

## Published Peer-Reviewed Studies Demonstrate QIO Effectiveness

Quality Improvement Organizations (QIOs) are working locally with tens of thousands of health care providers and practitioners to implement standardized quality measurement and state of the art improvement techniques. The following studies appearing in peer-reviewed professional journals document the effectiveness of QIO work in hospitals, nursing homes, physician offices, and other settings. *\*Asterisked studies were designed with comparison groups to distinguish results from pre-existing secular trends.*

**A study in *Medical Care* found that physician practices working with QIOs to advance diabetes management improved more than those that did not** on three key indicators of good diabetes care: biennial lipid profile testing, annual hemoglobin A1c (HbA1c) testing, and biennial ophthalmology examination, (Source: “Effect of Quality Improvement Organization Activities on Outpatient Diabetes Care in Eastern New York State,” *Medical Care*, Dec. 2006.)

**\*In an *Annals of Internal Medicine* study of the QIOs’ work from 2002-2005, researchers found that providers working intensively with QIOs improved faster than those who did not work intensively with QIOs** on 18 of 20 clinical quality measures in nursing homes, home health, and physician offices. Hospital care improved in 19 of 21 measures studied during the time-frame. (Source: “Assessment of the Medicare Quality Improvement Organization Program,” *Ann Intern Med*. September 5, 2006.)

**Heart attack death rates dropped significantly in hospitals that participated in a quality improvement process with a QIO according to a *Journal of the American College of Cardiology* report.** This study reported that 33 hospitals reduced patient heart attack mortality by 21% to 26% working with the American College of Cardiology,

the Michigan QIO, and supported by a local business coalition. (Source: *Guideline-based Standardized Care is Associated with Substantially Lower Mortality in Medicare Patients with Acute Myocardial Infarction*. *JACC*. October 4, 2005).

**“A critical accomplishment in the surgical world, showing measurable and consistent improvement in performance.”**

*American Journal of Surgery*  
June 2005

**Researchers reported in *Health Care Financing Review* that QIO work in nursing homes is a good value for Medicare dollars based on quality-adjusted-life-years (QALYs)** (Source: “Medicare’s Quality Improvement Organization Program Value in Nursing Homes,” *Health Care Financing Review*, Spring 2007.)

**\*JAMA reported that two QIOs were able to significantly reduce “never-indicated” antimicrobial prescribing by 32% in six rural communities** by providing primary care physicians with QIO-designed clinical decision support software, a handheld device, and training. A community education

intervention by the QIOs in six other rural communities achieved a 5% reduction in “never-indicated” or inappropriate antimicrobial prescribing. Both QIO methods reduced rates of inappropriate prescribing compared to trends in a third group of six “control” communities. (Source: *Clinical Decision Support and Appropriateness of Antimicrobial Prescribing: A Randomized Trial*. JAMA. November 9, 2005.)

**The *American Journal of Surgery* reported that 44 hospitals cut their surgical infection rate by 27% over a one year period in a collaborative national improvement effort led by QIOs.** The publication’s editor called the outcome “a critical accomplishment in the surgical world, showing measurable and consistent improvement in performance.” (Source: *Hospitals Collaborate to Decrease Surgical Site Infections*. *Am J Surgery*. June 2005).

**Health Services Research journal reported that most hospital quality managers consider QIO assistance “helpful or very helpful.”** The journal published results of a survey of leaders at more 105 randomly selected hospital quality departments, of which 90 had worked with QIOs on improvement interventions. The study said QIOs are “potentially poised to take a leading role in promoting quality of care” and recommended QIOs increasingly engage senior hospital management support for quality improvement initiatives. (Source: *From Adversary to Partner: Have Quality Improvement Organizations Made the Transition?* *Health Services Research*. April 2005).

**The *Journal of Vascular Surgery* reported that QIO efforts to improve carotid vessel surgery can save hundreds of lives among Medicare beneficiaries.** This study looked at a ten-state QIO project to improve

the quality of care and patient outcomes in carotid vessel surgery and concluded that 550 Medicare carotid surgery patients’ lives would be saved annually if the multi-state results were replicated nationwide. (Source: *Multistate Improvement in Process and Outcomes of Carotid Endarterectomy*. *J of Vascular Surgery*. February 2004)

**The *Archives of Internal Medicine* reported that a QIO intervention improved the quality of cardiovascular care for patients in 24 Massachusetts hospitals.** This study said a QIO-hosted collaborative and presentation of best practices for the treatment of coronary artery disease over the course of a year led to “enhanced adherence to prevention guidelines” associated with better patient outcomes. (Source: *Get With the Guidelines for Cardiovascular Secondary Prevention: Pilot Results*. *Archives of Internal Medicine*. January 2004).

