



Changes in Health Care Financing & Organization (HCFO)

findings brief

Informing the Debate: Are Single Specialty Hospitals More Cost Efficient than Full-Service Hospitals?

key findings

- Overall, single specialty hospitals (SSHs) are not more cost efficient than competing, full-service, acute care hospitals.
- There was not a significant difference between cardiac SSH and full-service hospital cost inefficiency.
- There was a significant difference between orthopedic/surgical SSH and full-service hospital cost inefficiency.

Health care spending accounts for 16 percent of the nation's gross domestic product (GDP) and hospital expenditures comprise 31 percent of total health care expenditures.¹ While the hospital price growth rate has declined slightly in recent years, some posit that increased competition and choice in health care markets may further lower hospital prices without compromising the quality of care.² Thus, competition may promote cost efficiency and improve the value of care. Physician-owned, single specialty hospitals (SSHs)—hospitals that provide care related to one service line, often cardiology, orthopedics, or surgery—have been lauded by some as a way to promote such competition within local health care markets, and subsequently decrease costs and improve quality.³

The ability of specialty hospitals to lower health care costs and improve quality has been hotly debated. Proponents of SSHs believe that they increase choice, are more efficient than full-service hospitals, and provide higher quality care due to greater specialization. Opponents of SSHs, on the

other hand, purport that SSHs limit full-service hospitals' ability to cross-subsidize less profitable service lines with more profitable service lines, serve healthier and wealthier patients, and encourage physicians to refer patients to SSHs in which they have a financial interest.

To inform the debate and policymakers' decisions regarding SSHs, Kathleen Carey, Ph.D., associate professor at Boston University School of Public Health, and colleagues examined whether physician-owned SSHs were more cost efficient than their full-service competitors. Carey notes, "we aimed to apply economic models of cost efficiency to better understand whether SSHs were in fact more cost efficient than the community hospitals with whom they were competing in the same local markets." The researchers compared the cost efficiency of SSHs to competing full-service hospitals within the same hospital referral region (HRR) and concluded that overall, SSHs were less cost efficient than their full-service competitors.



Robert Wood Johnson Foundation



Changes in Health Care Financing and Organization is a national program of the Robert Wood Johnson Foundation administered by AcademyHealth.

Characteristics of Single Specialty Hospitals

While the number of SSHs entering the market tripled between 1990 and 2003, market penetration has occurred primarily in states without certificate of need (CON) laws that would require a proven community need for new health care facilities or technologies.⁴ Single specialty hospitals differ from full-service hospitals in that they tend to have fewer hospital beds and lack an emergency department (ED).⁵ In addition, many SSHs do not support medical student or resident training and are for-profit organizations.

As SSHs are owned in part by physicians, there is concern that physicians self-refer patients to SSHs in which they have a financial interest.⁶ While Stark laws prohibit physicians from referring Medicare and Medicaid beneficiaries to health care facilities in which they have a financial interest, many SSHs are exempt as a result of an exception allowing physicians to refer patients to an entity if they have a financial interest in the entire hospital and not just an ancillary service, such as a clinical laboratory.⁷ As SSHs focus on a particular service line, some believe that the whole hospital exemption should not apply to SSHs.

Concerns about the behavior of SSHs and the incentive for physicians to self-refer patients prompted Congress—as a part of the Medicare Modernization Act of 2003—to levy a three year moratorium on reimbursement to new SSHs. In addition, Congress charged the Department of Health and Human Services (DHHS) and the Medicare Payment Advisory Commission (MedPAC) with examining the behaviors of SSHs in terms of quality, physician referral patterns, the provision of uncompensated care, and payment.⁸ Specifically, MedPAC examined the relative costs of SSHs to full-service hospitals. Since the moratorium ended in 2006, SSH market entry is expected to increase, despite the lack of evidence supporting the claims of SSH proponents and opponents.^{9,10}

Methodology

Carey and colleagues conducted a longitudinal study that compared the cost efficiency of SSHs and competing full-service, acute care hospitals between 1998 and 2004, a period marked by high SSH growth. Using each state's respective hospital association and an internet search, the researchers identified 34 SSHs in Texas, Arizona, and California. These states had high SSH market penetration and had experienced high SSH growth during the study period. After identifying SSHs in each state, the researchers identified 355 full-service hospitals within the same hospital referral region (HRR), as defined by the Dartmouth Atlas of Health Care, to compare cost efficiency.

Using data from the Medicare Cost Reports, the American Hospital Association Annual Survey Database, and state administrative data, the researchers used stochastic frontier regression analysis (SFA) to estimate the hospital cost function, which models the relationship between hospital costs of production and outputs. The researchers designated hospital costs as the dependent variable, excluding capital investment costs and non-reimbursable costs unrelated to hospital care, and the total number of discharges and outpatient visits as the output variables.

Using SFA allowed the researchers to examine the overall cost inefficiency of SSHs. The cost inefficiency of care is the percent difference in the cost of care at SSHs and the

