

Assessment of compliance with the Code of Practice for Official Statistics

Statistics on Mortality

*(produced by the Office for National
Statistics)*

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About the UK Statistics Authority

The UK Statistics Authority is an independent body operating at arm's length from government as a non-ministerial department, directly accountable to Parliament. It was established on 1 April 2008 by the *Statistics and Registration Service Act 2007*.

The Authority's overall objective is to promote and safeguard the production and publication of official statistics that serve the public good. It is also required to promote and safeguard the quality and comprehensiveness of official statistics, and good practice in relation to official statistics.

The Statistics Authority has two main functions:

1. oversight of the Office for National Statistics (ONS) – the executive office of the Authority;
2. independent scrutiny (monitoring and assessment) of all official statistics produced in the UK.

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ASSESSMENT AND DESIGNATION

The *Statistics and Registration Service Act 2007* gives the UK Statistics Authority a statutory power to assess sets of statistics against the *Code of Practice for Official Statistics*. Assessment will determine whether it is appropriate for the statistics to be designated as National Statistics.

Designation as National Statistics means that the statistics comply with the *Code of Practice*. The *Code* is wide-ranging. Designation can be interpreted to mean that the statistics: meet identified user needs; are produced, managed and disseminated to high standards; and are explained well.

Designation as National Statistics should not be interpreted to mean that the statistics are always correct. For example, whilst the *Code* requires statistics to be produced to a level of accuracy that meets users' needs, it also recognises that errors can occur – in which case it requires them to be corrected and publicised.

Assessment reports will not normally comment further on a set of statistics, for example on their validity as social or economic measures. However, reports may point to such questions if the Authority believes that further research would be desirable.

Assessment reports typically provide an overview of any noteworthy features of the methods used to produce the statistics, and will highlight substantial concerns about quality. Assessment reports also describe aspects of the ways in which the producer addresses the 'sound methods and assured quality' principle of the *Code*, but do not themselves constitute a review of the methods used to produce the statistics. However the *Code* requires producers to "seek to achieve continuous improvement in statistical processes by, for example, undertaking regular reviews".

The Authority may grant designation on condition that the producer body takes steps, within a stated timeframe, to fully meet the *Code's* requirements. This is to avoid public confusion and does not reduce the obligation to comply with the *Code*.

The Authority grants designation on the basis of three main sources of information:

- i. factual evidence and assurances by senior statisticians in the producer body;
- ii. the views of users who we contact, or who contact us, and;
- iii. our own review activity.

Should further information come to light subsequently which changes the Authority's analysis, it may withdraw the Assessment report and revise it as necessary.

It is a statutory requirement on the producer body to ensure that it continues to produce the set of statistics designated as National Statistics in compliance with the *Code of Practice*.

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1 Summary of findings

1.1 Introduction

1.1.1 This is one of a series of reports¹ prepared under the provisions of the *Statistics and Registration Service Act 2007*². The Act requires all statistics currently designated as National Statistics to be assessed against the *Code of Practice for Official Statistics*³. The report covers the following sets of statistics produced by the Office for National Statistics (ONS):

- *Death Registrations Summary Tables, England and Wales*⁴;
- *Death Registrations by Single Year of Age*⁵;
- *Mortality Statistics: Deaths Registered in England and Wales by Cause*⁶;
- *Mortality Statistics: Deaths Registered in England and Wales by Area of Usual Residence*⁷;
- *Vital Statistics: Population and Health Reference Tables*⁸ (*Population and Health Reference Tables*);
- *Monthly Provisional Figures on Deaths Registered by Area of Usual Residence, England and Wales*⁹;
- *Monthly Figures on Deaths Registered by Area of Usual Residence, England and Wales*¹⁰ (annual edition) ;
- *Weekly Provisional Figures on Deaths Registered in England and Wales*¹¹ (*Weekly Deaths*);
- *Deaths Involving Clostridium Difficile, England and Wales*¹²;
- *Deaths Involving Staphylococcus aureus and MRSA, England and Wales*¹³;
- *Deaths Related to Drug Poisoning and Drug Misuse in England and Wales*¹⁴;
- *Alcohol related Deaths in the United Kingdom (Alcohol-related Deaths)*¹⁵ ;
- *Injury and Poisoning Mortality, England and Wales*¹⁶;
- *Suicide Rates in the United Kingdom (Suicide Rates)*¹⁷ ;
- *Excess Winter Mortality in England and Wales (Excess Winter Mortality)*¹⁸ ;
- *Childhood, Infant and Perinatal Mortality in England and Wales*¹⁹;

¹ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html>

² http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga_20070018_en.pdf

³ <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

⁴ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-27457>

⁵ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-229723>

⁶ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-27475>

⁷ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-27478>

⁸ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-210727>

⁹ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-29514>

¹⁰ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-227363>

¹¹ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-28713>

¹² <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21713>

¹³ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21714>

¹⁴ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21716>

¹⁵ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-29395>

¹⁶ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-210652>

¹⁷ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-29400>

¹⁸ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-210640>

- *Live Births, Stillbirths and Infant Deaths: Babies Born in England and Wales*²⁰ (Infant Deaths);
- *Infant and Perinatal Mortality in England and Wales by Social and Biological Factors*²¹;
- *Unexplained Deaths in Infancy, England and Wales*²²; and
- *Gestation-specific Infant Mortality in England and Wales*²³.

