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Private Health Insurance Markets

Leemore Dafny*

Private health insurance plays a pivotal role in the U.S. healthcare system. Private insurers account for one out of every three dollars spent on healthcare, and even this figure understates the importance of the sector: many public insurance programs now rely on private insurers to manage a substantial share of spending (for example, Medicaid managed care, Medicare Advantage), and private insurers heavily influence out-of-pocket spending by their enrollees.¹ Looking ahead, the Affordable Care Act will subsidize the purchase of private health insurance through state or local health exchanges beginning in 2014. The industry is expected to gain 16 million customers as a result.² Notwithstanding this prominent role, the private health insurance sector has garnered relatively little attention from academic researchers, primarily because high-quality data on insurance contracts is so limited.

To explore various issues associated with health insurance markets, I developed a relationship with a major benefits consulting firm that gathers an extensive dataset on the health plans offered by its clients. The firm generously agreed to share the data for my research, subject to strict confidentiality criteria. At present the data span the period from 1998–2009, and contain information on roughly 900 distinct firms covering around 10 million participants per year. Although the sample is not random, I have found that it is representative of large firms nationwide, and hence of the large group insurance

market, particularly for firms that operate at multiple locations.

I use these data—henceforth LEHID for “Large Employer Health Insurance Data”—to study the private insurance industry, focusing on local market structure, the economic conduct of insurance companies, and implications for health insurance premiums. I also use the insurance industry as a lens through which to examine the impact of potential policy reforms, such as tort reform and an expanded insurance exchange in which employees shop for a health plan using their employer subsidies.

The Economic Conduct of Health Insurers

Among the most striking facts I uncovered in my initial analysis of LEHID is that local health insurance markets are very concentrated. Moreover, many markets have become more concentrated over time. I pursued two different strategies to examine whether there is a causal link between insurance market structure and soaring health insurance premiums.

In a 2008 paper, I explore whether and where insurance carriers engage in direct price discrimination, charging higher premiums to firms (that is, their clients) with deeper pockets, as measured by operating profits.³ In a competitive industry, price (for a fixed product) would not vary based on customers’ ability to pay. I find that firms with increases in operating profits subsequently face larger premium increases. This relationship is strongest in geographic markets served by a small number of insurance carriers (particularly six or less). Therefore, a multisite firm with high profits in a given year (say, a large firm such as The Gap) will face higher premiums for its health plans, but

only at the sites served by a concentrated insurance market. I do not find any evidence that firms with high profits face higher premium increases because they increase benefits on some dimensions. Additional analyses reveal that firms with positive changes in operating profits are much less likely to make changes to their roster of health plans; this unwillingness to make changes in insurance offerings in good times facilitates higher pricing by incumbent carriers. Over the study period (1998 to 2005), the share of the sample residing in markets with six or fewer carriers increased from 7 to 23 percent, suggesting that more Americans are now residing in markets where insurers possess and exercise market power.

Another study, undertaken with Mark Duggan and Subramaniam Ramanayanan, estimates the impact of changes in local market concentration on premium growth.⁴ We begin by examining whether premiums tend to rise more quickly in consolidating markets. We find that they do not, which may help to explain why consolidations have rarely encountered resistance from antitrust authorities and insurance commissioners. However, such an analysis fails to control for the fact that consolidations do not occur randomly across markets. To address this concern, we hone in on the effects of one particular mega-merger: the 1999 acquisition of Prudential Healthcare by Aetna. Both were national firms, active in most local insurance markets, and thus the merger had widespread impact. However, the pre-merger market shares of the two firms varied significantly across local markets, resulting in very different—and we argue, fairly random—“shocks” to post-merger competition. We quantify the impact of these shocks on premiums, and apply

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the resulting estimate to the total average change in market concentration over the period 1998–2006. We estimate that consolidation during this period raised premiums by around 7 percent. Although this is a small figure relative to the aggregate real premium increase during the same period (around 50 percent), it is large relative to typical operating margins of insurers, which were around 5 percent of premiums during our study period.⁵ We also find evidence that insurer consolidation depresses healthcare employment, and facilitates the substitution of nurses for physicians.

