Deaths Registered in England and Wales (Series DR), 2014

Main points

• There were 501,424 deaths registered in England and Wales in 2014, a fall of 1.1% compared with 2013.

• Age-standardised mortality rates (ASMRs) continued to decrease in 2014. There were 11,213 deaths per million population for males and 8,219 deaths per million population for females. Since 2004, ASMRs have fallen by 20% for males and 17% for females.

• Cancers (neoplasms) were the broad disease group (based on International Classification of Diseases (ICD) chapters) for which the largest percentage of deaths were registered in 2014, accounting for 29% of all deaths registered.

• The leading cause of death for males in 2014 was ischaemic heart diseases (14.8% of all male deaths). For females, the leading cause was dementia and Alzheimer disease (13.4% of all female deaths).

Summary

This bulletin presents the number of deaths registered in England and Wales in 2014 by age, sex and selected underlying causes of death. In addition, the 10 leading causes of death have been ranked to provide a summary for both males and females. This bulletin provides more detailed statistics than the death registration summary tables for England and Wales, which were released in July 2015.

Figures reported here are based on deaths registered in 2014. There is more information on the differences between death registrations and death occurrences in background notes 1 and 2.
Main mortality trends

There were 501,424 deaths registered in England and Wales in 2014, compared with 506,790 in 2013, a fall of 1.1%. The total number of deaths in 2014 comprised of 245,142 male and 256,282 female deaths. This represents a fall of 0.2% for males and 1.9% for females, compared with 2013. The number of deaths has generally decreased each year since the early 1970s with the exception of some small rises, the most recent being in 2012 and 2013.

In contrast, the population at older ages has increased in recent years, with the proportion of the population aged 65 and over increasing over the past 30 years from 15% to 18%. For more information please see the article on the Ageing of the UK population.

Mortality rates take into account the size and age structure of the population, which both affect the number of deaths. Mortality rates for both males and females have continued their long-term decline.

Age-standardised mortality rates

The age-standardised mortality rates (ASMRs) in 2014 were 11,213 deaths per million population for males and 8,219 deaths per million population for females. The male ASMR has decreased each year since 1995 (Figure 1). For females, the ASMR has decreased since 1995 with the exception of 3 small rises, the latest was in 2012. These ASMRs are for all causes and cover all ages (background note 4 has further details). Between 2004 and 2014, the ASMR for males fell by 20% (from 14,007), while for females it fell by 17% (from 9,927).

Over the course of the 20th century, ASMRs steadily decreased. Up until the early 1970s, year-on-year fluctuations were higher. This is a likely consequence of influenza epidemics and cold winters, although the relationship between temperature, influenza and winter mortality is complex (Excess winter mortality in England and Wales, 2013/14 provisional and 2012/13 final has more information).

Mortality rates are generally falling and people are tending to live longer for a variety of reasons. These include improved lifestyles and medical advances in the treatment of many illnesses and diseases. This is illustrated by the reduction in ASMRs for many causes of death (see Table 9 of the DR tables (1 Mb Excel sheet)).
Figure 1: Age-standardised mortality rates (ASMRs), 1994 to 2014

England and Wales

Source: Office for National Statistics

Notes:
1. Based on deaths registered in each calendar year.
2. These rates are for all ages and are standardised to the 2013 European Standard Population, expressed per million population (see background note 4).

Download chart
XLS format (30 Kb)

Deaths and mortality rates by broad disease group

On 1 January 2014, ONS changed the software used to code cause of death to a package called IRIS (version 2013). These updates include changes to the use of codes within the neoplasms
(cancer) chapter (ICD-10 codes C00-D48). Further information can be found in background note 5 and in the dual coding study looking at the impact on mortality statistics.

Cancers (neoplasms), circulatory diseases and respiratory diseases were the broad disease groups (chapters) of the International Classification of Diseases 10th Revision (ICD-10) with the largest numbers of deaths registered in 2014. Cancers accounted for 29% of all deaths, while circulatory diseases (which include deaths from heart disease and strokes) accounted for 27% of all deaths. Respiratory diseases (including deaths from pneumonia) accounted for 13% of all deaths.