1.1.2 This report was prepared by the Authority's Assessment team, and approved by the Board of the Statistics Authority on the advice of the Head of Assessment.

1.2 Decision concerning designation as National Statistics

1.2.1 The Statistics Authority judges that the statistics covered by this report are readily accessible, produced according to sound methods and managed impartially and objectively in the public interest, subject to any points for action in this report. The Statistics Authority confirms that the statistics listed in 1.1.1 are designated as National Statistics, subject to ONS implementing the enhancements listed in section 1.5 and reporting them to the Authority by September 2012.

1.2.2 ONS has informed the Assessment team that it has started to implement the Requirements listed in section 1.5. The Statistics Authority welcomes this.

1.3 Summary of strengths and weaknesses

1.3.1 Many users who responded to us regarding this Assessment emphasised the importance of these statistics. ONS engages with these users through relevant groups and stakeholder meetings. It has a user engagement strategy that explains how it aims to reflect user feedback as it develops its releases.

1.3.2 The range of topics reflected in ONS's suite of mortality releases is a strength; however, it is not clear what drives the selection of topics nor how users' needs influence the selection process. More generally, with so many individual releases, users (particularly non-expert users) are likely to find it difficult to navigate to the information that they need.

1.3.3 The commentary in some of the releases is good, explaining the main trends and providing contextual information that aids user interpretation. However, this is not consistent across the suite of releases: the commentary in some of the releases does not draw out the reasons behind the reported trends, while some of the releases do not include any commentary at all. The releases and accompanying information are not sufficiently accessible on ONS's website.

¹⁹ <http://www.ons.gov.uk/ons/rel/vsob1/child-mortality-statistics--childhood--infant-and-perinatal/index.html>

²⁰ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-210643>

²¹ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-29007>

²² <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-28187>

²³ <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-210556>

1.3.4 ONS has published information about potential sources of error that influence the mortality statistics. However, this information is not complete and some important sources of error are not explained clearly enough, for example the potential impact of delayed registrations and errors that relate to the way that cause of death is coded. However, ONS has work in progress to address these concerns.

1.4 Detailed recommendations

1.4.1 The Assessment team identified some areas where it felt that ONS could strengthen its compliance with the *Code*. Those which the Assessment team considers essential to enable designation as National Statistics are listed in section 1.5. Other suggestions, which would improve the statistics and the service provided to users but which are not formally required for their designation, are listed at annex 1.

1.5 Requirements for designation as National Statistics

Requirement 1	Review the suite of mortality releases to evaluate whether the content and timing of releases best meets users' needs, and publish the findings (para 3.3).
Requirement 2	Review the drafting of contextual information about government policy in the mortality releases, to ensure that the information presented is impartial and objective (para 3.5).
Requirement 3	Publish a revisions policy for these statistics and explain the nature and extent of revisions at the time the changed statistics are released (para 3.7).
Requirement 4	Review the charging policy for bespoke analysis to ensure that statistics are made equally available to all (para 3.8).
Requirement 5	(i) Provide information about the effect of delayed registrations in the mortality releases, and (ii) improve information about other factors affecting the quality of these statistics, in relation to potential use (para 3.11).
Requirement 6	Ensure that all releases include links to equivalent statistics for other countries of the UK and publish summary information about any differences (para 3.13).
Requirement 7	Review the disclosure policies for the mortality statistics, and how the policies are applied in the production of the statistical releases, to ensure that

the policies are not unduly limiting the practical utility of the statistics (para 3.15).

Requirement 8

Provide commentary with *Weekly Deaths, Death Registrations by Single Year of Age, Population and Health Reference Tables* and the three releases covering death registrations by area of usual residence, to help users interpret the statistics (para 3.20).

Requirement 9

Improve the accessibility of these statistics through the ONS's website and ensure that datasets are accompanied by supporting documentation about methods and quality (para 3.22).

Requirement 10

Include the name and contact details of the responsible statistician in all statistical releases (para 3.25).

