Hospital Standardized Mortality Ratio (HSMR)

What Is the HSMR?

The hospital standardized mortality ratio (HSMR) is an important measurement tool that compares a hospital's mortality rate with the overall average rate. Used widely in the United Kingdom and the United States, the ratio provides a starting point to assess mortality rates and identify areas for performance improvement. When tracked over time, the HSMR indicates how successful hospitals or health regions have been in reducing inpatient deaths and improving care.

Calculate Your HSMR

The HSMR is calculated as a ratio of the actual number of deaths to the expected number of deaths among patients in acute care hospitals.

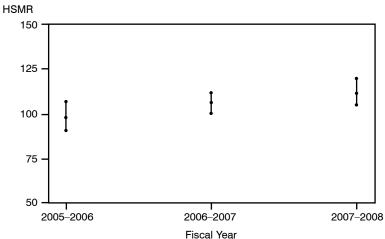
$$HSMR = \frac{Observed Deaths}{Expected Deaths} \times 100$$

An HSMR equal to 100 suggests that there is no difference between the hospital's mortality rate and the overall average rate; greater than 100 suggests that the local mortality rate is higher than the overall average; and less than 100 suggests that the local mortality rate is lower than the overall average.

- The HSMR is based on diagnosis groups that account for 80% of all deaths in acute care hospitals, excluding patients identified as receiving palliative care.
- The HSMR is adjusted for other factors affecting mortality, such as age, sex and length of stay.
- The number of expected deaths is derived from the average experience of acute care facilities that submit to CIHI's Discharge Abstract Database (DAD).

Track Your Progress

The HSMR can be a real motivator for change. An initial HSMR can help hospitals/regions to understand their mortality rates. As HSMRs are calculated on a quarterly and annual basis, a facility can track the change in its result over time. In this way, the facility can assess how effective its implemented strategies have been in reducing overall mortality rates.



Getting to Safer Health Care

HSMRs are used by hospitals in several countries to identify strategies for reducing deaths, to monitor changes in performance and ultimately to strengthen quality of care. The Canadian HSMR, developed by CIHI, enables eligible acute-care facilities across Canada to follow their HSMR and track their success over time.

