Planned changes to Child Mortality Outputs

February 2013

Background
An evaluation of ONS mortality publications took place in Summer 2012 to ensure the number, content and timing of releases continued to best meet the needs of users. Following on from this, further rationalisation of infant mortality products are proposed to save confusion for users and minimise the variation in infant mortality figures from the use of different datasets.

In addition, recent changes to the Population (Statistics) Act 1938, means that information on the total numbers of previous live births and stillbirths that the mother has had is now collected for all births (not just those within marriage). Consequently, a small number of changes to published tables are planned.

Thirdly, the Office for National Statistics (ONS) is proposing to implement the combined method for reporting the National Statistics Socio-Economic Classification (NS-SEC) for child mortality statistics (using the highest NS-SEC of either parent rather than just the father’s classification).

Proposed discontinuation of Infant and Perinatal Mortality by Social and Biological Factors
ONS currently publishes provisional infant mortality statistics based on occurrences around November in Infant and Perinatal Mortality by Social and Biological Factors. Final figures are then published in Childhood Mortality Statistics: Childhood, Infant and Perinatal. The publication of final data was moved forward from March/April time to February in 2013, with the next release planned for January 2014.

Given the earlier publication date for Childhood Mortality Statistics and the tables included in the two publications are very similar, ONS propose to discontinue Infant and Perinatal Mortality by Social and Biological Factors for 2012 data onwards. To ensure published infant mortality tables continue to best meet user needs some minor changes to a small number of tables in Childhood Mortality Statistics are proposed. These changes are outlined below.
Changes to the Population Statistics Act

ONS has recently implemented a legislative change to improve the statistical information collected at birth registration in England and Wales. Two amendments have been made to the Population (Statistics) Act 1938, the legislation which requires registrars to collect confidential information for statistical purposes. The changes were made within the Welfare Reform Act 2009 and were implemented by the Identity and Passport Service in May 2012.

Until May 2012, information on
(a) number of previous children with a current or former husband; and
(b) whether the mother had previously been married;
was only collected for births occurring within marriage. When the Population (Statistics) Act came into force in 1938, only 4% of live births in England and Wales occurred outside marriage so the information required was collected for nearly all mothers. However by 2011 nearly half of births (47%) took place outside marriage or civil partnership and so the legislation no longer reflected the reality of modern society.

The two amendments made to the Population (Statistics) Act 1938 mean that:
(a) information is now collected at all birth registrations on the total numbers of previous live births and previous stillbirths that the mother has had (not just those with the current or former husband). This has simplified the question asked by registrars and will provide improved coverage, and
(b) information is now collected at all birth registrations on either
   (i) whether the mother has been previously married or in a civil partnership (if she is currently married or in a civil partnership), or
   (ii) whether the mother has ever been married or in a civil partnership (if she is not currently married or in a civil partnership).
This brings the birth registration process more in line with equality legislation.

ONS currently publishes two tables in Child Mortality Statistics: Childhood, Infant and Perinatal and one table in Birth Cohort Tables for Infant Deaths showing the number of previous children for married women only. Following implementation of the changes to the Population Statistics Act 1938, it will be possible to publish figures that represent all births rather than just births to married women.

Only minor changes will be made to the published tables for 2012 and 2013 data since the first full year of new data is 2013 but some childhood deaths in this year will relate to births in 2012 prior to the changes being implemented. The main improvements resulting from the amendments to the Population (Statistics) Act 1938 will therefore be introduced to published tables for child deaths occurring in 2014.

Although tables affected by the amendments to the Population (Statistics) Act 1938 will continue to be published for child deaths occurring in 2012 and 2013, there will be a small definitional change in the data following implementation. Up to late May 2012, previous children include only those with a current or former husband, while after late May 2012 all previous children should be
counted. This is not expected to make a large difference to the figures as it is not clear how accurately the original question was understood or answered.

Proposals for changes to published child mortality tables are outlined below.

**Implementing a combined NS-SEC approach**

Child Mortality Statistics Table 12 and Birth Cohort Table 7 currently use father’s occupation to calculate NS-SEC. Historically, the father’s NS-SEC was chosen based on the premise that many mothers either did not have an occupation or do not state their occupational details on the baby’s birth certificate during registration (Maher and Macfarlane, 2004).

The current approach using only father’s occupation needs to be re-assessed as the characteristics of the labour market are ever changing. Between 1971 and 2011 there has been an upward trend in the proportion of women in employment (ONS, 2011). The current approach to NS-SEC also limits analysis as it excludes sole registrations, where only the mother’s details are recorded at birth registration.

Langford and Johnson (2009) introduced a ‘combined’ approach to socio-economic classification whereby household level classification was produced by taking into account the NS-SEC class for both the man and woman in cases where they were married. The same approach was used for the first time by Siegler et al (2010) to analyse child mortality. It was argued that ‘the most favourable socio-economic position of the parents is likely to have a direct impact on the environment of a child, whether it derives from the mother or father’.

