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Does Tort Reform Reduce Health Care Costs?

With the U.S. Congress actively debating health reform bills that could extend insurance coverage to millions of Americans, the need to identify strategies to contain health care costs has become an ever more pressing issue. Tort reform has been proposed by leaders of both political parties as one possible strategy to reduce health care costs.

In "The Impact of Tort Reform on Employer-Sponsored Health Insurance Premiums" (NBER Working Paper 15371), researchers Ronen Avraham, Leemore Dafny, and Max Schanzenbach exploit state-level differences in tort laws to explore the potential cost savings associated with tort reform.

The authors begin by observing that tort reform must have an impact on medical practice—as opposed to solely on medical *mal*practice—in order to yield nontrivial reductions in healthcare costs. Direct costs of malpractice, which include premiums, damage awards in excess of premiums, and associated litigation costs, represent no more than two percent of health care costs. Thus, tort reforms can have a substantial effect on health care costs only if they affect the amount of healthcare services provided.

The authors explain that the effect of tort reform on health care costs is theoretically ambiguous. On the one hand, providers' sensitivity to liability may lead them to provide excessive care, resulting in higher health care costs. Eliminating this practice of "defensive"

medicine" is a primary justification for tort reform. On the other hand, however, liability creates incentives for providers to take greater precautions and avoid unnecessary risks. By this logic, reducing liability could increase costly medical errors and encourage providers to recommend profitable but unnecessary and even risky treatments, increasing health care costs and lowering the quality of care. Thus the effect of tort reform on costs is an empirical question.

The previous literature on this topic has largely focused on the effect of tort reform on treatment intensity for particular medical conditions with a large number of malpractice claims, such as pregnancy. These studies may not be representative of the effect on health care at large and have led to wide variations in the estimated impact of reform. The current study is the first to look at the aggregate effect of reform on costs.

To do so, the authors use a database of employer-sponsored health plans covering over 10 million non-elderly Americans annually for the period 1998 to 2006. The authors focus on four types of reforms—caps on non-economic damages (such as for pain and suffering), caps on punitive damages, collateral source reform (which reduces plaintiffs' awards if they receive public or private insurance benefits), and joint and several liability reform (which limits plaintiffs' ability to go after those parties with "deep pockets").

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The authors' basic approach is to make use of differences in the timing of adoption of these reforms by the states to identify the effect of reform on premiums. In their first key set of results, they find that each of the reforms except for the cap on punitive damages lowers health insurance premiums by 1 to 2 percent. This result applies to self-insured plans, those health plans for which the sponsoring employer directly pays realized health care costs of enrollees rather than paying an insurance carrier to bear this risk.

By contrast, the authors find that tort reforms have no effect on premiums of fully-insured plans. Since almost ninety percent of fully-insured plans in their data are managed by Health Maintenance Organizations (HMOs), this finding suggests that HMOs may reduce defensive medicine

without tort reform through monitoring of care. The authors test this hypothesis directly by comparing the effect of the reform by insurance plan type within the sample of self-insured firms. They confirm that responses to the reforms are concentrated among plan types other than HMOs, such as Preferred Provider Organizations (PPOs).

Another interesting hypothesis the authors test is whether post-reform premium reductions are steeper in more competitive insurance markets, as measured by the number of insurance carriers. They find that this is the case. This suggests that when insurers possess market power, the pass-through of cost reductions due to tort reform will be incomplete.

A potential concern with the

authors' analysis is that tort reforms may be adopted by states that are experiencing a rapid increase in health insurance premiums, generating a correlation between reforms and premiums that may not represent a true causal effect. When the authors test whether the implementation of a reform is associated with any change in premiums prior to the reform, however, they fail to find any evidence of this. They also find that the effect of reforms strengthens slightly with time.

In sum, the authors find that caps on non-economic damages, collateral source reform, and joint and several liability reform reduce self-insured premiums by 1 to 2 percent each. These findings indicate that tort reform reduces treatment intensity, as the drop in premiums is larger than the sav-

ings that would arise from reduced direct liability costs. These reductions are concentrated in PPOs rather than HMOs, suggesting that HMOs can reduce "defensive medicine" even in the absence of tort reform.

The authors observe that their findings "constitute the first evidence that tort reform reduces healthcare expenditures broadly (albeit not in a managed-care environment)." However, they caution that "to understand the social welfare implications of these reforms... additional research on health outcomes and long-run costs is needed."

The authors acknowledge funding from the Searle Center on Law, Regulation, and Economic Growth at the Northwestern University School of Law.

What Determines Movement Across Health Care Plans?

Most non-elderly Americans who have health insurance receive their coverage through an employer. Many workers are offered a choice among several employer-sponsored health insurance plans. These plans can be characterized as more or less generous, where the more generous plans offer greater freedom in selecting providers, and/or more complete coverage of health care expenditures. Such plans, however, have higher premiums.

What factors determine a worker's choice of a particular plan, either initially, or to remain or change plans if previously enrolled? Those decisions and the resulting dynamic features of insurance plan populations are the subject of a new conceptual and empirical study by researchers David Cutler, Bryan Lincoln, and Richard Zeckhauser, "Selection Stories: Understanding Movements across Health Plans" (NBER Working Paper 15164).

The authors begin with a theoretical discussion of the factors affecting workers' choice of plan. Traditional economic theory suggests that workers consider price, including both premiums and out-of-pocket costs, as well as future expected spending when choosing a health insurance plan. Expected spending is related to both age and current health status, and can differ dramatically across individuals. Average health care costs rise rapidly with age once workers reach their 40s. The distribution of health care costs at any age is highly skewed; thus, a relatively small share of the insured population accounts for a large fraction of total expenditures. The premiums that workers pay for employer-sponsored health insurance typically are not related to their own expected spending.