2 Subject of the assessment

- 2.1 The statistical releases and supporting data tables covered by this Assessment present statistics on mortality, based on administrative information collected when deaths are certified and registered. Some of the releases are annual statistical bulletins and focus on a particular cause or set of causes of death, analysed by age, gender and sometimes geographic region. Other releases are just tables presenting statistics on the numbers of deaths registered within a specific time period. Some of the releases are published more frequently, for example *Weekly Deaths*. Most of the releases present statistics for England and Wales, but some cover the UK.
- 2.2 Most deaths are certified by a medical practitioner, who completes a Medical Certificate of Cause of Death²⁴. This certificate is then usually taken to a registrar of births and deaths by a person known as the informant – usually a near relative of the deceased. The General Register Office²⁵ (GRO) is responsible for registering deaths in England and Wales. It holds information about all deaths registered since the implementation of the *Births and Deaths Registration Act 1836*, which made it a legal requirement to register deaths. In 1963 GRO introduced a computerised process for registering deaths – before this, death registrations were processed manually. Since 2009, all deaths in England and Wales have been recorded using a web-based system. This enables ONS to access registrations data quickly and securely.
- 2.3 The death registration process collects information about the deceased, such as their age and gender, usual place of residence, marital status and occupation, and information about the cause of death, listing all medical conditions that contributed to the death. ONS has an automated system that uses the text on death certificates to classify causes of death in accordance with the 10th Edition of the International Classification of Diseases²⁶ (ICD-10), a diagnostic classification system maintained by the World Health Organisation. ONS codes about 20 per cent of registered deaths manually, for example those that are subject to a coroner's inquest.
- 2.4 The legislation that governs how deaths are registered has been amended and added to over time. Deaths should normally be registered within five days, however delays can occur when deaths need to be referred to a coroner, for example when the cause of death is unknown, or thought to be due to unnatural causes. If a coroner's post mortem²⁷ concludes that the death was suspicious then an inquest may be held to determine the cause of death, which can lead to a substantial delay in the death being registered. This affects a small proportion of deaths, but it will affect some causes more than others. ONS usually bases its statistics on the period in which the death was registered, but there are some exceptions – for example, *Infant Deaths* bases statistics on the year of birth.

²⁴ See Annex A of *Mortality Statistics: Metadata 2010* <http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/mortality-metadata.pdf>

²⁵ <http://www.gro.gov.uk/gro/content/>

²⁶ <http://www.who.int/classifications/icd/en/>

²⁷ <http://www.nhs.uk/conditions/Post-mortem/Pages/Introduction.aspx>

2.5 These mortality statistics are used extensively by many user communities. Statistics on the number of deaths and the changing impact of different causes of death are of significant general interest and so are reported widely by the media. Some examples of use are as follows.

- Government uses the statistics, for example to provide evidence in relation to health policy decisions and to monitor performance against the NHS Outcome Framework.
- Researchers and University workers use the statistics to research specific aspects of mortality and as a teaching aid.
- Many charities use the statistics to support their work: for example, cancer charities use the statistics in their fundraising and lobbying by describing the extent of cancer as a cause of death; in the same way, the statistics are important to charities that focus on end-of-life care.
- The Fire and Rescue Service uses the statistics to research carbon monoxide-related deaths.
- The Health Protection Agency uses the statistics as an indicator of the impact of infectious disease and of hazardous activity.
- The Advisory Council on the Misuse of Drugs uses the statistics to monitor trends in drug-related deaths.
- Biostatisticians use the statistics to monitor disease epidemics.

2.6 Statistics on mortality in Scotland and Northern Ireland were the subject of Assessment Report 99²⁸ and Assessment Report 124²⁹ respectively. There are some differences in the death registration process in the different countries. For example, in Scotland all deaths must be registered within eight days, regardless of whether or not there is an inquest. The Welsh Government publishes statistics on infant mortality³⁰. Until 2011 the Department of Health (DH) published statistics on mortality rates³¹, but these are under review following a consultation³² about changes to the Public Health Outcomes Framework³³. ONS's wider publication *Births and Deaths in England and Wales*³⁴ was the subject of Assessment report 137³⁵.

2.7 The mortality statistics team is split between ONS's Newport and Titchfield offices. ONS told us that it costs about £1.3 million per annum to produce the mortality statistics. It publishes some supplementary material that supports the

²⁸ <http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-99---statistics-on-vital-events-in-scotland.pdf>

²⁹ <http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-124---statistics-on-demography-and-vital-events-in-northern-ireland.pdf>

³⁰ <http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-167---statistics-on-births--infant-mortality-and-teenage-conceptions-in-wales.pdf>

³¹ <http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/StatisticalWorkAreas/Statisticalpublichealth/index.htm>

³² http://www.dh.gov.uk/en/Consultations/Responsestoconsultations/DH_128838

³³ http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_132358

³⁴ <http://www.ons.gov.uk/ons/rel/vsob1/death-reg-sum-tables/2010/births-and-deaths-summary-tables-stats-bulletin---2010.pdf>

³⁵ <http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-137---statistics-on-births-in-england-and-wales.pdf>

main release of mortality statistics. For example, *The 20th Century Mortality Files*³⁶ and *The 21st Century Mortality Files*³⁷ (collectively, *Mortality Files*) present data for every year since 1901 broken down by detailed cause of death, five-year age band and gender.

³⁶ <http://www.ons.gov.uk/ons/rel/subnational-health1/the-20th-century-mortality-files/20th-century-deaths/index.html>

³⁷ <http://www.ons.gov.uk/ons/rel/subnational-health1/the-21st-century-mortality-files/2010/index.html>

3 Assessment findings

Principle 1: Meeting user needs

The production, management and dissemination of official statistics should meet the requirements of informed decision-making by government, public services, business, researchers and the public.

