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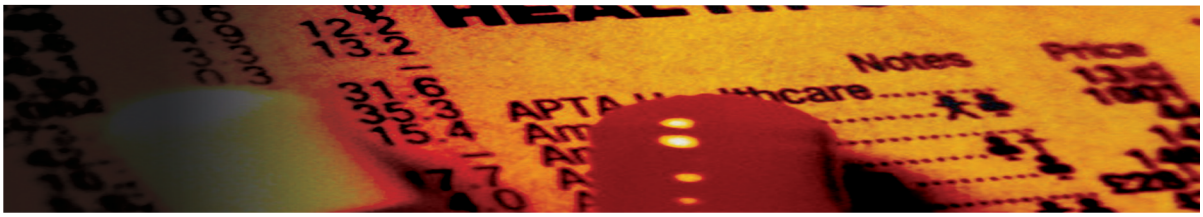

HEALTH POLICY research

James A. Baker III Institute for Public Policy-Baylor College of Medicine
Joint Program in Health Policy Research

IN THIS ISSUE

The study, "Trends in Hospital and Surgeon Volume and Operative Mortality for Cancer Surgery," appeared in the June 2006 issue of *Annals of Surgical Oncology*. The authors of the article are **Vivian Ho, PhD** (Baker Institute, Rice University, and the Department of Medicine, Baylor College of Medicine), **Martin J. Heslin, MD** (Department of Surgery, the University of Alabama at Birmingham), **Huifeng Yun, MSc** and **Lee Howard, BS** (Department of Health Care Organization and Policy, the University of Alabama at Birmingham).

Has Surgery for Cancer Patients Become Safer?

"Yes," says Vivian Ho, fellow in health economics at the Baker Institute. "Operative mortality rates for six specific cancers declined between the late 1980s and the end of the last decade. Over the same time period, the number of operations performed by hospitals and surgeons for these cancers rose, and the association between more operations and lower cancer death rates was quite significant."

Ho and her colleagues measured population-based trends in deaths from operations for colon cancer, lung cancer, as well as cancers of the esophagus and pancreas. The smallest decline in inpatient mortality occurred for lung cancer patients who received a pulmonary lobectomy. Mortality for these patients declined from 4.1 percent in 1988-91 to 3.3 percent in 1997-2000. Esophagectomy patients experienced the largest decline in death rates over the sample period, from 14.5 percent to 10.5 percent.

Between the time periods 1988-91 and 1997-2000, the average number of operations performed by hospitals and surgeons increased for five of the six types of cancers, with the mean percentage increase equal to 24.3 percent for hospitals and 24.2 percent for surgeons. Further statistical analyses suggest that these increases in provider volume can explain the entire decline in operative mortality for pulmonary lobectomy and a substantial part of the mortality decline in four of the six other surgeries. "The association between more surgeries and lower mortality rates could reflect the benefits of greater experience that hospitals and surgeons gained from treating these patients. Specialized staff and facilities which better suit cancer surgery patients may also have evolved as the number of operations increased," says Ho.

In light of their findings, Ho and her research colleagues urged the expansion of centralization efforts such as the Leapfrog Group, a coalition of large employers and other health-care purchasers who are encouraging patients and employees to seek out high-volume providers. They also believe that enforcement by states of Certificate of Need regulations, such as those for open-heart surgery and organ transplantation, might encourage even lower cancer mortality rates by limiting the number of hospitals performing few cancer operations.

According to Ho, Certificate of Need regulations were first introduced by the federal government in the 1970s, and they continue to be enforced by some states today. They forbid hospitals from providing certain operations unless they demonstrate to the state's public health department that there is sufficient need in the patient population to meet minimum volume standards. Ho concludes, "Surgery for cancer patients has become safer over the past two decades. But if policymakers and employers collaborate to centralize care, mortality rates could fall even further."

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This publication is provided to make research results accessible to regional and national health policymakers. The views expressed herein are those of the study authors and do not necessarily represent those of the Baker Institute or of the Baylor College of Medicine.

The Baker Institute and the Baylor College of Medicine's Health Policy and Quality Division work with scholars from across Rice University and the Baylor College of Medicine to address issues of health care—access, financing, organization, delivery, and outcomes. Special emphasis is given to issues of health care quality and cost.

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