Over the course of the 20th century, there have been steady decreases in mortality rates for the main 3 broad disease groups (cancer, circulatory and respiratory) in England and Wales.

The reasons for this include improvements in the treatment and diagnosis of these diseases, in addition to the introduction of preventative programmes, such as NHS Breast screening which was introduced in 1988.

There have also been initiatives to improve people's health through better diet and lifestyle, for example, in England, the Department of Health's (DH) “Change4life campaign”, which began in 2009. There have been other high-profile awareness campaigns such as the “Be clear on cancer campaign”, which has been active since 2010 to 2011 and “Stoptober”, which runs every October. Be Clear on Cancer campaigns, now run by Public Health England (PHE) in conjunction with DH and NHS England, aim to raise awareness of signs and symptoms of cancer to promote early diagnosis. Recommendation 15 of the independent Cancer Taskforce report, Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020 (July 2015), states that PHE should continue to invest in Be Clear On Cancer campaigns.

In March 2013, DH published Living Well for Longer: National support for local action to reduce premature avoidable mortality. This sets out the actions national partners for health and care, including Government, National Health Service (NHS) and Public Health England (PHE) would take in 2014 to 2015 to reduce premature avoidable mortality. A report, Living Well for Longer – One Year On has been published describing progress towards these commitments. This also explains how the system would continue to prioritise actions towards reductions in premature death as part of mainstream functions. For more information on avoidable mortality please see Avoidable mortality in England and Wales.

Similarly, Public Health Wales has a number of campaigns such as “Stop smoking Wales”, “Change4life Wales”, which launched in 2010 and the “Screening for life” campaign, which is run every July.
Figure 2: Male age-standardised mortality rates, for 3 main broad disease groups, 2004 and 2014

England and Wales

![Chart showing male age-standardised mortality rates for circulatory diseases, cancer, and respiratory diseases from 2004 to 2014]

Source: Office for National Statistics

Notes:
1. Based on deaths registered in each calendar year.
2. These rates are for all ages and are standardised to the 2013 European Standard Population, expressed per million population.
3. These categories correspond to the 3 chapters of ICD-10 with the largest number of deaths in England and Wales.

Download chart

[XLS format] (25 Kb)
In 2014, deaths from cancer had the highest ASMRs for both males (3,446 deaths per million population) and females (2,359 deaths per million population). However, in 2004 the highest rates were for circulatory diseases. From 2004 to 2014, circulatory diseases (which include heart disease and strokes) have seen the largest fall in ASMRs for males and females (40% and 42% respectively). There has been a more gradual fall in ASMRs for cancer, with death rates 11% lower for males and 8% lower for females in 2014 than in 2004 (Figures 2 and 3).
The Outcomes Strategy sets out how the Department of Health aims to improve outcomes for all cancer patients and improve cancer survival rates to save an additional 5,000 lives every year by 2014/15. The main focus was on earlier diagnosis and improved access to the best possible treatment. The “Improving Outcomes: A Strategy for Cancer, Fourth Annual Report” (December 2014), estimates that on average between 6,500 and 17,000 more patients per year diagnosed from 2011 to 2015 will survive cancer for 5 years compared to patients diagnosed from 2006 to 2010. The “Be clear on cancer campaign” aims to make sure people are aware of the signs of cancer to ensure early diagnosis.

The Welsh Government’s “Together for Health, Cancer Delivery Plan for the NHS up to 2016” sets out the vision for the population of Wales and what this means for NHS cancer services.

The male mortality rate for respiratory diseases decreased by 23% between 2004 and 2014, while the rate for females fell by 21%. Respiratory disease mortality rates in a given year are strongly influenced by influenza levels.

**Leading causes of death in 2014**

On 1 January 2014, ONS changed the software used to code cause of death to a package called IRIS (version 2013). These updates include changes to the use of codes within the neoplasms (cancer) chapter (ICD-10 codes C00-D48). Further information can be found in background note 5 and in the dual coding study looking at the impact on mortality statistics.

