

Assessment of compliance with the Code of Practice for Official Statistics

Statistics on Health Inequalities in England and Wales

(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 statistics on health inequalities produced by the Office for National Statistics (ONS) in:

Life expectancy by National Statistics Socio-economic Classification (NS-SEC):

- *Deriving Trends in Life Expectancy by the National Statistics Socio-economic Classification using the ONS Longitudinal Study*⁴ (Health Statistics Quarterly (HSQ) article);
- *Trends in Life Expectancy by the National Statistics Socio-economic Classification*⁵ (Statistical Bulletin);

Mortality by NS-SEC:

- *Social Inequalities in Alcohol-related Adult Mortality by National Statistics Socio-economic Classification*⁶ (HSQ article);
- *Social Inequalities in Fatal Childhood Accidents and Assaults: England and Wales*⁷ (HSQ article);
- *Trends in Social Inequalities in Male Mortality. Intercensal estimates for England and Wales*⁸ (HSQ article); and
- *Trends in Social Inequalities in Female Mortality. Intercensal estimates for England and Wales*⁹ (HSQ article).

1.1.2 Section 3 of this report adopts an ‘exception reporting’ approach – it includes text only to support the Requirements made to strengthen compliance with the Code and Suggestions made to improve confidence in the production, management and dissemination of these statistics. This abbreviated style of report reflects the Head of Assessment’s consideration of aspects of risk and materiality¹⁰. The Assessment team nonetheless assessed compliance with all parts of the *Code of Practice* and has commented on all those in respect of which some remedial action is recommended.

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/rel/hsq/health-statistics-quarterly/spring-2011/index.html>

⁵ <http://www.ons.gov.uk/ons/rel/health-ineq/health-inequalities/trends-in-life-expectancy--1982---2006/index.html>

⁶ <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no--50--summer-2011/index.html>

⁷ <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no--48--winter-2010/index.html>

⁸ <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no--47--autumn-2010/index.html>

⁹ <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no--52---winter-2011/art-1---hsq-52.html>

¹⁰ <http://www.statisticsauthority.gov.uk/assessment/assessment/guidance-about-assessment/criteria-for-deciding-upon-the-format-of-an-assessment-report.pdf>

1.1.3 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 paragraph 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 May 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 ONS makes effective use of data collected for other reasons by combining registration, Population Census and survey data into the ONS Longitudinal Study. It has developed a new method of monitoring health inequalities between censuses.

1.3.2 ONS provides extensive commentary in its analytical articles on health inequalities, supported by charts and tables; these releases are focused on expert users. ONS has published detailed explanations of the data sources and methods, highlighting the limitations of the statistics and areas of potential bias.

1.3.3 The ONS Health Inequalities team engages informally with users through conferences and public meetings. ONS has not set out users' views of the statistics or its plans for the preparation and publication of the health inequalities statistics.

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

Take steps to develop a greater understanding of the use made of the statistics, publish the relevant information and assumptions and use them to better support the use of the statistics (para 3.1).

- Requirement 2** Adopt systematic planning arrangements which take account of users' needs and publish the plans (para 3.2).
- Requirement 3** Improve the commentary in the health inequalities statistical bulletins so that it aids user interpretation of the statistics (para 3.3).
- Requirement 4** Provide the name and contact information for the responsible statistician alongside the health inequalities statistics (para 3.4).

