Is Centralization of Cancer Surgery Worth the Price?

“Yes,” says Vivian Ho, James A. Baker III Institute Chair in Health Economics at the Baker Institute. “Limiting who can administer certain cancer procedures saves lives. Our analysis suggests that when these limits are strictly imposed, the benefits in terms of lives saved exceed the costs resulting from increased market power of larger providers.

Ho and her colleagues analyzed outcome data from hospitals in Florida, New Jersey, and New York that performed the Whipple procedure, the most common surgical procedure for perennially difficult-to-treat pancreatic cancer. Although the Whipple procedure carries relatively high mortality rates—nearly 10 percent—it remains the most effective available treatment, one that could nonetheless benefit from greater concentration among fewer, more experienced healthcare providers.

“Hospitals and surgeons that have performed more of these procedures have a lower mortality rate,” Ho says. “We may be better off forbidding low-volume hospitals from performing these procedures; we should instead refer patients to high-volume hospitals.” By limiting who performs the Whipple procedure to the best and most efficient surgeons—who presumably take up less time and fewer resources in increasingly expensive operating rooms—centralization proves mutually beneficial for hospitals and patients, preserving both lives and dollars.

Nevertheless, Ho cautions that while centralization may keep costs down, limiting the number of providers runs the risk of triggering a monopoly effect. “When you reduce the number of providers in the market, they gain market power, and they can therefore increase the prices they charge to insurers and patients for that procedure,” Ho says. “Hospitals will increase the prices they charge if they perceive that they’re the only game in town performing a particular procedure.”

As a result, Ho recommends that healthcare policymakers weigh not only input from clinicians but also from economists who can help evaluate the complex economic tradeoffs of their options. “If you’re a policymakers, you’re going to have to look very closely at each operation and delve into the data on how mortality rates decline as you centralize the procedure,” Ho says. “The key here is that prices increase rapidly if one eliminates one or two providers from the market, but one saves only a moderate number of lives. With more aggressive regionalization, the price increases begin to slow, yet the number of lives saved continues to mount at a steady rate. It turns out that aggressive regionalization is more cost-effective from the patient’s perspective.”

Ho adds that her study’s recommendations apply only to less common surgical procedures like the Whipple procedure as opposed to more prevalent—and potentially competitive—procedures like open-heart surgery. “In those cases, competition can lead to better outcomes, but in this case the Whipple procedure is a much smaller proportion of the income for a hospital,” Ho says. “We did not find that competition led to better outcomes. Centralization actually leads to better outcomes.”

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Health Economics, Policy and Law

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