



Changes in  
HEALTH CARE  
FINANCING &  
ORGANIZATION

# findings brief

## Structure of Hospital Networks in California Affects Pricing

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Hospital networks<sup>1</sup> raise potential antitrust issues because they sometimes bring together providers that are otherwise competitors in a given market. Specifically, the concern is that the participating hospitals will use the network to coordinate prices and market strategies in ways that are anti-competitive, which drives up costs and ultimately hurts the consumer/patient by reducing access to care.

Research at Boston University has found that the effect on hospital pricing is statistically significant only when hospitals that are members of the same system (e.g., they are owned by the same company) form a network to provide particular services jointly. Such findings are timely given the recent growth in specialty hospitals and their implications on access to services.

The research team, led by Gary Young, Ph.D., and James F. Burgess, Jr., Ph.D., of the Boston University School of Public Health and the U.S. Department of Veterans Affairs found that between 1994 and 1998, the percentage of California hospitals participating in local networks

increased from approximately 24 percent to 37 percent. This increase likely reflects the use of networks by hospitals to counter growing competitive and reimbursement pressures, since local hospital networks allow member hospitals to work together in ways that potentially are anti-competitive. The results of the study did not point to a network effect on hospital prices generally. However, a significant price effect was observed for hospitals participating networks that are also embedded in systems.

“While coordination of prices among hospitals within the same system is not technically an antitrust violation, the results from this study may be useful in evaluating the competitive effects of existing and proposed hospital networks,” says Young.

The researchers suggest that antitrust enforcement agencies might look to networks embedded within existing systems as an important marker for assessing the extent to which system members are likely to jointly price their services in negotiations with health plans.



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—James Burgess,  
Boston University

## Background

In 1994, the hospital market was changing dramatically. Hospitals were searching for organizational arrangements that would allow them to retain their financial health and provide needed services to patients. At this time, 25 percent of all California hospitals were in networks; of these, 60 percent retained a dual system/network affiliation. Hospitals were trying out these network relationships as an alternative to the merger and acquisition route, which many found difficult to carry out effectively.

“Networks differ from mergers and acquisitions in that they do not entail common ownership of the participating entities,” Young says. “They promote competition by enabling participants to pool assets for attaining economies of scale or scope in their production and marketing activities for health care services without the long-term financial commitments that mergers entail.”

The researchers sought to help policymakers and antitrust enforcement officials by determining whether relaxing antitrust scrutiny for hospital networks that reduce competition for hospital services is appropriate and measuring the degree of competitive rivalry within hospital markets. They examined the following questions:

- 1) Do hospitals appear to use networks to enhance their market power for purposes of charging higher prices for their services?
- 2) Does the structure of hospital networks affect the cost of hospital services?

“Networks can hurt competition if they become a vehicle for would-be competitors to coordinate their prices and/or business activities beyond the focus of the network,” says Burgess. This has not gone unnoticed by antitrust enforcement officials. In July 2004, the Federal Trade Commission (FTC) and the Department of Justice (DOJ) released *Improving Health Care: A Dose of Competition*, which contained six general recommendations and 11 observations on health care antitrust enforcement-related issues.

Described by some as more background material than solid guidelines, the report offers little with respect to increasing health care competition. It states:

*Competitor collaborations...may facilitate explicit or tacit collusion through facilitating practices such as the exchange or disclosure of competitively sensitive information or through increased market concentration. Such collusion may involve the relevant market in which the collaboration operates or another market in which the participants in the collaboration are actual or potential competitors.*

Despite the potential downside of networks, a number of states have established mechanisms that allow hospitals to petition for an antitrust exemption to participate in a collaborative arrangement with competitor hospitals.

“These state-level initiatives reflect a belief that collaboration is preferable to competition among hospitals under some circumstances to improve the efficiency and accessibility of hospital services,” says Burgess. For example, hospitals can collaborate in networks to provide outpatient feeder systems in suburban or exurban areas that offer pre-admission and post-discharge services closer to the homes of patients. Situations like these can offer considerable benefits to patients and consumers, as well as reduce inpatient hospital stays.