2 Subject of the assessment

- 2.1 ONS and its predecessors have published statistics on socio-economic inequalities in health since the 19th century. The traditional method for measuring inequalities in mortality was introduced by the Register Office for England and Wales – based on the Registrar General’s classification of social class (RGSC), which was first used in the 1911 Census. It involved the use of occupation information recorded on death registrations and at the census, to estimate the mortality (death rates) for different social classes based on groups of occupations. These statistics were produced every ten years for all-cause mortality, as well as for major causes of death, including, most recently, alcohol-related mortality, and fatal accidents in children.
- 2.2 In 2001 the National Statistics Socio-economic Classification system¹¹ (NS-SEC) replaced RGSC in official statistics, including health inequalities. In 2010 ONS developed¹² a method of producing the death rates using the Labour Force Survey (LFS) population estimates by NS-SEC as the denominator. This led to the first intercensal statistics on male¹³ and female¹⁴ mortality which will enable the regular monitoring of inequalities in mortality at a national level.
- 2.3 The introduction of the ONS Longitudinal Study¹⁵ (LS), beginning at the 1971 Census, made it possible to calculate mortality rates from a single source, and by occupation for older ages. The LS provides linked data for the four censuses 1971 to 2001 and vital events¹⁶ for 1 per cent of the population. Using this dataset, it is possible to classify people of all ages according to their socio-economic group at census and then follow them up until the end of the study or their death. Deaths and survival rates are used to estimate life expectancy for each socio-economic classification.
- 2.4 Health inequalities statistics have been used to inform the public health debate from the Black Report¹⁷ in 1980, which identified a lack of improvement in the health experience of the lower social classes, to the most recent review¹⁸, which set out to identify strategies to reduce health inequalities, led by Professor Michael Marmot. The Marmot report¹⁹, *Fairer Society, Healthy Lives* published in 2010, identified that monitoring progress in reducing socio-economic inequalities requires timely measures which are capable of regular updating. This led to ONS developing the LFS-based method to produce intercensal estimates of mortality by NS-SEC. The health inequality statistics

¹¹ <http://www.ons.gov.uk/ons/guide-method/classifications/archived-standard-classifications/ns-sec/index.html>

¹² Article – Intercensal denominators: <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no-45--spring-2010/index.html>

¹³ Article – Trends in social inequalities in male mortality: <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no-47--autumn-2010/index.html>

¹⁴ <http://www.ons.gov.uk/ons/rel/hsq/health-statistics-quarterly/no-52---winter-2011/art-1---hsq-52.html#tab-abstract>

¹⁵ <http://www.ons.gov.uk/ons/about-ons/who-we-are/services/longitudinal-study/index.html>

¹⁶ Registrations of births, deaths and newly diagnosed cases of cancer

¹⁷

http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/PublicHealth/Healthinequalities/DH_064031

¹⁸ <http://www.ucl.ac.uk/gheg/marmotreview>

¹⁹ <http://www.instituteofhealthequity.org/>

also inform the Government's policy statement *Healthy Lives, Healthy People*²⁰.

- 2.5 The statistics are used by public health specialists, as well as users in central and local government, academia and the private sector. For example, the Department of Work and Pensions uses expectation of life at various ages for different social groups to inform its pension policy planning. Academics and public health specialists investigate mortality of specific causes of death, such as suicide, by social group. Actuaries and pension providers in the commercial sector use life expectancy by NS-SEC for pricing their products.
- 2.6 ONS told us that the life expectancy and mortality by NS-SEC statistics cost around £70,000 per annum to produce.

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http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_128120

3 Assessment findings

- 3.1 The ONS Health Inequalities team has informal contact with users in government departments and through attending conferences and public meetings. ONS consulted users on discontinuing RGSC in favour of NS-SEC in future statistics on inequalities in life expectancy. It published²¹ a consultation document, and publicised the consultation through sending targeted emails to experts in the field. We were told that ONS plans to publish the outcome of the review in April 2012. ONS runs a steering group to advise on its work programme. The group involved representatives from the Department of Health (DH), Department for Work and Pensions and senior academics in the social inequalities and health policy fields. ONS hasn't documented users' views about the health inequalities statistics, although ONS's Health and Life Events Division has an overall strategy for user engagement²². As part of the designation as National Statistics, ONS should take steps to develop a greater understanding of the use made of the statistics, publish the relevant information and assumptions and use them to better support the use of the statistics²³ (Requirement 1). We suggest that ONS refer to the types of use put forward in the Statistics Authority's Monitoring Brief, *The Use Made of Official Statistics*²⁴ when documenting use.
- 3.2 ONS has previously published most of the health inequalities statistics within ad hoc articles in *HSQ*. It has occasionally also published the main findings within statistical bulletins. ONS told us that it intends to publish future updates of the LFS-based mortality by NS-SEC in an annual statistical bulletin. ONS has not adopted systematic planning arrangements for producing health inequality statistics and has not set out clearly its work plan so that users can be informed of when health inequality statistics will be available. ONS announces the publication date of the ad hoc articles and bulletins in the National Statistics Publication Hub once they have been scheduled for release in *HSQ* but not as part of a timetable of statistical releases twelve months ahead. As part of the designation as National Statistics, ONS should adopt systematic planning arrangements for health inequalities statistics which take account of users' needs and publish the plans²⁵ (Requirement 2). We suggest that ONS link this plan into the Health and Life Events Division strategy for user engagement.
- 3.3 The health inequalities articles contain detailed analyses of the specific topic with commentary that tends to be more suited to expert users than to non-specialists. The commentary is supported by illustrative charts and tables and the technical concepts are explained in text boxes alongside the main text and in background notes. The statistical outputs produced by the Health Inequalities team for *HSQ*²⁶ are peer reviewed by three non-ONS experts. Since publishing the most recent statistics ONS has released three Quality and Methodology

