

*[The comment below was posted on journalreview.org on February 10, 2008.  
Following the closing of that site, the comment was posted here in September 2012.]*

### **Pay-for-performance and the measurement of healthcare disparities**

Chien et al.[1] cite an article by Werner et al. [2] as the only study they could find of the effects of pay-for-performance and public reporting programs on disparities in healthcare delivery. Chien et al. find that Werner study “suggests that disparities between minorities and whites with respect to cardiac surgery rates increased as a result of the institution of one of the best known public reporting programs in the United States.”

As discussed in another note on this site,[3] the Werner study found absolute differences between black and white CABG rates to increase following New York’s implementation of a CABG report. But the Werner study reached its conclusion concerning increased disparities without regard to the way that, solely for statistical reasons, absolute differences between rates tend to change when the prevalence of an outcome changes. Thus, it failed to recognize that in the circumstances of increasing overall CABG rates following the implementation of the New York program, absolute differences between black and white rates would be expected to increase with such increase’s necessarily reflecting any meaningful change in disparity (just as the decline in the relative difference between black and white rates of receiving CABG, as also occurred, would not necessarily reflect a decrease in disparity).

Currently, different researchers of health and healthcare disparities measure changes over time using different measures, including (1) absolute differences between rates, (2) relative differences in experiencing a favorable outcome, (3) relative differences in experiencing the (opposite) adverse outcome, and (4) odds ratio (as well as some more sophisticated measures that are in some manner functions rates of experiencing or avoiding an outcome). Almost universally, however, the measures are chosen without recognition of the ways each tends to change solely due to a change in the overall prevalence of an outcome or the reasons to expect contrasting results depending on the measure chosen. The growing interest in evaluating healthcare disparities in the context of pay-for-performance substantially increases the importance of soundly addressing measurement issues in health and healthcare disparities research.

#### References:

1. Chien AT, Chin MH, Davis AM, Casalino LP. Pay for performance, public reporting, and racial disparities in health care: how are programs being designed. *Med Car Res Rev* 2007;64:283S-304S.
2. Werner, RM, Asch DA, Polsky D. Racial profiling: The unintended consequences of coronary artery bypass graft report cards. *Circulation* 2005;111:1257–63.

3. Scanlan JP. Pay-for-performance implications of the failure to recognize the way changes in prevalence of an outcome affect measures of racial disparities in experiencing the outcome. *Journal Review* Feb. 8, 2008 (responding to Werner, RM, Asch DA, Polsky D. Racial profiling: The unintended consequences of coronary artery bypass graft report cards. *Circulation* 2005;111:1257–63):  
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