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Medicare's flawed adjustment methodology poor way to spend billions

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The methodology Medicare uses to adjust the billions of dollars it pays health plans and hospitals to account for how sick their patients are is flawed and should be replaced, according to a new study by Dartmouth investigators published in the journal *BMJ* that weighed the performance of Medicare's methodology against alternatives.

The researchers from the Dartmouth Atlas Project compared Medicare's current risk-adjustment methodology, which is based on the diagnoses recorded in patients' claims records, against adjustment indices based on wealth and health. The study found that using indices pegged to a region's poverty rate or the overall health of its population do a better job of explaining the mortality rate of local Medicare populations than the current diagnosis-based adjustment method, raising questions about its efficacy.

The study is the fourth in a series to raise important questions about how the government accounts for differences in the severity of illness in populations so it can make "apples to apples" comparisons that do not to penalize plans or health systems whose patients are sicker than average. This risk adjustment is a critical factor in how Medicare evaluates hospitals' readmission rates, which affects their Medicare payments, and how it pays Medicare Advantage health plans. Diagnosis-based risk adjustment is also used in comparative effectiveness research and in academic research into variations in medical care across America.

Medicare payments to Medicare Advantage plans are projected to

surpass $154 billion in 2014, and account for more than a fourth of total Medicare spending, according to the Congressional Budget Office. Medicare Advantage plans use the CMS - Hierarchical Condition Category (HCC) risk adjustment methodology to adjust their payments to health plans. HCC risk adjustment, based on the diagnoses recorded in claims, is so important to Medicare Advantage plans' revenue streams that a cottage industry has sprung up to help plans maximize their risk-adjustment revenue.

"We can and should do better," said David E. Wennberg, M.D., M.P.H. "Our body of work demonstrates that the way we adjust for risk now is biased, and when billions of tax dollars are at stake we need to hit the reset button. This paper gives a very good roadmap of how we can do risk adjustment right."

Three previous studies found significant regional variations in diagnosis patterns. In regions where Medicare patients see doctors more often or get more tests, one study found patients accumulate more diagnoses, even though the increased, accumulated diagnoses did not track with mortality rates, raising questions about the accuracy of a diagnosis-based risk adjustment method. This "observational intensity" suggested diagnosis is not solely an attribute of underlying disease burden, but could also reflect how often patients encounter the health care system.

This new study compared the current Medicare risk-adjustment methodology with three alternatives to see which better explain differences in the actual mortality of a population. It drew on the 2007 claims of more than 5 million Medicare beneficiaries in 306 U.S. regions. The first adjusted the current Medicare method to discount diagnoses for the region's observational intensity. The second was based solely on the percentage of a region's 65-plus population below the federal poverty level. The third was a population health index based on five factors: annual rates for hip fractures and strokes, obesity, smoking

status and surveys of self-reported illness. Each alternative performed better at predicting regional mortality than the current Medicare diagnosis-based method. The population health index was able to explain over 60% of the variation in regional mortality rates, while the HCC index explained less than 5%.

The article concludes that the federal government should expand its plans for national surveys to assess patients' experience with health care providers to include patient-level population health measures that can be used for risk adjustment as well as outcomes assessment.

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More information: An abstract of the *BMJ* study, "A Population Health Approach to Reducing Observational Intensity Bias in Health Risk Adjustment: Cross Sectional Analysis of Insurance Claims," can be found at www.bmj.com/content/348/bmj.g2392

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