## Competition and Specialty Hospitals

In *A Dose of Competition*, the FTC and DOJ observed that further research on hospital product markets is needed, particularly considering the recent boom of single-specialty hospitals and outpatient services. Once networks are formed, they may assign specialties to hospitals in certain locations, which could affect access to care and patient “flow”. A network consisting of two hospitals in the same region—one in Oakland and one in San Francisco, for example—may decide to perform cardiac surgery at only the San Francisco hospital. The Oakland hospital may provide cardiac care, but not the surgery, which creates an access problem for patients living in this area.

According to a study by the Center for Studying Health System Change (HSC),<sup>2</sup> one factor that may be driving the specialty hospital trend is that private and government insurers may be paying too much for services like cardiac and orthopedic services, while underpaying for other critical, but less profitable services, like those administered in an emergency room. Supporters of specialty hospitals claim that they provide more efficient, higher quality care and reflect general economic trends toward increased specialization.

Detractors claim, however, that specialty hospitals perform high reimbursement procedures on lower risk and more affluent patients while failing to deliver any measurable improvements in outcomes. In addition, they say that the migration of lucrative procedures from full-service (or “whole”) hospitals to specialty hospitals leaves full-service hospitals with fewer resources to cross-subsidize unprofitable areas of care.

## Data

The researchers culled data from several sources, including the American Hospital Association’s annual survey of hospitals, which began in 1994, and patient discharge abstracts and hospital cost reports from the California Office of Statewide Health Planning and Development. For demographic data, they used the U.S. Census Bureau and the City and County Data Book. The analytic sample consisted of 1,493 hospitals across the five-year study period.

California was selected because the state’s competitive environment appears to have spawned a growing number of collaborative arrangements among providers. “California is often out in front of other states in terms of experimenting with new structures,” says Burgess. California also has good sources of publicly available data for computing hospital prices and for delineating hospital markets, according to the researchers.

The measure of hospital price for this study was based on the average net patient revenues that a hospital received for 10 common diagnosis-related groups adjusted for case mix severity. The researchers defined markets based on patient origin (that is, using patient discharge abstracts to determine the zip codes from which a hospital’s patients originate).

## Future Research

Young and Burgess’s study takes a first step in understanding how networks formed in the mid-1990s in California affect the cost of hospital care, but the researchers suggest that further examination could help policymakers in many ways. First, there is much more data available now that could provide a clearer picture of network activity nationally and how it has grown over the last 10 years.

Second, there is information in the AHA data about what networks were actually doing as they formed; in other words, researchers could examine networks’ stated objectives to determine their true incentives for collaboration and determine any anti-competitive motivations. Finally, studies could look at the effect of hospital participation in networks and systems on access to services.

“Hospital networks are a relatively recent phenomenon whose participants, with time and experience, are perhaps as likely to use these arrangements in pro-competitive ways as they are to use them in anti-competitive ways,” says Young. “Future studies that address both sides of this issue will provide valuable information for the future development of the U.S. health care industry.”

The researchers’ work is featured in the March 2005 issue of the *Journal of Health Economics*.

For more information, contact Gary Young, Ph.D., at 617.414.1423, or James Burgess, Ph.D., at 617.414.1424.

## About the Author

LeAnne DeFrancesco is senior communications associate at AcademyHealth and managing editor of *HCFO News & Progress*. She can be reached at 202.292.6700 or [leanne.defrancesco@academyhealth.org](mailto:leanne.defrancesco@academyhealth.org).

## Endnotes

1 For the purposes of this study, a local network is defined as two or more hospitals within the same market that jointly undertake some hospital-related activity or service through a contractual arrangement or formal alliance.

2 Source: Devers, J. et al. “Specialty Hospitals: Focused Factories or Cream Skimmers?” HSC Issue Brief, April 2003.