

## **Mistaken Advice on Heart Attack Mortality from Medicare's Hospital Compare**

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**Abstract:** In 2007 Medicare instituted a new method for reporting mortality rates to the public through the Hospital Compare website. Using a Random Effects model, Medicare chose to report Predicted/Expected (P/E) hospital mortality rates (where the predicted rate was shrunken based on a model that did not include hospital characteristics) instead of the typical Observed/Expected (O/E) rate when reporting the indirectly standardized Observed/Expected measure of quality. The motivation for this departure was to better handle the “small numbers problem” and “stabilize” the O/E that is reported to the public. This has created great controversy in the Health Services Research community, because such an approach will shrink individual small hospital outcomes to the mean of all hospitals, when it is well known that there exists a strong volume-outcome relationship for many medical conditions and procedures. Medicare's decision not to include hospital characteristics in the shrinkage model, such as volume, has been defended as being the “principled” or “neutral” position. However, others have argued that by not placing the hospital characteristics in the model to predict outcomes, the model is providing biased information to the public, especially for patients at small, poorly performing hospitals where their reported outcomes are shrunk to the national mean. The Committee of the Presidents of the Statistical Societies has weighed in on this approach with a report in 2011, but the controversy has only increased, as more consumer groups have adopted the Medicare model. This talk will explore the problems with, and potential fixes to, the Medicare Hospital Compare model.