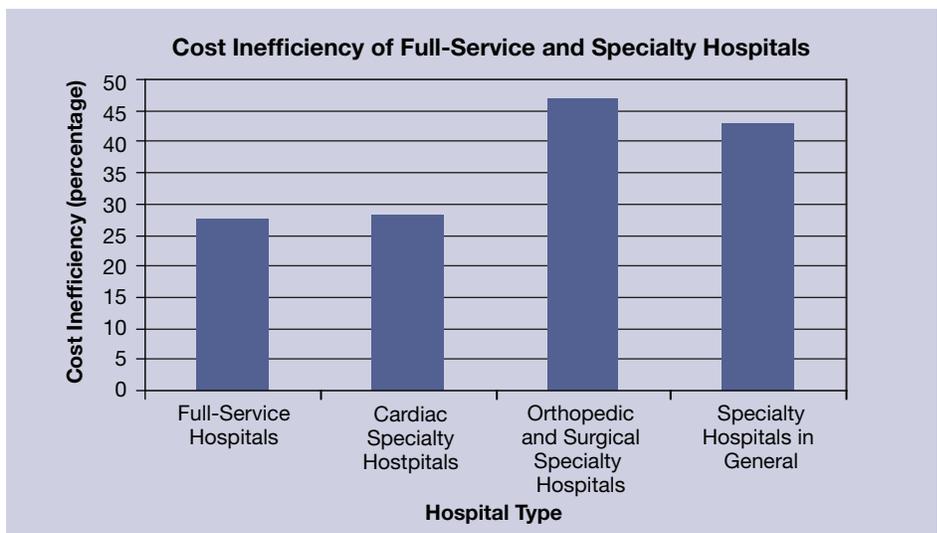
lowest possible cost of care for all hospitals within a distinct location. The researchers determined the lowest cost of care for a particular area by examining the costs of all hospitals within that location. Simply stated, the cost inefficiency of care is the difference between SSHs' observed cost of care and the region's "best practice" cost of care. To isolate the relative cost efficiency, Carey and colleagues controlled for the factors listed below, often using proxy measures:

- Competitiveness of the local market
- Fixed costs
- Health system affiliation
- Hospital ownership status
- Labor costs
- Quality
- Severity of cases
- Teaching status

The researchers opted to treat orthopedic and surgical hospitals as one specialty due to the similarities in characteristics.

Findings

The researchers found that overall SSHs were less efficient than their full-service competitors. The chart below compares the cost inefficiencies of SSHs—both separately and in aggregate—and full-service hospitals. A cost inefficiency of zero represents the "best practice" cost of care.



Collectively, SSHs were more cost inefficient than full-service hospitals, 42.9 percent to 27.4 percent respectively. This difference, however, was driven largely by the high cost inefficiency of orthopedic and surgical SSHs. In contrast, there was no significant difference between the cost inefficiency of full-service hospitals and cardiac SSHs. This lack of significance may be due in part to the number of observations or because cardiac SSHs are more similar to full-service hospitals than orthopedic and surgical SSHs. Cardiac SSHs tend to have more hospital beds and a smaller share of physician ownership than orthopedic and surgical SSHs.¹¹

When examining the effect of the control variables on cost, the researchers found that the competitiveness of a market did not significantly affect costs. This finding contradicts the claim that SSHs encourage competing full-service hospitals to improve cost efficiency. In addition, the findings suggest that for-profit hospitals are more cost efficient than not-for-profit and public hospitals, which is surprising considering that the majority of SSHs are for-profit. Future research to determine reasons for this discrepancy is necessary.

Policy Implications

Although Carey and colleagues used a different analytic approach than MedPAC, the researchers came to a similar conclusion, providing further support that physician-owned SSHs are no more cost efficient than full-service hospitals.^{12,13} Due to the difference in cost efficiency between cardi-

ac SSHs and surgical and orthopedic SSHs, the researchers suggest that policymakers distinguish between the three types of SSHs when considering and proposing new policies related to SSHs.

Carey notes, “Policymakers should not embrace the assumption that physician-owned SSHs produce patient care more efficiently than their full-service hospital competitors. However, the efficiency differences across types of SSHs suggest that policymakers should remain open to the notion that SSHs are not all alike, and should not necessarily be treated in the same way.”

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About the Author

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Endnotes

- 1 Catlin, A. et al. “National Health Spending in 2005: The Slowdown Continues,” *Health Affairs*, Vol. 27, No. 1, January/February 2008.
- 2 *Ibid.*
- 3 Single specialty hospitals may be owned by community hospitals; however, the focus of this research and that of MedPAC and the Department of Health and Human Services was on physician-owned single specialty hospitals.

- 4 “Physician Ownership and Self-Referral in Hospitals: Research on Negative Effects Grows,” *Trendwatch*, American Hospital Association, April 2008.
- 5 *Ibid.*
- 6 The percentage of physician ownership varies among SSHs, with cardiac hospitals having the smallest percentage. See Medicare Payment Advisory Commission. 2005. *Report to the Congress: Physician-Owned Specialty Hospitals*. Washington, DC: Medicare Payment Advisory Commission.
- 7 “Omnibus Budget Reconciliation Act of 1989, P.L. 101-293,” Health Care Financing Administration (HCFA) Legislative Summary, U.S. Government Printing Office, 1991, pp. 81-2. Also see www.cms.hhs.gov/relevantlaws/downloads/legislativesummaryforbraof1989.pdf
- 8 “CMS Outlines Next Steps as Moratorium on New Specialty Hospitals Expires,” Centers for Medicare & Medicaid Services, June 9, 2005. Also see www.cms.hhs.gov/apps/media/press/release.asp?Counter=1478
- 9 Carey, K. et al. “Specialty and Full-Service Hospitals: A Comparative Cost Analysis,” *Health Services Research*, Vol. 43, No. 5, Part II, October 2008.
- 10 “Physician Ownership and Self-Referral in Hospitals: Research on Negative Effects Grows,” *Trendwatch*, American Hospital Association, April 2008.
- 11 Carey, K. et al. “Specialty and Full-Service Hospitals: A Comparative Cost Analysis,” *Health Services Research*, Vol. 43, No. 5, Part II, October 2008.
- 12 Medicare Payment Advisory Commission. 2005. *Report to the Congress: Physician-Owned Specialty Hospitals*. Washington, DC: Medicare Payment Advisory Commission;
- 13 Medicare Payment Advisory Commission. 2006. *Report to the Congress: Physician-Owned Specialty Hospitals Revisited*. Washington, DC: Medicare Payment Advisory Commission.