- 3.1 ONS has published a *User Engagement Strategy and Plan*³⁸ (*User Strategy*) which describes how it engages with users of its health and life events statistics and explains how ONS will collate and act on user feedback. ONS has documented many of the ways that these statistics are used, both in the releases and accompanying documentation about methods and quality.
- 3.2 The statisticians who produce the mortality statistics engage with three main user groups: the Health Statistics User Group; the Maternity Statistics Information Exchange, a six-monthly meeting between suppliers and users of maternity and infant mortality data; and the population subgroup of the Central and Local Government Information Partnership. The statistics team told us that at these meetings it discusses key developments and forthcoming releases. It also has regular meetings with key stakeholders, particularly in Department of Health, and engages with other user groups on an ad hoc basis. Customer services teams respond to the large number of user requests it receives.
- 3.3 The scope of this Assessment – 17 releases and supporting supplementary data tables – reflects the richness of the data behind these statistics and the wide range of interest in the topic. ONS told us that the content of the releases has evolved over time to meet emerging user needs, often in discussion with key stakeholders. However, this planning process is not documented or sufficiently transparent and so it is not clear that the current suite of releases as a whole, and the timing of the releases, adequately meets the current needs of users. In July 2011 ONS consulted³⁹ users to get feedback on proposed changes to its infant mortality releases, as a result of which it told us that it intends to rationalise the five releases it publishes on this topic. This seems helpful, but, as ONS publishes a further 15 mortality releases, users (particularly non-expert users) are likely to find it difficult to know which information best meets their needs. As part of the designation as National Statistics, ONS should review the suite of mortality releases to evaluate whether the content and timing of releases best meets users' needs, and publish its findings⁴⁰ (Requirement 1).
- 3.4 ONS's *User Strategy* includes a commitment to publish an annual summary of user feedback. Given the wide subject area and many competing user demands, in the interests of transparency we suggest that ONS publish an annual plan for these statistics, report annually progress against the plan and explain how user feedback will influence the following year's plan.

³⁸ <http://www.ons.gov.uk/ons/guide-method/method-quality/user-engagement/user-engagement-in-the-health-and-life-events-division.pdf>

³⁹ <http://www.ons.gov.uk/ons/about-ons/consultations/closed-consultations/2011/review-of-infant-mortality-statistics/index.html>

⁴⁰ In relation to Principle 1, Practices 4 and 5 of the *Code of Practice*

Principle 2: Impartiality and objectivity

Official statistics, and information about statistical processes, should be managed impartially and objectively.

- 3.5 Many of the mortality releases include useful information about the policy context within which the statistics have been produced. For example, *Suicide Rates in the United Kingdom, 2006 - 2010*⁴¹ includes a section that explains, impartially and objectively, the relevant policy context and targets (about suicide prevention) in each of the four UK countries. This is an example of good practice. In some other publications, the drafting of information about the policy context would benefit from review to ensure that it can only be interpreted in a politically neutral way. For example, *Infant and Perinatal Mortality in England and Wales by Social and Biological Factors, 2010* stated ‘the white paper set out its theme ... by emphasizing the government’s continued commitment to reduce child poverty’. The Assessment team appreciates the sentiment intended by this statement, but considers that some readers may regard it as endorsing government policy. As part of the designation as National Statistics, ONS should review the drafting of contextual information about government policy in the mortality releases, to ensure that the information presented is impartial and objective⁴² (Requirement 2).
- 3.6 ONS told us that it usually consults users about changes to methods and classifications and announces details of the changes in advance through its responses to consultations. In the past, changes to the mortality statistics that are a result of changes to the source data used (for example, as a result of changes to population estimates or ONS’s geography policy) have been announced through ONS’s publications *Population Trends*⁴³ and *Health Statistics Quarterly*⁴⁴. These publications have now ceased and ONS has no standard approach to publishing information about forthcoming changes to its mortality statistics. We suggest that ONS develop a consistent means to announce changes to the mortality statistics well in advance of the release of the changed statistics.
- 3.7 ONS has a corporate revisions policy⁴⁵ which states that key outputs, subject to regular revisions, will have a published revisions policy. Some of the mortality releases include clear information about revisions to the statistics, but this is not consistent across the suite of releases. For example, *Excess Winter Mortality* clearly explains which statistics are provisional and which are final, but many other releases do not. Most of the statistics must be revised – for example updated population estimates have implications for the mortality rates. The mortality releases do not include information about the timing of these revisions or how they are handled, including how ONS applies the revisions retrospectively to the time series. Where the statistics are revised, ONS rarely provides information about the nature and extent of revisions. As part of the

⁴¹ <http://www.ons.gov.uk/ons/rel/subnational-health4/suicides-in-the-united-kingdom/2010/stb-statistical-bulletin.html>

⁴² In relation to Principle 2, Practice 2 of the *Code of Practice*

⁴³ <http://www.ons.gov.uk/ons/rel/population-trends-rd/population-trends/no-144--summer-2011/index.html>

⁴⁴ <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no--52---winter-2011/index.html>

⁴⁵ <http://www.ons.gov.uk/ons/guide-method/revisions/revisions-and-corrections-policy/index.html>

designation as National Statistics, ONS should publish a revisions policy for these statistics and explain the nature and extent of revisions at the time the changed statistics are released⁴⁶ (Requirement 3).

