

# Rates of procedures such as angioplasty lower in states with public reporting of outcomes

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In an analysis that included nearly 100,000 Medicare patients who had experienced a heart attack, the use of a percutaneous coronary intervention (PCI; procedures such as balloon angioplasty or stent placement used to open narrowed coronary arteries) was lower for patients treated in states with public reporting of PCI outcomes compared with patients treated in states without public reporting, with these differences being particularly large in the highest-risk patients, according to a study in the October 10 issue of *JAMA*. However, the researchers found that there was no difference in overall heart attack survival rates between states with and without public reporting.

"Public reporting of [patient outcomes](#) is a key tool to drive improvements in [health care delivery](#). Over the past 20 years, three states—New York (1991), Pennsylvania (2001), and Massachusetts (2005)—have instituted mandatory public reporting of outcomes for PCI. The idea behind public reporting is simple: collecting and publicly reporting performance will enable patients to choose high-quality hospitals and motivate clinicians to improve performance. However, critics worry that public reporting may create disincentives for physicians and hospitals to care for the sickest patients, potentially leading clinicians to avoid offering lifesaving procedures to these patients," according to background information in the article.

Karen E. Joynt, M.D., M.P.H., of the Harvard School of Public Health,

Boston, and colleagues conducted a study to determine whether public reporting for PCI is associated with lower rates of PCI for patients with [acute myocardial infarction](#) (MI; heart attack) or with higher [mortality rates](#) in this population. The study was conducted using data from fee-for-service [Medicare patients](#) (49,660 from reporting states and 48,142 from nonreporting states) admitted with acute MI to U.S. acute care hospitals between 2002 and 2010. Analysis compared PCI and mortality rates between reporting states (New York, Massachusetts, and Pennsylvania) and regional non-reporting states (Maine, Vermont, New Hampshire, Connecticut, Rhode Island, Maryland, and Delaware). Changes in PCI rates over time in Massachusetts also were compared with rates in nonreporting states.

The researchers found that among patients admitted for an acute MI in 2010, those in public reporting states were significantly less likely to receive a PCI compared with the regional control group of patients in nonreporting states (unadjusted rates, 37.7 percent vs. 42.7 percent). "This was most pronounced in the ST-segment elevation myocardial infarction [STEMI; a certain pattern on an electrocardiogram following a heart attack] and the cardiogenic shock or cardiac arrest groups. The odds of receiving a PCI for patients in the non-ST-segment elevation [myocardial infarction](#) [NSTEMI; a type of [heart attack](#) with certain findings on an electrocardiogram] group in public reporting states vs. nonreporting states were similar (30.3 percent vs. 33.7 percent), whereas for the STEMI group (61.8 percent vs. 68.0 percent) and the cardiogenic shock or cardiac arrest group (41.5 percent vs. 46.7 percent), the odds were significantly lower. These differences were similar in the older (75 years or older) age group."

The authors also examined changes in PCI rates in Massachusetts, a state that initiated public reporting for PCI in the recent era. "In the pre-reporting period, patients in Massachusetts were similarly likely to undergo PCI when compared with patients in non-reporting states

(unadjusted rates, 40.6 percent vs. 41.8 percent). However, by the postreporting period, the odds of receiving PCI had decreased in Massachusetts relative to nonreporting states (41.1 percent vs. 45.6 percent)." Differences were most pronounced for the 6,081 patients with cardiogenic shock or cardiac arrest (pre-reporting: 44.2 percent vs. 36.6 percent; postreporting: 43.9 percent vs. 44.8 percent).

The researchers also found no overall difference in 30-day mortality among patients with acute MI in public reporting vs. nonreporting states (unadjusted rates, 12.8 percent vs. 12.1 percent). Mortality was higher in the STEMI subgroup (13.5 percent vs. 11.0 percent).

The authors write that there are at least 2 possible explanations for why public reporting was associated with lower rates of PCI for patients admitted for an acute MI. "It is possible that many of the foregone procedures were futile or unnecessary, and public reporting focused clinicians on ensuring that only the most appropriate procedures were performed. Alternatively, public reporting may have led clinicians to avoid PCI in eligible patients because of concern over the risk of poor outcomes. Although policy makers have made efforts to ensure that risk adjustment models account for patient complexity, prior qualitative work suggests that clinicians remain concerned about receiving adequate 'credit' for the comorbid conditions of their own patient population. Our data cannot definitively differentiate between these 2 potential mechanisms."

"Strategies to help clinicians differentiate between patients likely to benefit from PCI and those for whom it would be futile are critically important. Promising work in this area is already underway. Providing real-time models of both risk and benefit may help physicians, patients, and families make more informed decisions about when to pursue PCI. Similarly, strategies to provide adequate credit for taking care of the sickest patients would also be useful."

Maura Moscucci, M.D., M.B.A., of the University of Miami Miller School of Medicine, comments on the findings of this study in an accompanying editorial.

"Patients are often treated regardless of the perceived futility of the planned intervention. The study by Joynt et al confirms the possible unintended consequences of public reporting, while highlighting its association with (or lack of association with) clinical outcomes. In addition, these findings may help spearhead a new focus on procedures that, while perceived appropriate based on current use criteria, might not result in added benefit in selected [patients](#)."

**More information:**

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*JAMA*. 2012;308[14]:1478-1479.

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