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Announcement of methodological change to Summary Hospital-level Mortality Indicator (SHMI) – Deaths associated with hospitalisation, England, April 2013 – March 2014

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'.

There are a small number of records in the dataset (around 0.4% for the dataset used for the July 2014 SHMI publication) which have missing or unknown values for the age, gender or method of admission to hospital variables. Previously, these records were assigned to a separate category in the construction of the statistical models which are used to estimate the risk of mortality.

The methodology has been updated so that records which have missing or unknown values for the age, gender or method of admission to hospital variables are recategorised to the corresponding reference category. The reference category is the category with the largest number of records for each condition. For example if there are more men than women with pneumonia then 'male' is the gender reference category for that condition.

This change improves the convergence of the statistical models used in the calculation of the SHMI. The impact of this methodological change on the SHMI values that are calculated for each trust is negligible.

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 July 2014 meeting of the group and further details of the discussion are available to download from <http://www.hscic.gov.uk/shmi-tg-meeting-jul-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 Development 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 0300 303 5678.