²¹ <http://www.ons.gov.uk/ons/about-ons/consultations/closed-consultations/index.html>

²² <http://www.ons.gov.uk/ons/guide-method/method-quality/user-engagement/index.html>

²³ In relation to Principle 1, Practice 2 of the *Code of Practice*

²⁴ <http://www.statisticsauthority.gov.uk/assessment/monitoring/monitoring-briefs/index.html>

²⁵ In relation to Principle 1, Practice 3; Principle 7, Practice 3, and Protocol 2, Practice 2 of the *Code of Practice*

²⁶ ONS published a paper edition of this journal from 1999 until it moved to publication online only in 2011.

Information²⁷ documents on its website – on social inequalities in mortality and life expectancy by NS-SEC. The statistical bulletin doesn't set out the wider context or the uses made of the statistics. As part of the designation as National Statistics, ONS should improve the commentary in the health inequalities statistical bulletins so that it aids user interpretation of the statistics²⁸ (Requirement 3). We suggest ONS consider the points detailed in annex 2, in seeking to further improve the commentary.

- 3.4 ONS gives the name and contact information for the responsible statistician in the statistical bulletin but not in the *HSQ* articles. As part of the designation as National Statistics, ONS should provide the name and contact information for the responsible statistician alongside the health inequalities statistics²⁹ (Requirement 4).

²⁷ <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/social-statistics/index.html>

²⁸ In relation to Principle 8, Practice 2 of the *Code of Practice*

²⁹ In relation to Protocol 2, Practice 6 of the *Code of Practice*

Annex 1: Suggestions for improvement

A1.1 This annex includes some suggestions for improvement to ONS's health inequalities 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.

- | | |
|---------------------|---|
| Suggestion 1 | Refer to the types of use put forward in the Statistics Authority's Monitoring Brief, <i>The Use Made of Official Statistics</i> when documenting use (para 3.1). |
| Suggestion 2 | Link the business plan into the Health and Life Events Division strategy for user engagement (para 3.2). |
| Suggestion 3 | Consider the points detailed in annex 2, in seeking to further improve the statistical releases (para 3.3). |

Annex 2: Compliance with Standards for Statistical Releases

- A2.1 In October 2010, the Statistics Authority issued a statement on *Standards for Statistical Releases*³⁰. 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 the statistical releases associated with the health inequalities 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 statistical releases have titles that reflect the coverage and reference period of the statistics. The statistics are not produced routinely and so do not indicate the frequency that the releases are compiled.
- A2.4 The statistical bulletin, *Trends in Life Expectancy by NS-SEC*, has the appropriate logos and the name of the responsible organisation. It also gives the name of the responsible statistician and contact information.
- A2.5 The *HSQ* articles are released in a PDF file for the quarterly edition which bears the National Statistics logo and the name of the responsible organisation. The articles have the names of the authors and their organisations, but do not make clear who the responsible statistician is or provide contact information.
- A2.6 Each of the statistical releases outlines the subjects covered at the start of the release.