- 3.8 The releases state that additional bespoke analyses of the data are available at a charge. ONS has published a pricing policy⁴⁷ but the mortality releases do not refer to it. The policy explains the circumstances under which ONS charges for statistics, but it does not explain clearly how charges will be calculated and what costs will be applied. ONS told us that users who request bespoke analysis are given access to the resulting statistics for one week before ONS publishes the same statistics on its website, and that if the user publishes the statistics during this initial week, ONS publishes the statistics on its website immediately. The *Code of Practice* requires that statistics be made equally available to all. As part of the designation as National Statistics, ONS should review the charging policy for bespoke analysis to ensure that statistics are made equally available to all⁴⁸ (Requirement 4). We suggest that ONS clarify its pricing policy so that it explains how charges will be calculated and the costs that are applied, and include a link to the policy from the mortality releases.

⁴⁶ In relation to Principle 2, Practice 6 of the *Code of Practice*

⁴⁷ <http://www.ons.gov.uk/ons/about-ons/who-we-are/services/charging-policy/index.html>

⁴⁸ In relation to Principle 2, Practice 3 of the *Code of Practice*

Principle 3: Integrity

At all stages in the production, management and dissemination of official statistics, the public interest should prevail over organisational, political or personal interests.

- 3.9 No incidents of political pressures, abuses of trust or complaints relating to professional integrity, quality or standards were reported to or identified by the Assessment team.

Principle 4: Sound methods and assured quality

Statistical methods should be consistent with scientific principles and internationally recognised best practices, and be fully documented. Quality should be monitored and assured taking account of internationally agreed practices.

- 3.10 ONS has published information about the methods it uses to produce mortality statistics in *Mortality Statistics: Metadata 2010*⁴⁹ (*Metadata*). *Metadata* is a good example of methods documentation. It explains the death registration system which provides the underlying data; how deaths are coded and how the statistics are produced; the legislative background and changes that affect the time series; and many aspects of data quality and validation. Not all releases provide a link to *Metadata*. We suggest that ONS ensure that all mortality releases include a link to *Metadata*.
- 3.11 ONS publishes separate *Quality and Methodology Information notes*⁵⁰ (*QMI*) reports for most of the mortality releases, which explain in more detail the quality of the statistics. ONS told us that it will be publishing *QMI* notes for those mortality releases that don't yet have one, by summer 2012. *QMI* notes and *Metadata* present useful information about quality, but some key messages should be brought out more clearly in the releases themselves: not all the releases make it clear that there is a difference between basing the statistics on deaths that *occur* and deaths that are *registered* during a time period, and explain the implications for the uses to which the statistics based on either concept may be put. Most of the mortality statistics are based on deaths registered and so their relevance will be affected by deaths that take longer to register (such as those that are referred to a coroner). This will affect some causes of death more than others, for example drug-related deaths. This is an important issue that has been raised by users⁵¹ but the impact is not sufficiently well-explained, either in the releases or the supporting documents. ONS told us that it has started some work to investigate the impact of delayed registrations and it will publish more information in summer 2012. Several factors affecting the accuracy of the statistics could be better documented and explained, including: misreporting at different points during the death registration process; variations in the quality of information supplied by coroners; precision of estimates of babies' gestational ages (affecting *Gestation-specific Infant Mortality in England and Wales*); and the impact of manually coding a proportion of registered deaths. As part of the designation as National Statistics, ONS should (i) provide information about the effect of delayed registrations in the mortality releases, and (ii) improve information about other factors affecting the quality of these statistics, in relation to potential use⁵² (Requirement 5).
- 3.12 ONS provided examples of the checks it carries out to assure the quality of the statistics, but it has not documented these checks for all these statistics. We

⁴⁹ <http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/mortality-metadata.pdf>

⁵⁰ <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/social-statistics/index.html>

⁵¹ For example, <http://www.straightstatistics.org/article/measuring-delays-coroner-certified-deaths>

⁵² In relation to Principle 4, Practice 2 and Principle 8, Practice 1 of the *Code of Practice*

suggest that ONS document the quality assurance procedures for all these releases.

- 3.13 ONS told us that it actively engages with statisticians in the Welsh Government in order to discuss comparability issues. Some of ONS's mortality releases (for example, *Alcohol-related Deaths* and *Suicide Rates*) have included UK data and most include links to sources of statistics for the other countries. There are some issues that affect the comparability of statistics across different countries of the UK, for example, the standards applied by coroners in the different countries. These issues are not documented sufficiently well, so there is not enough information to help users compare the statistics from different countries. As part of the designation as National Statistics, ONS should ensure that all releases include links to equivalent statistics for other countries of the UK and publish summary information about any differences⁵³ (Requirement 6).

⁵³ In relation to Principle 4, Practice 6 of the *Code of Practice*

Principle 5: Confidentiality

Private information about individual persons (including bodies corporate) compiled in the production of official statistics is confidential, and should be used for statistical purposes only.

