

How Effective Are Quality Improvement Initiatives?

Borenstein J, Badamgarav E, Henning JM, et al. The association between quality improvement activities performed by managed care organizations and quality of care. *Am J Med* 2004;117:297–304.

Study Overview

Objective. To determine the impact of quality improvement initiatives on performance measures within managed care organizations.

Design. Cross-sectional cohort study.

Setting and participants. National sample of 79 quality improvement activities from 50 managed care organizations reporting data to the National Committee for Quality Assurance for the purposes of accreditation from 1999 to 2000.

Main outcome measures. The main outcome included the association between reported quality improvement after a minimum 22-month intervention period and the type of quality improvement strategy used (ie, provider financial incentives, provider education, provider feedback, patient education, patient reminders, multidisciplinary team, financial incentives to the organization). In addition, reported performance scores were compared between organizations with and without a targeted quality improvement activity for 8 quality domains (adolescent immunizations, β -blocker therapy, breast cancer screening, cervical cancer screening, checkups after delivery, childhood immunizations, comprehensive diabetes care, and follow-up after hospitalization for mental illness).

Main results. Comprehensive diabetes care (20%), breast cancer screening (17%), and childhood immunizations (15%) were the most common targets for quality improvement activities. Among the 7 types of quality improvement strategies, only financial incentives to providers resulted in higher reported performance rates, and this effect was only statistically significant for adolescent immunizations (absolute increase of 31%). Quality improvement initiatives resulting in significantly higher performance rates among organizations with targeted activities versus those without specific activities included cervical cancer screening (78.3% versus 71.9%), checkups after delivery (82.1% versus 75.6%), and follow-up after hospitalization for mental illness (89.3% versus 68.2%). The numbers needed to treat in each of these

3 successful quality improvement interventions were 16, 15, and 5, respectively.

Conclusion. Many quality improvement strategies were not associated with higher performance rates among these managed care organizations. In addition, the targeted interventions were associated with higher performance rates in only 3 of the 8 quality measures studied.

Commentary

The Institute of Medicine report on the large gaps between evidence-based care and current clinical practice patterns has emphasized the need for innovative quality improvement strategies [1]. Unfortunately, quality of care in the United States remains below acceptable levels, with appropriate care occurring only approximately 50% of the time [2].

Health care organizations confronted with the task of addressing this “chasm” in care have adopted several quality improvement strategies. The study by Borenstein et al provides provocative insight into the effectiveness of these strategies within a national sample of managed care organizations seeking accreditation by the National Committee for Quality Assurance. The results are rather disappointing, suggesting that many of the commonly utilized quality improvement strategies are not effective in improving care across many quality domains. With the exception of follow-up care for mental illness, many of the effects were small for specific quality domains.

These results should not be used as definitive evidence that quality improvement strategies identified in this study should not be used by health care organizations seeking to improve care. Rather, the findings may suggest that the association between quality improvement initiatives and performance rates is difficult to accurately characterize. The current study does suffer from limitations in this regard. The data are derived from voluntary reporting from managed care organizations, creating the possibility for a reporting bias. In addition, since the data represents a single cross-sectional report, longitudinal assessments of the quality improvement initiatives are not possible. Therefore, we are unable to discern whether performance rates are increasing with time in health care organizations with domain-specific quality improvement programs. Finally, the

study is limited to the 8 quality domains where adequate data were available for analysis.

Applications for Clinical Practice

Effective quality improvement strategies are vitally needed to ensure that appropriate care is provided for our patients. This study provides important lessons for organizations attempting to understand the most effective methods of improving care across a spectrum of conditions.

—Review by Thomas D. Sequist, MD, MPH

References

1. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington (DC): National Academy Press; 2001.
2. McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Engl J Med* 2003;348:2635–45.

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