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

- A2.7 Each of the statistical releases has a summary of the main messages. The articles describe the issues of public debate around the particular aspect of health inequalities presented in the release. The bulletin doesn't set out the wider context of the statistics or the uses made of the statistics.
- A2.8 The language in the releases is mostly straightforward. The statistics do present complex concepts and involve the use of technical phrases. To help users unfamiliar with these concepts, the articles have text boxes with clear explanations, alongside the main text. The bulletin on *Trends in life expectancy by NS-SEC* doesn't explain the measure of 'life expectancy' in the main body of the text or signpost users to the background notes where an explanation is given.
- A2.9 The commentary is accompanied by charts and tables to illustrate the comparisons over time, between areas and social groups.

³⁰ <http://www.statisticsauthority.gov.uk/news/standards-for-statistical-releases.html>

Use language that is impartial, objective and professionally sound

A2.10 The statistics are presented impartially and the releases are evidence-based. The descriptions of the findings in the articles are detailed and consistent with the statistics.

Include information about the context and likely uses

A2.11 The articles refer to the wider context in terms of previous research and reviews of socio-economic variations. For example, *Alcohol-related mortality by NS-SEC* set the findings in the context of patterns of alcohol consumption and other risk factors for the diseases. *Fatal childhood accidents and assaults* related the findings from other research by World Health Organisation and the Audit Commission as well as the Black Report in 1980 and Department of Health policies on accidental injury and deaths among children. *Trends in male mortality by NS-SEC* refers to the Acheson report in 1998 on widening socio-economic inequalities and various DH policies to address inequalities in the local authorities with the worst health and deprivation indicators (the Spearhead Group). But the statistical releases do not specifically refer to the current DH business plan or policies on health inequalities.

A2.12 The mortality articles don't make clear the scale of the overall risk of deaths from the specific cause compared with all deaths. The socio-economic statistics do not apply to all ages; however, *Alcohol-related mortality by NS-SEC* does give the overall results for England and Wales for all ages in the introduction. *Trends in male mortality by NS-SEC* compares the results with the results published by DH for the Spearhead Group of local authorities and for all-cause all-age mortality for England.

A2.13 The articles and the bulletin don't make clear how the statistics will be used, although some information about use is given in the QMI documents.

Include, or link to, appropriate metadata

A2.14 The statistical releases give information about the methods and classifications used – such as the NS-SEC classification and guidance on the social gradient measures. The data sources are also described. The articles give detailed information about assumptions made and also contain a section on the limitations of the statistics.

A2.15 The estimates of mortality and life expectancy are accompanied by confidence intervals but a definition of them is not given. The bulletin references the main article for further information about the methods and to the ONS Longitudinal Study web pages for information about the study. The *Quality and Methodology Information* documents were not available at the time of the publication of the statistics but have been published since.

A2.16 *Life expectancy by NS-SEC* doesn't refer users to the statistics and supporting information about life expectancy by local area. The ONS health inequalities statistics don't highlight equivalent statistics for other parts of the UK.

Annex 3: Summary of assessment process and users' views

- A3.1 This assessment was conducted from September 2011 to February 2012.
- A3.2 The Assessment team – Penny Babb and Neil Wilson – agreed the scope of and timetable for this assessment with representatives of ONS in September. The Written Evidence for Assessment was provided on 6 October 2011. The Assessment team subsequently met ONS during November 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 5 responses from the user/supplier consultation. The respondents were grouped as follows:
- | | |
|----------------|---|
| ONS | 2 |
| Academics | 2 |
| General public | 1 |
- A3.5 The statistics were used to look at mortality and life expectancy variations between social groups and by occupation.
- A3.6 The users were satisfied with their engagement with the producer team and positive about responses received to questions. One suggested having an annual seminar to discuss findings from research, to hear about future issues, and to gather user feedback. It was also recommended that ONS should seek users in other sectors such as the commercial sector, for example pharmaceutical companies and actuaries.
- A3.7 Users would like the underlying data from the Longitudinal Study to be available with more detail. A suggestion was made to provide data in downloadable format that allows users to customise what they select. Another suggested that it would be helpful to have all class-related statistics collated in one place (mentioning the previous Decennial Supplement publication).
- A3.8 Suppliers were satisfied with the arrangements and said that they had clear instructions on what was to be provided.

Key documents/links provided

Written Evidence for Assessment document