In another project on insurer conduct, Ramanarayanan and I focus on whether an insurer's ownership status affects its behavior.⁶ For-profits account for more than half of private health insurance in the United States. We assess the impact of local-area for-profit market share on premiums, medical-loss ratios (the share of premiums paid out in medical claims), and insurance coverage rates. Our analysis is longitudinal, focusing on changes in these outcomes and how they relate to plausibly exogenous changes in local for-profit market share induced by the conversions of Blue Cross Blue Shield (BCBS) affiliates to for-profit status in the years following 1994. A 1994 change in the BCBS Association bylaws permitted such conversions, and for-profit BCBS affiliates now operate in 14 states.

We find no significant effects of for-profit market share on any of these outcomes, on average. However, in geographic areas where the converting BCBS affiliate had substantial market share, premiums for employer plans increased, employer-sponsored coverage rates decreased, and Medicaid enrollment increased. Our results suggest that subsidies for new not-for-profit insurers, such as those in the Affordable Care Act, are only likely to create value if the insurers can achieve substantial market share.

Do Employers Offer the Plans that Employees Want?

Nearly 60 percent of nonelderly Americans purchase health insurance

through employer-sponsored plans. Although there are no legal impediments to offering a broad array of plans, in practice employers offer a very limited set of choices: a 2011 survey by the Kaiser Family Foundation/Health Retirement Education Trust finds 47 percent of employees are offered only one plan type (for example, HMO or PPO). Increased choice is frequently cited as an objective of healthcare reform, but its benefits have never been quantified. One of my papers, coauthored with Kate Ho and Mauricio Varela, evaluates how much employees would be willing to pay for the right to apply their employer subsidy to the plan of their choosing.⁷

We estimate the value of choice in three steps. First, we estimate a model of employee preferences using employees' choices from the set of plans they are offered. Second, we use the estimated parameters from this model to predict employees' choices in a hypothetical world in which all plans in a market are available to them on the same terms, that is, with equivalent subsidies and at large-group prices.⁸ Third, we calculate the welfare gain (in dollars) for each group of employees, that is, the dollar amount that employees would be willing to pay for the right to select their preferred plan from among all those available in their local market. We conservatively estimate this to be 13 percent of premiums, on average. A proper accounting of the costs and benefits of employer-sponsored insurance versus an individually-purchased insurance policy would include this nontrivial gain.

In a companion analysis, we show that welfare gains are negatively correlated with firm size and family size, and positively correlated with current premium levels.⁹ Relative to the plans offered by employers, most employees would prefer options that are similarly-priced, but with slightly different features, chiefly "Point of Service" plans — an HMO-PPO hybrid which provides coverage for services delivered by out-of-network providers, but at higher rates of cost-sharing.

Would Tort Reform Lower Insurance Premiums?

Tort reform, which encompasses a variety of legal reforms designed to limit the tort exposure of healthcare providers, has been implemented in some form in every state. There is substantial support for a uniform and stringent federal tort reform, but there are conflicting opinions on the impact such an initiative would have on healthcare costs. The direct costs associated with malpractice are fairly low (no more than 2 percent of healthcare spending), but the indirect costs associated with greater precautionary spending or "defensive medicine" practiced in an attempt to avert malpractice litigation are believed to be far more substantial. Most prior studies have focused on particular litigation-prone conditions, such as pregnancy¹⁰ or heart disease¹¹, with the exception of Baicker, Fisher, and Chandra (2007) who study the effect of malpractice premiums on Medicare spending.¹² By pairing the LEHID insurance data with a database containing the details and timing of state reforms over 1998–2006, Avraham, Schanzenbach, and I were able to estimate the impact of common tort reforms on a spending measure that incorporates the entire spectrum of healthcare.¹³ We studied responses separately by insurance type — self-insured (in which the employer bears the risk of realized medical spending by enrollees) and fully-insured (in which the insurance carrier bears this risk).

We find that three of the most common reforms (caps on non-economic damages, collateral source reform, and joint-and-several liability reform) reduce self-insured premiums by 1 to 2 percent each. The effect of each reform is somewhat attenuated if all three reforms are adopted simultaneously. These estimates far exceed savings from reducing direct liability costs, and hence they suggest that tort reform does alter provider behavior. However, the fact that our findings are not present for fully-insured

plans — which in our sample are primarily HMOs — suggests that managed care is similarly effective in discouraging defensive medicine, echoing a conclusion from prior research focused on heart disease.¹⁴ We conclude that federal tort reform is unlikely to have a large impact on spending because less than half of the privately-insured population is enrolled in self-insured plans, and several states have already implemented the three reforms associated with significant spending reductions.