Tables 1 and 2 show the 10 leading underlying causes of death in 2014 for males and females. These are ranked according to a World Health Organisation (WHO) list, which categorises causes using ICD-10 groups, specifically designed for determining the leading causes of death. The list has been modified for use in England and Wales (Griffiths et al., 2005). The leading causes of mortality are ranked according to the number of deaths registered for each group in 2014.
Table 1: Leading causes of death for males, 2014

England and Wales

<table>
<thead>
<tr>
<th>Rank</th>
<th>Underlying cause of death</th>
<th>ICD-10 code</th>
<th>Number of deaths registered</th>
<th>Percentage of all male deaths</th>
<th>Age-standardised mortality rate per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ischaemic heart diseases</td>
<td>I20-I25</td>
<td>36,319</td>
<td>14.8</td>
<td>1,647</td>
</tr>
<tr>
<td>2</td>
<td>Dementia and Alzheimer disease</td>
<td>F01,F03,G30</td>
<td>17,177</td>
<td>7.0</td>
<td>890</td>
</tr>
<tr>
<td>3</td>
<td>Malignant neoplasm of trachea, bronchus and lung</td>
<td>C33,C34</td>
<td>16,959</td>
<td>6.9</td>
<td>733</td>
</tr>
<tr>
<td>4</td>
<td>Chronic lower respiratory diseases</td>
<td>J40-J47</td>
<td>14,565</td>
<td>5.9</td>
<td>673</td>
</tr>
<tr>
<td>5</td>
<td>Cerebrovascular diseases</td>
<td>I60-I69</td>
<td>14,194</td>
<td>5.8</td>
<td>682</td>
</tr>
<tr>
<td>6</td>
<td>Influenza and pneumonia</td>
<td>J09-J18</td>
<td>11,242</td>
<td>4.6</td>
<td>575</td>
</tr>
<tr>
<td>7</td>
<td>Malignant neoplasm of prostate</td>
<td>C61</td>
<td>10,153</td>
<td>4.1</td>
<td>483</td>
</tr>
<tr>
<td>8</td>
<td>Malignant neoplasm of colon, sigmoid, rectum and anus</td>
<td>C18-C21</td>
<td>7,718</td>
<td>3.1</td>
<td>342</td>
</tr>
<tr>
<td>9</td>
<td>Malignant neoplasms, stated or presumed to primary of lymphoid, haematopoietic</td>
<td>C81-C96</td>
<td>6,454</td>
<td>2.6</td>
<td>283</td>
</tr>
</tbody>
</table>
## Deaths Registered in England and Wales (Series DR), 2014 | 09 November 2015

<table>
<thead>
<tr>
<th>Rank</th>
<th>Underlying cause of death</th>
<th>ICD-10 code</th>
<th>Number of deaths registered</th>
<th>Percentage of all male deaths</th>
<th>Age-standardised mortality rate per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Diseases of liver and related tissue</td>
<td>K70-K77</td>
<td>4,737</td>
<td>1.9</td>
<td>184</td>
</tr>
</tbody>
</table>

All male deaths: 245,142

### Table source: Office for National Statistics

### Table notes:
1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales (Griffiths et al., 2005).
3. These rates are for all ages and are standardised to the 2013 European Standard Population, expressed per million population.

### Download table
[XLS](#)  
(29 Kb)

The leading cause of death for males in 2014 was ischaemic heart diseases, which accounted for 14.8% of male deaths (Table 1). The leading cause of death for females was dementia and Alzheimer disease, which accounted for 13.4% of female deaths during 2014 (Table 2). The second leading cause of death in 2014 was dementia and Alzheimer disease for males (third in 2013) and ischaemic heart diseases for females.

