

# Effects of Physician Practice Consolidation on Prices for Physician Services

Laurence Baker, M. Kate Bundorf, Anne Royalty

## Background

Anecdotal reports suggest considerable consolidation in physician markets in the United States in recent years, and anticipated health reforms may prompt further consolidation. Questions about the effects of competition in health care provider markets are important for health system design in many countries. While there is considerable evidence available about the impacts of changes in competition in hospital markets, physician markets have been less frequently studied.

Basic economic theory suggests that consolidation in physician markets will increase the amount of market power held by physicians in negotiations over prices, which will increase the prices they can obtain for their services. Other considerations may also be important, including the market structure of the insurers with whom providers negotiate – in situations where large government or private insurers have significant market power, the effects of physician consolidation may be different than where there are smaller, more competitive insurers.

We investigate changes in physician practice size and market power in the United States over the period 2001-2009, focusing on effects on prices paid for physician services by private insurers paying doctors on a fee-for-service basis, a common insurance arrangement in the United States.

## Data and Methods

We develop measures of physician market concentration based on claims data from the Medicare program, a large government insurance program for the elderly. We identify practices based on tax identification information that must be included on Medicare claims. Using data on about 200 million individual claims per year from essentially all doctors in the United States, we compute Herfindahl-Hirschman Indices (HHIs) for 321 Metropolitan Statistical Areas (MSAs) based on the concentration of claims for physician services, separately for 10 prominent specialties, for each year 2001-2010. We repeat the analyses at the county and HRR levels to provide information about alternate geographic areas. We supplement this with data from SK&A, a consulting firm that maintains data on the practices of about 600,000 physicians, including information about the practice affiliations, from which complementary measures of practice concentration can be derived. We compare the two measures and find good, though not perfect, agreement. We conduct analyses using the alternate measures.

We match this with data on allowed fee-for-service payment amounts agreed between private insurers and physicians for a range of common services, obtained from the Thompson-Reuters MarketScan claims data for 2001-2007. We focus on allowed amounts for common evaluation and management services, studying payments for common office visits specifically, and computing generalized measures of payment per RVU across ranges of services. We also explore payments for common surgeries in a similar way.

We conduct panel data regression analyses to assess the relationships between measured physician practice HHIs and price measures. Regressions emphasize changes over time within areas, include area and year fixed effects, and control for many potential confounders. Some models include and analyze interactions between physician and insurer concentration measures.

## Principal Findings

Physician concentration is correlated with prices. In results available thus far focusing on evaluation and management services, increases of 1000 in the HHI are statistically significantly associated with 10 to 15 percent increases in prices. Additional analyses of other services are ongoing, but appear to show similar patterns.

### Conclusions

As physician practices grow larger, they gain economic power in their bargaining with insurers over prices for their services, which has substantial impacts on prices. Demonstrating this effect, and identifying the size of the effect is valuable for understanding provider market dynamics and for developing optimal policies in situations where policy might influence or need to react to changes in physician market structure.