Summary

The studies I have described collectively point to the following conclusions: 1) a consolidating insurance sector has contributed to price discrimination and higher premiums; 2) for-profit insurers behave similarly to not-for-profit insurers in areas where their market share is not too high — but otherwise they tend to raise premiums; 3) consumers purchasing employer-sponsored insurance place significant value on product variety in insurance, which is constrained by their employers' decisions to offer a limited array of choices; 4) a set of the most common tort reforms can reduce insurance premiums on the order of 1–2 percent in those states which have yet to enact them.

Clearly there are many fundamental questions related to the private insurance sector that remain unanswered. These include: would a “public option” available to all tend to promote competition among private insurers? What are the effects of limited insurer competition on other outcomes besides premium levels, for example, innovation in product lines, access to care, and of course the health of the population? In addition, my conclusions are based on studies of the employer-sponsored, large group market; additional research on small group and individual markets would be extremely valuable in light of the fact that the Affordable Care Act

reforms will have the greatest initial impact on these markets.

¹ Source: National Health Expenditure Accounts (2010), published by the Department of Health and Human Services and available for download at https://www.cms.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage.

² Source: “CBO’s Analysis of the Major Health Care Legislation Enacted in March 2010,” March 30, 2011, available online at <http://www.cbo.gov/ftpdocs/121xx/doc12119/03-30-health-carelegislation.pdf>.

³ L. Dafny, “Are Health Insurance Markets Competitive?,” NBER Working Paper No. 14572, December 2008, and American Economic Review, September 2010, 100(4), pp. 1399–1431.

⁴ L. Dafny, M. Duggan, and S. Ramanarayanan, “Paying a Premium on Your Premium? Consolidation in the Health Insurance Industry,” NBER Working Paper No. 15434, October 2009, and American Economic Review, forthcoming.

⁵ Citing research by Sanford Bernstein, an investment research firm, The Economist reported that 2003 operating margins were 5.1 percent, “possibly an all-time high” as of the time of reporting (6/12/2004, p. 71). Insurers often earn additional profits by investing premium dollars before they are paid out to reimburse claims.

⁶ L. Dafny and S. Ramanarayanan, “Does it Matter if Your Health Insurer is For-Profit? Effects of Ownership on Premiums, Medical Spending, and Insurance Coverage,” mimeo, December 2011.

⁷ This hypothetical scenario is similar to the 2008 bipartisan proposal by Senators Ron Wyden (D-Oregon) and Bob Bennett (R-Utah), known as the “Healthy Americans Act.”

⁸ To predict the premium each set of employees would face for each plan, we

use a rich regression model that incorporates, among other things, the risk profile of each set of employees as reflected in pricing of their current plans.

⁹ L. Dafny, K. Ho, and Mauricio Varela, “An Individual Healthplan Exchange: Which Employees Would Benefit and Why?,” American Economic Review, Papers and Proceedings, May 2010, 100, pp. 485–89.

¹⁰ J. Currie and W. Bentley MacLeod, “First Do No Harm? Tort Reform and Birth Outcomes,” NBER Working Paper No. 12478, August 2006, and Quarterly Journal of Economics, 2008, 123(2), pp. 795–830.

¹¹ D. P. Kessler and M. B. McClellan, “Do Doctors Practice Defensive Medicine?,” NBER Working Paper No. 5466, February 1996, and Quarterly Journal of Economics, 1996, 111, pp. 356–90.

¹² K. Baicker, E. Fisher, and A. Chandra, “Malpractice Liability Costs and the Practice of Medicine in the Medicare Program,” Health Affairs, 2007, 26(3), pp. 841–52.

¹³ R. Avraham, L. Dafny, and M. Schanzenbach, “The Impact of Tort Reform on Employer-Sponsored Health Insurance Premiums,” NBER Working Paper No. 15371, September 2009, and Journal of Law, Economics, and Organizations, forthcoming.

¹⁴ We corroborate this conjecture by showing that cost reductions in our self-insured sample are concentrated outside of managed care plans. Kessler and McClellan (2002) also find that tort reform and managed care are partial substitutes. Using data on Medicare beneficiaries treated for heart disease, they find smaller effects of tort reform on medical spending in states with greater HMO penetration. D. P. Kessler, and M. McClellan, “Malpractice Law and Health Care Reform: Optimal Liability Policy in an Era of Managed Care,” NBER Working Paper No. 7537, February 2000, and Journal of Public Economics, 2002, 84(2), pp. 175–97.