If causes were ranked by their age-standardised mortality rates, instead of number of deaths, the rankings for males and females would change slightly. For example, cerebrovascular diseases among males is ranked fifth on number of deaths but fourth on mortality rates, while malignant neoplasm of trachea, bronchus and lung among females is ranked sixth on number of deaths, but fourth on mortality rates. The age-standardisation process has been altered following a revision to the European Standard Population in 2013 and now gives a greater weight to deaths at older ages (further details in background note 4).

For both sexes, lung cancer (malignant neoplasm of trachea, bronchus and lung) was the most common cancer, appearing third in the leading cause of death list for males and sixth for females. The lists also contain 3 other cancers for both males and females, including those which are sex-specific (prostate cancer and female breast cancer).
Malignant neoplasms, stated or presumed to be primary of lymphoid, haematopoietic and related tissue has replaced heart failure and complications and ill-defined heart disease as 1 of the 10 leading causes of death for females in 2014, it did not appear in the 10 leading causes of death for females in 2013, but has previously appeared in 2011.
## Table 2: Leading causes of death for females, 2014

England and Wales

<table>
<thead>
<tr>
<th>Rank</th>
<th>Underlying cause of death</th>
<th>ICD-10 code</th>
<th>Number of deaths registered</th>
<th>Percentage of all female deaths</th>
<th>Age-standardised mortality rate per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dementia and Alzheimer disease</td>
<td>F01,F03,G30</td>
<td>34,321</td>
<td>13.4</td>
<td>1,020</td>
</tr>
<tr>
<td>2</td>
<td>Ischaemic heart diseases</td>
<td>I20-I25</td>
<td>24,190</td>
<td>9.4</td>
<td>768</td>
</tr>
<tr>
<td>3</td>
<td>Cerebrovascular diseases</td>
<td>I60-I69</td>
<td>19,963</td>
<td>7.8</td>
<td>620</td>
</tr>
<tr>
<td>4</td>
<td>Chronic lower respiratory diseases</td>
<td>J40-J47</td>
<td>14,467</td>
<td>5.6</td>
<td>482</td>
</tr>
<tr>
<td>5</td>
<td>Influenza and pneumonia</td>
<td>J09-J18</td>
<td>14,212</td>
<td>5.5</td>
<td>431</td>
</tr>
<tr>
<td>6</td>
<td>Malignant neoplasm of trachea, bronchus and lung</td>
<td>C33,C34</td>
<td>13,909</td>
<td>5.4</td>
<td>487</td>
</tr>
<tr>
<td>7</td>
<td>Malignant neoplasms of female breast</td>
<td>C50</td>
<td>10,097</td>
<td>3.9</td>
<td>346</td>
</tr>
<tr>
<td>8</td>
<td>Malignant neoplasm of colon, sigmoid, rectum and anus</td>
<td>C18-C21</td>
<td>6,569</td>
<td>2.6</td>
<td>220</td>
</tr>
<tr>
<td>9</td>
<td>Diseases of the urinary system</td>
<td>N00-N39</td>
<td>5,032</td>
<td>2.0</td>
<td>154</td>
</tr>
<tr>
<td>10</td>
<td>Malignant neoplasms, stated or presumed to primary of lymphoid, haematopoietic</td>
<td>C81-C96</td>
<td>5,025</td>
<td>2.0</td>
<td>170</td>
</tr>
</tbody>
</table>
Deaths Registered in England and Wales (Series DR), 2014 | 09 November 2015

<table>
<thead>
<tr>
<th>Rank</th>
<th>Underlying cause of death</th>
<th>ICD-10 code</th>
<th>Number of deaths registered</th>
<th>Percentage of all female deaths</th>
<th>Age-standardised mortality rate per million population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>and related tissue</td>
<td></td>
<td>All female deaths</td>
<td>256,282</td>
<td></td>
</tr>
</tbody>
</table>

Table source: Office for National Statistics

Table notes:
1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales (Griffiths et al., 2005).
3. These rates are for all ages and are standardised to the 2013 European Standard Population, expressed per million population.