The use of a ‘combined’ approach for all births, not just those within marriage, is now proposed for birth statistics and child mortality statistics. A report on the potential impact on birth and infant mortality statistics was published on the ONS website on 20 February 2013.

**Proposed changes to published tables**

Following a review of mortality statistics, changes to the Population Statistics Act and the planned implementation of the combined NS-SEC approach, the following changes to tables are proposed:

**Table 8: Child Mortality Statistics** – This table is affected by the changes to the Population (Statistics) Act 1938. ONS plan to leave the table unchanged for 2012 and 2013 data but the table for 2014 data will include previous children information for all women. The table will also be modified to show the following birth registration groups rather than the inside/outside marriage split:

i) All.

ii) Inside marriage/civil partnership and joint registrations where parents live at the same address.

iii) Joint registrations where parents live at different addresses and sole registrations.

Messer (2011) demonstrated that births registered solely by the mother are similar to the joint-registered group living at different addresses in their main socio-demographic characteristics and health outcomes. The joint-registered group living at the same address was similar to the within-
marriage group across the same measures. Consequently, the distinction between infants with ‘resident’ and ‘non-resident’ fathers is considered more meaningful for health outcomes than that between births inside and outside marriage.

Table 9: Child Mortality Statistics – From 2012 data year onwards the following gestation groupings will be provided: All, 24–27 weeks, 28–31 weeks, 32–36 weeks, 37–39 weeks, and 40 weeks and over. This is to ensure that information previously published in Infant and Perinatal Mortality by social and Biological Factors remains available.

Table 12: Child Mortality Statistics – From 2012 data year onwards, figures will be based on the combined NS-SEC approach (taking the highest NS-SEC of either parent). Separate figures for National Statistics Socio-Economic Classes (NS-SEC) 7 and 8 will be provided for all births only. This will enable published figures to be amalgamated into the 3 class NS-SEC previously possible using Infant and Perinatal Mortality by Social and Biological Factors. Due to the small number of stillbirths in NS-SEC group 8, totals for groups 7 and 8 will continue to be combined for each birthweight grouping to protect confidentiality. Similar to Table 8, Table 12 will be modified to show the following birth registration groups rather than the outside/inside marriage split:

i) All.
ii) Inside marriage/civil partnership and joint registrations where parents live at the same address.
iii) Joint registrations where parents live at different addresses and sole registrations.

Figures for 2011 based on the combined NS-SEC approach will be published alongside 2012 data to provide a comparison. Changes to the Standard Occupational Classification (SOC) in January 2011 mean that figures for earlier years based on the combined NS-SEC approach would not be directly comparable.

A report providing more detail on the impact of rebasing NS-SEC to SOC2010 for infant mortality statistics is due for publication in Spring 2013.

Table 13: Child Mortality Statistics - This table is affected by the changes to the Population (Statistics) Act 1938. ONS plan to leave the table unchanged for 2012 and 2013 data but the table for 2014 data will include previous children information for all women. Once again, the birth registration groupings will be modified to show the following groups rather than the inside/outside marriage split:

i) All.
ii) Inside marriage/civil partnership and joint registrations where parents live at the same address.
iii) Joint registrations where parents live at different addresses and sole registrations.
Table 6: Birth Cohort Tables for Infant Deaths – This table is affected by the changes to the Population (Statistics) Act 1938. ONS plan to leave the table unchanged for 2012 and 2013 data but the table for 2014 data will include previous children information for all women. Once again, the birth registration groupings will be modified to show the following groups rather than the inside/outside marriage split:
   i) All.
   ii) Inside marriage/civil partnership and joint registrations where parents live at the same address.
   iii) Joint registrations where parents live at different addresses and sole registrations

Table 7: Birth Cohort Tables for Infant Deaths - From the 2012 data year onwards, figures will be based on the combined NS-SEC approach (taking the highest NS-SEC of either parent). As for Table 8 and Table 12 in Child Mortality Statistics, the table will be modified to show the following birth registration groups rather than the outside/inside marriage split:
   i) All.
   ii) Inside marriage/civil partnership and joint registrations where parents live at the same address.
   iii) Joint registrations where parents live at different addresses and sole registrations
Figures for 2011 based on the combined NS-SEC approach will be published alongside 2012 data to provide a comparison. Changes to the standard occupational classification (SOC) in January 2011 mean that figures for earlier years based on the combined NS-SEC approach would not be directly comparable.

Comments on proposed changes to child mortality outputs
To help the ONS determine user requirements, comments are encouraged from users on the proposed changes outlined above. Please email any responses to: vsob@ons.gov.uk by 24 April 2013.

References:


ONS (2011) Labour Market.