

## Taking Account...

### Physician concentration and health care spending

Physicians play a critical role in determining medical care expenditures. By acting as the patient's health care consultant and medical service provider, they can heavily influence the quantity of services provided to the patient. Additionally, by flexing their bargaining muscles, physicians can potentially raise the fees they charge to insurance carriers. This puts some physicians in a unique position: they can potentially control the price *and* the utilization of services—the two components of medical care expenditures.

This influence is potentially compounded by the possibility that fee-for-service arrangements between physicians and health insurance carriers may alter physicians' incentives to provide services. Specifically, all else equal, a higher service price (fees) may incentivize physicians to raise service utilization.

A recent study by Abe C. Dunn and Adam H. Shapiro, both economists at the Bureau of Economic Analysis (BEA), empirically assessed the degree to which greater physician market power via consolidation can raise service prices. The study, "Physician Market Power and Medical Care Expenditures," also examined the degree to which potentially higher service prices may translate into different levels of service utilization.

While there has been extensive research regarding hospitals'

ability to leverage their market power into higher fees, there has been little empirical research regarding physicians' bargaining power. Physicians are distinct from hospitals in key ways. Specifically, physicians' incentives to affect their own revenue by shifting services are distinct from hospitals' incentives because hospitals are usually paid on a disease basis. Because physicians are often paid on a fee-for-service basis, earning revenue for every procedure performed, their incentives may be aligned to respond to price changes by shifting utilization.

This study is unique in that it linked a wealth of historical data on physician firms with a comprehensive data set on commercial payments. To simplify the analysis, the scope was limited to cardiologists and orthopedists.

The authors found that physician concentration is positively and significantly correlated with service price levels. Specifically, a 10 percent increase in an index that measures the geographic concentration of doctors is associated with a roughly 1 percent increase in physician fees. This finding implies that from 1988 to 2008, physician consolidation led to a roughly 8 percent increase in fees. The study also found that health plan concentration is inversely correlated with service price fees; that is, insurance carriers in more concentrated health insurance markets pay lower fees to physicians. The study calculated a price elas-

ticity of supply in the range of 0.27 to 0.34 for orthopedists and 0.57 to 1.26 for cardiologists. While in most markets an upward sloping supply curve would be unsurprising, in the health service market, this means that physicians treat patients according to service price levels. In other words, a physician with a higher price cost margin will perform more services. On the demand side, the study calculated a service price elasticity of demand in the range of  $-0.32$  to  $-0.43$  for orthopedics and  $-0.05$  to  $-0.28$  for cardiology patients.

The study's estimates imply that higher physician bargaining leverage (and lower insurance carrier bargaining leverage) raises fees, but the effect on utilization was different in each market. For orthopedic patients, the demand response roughly cancels the physician supply response, with no statistically significant change in utilization. But in the cardiology market, the study found that the supply response outweighs the demand response, resulting in higher utilization. Overall, the findings indicate that the unique nature of patient cost sharing and incentives of physicians leads to either no change or, in some cases, an expansion of services. This is in contrast to a typical market, where higher fees attributable to consolidation are thought to decrease quantity demand.

The study is available on the BEA Web site.