Comparing leading causes of death in 2004 and 2014

On 1 January 2014, ONS changed the software used to code cause of death to a package called IRIS (version 2013). These updates include changes to the use of codes within the neoplasms (cancer) chapter (ICD-10 codes C00-D48). Further information can be found in background note 5 and in the dual coding study looking at the impact on mortality statistics.

In 2004, deaths from ischaemic heart disease accounted for 21.0% of all male deaths (Figure 4) and 15.3% of all female deaths (Figure 5). In 2014, it accounted for 14.8% of all male deaths, a fall of 6.2 percentage points and 9.4% of all female deaths, a fall of 5.9 percentage points.

In contrast, the percentage of deaths from dementia and Alzheimer disease increased by 5.0 percentage points for males over the same period (from 2.0% to 7.0%) and by 8.7 percentage points for females (from 4.7% to 13.4%).

The increase in deaths from dementia may be partially explained by an update to the ICD coding frame, introduced in January 2011 (background note 5 has more information).

Alzheimer disease is the most common cause of dementia. Deaths from dementia and Alzheimer disease are increasing as people live longer, with women living longer than men. Some of the rise over the last few decades may also be attributable to a better understanding of dementia. This means that doctors may be more likely to record dementia on the death certificate. In 2012, the
Prime Minister launched the “Prime Minister’s challenge on dementia” with the main aim to deliver improvements in dementia care and research by 2015. One of the key commitments was increased diagnosis rates through improvements in health and care. In 2015, the Prime Minister launched his second dementia challenge, the Prime Ministers Challenge on Dementia 2020, which built on the achievements made from 2012-2015, and aims to identify what needs to be done to ensure dementia care, support, awareness and research are transformed by 2020.

There is more information on Alzheimer disease, on the Alzheimer’s Society website and trends in mortality from Alzheimer’s disease, Parkinson’s disease and dementia, England and Wales, 1979-2004.

Figure 4: Percentage of deaths for the 10 leading causes of death for males, 2004 and 2014

England and Wales
Source: Office for National Statistics

Notes:
1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales (Griffiths et al., 2005).
3. Figures for 2004 are given for the top 10 causes of death in 2014, as a comparison.

Download chart

Figure 5: Percentage of deaths for the 10 leading causes of death for females, 2004 and 2014
England and Wales
Source: Office for National Statistics

Notes:
1. Based on deaths registered in each calendar year.
2. The cause of death groups used here are based on a list developed by the WHO, modified for use in England and Wales (Griffiths et al., 2005).
3. Figures for 2004 are given for the top 10 causes of death in 2014, as a comparison.

Impact of registration delays on mortality statistics, 2014

The information used to produce mortality statistics is based on the details collected when deaths are certified and registered. In England and Wales, deaths should be registered within 5 days of the death taking place. However, there are some situations which result in the registration of the death being delayed. Deaths considered unexpected, accidental or suspicious will be referred to a coroner who may order a post-mortem and/or carry out a full inquest to ascertain the reasons for the death. The death cannot be registered until the inquest is completed, which can take many months or even years. ONS is not notified that a death has occurred until it is registered. If someone is to be charged in relation to the death, the coroner must adjourn the inquest and they may carry out an accelerated registration. However, the full details are not recorded until the inquest is completed. Accelerated registrations are assigned a U50.9 (inquest adjourned) code, and are included in the DR Series Table 5 (1.86 Mb Excel sheet).

Mortality statistics are presented based on the number of deaths registered in a particular period, rather than the number of deaths that actually occurred in that period. This approach is used as a trade-off between timeliness and data quality, to meet user needs.

In 2014, there were 501,424 deaths registered in England and Wales. Of these deaths, 477,752 occurred in 2014, representing 95% of the deaths registered. The proportion of deaths registered in 2014 that also occurred in 2014 varies by the underlying cause of death, classified using the ICD-10. More information on registration delays is available on our website and in background notes 1 and 2.