- 3.14 ONS has assured us that it takes all necessary steps to protect the confidentiality of the data it holds. Death registrations are public records so most of the information about individual deaths is not in fact confidential. However, ONS supplements these records with additional information, for example from coroners and the DH. ONS has disclosure control policies⁵⁴ that ensure that confidential information about individuals is never identifiable in these releases. ONS told us that its disclosure control policies also recognise the sensitive nature of many of its mortality releases and so place strict controls on the level of detail that can be published.
- 3.15 Many of the releases include analysis by age band, but some of the age bands presented are broad and so potentially hide important trends. The Assessment team considers that ONS should be able to publish some of the mortality statistics at a greater level of detail, without disclosing sensitive information. For example, *Suicide Rates* presents statistics for ages 15 to 44, which obscures differences between age groups. Some users told us that mortality statistics for single years of age are important for modelling age-related trends. ONS told us that the age bands it uses are partly a response to its strict disclosure control policies and partly because wide age categories are necessary to ensure that the calculation of mortality rates is robust. However, *Mortality Files* (see paragraph 2.7) present data for every year since 1901 broken down by detailed cause of death, five-year age band and gender. ONS told us that these data are non-disclosive. As part of the designation as National Statistics, ONS should review the disclosure policies for the mortality statistics, and how the policies are applied in the production of the statistical releases, to ensure that the policies are not unduly limiting the practical utility of the statistics⁵⁵ (Requirement 7). If ONS does have to group statistics in broad age bands to prevent disclosure, we suggest that ONS engage users to establish how it can prevent disclosure in ways that best meet users' needs.
- 3.16 ONS told us that it makes detailed data available for legitimate research purposes. This requires the approval of its Microdata Release Procedure⁵⁶.

⁵⁴ <http://www.ons.gov.uk/ons/guide-method/best-practice/disclosure-control-policy-for-birth-and-death-statistics/index.html>

⁵⁵ In relation to Principle 5, Practice 4 of the *Code of Practice*

⁵⁶ <http://www.ons.gov.uk/ons/about-ons/who-we-are/services/unpublished-data/mrp-guide.doc>

Principle 6: Proportionate burden

The cost burden on data suppliers should not be excessive and should be assessed relative to the benefits arising from the use of the statistics.

3.17 These statistics are based on administrative data sources, so their production and publication does not place additional burden on data suppliers. ONS told us that it promotes statistical purposes actively in the design and redevelopment of the underlying administrative systems. For example, ONS is working with DH to document the likely impact of forthcoming legislative changes: the *Coroners and Justice Act 2009*⁵⁷ will require a medical examiner to scrutinise all deaths before they can be registered, except for deaths that are investigated by a coroner.

⁵⁷ <http://www.legislation.gov.uk/ukpga/2009/25/contents>

Principle 7: Resources

The resources made available for statistical activities should be sufficient to meet the requirements of this Code and should be used efficiently and effectively.

- 3.18 ONS told us that the database systems it uses are outdated and no longer meet business needs, but it has resources allocated to develop a new system and this project is underway.
- 3.19 The statistics team that produces these outputs told us that it does not feel sufficiently resourced to meet all the requirements of the *Code of Practice* to the extent that it would like to, nor to extract maximum value from the data source. The Assessment team considers that ONS could extract more value from the statistics by ensuring that the outputs more closely reflect users' needs (as discussed under Principle 1). The Assessment team also considers that ONS may have scope to meet some users' needs more efficiently, for example by improving access to the detailed data available in *Mortality Files* so that users can produce their own statistics. Improved use of computing (for example, through the new database system and better use of statistical software packages) may also present opportunities for greater efficiency.

Principle 8: Frankness and accessibility

Official statistics, accompanied by full and frank commentary, should be readily accessible to all users.

- 3.20 Most of the mortality releases on specific causes (or groups of causes) of death are full statistical bulletins with commentary, some charts and contextual information. Some of the commentary in these releases is good, providing useful contextual material: for example *Alcohol-related Deaths 2010* draws on relevant statistics about alcohol consumption from ONS's General Lifestyle Survey. However, some of the releases covered by this Assessment are simply Excel files and do not include any commentary, and in others the commentary should draw out the main messages earlier, avoid technical language and go further to explain (or provide likely reasons for) the trends. Some releases – for example *Unexplained Deaths in Infancy, England and Wales* – do not provide any charts or tables to illustrate the statistics and in the same release there is insufficient context to help users interpret the statistics. The links between the releases could be improved (for instance, across the five infant mortality releases) and the format and style of presentation is inconsistent across the whole suite of releases: the mix of rates, percentages and numbers is not always sufficiently well-explained. ONS told us that it is working to ensure that good practice is implemented across the suite of mortality releases. As part of the designation as National Statistics, ONS should provide commentary with *Weekly Deaths, Death Registrations by Single Year of Age, Population and Health Reference Tables* and the three releases covering death registrations by area of usual residence, to help users interpret the statistics⁵⁸ (Requirement 8). ONS has committed to improving the commentary in all the mortality releases. We suggest that in meeting this requirement ONS should consider the points detailed in annex 2.
- 3.21 ONS has published an interactive map⁵⁹ that graphically illustrates changing mortality trends across the UK over the past decade – we view this as an example of good practice. However, in general the mortality statistics do not make the most of the rich data source: only a few of the statistical releases draw on more than ten years' data. The releases don't always draw together statistics for the UK as a whole, and there is more scope to refer to, or draw in, other relevant information, for example statistics about coroners' activity from Ministry of Justice. Few of the releases include any international statistics for wider context. There is scope for more interactive content, for example databases that users can interrogate and more interactive maps. In the context of Requirement 1 (to review the suite of releases in relation to users' needs) we suggest that ONS investigate how the value of these mortality statistics can be maximised, for example through innovative dissemination techniques and by drawing together other relevant data sources.
- 3.22 The mortality releases are not presented accessibly on ONS's website and there are a lot of mortality statistics releases, which makes it difficult for users to identify the right statistics to meet their needs. *Mortality Files* are an extremely rich data source, but ONS does not publicise them well and they are

