

Announcement of methodological changes to Summary Hospital-level Mortality Indicator (SHMI) - Deaths associated with hospitalisation, England, July 2010-June 2011

The SHMI publication reports mortality at hospital trust level across the NHS in England. This indicator will be produced on a quarterly basis and gives an indication for each hospital trust in England whether the observed number of deaths within 30 days of discharge from hospital was 'higher than expected', 'lower than expected' or 'as expected' when compared to the national baseline.

Like all indicators managed by the HSCIC, the SHMI is subject to continuous review. Any comments received on the methodology are reviewed and, where appropriate, modifications have been made to the specification document.

A detailed list of comments raised and actions taken can be found in the SHMI Specification Issues Log from the link: <http://www.ic.nhs.uk/services/SHMI>

Revisions to the methodology for this publication include:

1. Removal of gender specific diagnosis groups
 - Previously, for all spells identified as gender specific, the sex field was recategorised as unknown to eliminate errors when coding the sex field for gender specific diagnosis. This is now no longer done as it is not required.
2. Exclusion of regular night attenders from the dataset
 - This change ensures consistency in excluding regular attenders from the dataset. Regular day attenders were previously excluded so regular night attenders will now be excluded as well.
3. Specify reference category as first category for all classifications/case-mix variables for risk model
 - Previously, the default analysis formulation which uses the last category as the reference group for all classification/case-mix variables was implemented, resulting in the use of the 'unknown' categories for age and sex as the reference category. This is now updated to the first category which is the most prevalent category for all classification/case-mix variables. This change improved the stability of the model fitting process.

4. Updated Mental Health Trusts and Community Hospitals exclusion list
 - 7 newly established mental health trusts and community hospitals were added to the exclusion list
5. Updated the SHMI banding requirements to report on one banding only: the banding is that constructed using a random effects model with 95% control limits adjusted for over-dispersion
 - This change is in response to concerns over the use of two sets of control limit. This control limit was preferred amongst the two possible choices as the confidence level appears closer to the actual, which better reflects the uncertainty inherent in the model. The other, exact Poisson upper and lower control limits will continue to be published for transparency, and to support users who wish to use them, but without the corresponding bandings.

The revised methodological specification document (version 1.9) can be found at the link above.

To add some context to the interpretation of the SHMI, this publication also introduces two contextual indicators describing palliative care coding at hospital trust level, by treatment code and/or diagnosis code. These indicators report on:

- the percentage of all admitted patients who are coded as receiving palliative care and
- the percentage of all patient mortalities coded as palliative care

There is a new contextual indicator planned for the next publication in April 2012 which will report on the split of in and out of hospital deaths. The details of this indicator(s) will be made available nearer to the time of publication.

Analysis is currently underway to investigate the impact on the SHMI of using variations of the Charlson comorbidity index e.g. as a continuous variable and as five categories. The results of this analysis are being compiled and will be presented to the Technical Review Group for review, comment and advice on further action.

Future analysis looking at deprivation level as well as palliative care coding is planned to be completed in time to provide updates on the methodology where necessary, and if possible for the next publication in April 2012. Further details and results of this analysis will be made available nearer to the time of publication.