Users and uses of mortality statistics

ONS uses mortality data for the following purposes:

- producing population estimates and population projections at both national and subnational level
- reporting on social and demographic trends
- carrying out further analysis, for example, on life expectancy, health expectancy and by cause of death (including avoidable mortality, drug-related deaths and suicides)
- further analysing infant mortality, where infant deaths are linked to their corresponding birth record, to enable more detailed analyses on characteristics such as age of parents, birthweight, gestational age, ethnicity and whether the child was born as part of a multiple birth
quality assuring census estimates

The Department of Health (DH) is an important user of mortality statistics. The Public Health Outcomes Framework sets out the desired outcomes for public health and how these will be measured, while the NHS Outcomes Framework measures performance in the health and care system at a national level. Data from both frameworks are used, for example, to inform policy decisions and to reduce premature mortality from the major causes of death.

The Welsh Government (WG) is another important user of mortality statistics. The Programme for Government sets out the indicators, one of which is 21st Century Healthcare. Data are then used to determine delivery priorities, such as those relating to cancer and circulatory diseases, as outlined in the NHS Wales health delivery plans.

Infant mortality is also seen as an important measure among health outcomes and there is a long established link between social and health inequalities, and infant mortality. Infant mortality continues to take a central role in Department of Health (DH) and Welsh Government (WG)'s work on health inequalities.

Other important users of mortality data are local authorities and other government departments, for planning and resource allocation. The Department for Work and Pensions uses detailed mortality statistics to feed into statistical models they use for pensions and benefits.

Users also include other public sector organisations, such as the police and the Home Office, who are interested in data on external causes of death. Private sector organisations such as banks, insurance and investment companies, are particularly interested in deaths by single year of age and region to feed into risk estimation. Funeral directors are interested in the number of deaths occurring at the local area level.

Other users include academics, demographers and health researchers who conduct research into trends. Lobby groups and charities use death statistics to support their cause, for example, campaigns against alcohol and drug misuse, or suicide. Organisations such as Eurostat and the UN use death statistics for making international comparisons. The media also report on main trends in mortality.

Further information

More data on deaths in England and Wales 2014 are available on our website.

A Quality and Methodology Information (222.3 Kb Pdf) document for mortality statistics is available on our website. Further information on data quality, legislation and procedures relating to mortality is available in the mortality metadata (2.46 Mb Pdf).

There is also an interactive mapping tool, which enables trends in mortality to be analysed at the local level.

A leading causes of death interactive is available on our website.
Further 2014 death statistics will be published later in 2015, the GOV.UK release calendar has more details on releases.


To meet user needs, very timely but provisional counts of death registrations are published: Provisional counts of weekly death registrations by age-sex group and region and Provisional counts of monthly death registrations by local authority. Users should note that figures for 2015 have not been subject to the full quality assurance process so figures are considered provisional.

Information illustrating the processes in certification and registration (1 Mb Excel sheet) for deaths registered in 2014 is published on our website.

The 21st Century Mortality Files are a record of mortality in England and Wales from 2001 onwards. They are designed to complement the 20th Century Mortality Files. The files consist of an aggregated database of deaths by age-group, sex, year and underlying cause, and include populations for England and Wales.

Crude death rates for selected international countries are available in the Vital Statistics: Population and Health Reference Tables.

For mortality data for other UK countries please see statistics on deaths in Northern Ireland and statistics on deaths in Scotland.

For data on the leading causes of death in the world please see the WHO website.

**Background notes**

1. The year in which a death is registered may not correspond to the year in which the death occurred. Up to 1992, Office for National Statistics (ONS) publications gave numbers of deaths registered in the data year. Between 1993 and 2005, the majority of ONS’s published figures represented the number of deaths that occurred in the data year. From 2006 onwards, ONS changed the reporting of death figures back to deaths registered in a reference year. In most years (and for most causes of death), this change has little effect on annual totals but allows the output of more timely mortality data. For an annual extract of death occurrences to be acceptably complete, it must be taken some time after the end of the data year to allow for any late registrations.