⁵⁸ In relation to Principle 8, Practice 2 of the *Code of Practice*

⁵⁹ <http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc9/MortalityMap.html>

not accompanied by sufficient documentation, for example to explain the classification of deaths and (links to) information about methods. As part of the designation as National Statistics, ONS should improve the accessibility of these statistics through the ONS's website and ensure that datasets are accompanied by supporting documentation about methods and quality⁶⁰ (Requirement 9). We suggest that ONS publish a short user guide to the mortality statistics releases, to help users identify the right statistics to meet their needs.

⁶⁰ In relation to Principle 8, Practices 4 and 6 of the *Code of Practice*

Protocol 1: User engagement

Effective user engagement is fundamental both to trust in statistics and securing maximum public value. This Protocol draws together the relevant practices set out elsewhere in the Code and expands on the requirements in relation to consultation.

3.23 The requirements for this Protocol are covered elsewhere in this report.

Protocol 2: Release practices

Statistical reports should be released into the public domain in an orderly manner that promotes public confidence and gives equal access to all, subject to relevant legislation.

- 3.24 ONS told us that the timing of these releases reflects the availability of the underlying data and the resource required to produce all the releases. It is possible that some of the releases could be published more quickly, but this would be at the expense of other releases. It is not clear whether ONS publishes the releases in the order that best reflects users' needs. This is addressed in Requirement 1.
- 3.25 ONS has not consistently published the name of the responsible statistician in its releases. For example, *Alcohol-related Deaths* and *Suicide Rates* do not include a named statistician. As part of the designation as National Statistics, ONS should include the name and contact details of the responsible statistician in all statistical releases⁶¹ (Requirement 10).

⁶¹ In relation to Protocol 2, Practice 6 of the *Code of Practice*

Protocol 3: The use of administrative sources for statistical purposes

Administrative sources should be fully exploited for statistical purposes, subject to adherence to appropriate safeguards.

3.26 ONS told us that it maximises the opportunities for the use of administrative data by linking death registrations with other administrative information. For example, it links infant death registrations to their corresponding birth registration, enabling it to report on social and biological factors relevant to infant death. It also links birth registrations to their corresponding birth notification to obtain further information, such as gestational age and ethnicity.

Annex 1: Suggestions for improvement

A1.1 This annex includes some suggestions for improvement to ONS's mortality statistics, in the interest of the public good. These are not formally required for designation, but the Assessment team considers that their implementation will improve public confidence in the production, management and dissemination of official statistics.

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|---------------------|--|
| Suggestion 1 | Publish an annual plan for these statistics, report annually progress against the plan and explain how user feedback will influence the following year's plan (para 3.4). |
| Suggestion 2 | Develop a consistent means to announce changes to the mortality statistics well in advance of the release of the changed statistics (para 3.6). |
| Suggestion 3 | Clarify their pricing policy so that it explains how charges will be calculated and the costs that are applied, and include a link to the policy from the mortality releases (para 3.8). |
| Suggestion 4 | Ensure that all mortality releases include a link to <i>Metadata</i> (para 3.10). |
| Suggestion 5 | Document the quality assurance procedures for all these releases (para 3.12). |
| Suggestion 6 | Engage users to establish how it can prevent disclosure in ways that best meet users' needs (para 3.15). |
| Suggestion 7 | Consider the points detailed in annex 2, in seeking to improve the statistical releases (para 3.20). |
| Suggestion 8 | Investigate how the value of these mortality statistics can be maximised, for example through innovative dissemination techniques and by drawing together other relevant data sources (para 3.21). |
| Suggestion 9 | Publish a short user guide to the mortality statistics releases, to help users identify the right statistics to meet their needs (para 3.22). |

Annex 2: Compliance with Standards for Statistical Releases

- A2.1 In October 2010, the Statistics Authority issued a statement on *Standards for Statistical Releases*⁶². Whilst this is not part of the *Code of Practice for Official Statistics*, the Authority regards it as advice that will promote both understanding and compliance with the *Code*. In relation to ONS's mortality statistics, this annex comments on compliance with the statement on standards.
- A2.2 In implementing any Requirements of this report (at paragraph 1.5) which relate to the content of statistical releases, we encourage the producer body to apply the standards as fully as possible.

