within individual trusts over time, is greater than expected if, as found in our study, only 1 in 20 hospital deaths are preventable.

The validity and reliability of HSMRs as measures of clinical quality and safety have been repeatedly questioned,[2] resulting in calls for their abandonment.[3] Apart from chance, regression to the mean and secular effects, changes in coding of primary and secondary diagnoses, diagnostic exclusions, relative proportions of admissions that are classified as emergency and elective, inadequate risk adjustment and the proportion of a population's deaths taking place in hospital have all been shown to influence the HSMR.[4 5]

Nash and Quinn suggest that HSMR variation between hospitals may be reflecting substandard care resulting in excess mortality which would not necessarily fulfil the criteria of 'preventable death' used in our study. Given that our estimate included deaths in which the expert reviewers judged there to be only a 50% chance it was preventable, we do not feel that it is likely the resulting overall estimate of 5.2% seriously underestimates the scale of the problem. In addition, it is consistent with that reported previously.[6] We share Nash and Quinn's scepticism about the validity of HSMRs (and the modified version, the summary hospital-level mortality indicator) and will soon be reporting further analyses exploring the association between preventable deaths and several measures of hospital safety (including HSMR).

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Competing interests None.

To what extent are inpatient deaths preventable? The author's reply

We are pleased that findings from our Preventable Incidents, Survival and Mortality Study (PRISM) study[1] are consistent with Nash and Quinn's clinical experience. They raise the important point that published variation in hospital standardised mortality ratios (HSMRs) and its recent modified version, the summary hospital-level mortality indicator, between acute trusts and

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Notes