# Most primary-care physician practices appear too small to adequately measure quality

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Most primary care physicians active in the Medicare program work in practices with too few patients to reliably measure significant differences in common measures of quality and cost performance, according to a study in the December 9 issue of *JAMA*.

There has been ample evidence that despite high and rising costs of health care in the U.S., quality is lagging, according to background information in the article. To stimulate improved quality and lower costs of ambulatory care for its beneficiaries, the Centers for Medicare & Medicaid Services has been overseeing a series of value-based purchasing initiatives, including programs designed to strengthen accountability among physicians participating in the Medicare program. However, it is unlikely that individual primary care physicians see enough eligible patients annually to generate statistically reliable measurements of physicians' quality and cost performance.

David J. Nyweide, Ph.D., of the Centers for Medicare & Medicaid Services, Baltimore, and colleagues examined whether statistically meaningful differences on measures of quality and cost could be measured more reliably for primary care groups than for individual physicians. For the study, primary care physicians in the U.S. were linked to their physician practices using the Healthcare Organization Services database. Patients who visited primary care physicians in the 2005 Medicare Part B 20 percent sample were used to estimate

Medicare caseloads per practice. Caseloads necessary to detect 10 percent relative differences in costs and quality were calculated using national average ambulatory Medicare spending, rates of mammography for women 66 to 69 years, and hemoglobin A1c testing for 66- to 75-year olds with diabetes, preventable hospitalization rate, and 30-day readmission rate after discharge for congestive heart failure (CHF).

The researchers found that primary care physician practices had annual median (midpoint) caseloads of 260 Medicare patients, 25 women eligible for mammography, 30 patients with diabetes eligible for hemoglobin A1c testing, and 0 patients hospitalized for CHF. "For ambulatory costs, mammography rate, and hemoglobin A1c testing rate, the percentage of primary care physician practices with sufficient caseloads to detect 10 percent relative differences in performance ranged from less than 10 percent of practices with fewer than 11 primary care physicians to 100 percent of practices with more than 50 primary care physicians. None of the primary care physician practices had sufficient caseloads to detect 10 percent relative differences in preventable hospitalization or 30-day readmission after discharge for CHF."

"Our study suggests that rethinking the approach to performance measurement in ambulatory care may be necessary for the Medicare program," the authors write. They add that overcoming certain limitations is possible by increasing the number of patients eligible for statistical analysis, either by pooling patients from all payer sources or to pool patients across a variety of measures.

"In the absence of performance measurement approaches that amass larger numbers of eligible patients at the physician or practice level, the results from this study call into question the wisdom of pay-for-performance programs and quality reporting initiatives that focus on differentiating the value of care delivered to the Medicare population by

primary care physicians. Novel measurement approaches appear to be needed for the twin purposes of performance assessment and accountability," the authors conclude.

More information: *JAMA*. 2009;302[22]:2444-2450.

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