Appropriate identification of the statistics being released

- A2.3 The title of each mortality release describes the geographic coverage of the release. Some of the titles do not clearly indicate the time period covered and what statistics the release covers: for example, there is a release entitled *Monthly Figures on Deaths Registered by Area of Usual Residence, England and Wales*, which is in fact annual.
- A2.4 The releases do not adopt a consistent format: some are released as Excel tables, some are full statistical bulletins. All releases include a brief account of what is included in the release. Some of the mortality releases do not include the name and contact details of the responsible statistician. All of the mortality releases display the National Statistics logo and use formatting and headings that are appropriate for a National Statistics release.

Include commentary that is helpful to the non-expert and presents the main messages in plain English

- A2.5 The mortality releases that ONS publishes as full statistical bulletins include a summary that explains the key points. These releases include commentary that usually identifies main trends, but often stops short of explaining the reasons behind the trends. The releases that are just Excel tables do not include commentary.
- A2.6 Some of the releases use charts and tables to illustrate the statistics, but some do not. *Unexplained Deaths in Infancy, England and Wales* includes no charts or tables. In many of the releases the tables are poorly presented, which makes them difficult to interpret.
- A2.7 The language used can be quite technical, reflecting the technical medical descriptions of causes of death. It would be helpful if some of these causes could be described in simpler English (for example, referring to cancer instead of malignant neoplasm). The concept of age standardisation is not explained clearly.

⁶² <http://www.statisticsauthority.gov.uk/news/standards-for-statistical-releases.html>

Use language that is impartial, objective and professionally sound

- A2.8 All of the mortality releases use language that is professionally sound and demonstrably consistent with the statistics. The quality of some of the text in *Unexplained Deaths in Infancy, England and Wales* does not appear to have been assured sufficiently well.
- A2.9 In general the text in the releases is impartial, but there is one example in *Infant and Perinatal Mortality in England and Wales by Social and Biological Factors* where the information about the policy context could be interpreted as endorsing current government policy.

Include information about the context and likely uses

- A2.10 The mortality releases that ONS publishes as full statistical bulletins include helpful information about the policy context of the statistics. The use of the statistics is described in many of the releases (for example *Suicide Rates*) and further information about the uses of the statistics is included in related *QMI* reports.
- A2.11 Some good information about the quality of the statistics is included in the *QMI* reports. However the releases contain insufficient information about the quality and reliability of the statistics in some important respects, such as in relation to potential uses: for example, there is no explanation of the impact of delayed registrations and the implications for the expected uses of the statistics.

Include, or link to, appropriate metadata

- A2.12 The mortality releases include some information about the methods used to compile the statistics and further information is available in a separate methods document. The mortality releases do not all include links to the methods documents.
- A2.13 Most of the releases provide links to statistics for other UK countries, while some include comparisons of the statistics across the UK. *Alcohol-related Deaths* and *Suicide Rates* also include links to international statistics.
- A2.14 Some of the mortality releases, for example *Excess Winter Mortality*, clearly explain which statistics are provisional and which are final. Other releases do not explain when or how revisions are handled; in particular it is not clear how the mortality statistics are updated when the population estimates that they are derived from are revised.

Annex 3: Summary of assessment process and users' views

A3.1 This assessment was conducted from January to March 2012.

A3.2 The Assessment team – Jacob Wilcock and Ruth James – agreed the scope of and timetable for this assessment with representatives of ONS in January. The Written Evidence for Assessment was provided on 1 February. The Assessment team subsequently met ONS during February to review compliance with the *Code of Practice*, taking account of the written evidence provided and other relevant sources of evidence.

Summary of users contacted, and issues raised

A3.3 Part of the assessment process involves our consideration of the views of users. We approach some known and potential users of the set of statistics, and we invite comments via an open note on the Authority's website. This process is not a statistical survey, but it enables us to gain some insights about the extent to which the statistics meet users' needs and the extent to which users feel that the producers of those statistics engage with them. We are aware that responses from users may not be representative of wider views, and we take account of this in the way that we prepare assessment reports.

A3.4 The Assessment team received 24 responses from the user consultation. The respondents were grouped as follows:

Central government	7
Local government	2
Other public bodies	3
Voluntary sector	1
Academics	5
Private sector	5
Media	1

A3.5 Many users who responded to our consultation emphasised the importance of these statistics to their work and reported that they were content that the statistics meet their needs. Most users were content with the way that ONS engages with them and several reported that the statistics team is helpful and has responded promptly to queries.

A3.7 Some users felt that there is insufficient commentary to explain the statistics. Two users raised concerns about the potential impact that delayed death registrations has on the statistics. Several users told us that they experience difficulty accessing the statistics on ONS's website. One user felt that the arrangements for accessing microdata are unnecessarily burdensome.

Key documents/links provided

Written Evidence for Assessment document

