“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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For further information about the program, please contact:

Vivian Ho, PhD
Chair in Health Economics
James A. Baker III Institute for Public Policy
Rice University MS-40
P.O. Box 1892
Houston, Texas 77251-1892
phone: 713.348.2195
e-mail: vho@rice.edu

Laura Petersen, MD, MPH
Associate Director and Chief
Health Policy and Quality Division
Baylor College of Medicine
Veterans Affairs Medical Center (152)
2002 Holcombe Boulevard
Houston, Texas 77030
phone: 713.794.8623
e-mail: laura.petersen@va.gov

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