumstances the death occurred. They are sometimes returned where the cause of death does not easily fit any of the standard verdicts. Hard-to-code narrative conclusions are those where no indication of the deceased's intent has been given by the certifier, which makes it difficult for ONS to assign an underlying cause of death. A more in depth explanation can be found in the statistical bulletin:

2. Figures are for persons usually resident in each area, based on boundaries as of May 2017.

3. Figures are for deaths registered, rather than deaths occurring in each calendar year. Due to the length of time it takes to complete a coroner's inquest, it can take months or even years for a suicide to be registered. More details can be found in the 'Suicides in the UK' bulletin:

4. Percentages are calculated as the number of hard-to-code narrative conclusions as a percentage of all inquest conclusions.

Between 2001 and 2010, there were large year-on-year increases in the number of narrative conclusions returned by coroners in England and Wales (Reference table 15 in the Suicide registrations in Great Britain dataset). The number of hard-to-code narrative conclusions registered in England in 2010 (3,170) was almost 30 times the number registered in 2001 (107). In Wales, the number increased from just two in 2001 to 147 in 2010. This was a concern as it may have been masking the true number of suicides that occurred during this period.

Following our improvements in the coding of narrative conclusions in 2011, the number of hard-to-code conclusions decreased between 2010 and 2011 by 46% in England (from 3,170 to 1,727) and by 49% in Wales (from 147 to 75). In 2012, the number of hard-to-code narrative conclusions began to rise and in 2014 they had risen to 2,252 in England and more than doubled in Wales, from 91 in 2013 to 203 in 2014. We've seen moderate reductions of narrative conclusions in England and Wales ever since; in 2016 there were 2,156 narrative conclusions in England and 103 in Wales (Table 2).

There is considerable variation in the use of narrative conclusions between coroners and therefore between regions. This leads to concerns that the use of narrative conclusions could be distorting local area suicide statistics. Carroll, et al (2011) found that in the 10 English coroners' jurisdictions where the highest proportion of "other" verdicts were given, the incidence of suicide decreased by 16% between 2001 to 2002 and 2008 to 2009, whereas it did not change in areas served by the 10 coroners who used narratives the least.

The North East has continued to have the lowest number of hard-to-code narrative conclusions, 94 in 2016, representing only 2.3% of all inquests in the region. To compare, in England 5.7% of all inquests were hard-to-code.

In order to assess the impact of narrative verdicts on suicide rates in England and Wales, simulated agestandardised suicide rates were calculated using two different assumptions:

- Scenario 1: assuming all deaths, where a hard-to-code narrative conclusion meant that the death has been coded as an accidental hanging (ICD-10 codes W75 to W76) or accidental poisoning (ICD-10 codes X40 to X49), were intentional self-harm
- Scenario 2: suicide rates were calculated assuming that half of these deaths were intentional self-harm

For the purposes of the simulation, all deaths from undetermined intent to children aged 10 to 14 were also included.

Scenario 1 can be considered a worst-case scenario, as it is unlikely that all of the extra deaths, which were included, were actually suicides. Scenario 2 is more realistic and it follows that there were no significant differences observed between the simulated rates and the standard suicide rates in this scenario either. See Reference table 17 in the Suicide registrations in the UK dataset for more information.

Figure 10 shows the results of adding all accidental hangings and poisonings with a hard-to-code narrative conclusion (ages 10 and over) and deaths from undetermined intent in 10- to-14-year-olds, to existing suicide figures (Scenario 1), for England and Wales between 2001 and 2016. Reference table 16 also provides simulated suicide rates for English regions.

Figure 10: Scenario 1 simulated suicide rate, England and Wales, deaths registered between 2001 and 2016



### Source: Office for National Statistics

- 1. A common definition of suicides is used across Great Britain. See the "Things you need to know" section for more information.
- 2. Rates are expressed per 100,000 population and standardised to the 2013 European Standard Population.
- 3. Deaths of non-residents are included in figures for England and Wales.
- 4. Suicide rates were calculated assuming all deaths where a hard-to-code narrative verdict meant that the death been coded as an accidental hanging (ICD-10 codes W75–W76) or accidental poisoning (ICD-10 codes X40–X49) were intentional self-harm. These deaths were then added to the number of suicides in order to calculate simulated suicide rates.

Analysis shows that the only statistically significant differences between the published and simulated suicide rates (Scenario 1) at national level are for persons in England for years 2010, 2013 and 2014. The analysis of regional variations in the use of narrative conclusions and the calculation of regional simulated suicide rates were based on the country and region of usual residence of the deceased. Please note that boundaries for coroner district areas are not aligned with regional boundaries (that is, they are not coterminous), so it is possible that narrative conclusions returned by an individual coroner may fall within more than one region.

