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Announcement of methodological change to Summary Hospital-level Mortality Indicator (SHMI) – Deaths associated with hospitalisation, England, October 2012 – September 2013, Experimental Statistics

The Summary Hospital-level Mortality Indicator (SHMI) reports on mortality at trust level across the NHS in England.

The SHMI is the ratio between the actual number of patients who die following hospitalisation at the trust and the number that would be expected to die on the basis of average England figures, given the characteristics of the patients treated there.

The expected number of deaths is calculated from statistical models derived to estimate the risk of mortality based on the characteristics of the patients (including the condition the patient is in hospital for, other underlying conditions the patient suffers from, age, gender and method of admission to hospital). These characteristics are referred to as 'case-mix adjustment variables'.

Previously, the first category of the case-mix adjustment variables was selected as the reference category in the construction of the statistical models. However, for some of the models the first category has a small number of records relative to other categories.

Therefore, the methodology has been updated to select the category with the highest number of records across the three year dataset which is used to construct the statistical models as the reference category for the age, gender and admission method case-mix adjustment variables.

This change improves the natural convergence status of the statistical models. There is no impact on the SHMI values and the SHMI contextual indicator values that are calculated for each trust.

The SHMI Technical Working Group support and contribute to the technical work associated with the development and construction of the SHMI. The change described above was discussed at the February 2014 meeting of the group and further details of the discussion are available to download from <http://www.hscic.gov.uk/shmi-tg-meeting-feb-14>.

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 methodology specification document.



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A detailed list of comments raised and actions taken can be found in the SHMI Methodology Specification Issues Log which is available to download from <http://www.hscic.gov.uk/SHMI>.

Questions and feedback on the publication are welcomed and should be sent to enquiries@hscic.gov.uk or alternatively call 0845 300 6016