2. Death figures reported here are based on deaths registered in the data year. For 2014, this includes some deaths that occurred in previous years (23,672 deaths). ONS also takes an annual extract of death occurrences in the autumn following the data year, to allow for late registrations. This is used for seasonal analysis of mortality data and several infant mortality outputs. The difference between death registrations and death occurrences in a year is relatively small. For example, the number of death registrations in 2013 involving deaths occurring in 2013 was 482,658, while the number of 2013 death occurrences was 502,670 (a difference of 4%).
3. Cause of death data are based on the final underlying cause of death. This takes account of any additional information provided by medical practitioners or coroners after the death has been registered. The original underlying cause of death only changes in a very small number of deaths (around 0.1 to 0.2%) in a given year.

4. The age-standardised mortality rates (ASMRs) in this release cover all ages. Age-specific rates for 2014 were calculated using the mid-2014 population estimates based on the 2011 Census. They were then directly age-standardised to the 2013 European Standard Population (ESP), which allows comparisons between populations with different age structures, including between males and females and over time. In 2013 Eurostat, the statistical institute of the European Union, updated the ESP which is used in the calculation of age-standardised rates. ESP changes have resulted in changes to mortality rates. Overall, ASMRs have increased. The impact of the change from the 1976 ESP to the 2013 ESP was greatest for conditions commonly associated with older ages (where ASMRs increased) and conditions predominantly exclusive to the very young (where ASMRs decreased). These changes are the result of an improvement in statistical methods and not a change in the actual number of deaths. This is due to the 2013 ESP being weighted more heavily towards older ages, where most deaths occur. Trends in mortality levels within and between areas have remained relatively unchanged. More information on the 2013 revised ESP is available on our website.

5. The Office for National Statistics (ONS) code cause of death using the World Health Organization's (WHO) International Classification of Diseases (ICD). Between January 2001 and December 2010, ONS used the Mortality Medical Data System (MMDS) ICD-10 version 2001.2 software provided by the United States National Center for Health Statistics (NCHS) to code cause of death. In January 2011, this was updated to version 2010, which incorporated most of the WHO amendments authorised up to 2009. There is further information in the results of the bridge coding study. On 1 January 2014, ONS changed the software used to code cause of death to a package called IRIS (version 2013). The development of IRIS was supported by Eurostat, the statistical office of the European Union, and is now managed by the IRIS Institute hosted by the German Institute of Medical Documentation and Information in Cologne. IRIS software version 2013 incorporates all official updates to ICD-10 approved by WHO, which were timetabled for implementation before 2014. These updates include changes to the use of codes within the neoplasms (cancer) chapter (ICD-10 codes C00-D48). In addition, a small number of changes were made to the coding of specific conditions, to bring previous coding practice in line with international coding rules and changes were made to the coding of neonatal deaths and stillbirths. Further information on IRIS can be found on our website and in the dual coding study looking at the impact on mortality statistics.

6. The population estimates used to calculate rates are the mid-year estimates of the resident population of England and Wales. The population estimates used are the latest consistent estimates available at the time of production. Further information on population estimates methodology can be found on our website.

7. There is a large degree of comparability in mortality statistics between countries within the UK. Any differences are believed to have a negligible impact. These differences are outlined in the Quality and Methodology Information document for mortality statistics.
8. Special extracts and tabulations of deaths data for England and Wales are available to order (subject to legal frameworks, disclosure control, resources and agreements of costs, where appropriate). Such enquiries should be made to:

Vital Statistics Outputs Branch
Office for National Statistics
Segensworth Road
Titchfield
Fareham
Hampshire
PO15 5RR

Tel: +44 (0)1329 444110 Email: vsob@ons.gsi.gov.uk

The ONS charging policy is available on our website. In line with the ONS approach to open data, all ad hoc data requests will be published onto the website.

9. We would welcome feedback on the content, format and relevance of this release. Please send feedback to the postal or email address above.

10. Follow us on Twitter, Facebook and LinkedIn.

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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; and
- are managed impartially and objectively in the public interest.

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