# 9. Links to related statistics

### Visual.ONS

ONS Article: Suicide by occupation, England: 2011 to 2015

This report describes recent analysis of deaths from suicide in different occupational groups among those aged 20 to 64 years. Such analysis can inform targeted suicide prevention measures and provide a broader understanding of influences on suicide.

### NOMIS

Enables you to query a single data source in greater depth and download data. NOMIS provides mortality statistics for England and Wales, broken down by calendar year of registration (currently 2013 to 2015), age, sex, underlying cause of death and area of usual residence of the deceased.

Instruction of use: "Query data" to "Life events" to "Mortality statistics - underlying cause, sex and age" to "Make desired selections" to "Download"

National Records of Scotland (NRS)

The NRA provides the official suicide statistics for Scotland.

Northern Ireland Statistics and Research Agency (NISRA)

NISRA provides the official suicide statistics for Northern Ireland.

### **Samaritans**

This report pulls together the data about deaths by suicide for the UK and Republic of Ireland.

### Coroners' statistics

Coroners' statistics (including statistics on the verdicts returned at inquests) are available from the GOV.UK website.

### Eurostat

European comparison of suicide statistics.

International comparison of suicide statistics.

### Special extracts

Special extracts and tabulations of suicide data (and other causes of mortality) for England and Wales are available to order (subject to legal frameworks, disclosure control, resources and agreement of costs, where appropriate). <u>User requested data</u> will be published on our website. Such requests or enquiries should be made to:

Mortality Analysis Team Life Events and Population Sources Division Office for National Statistics Government Buildings Cardiff Road Newport NP10 8XG Tel: +44 (0)1633 456490 Email: <u>mortality@ons.gsi.gov.uk</u>

The ONS charging policy is available.

# 10 . Quality and methodology

### 1. Data ownership

Office for National Statistics (ONS) holds mortality data for England and Wales. Figures for Great Britain include data kindly provided by National Records of Scotland.

### 2. Metadata

Information about the underlying mortality data, including details on how the data is collected and coded are available in the ONS mortality metadata.

### 3. User guide

The User guide to mortality statistics provides further information on the collection, production and quality of the underlying mortality data on which suicide death statistics are based.

### 4. Suicide rates

The Suicide rates Quality and Methodology Information report contains important information on:

- · the strengths and limitations of the data
- the quality of the output: including the accuracy of the data and how it compares with related data
- policy context and uses of the data
- how the output was created
- comparability between countries

Age-standardised mortality rates were calculated using the number of suicides registered in each year as the numerator and the mid-year population estimate for that year as the denominator.

This bulletin presents age-standardised (also known as "directly-standardised") rates, standardised to the 2013 European Standard Population (ESP). These are presented as suicides per 100,000 people. Age-standardised rates make allowances for differences in the size and age structure of the population, over time, between sexes and across different geographical areas. The age-standardised rate for a particular cause of death is that which would have occurred if the observed age-specific rates for that cause had applied in the given standard population. Suicide rates for particular age groups (for example, Figures 2 and 3) are age-specific rates. A template demonstrating how to calculate age-standardised rates using both the 1976 ESP and the 2013 ESP can be found with an article on

The impact of using the 2013 European Standard Population to calculate mortality and cancer incidence rates (ONS).

### 5. Confidence intervals

Within this bulletin, a difference which is described as "significant" has been assessed using 95% confidence intervals. Confidence intervals are a measure of the statistical precision of an estimate and show the range of uncertainty around the estimated figure. Calculations based on small numbers of events are often subject to random fluctuations. As a general rule, if the confidence interval around one figure overlaps with the interval around another, we cannot say with certainty that there is more than a chance difference between the two figures.

### 6. Revisions policy

The ONS revisions policy is available.

### 7. Life events user feedback

As a user of our statistics, we would welcome your feedback on this publication. Please get in touch either via email at mortality@ons.gsi.gov.uk or telephone on +44 (0)1633 456490.

### 8. Pre-release access

Equality of access to official statistics is a fundamental principle of statistical good practice. As of 1 July 2017, prerelease access to ONS statistics was removed in all but exceptional circumstances. Whenever a decision is taken to grant pre-release access in future, details will be published on our <u>pre-release access page</u>.

For further information about ending pre-release access for ONS statistics, please see the letter from the National Statistician John Pullinger to Sir David Norgrove, Chair of the UK Statistics Authority (15 June 2017) and Sir David Norgrove's reply (15 June 2017).

Exchange of letters between Jonathan Athow and Ben Broadbent regarding exceptional pre-release access - 18 July 2017.