**\**Diabetes Care* journal reported on a successful QIO intervention to help reduce complications from diabetes.** This study concluded that a three-state beneficiary educational campaign conducted by QIOs succeeded in motivating Medicare beneficiaries with diabetes to significantly increase their use of the Medicare therapeutic footwear benefit compared to three nearby control states. (Source: *Motivational Brochures Increase the Number of Medicare-Eligible Persons with Diabetes Making Therapeutic Footwear Claims*. *Diabetes Care*. June 2003.)

**\*QIO assistance to small rural hospitals substantially improved pneumonia care according to an *Archives of Internal Medicine* article.** This study looked at results of QIO interventions implemented in 20 rural Oklahoma hospitals compared to a control group of 16 demographically similar hospitals. Midway through the study, the

QIO brought the intervention to the control hospitals, which improved to a similar degree. (Source: *Improving the Quality of Care for Patients with Pneumonia in Very Small Hospitals*. *Arch of Internal Medicine*. February 2003).

**Patient safety and quality of care improved nationally on 20 of 22 evidence-based quality indicators targeted by QIOs over a two year period reported JAMA.** For care provided to Medicare beneficiaries from 1998-99 to 2000-01, this study showed an average relative improvement of 19.9% for combined outpatient indicators (pneumonia and flu immunization, breast cancer screening, and diabetes management) and an 11.9% for combined inpatient indicators (heart failure, heart attack, stroke, and pneumonia) An accompanying editorial in JAMA called the analysis “valid, robust, understandable and correct.” (Sources: *Changes in Quality of Care Delivered to Medicare Beneficiaries; and Medicare Quality Improvement: 1998-1999 to 2000-2001*. JAMA. January 2003).

**\*JAMA reported that QIO interventions improved quality of bypass surgery in 20 hospitals over a two-year period, compared to hospitals in a control state and nationally.** This study focused on quality measurement and confidential performance feedback, facilitation of best practice sharing, and other assistance a QIO provided to Alabama hospitals. (Source: *Alabama Coronary Artery Bypass Grafting Project: Results of a Statewide Quality Improvement Initiative*. JAMA. June 2001.)

**QIOs successfully helped 13 hospitals attack common sources of medication errors the *Joint Commission Journal of Quality Improvement* reported.** The intervention helped hospitals restrict access to potentially lethal drugs, identify drug allergies at the time of admission, streamline adverse drug event reporting, and eliminate unclear medication orders while adding pharmacist monitoring and feedback on orders. Overall errors declined, and more drug errors that reached patients were reported so they could be acted upon. (Source: *Reducing Medication Errors in Hospitals: a Peer Review Organization Collaborative*. *Joint Com J of Quality Improvement*. June 2000).

**\*JAMA reported that QIO quality measurement and assistance provided to hospitals improved adherence to evidence-based practice guidelines and reduced heart attack mortality in four states compared to hospitals without QIO support in the rest of the country.** (Source: *Improving the Quality of Care for Medicare Beneficiaries with Acute Myocardial Infarction*. JAMA. May 1998).

**QIO assistance to 20 nursing Texas homes resulted in improvement in pressure ulcer care said an article in the *Journal of American Medical Directors Association*.** Guidance on performance measurement, staff education, and staff training, leading to better scores on 8 of 12 indicators of quality of care. Homes with the greatest improvement had significantly lower incidence of pressure ulcers. (Source: *Quality Improvement in Nursing Homes in Texas: Results from a Pressure Ulcer Prevention Project*. *J American Medical Directors Assn*. May 2005).

*The American Health Quality Association is dedicated to improving the safety and effectiveness of health care. AHQA represents the national network of Quality Improvement Organizations (QIOs) that work with hospitals, medical practices, health plans, long-term care facilities, home health agencies, pharmacists, and employers to encourage the spread of best clinical practices and improve systems of care delivery. Visit [www.ahqa.org](http://www.ahqa.org).*