This choice setting is likely to generate adverse selection, the tendency of those with higher expected spending to select the more generous plan. Such choices render the more generous plan a poor deal financially for healthier workers with lower expected spending, since the plan will have to charge high premiums to cover the costs of the less healthy workers it has attracted. Thus, too few of the healthier workers will enroll in the more generous plan relative to what their risk preferences alone would dictate. In some cases the

more generous plan may be forced out of business through a phenomenon known as a "death spiral."

The authors identify other factors that may affect plan choice as well. The costs of switching from one health insurance plan to another are potentially important. Suppose that workers with higher spending are less likely to switch plans, for example because they are concerned about changing doctors in the middle of treatment, or because there is transaction cost or insecurity associated with transferring medical records to a new doctor. In this case, adverse retention will result, meaning that sicker workers would be less likely to move, regardless of the generosity of their current plan.

If switching costs are sufficiently high, workers will rarely or never switch plans. The authors call this phenomenon aging in place. If the initial demographics of the two plans differ substantially, aging in place could result in an increasing premium differential over time, due to the rapid rise in health care costs after age 40.

Having established that these three phenomena—adverse selec-

tion, adverse retention, and aging in place — have the potential to affect switching and staying behavior among health plans, the authors turn to an empirical examination of their relevance. For this, they use data on all medical claims during 1994 through 2004 for Massachusetts state employees and their families. In this context, the "more generous plan" was a traditional fee-for-service (FFS) plan and the "less generous plan" was an amalgam of a number of different managed care plans, primarily offered by Health Maintenance Organizations (HMOs).

The authors find clear evidence of adverse selection. For people initially in the HMO, the probability of switching to the FFS plan increases with their health expenditures. The reverse is true for people initially in the FFS plan—their probability of switching to the HMO decreases with health expenditures. This result holds whether the authors use expenditures in the year before switching, which would be consistent with "backwardslooking" adverse selection, or expenditures in the year after switching, which

is consistent with "forward-looking" adverse selection.

The authors also find that demographics are important predictors of plan mobility. For example, families with older members are much more likely to switch to the FFS plan than are other families.

The authors show that the probability of switching from one HMO plan to another decreases when health expenditures are higher, which is consistent with adverse retention. But when the authors include all factors in a single analysis, demographics and adverse selection appear to be more important than adverse retention.

Finally, the authors create a simulation model to show how these different factors affect plan enrollments. They find that the equilibrium share in the FFS plan is 30 percent and that adverse selection is responsible for about one-sixth of this enrollment. However, the level of subsidy to the FFS plan is quantitatively more important. If the employee's share of the premium differential between the FFS plan and the HMOs rises from 15 to 50 percent, the

share of employees enrolled in the FFS plan would fall to just 13 percent.

In sum, the authors find that adverse selection is more important than adverse retention in explaining insurance plan dynamics for this pool. However, these effects are modest relative to the impact of changing the mix of employer and employee premiums. If the relative price of a FFS plan were increased considerably, the authors suggest that it is "entirely possible that an adverse selection death spiral would set in, and the generous FFS plan would ultimately no longer be available."

Pointing to the importance of demographics such as age and sex in explaining both spending differentials and plan mobility decisions, the authors end on "a note of optimism about the ability to have a competitive choice process for health insurance," since insurers can easily observe these characteristics and price insurance plans accordingly.

The authors gratefully acknowledge financial support from the National Institute on Aging (P01 AG005842).

Will the Current Economic Crisis Lead to More Retirements?

Over the past year, numerous stories in the popular press have suggested that workers in the U.S. will delay retirement as a result of the current economic crisis. With diminished retirement savings and home equity to draw on, the story goes, expected retirement income has shrunk, forcing older individuals to stay in the labor force longer. It may seem surprising, then, that the number of new Social Security benefit claims is sharply up since the crisis began, suggesting an increase in retirements rather than a decrease. Why are more workers retiring now if their expected retirement income is going down?

The answer may lie in another aspect of the crisis, the weak labor market. Since the crisis began, the unemployment rate has more than doubled and the economy has shed millions of

jobs. For older individuals who have been laid off and are unable to find new work, retirement may be the only option, despite its involuntary nature. The net effect of the current economic crisis on retirement is thus far from clear.

In "Mass Layoffs and the Market Crash: How the Current Economic CrisisMayAffectRetirement" (NBER Working Paper 15395), researchers Courtney Coile and Phillip Levine explore this issue.

The authors begin by examining the stock holdings of older households. It turns out that most have little stock wealth. For example, the typical household between the ages of 55 and 64 had just \$8,000 of stock wealth in 2007. Not surprisingly, more highly-educated households have larger stock holdings. The change in retirement

income resulting from even a sharp market downturn such as the one just experienced would thus be fairly modest for most households, although market fluctuations could still affect retirement decisions for those with large holdings or if other workers experiencing smaller losses were very responsive to them.

To explore this empirically, the authors turn to their main analysis. They use thirty years of data from the Current Population Survey (CPS) to estimate models relating workers' retirement decisions to changes in equity, housing, and labor markets over time and (where possible) across geographic locations. In their analysis of the stock market, they find that workers experiencing higher stock market returns are more likely to retire, but this is only true for highly-educat-

ed workers between the ages of 62 and 69. Moreover, workers respond only to long-run returns—the 5-year or 10-year return in the S&P 500 Index, rather than the one-year return.

Relative to stocks, housing equity is a more broadly-held asset among older households and the value held by the typical family is larger. Thus large fluctuations in home values as workers near retirement age could affect retirement decisions. However, when the authors examine this question using the same data and methods described above, they find no evidence that workers respond to house price movements. This result is perhaps not surprising, given that past research has concluded that most households do not liquidate assets to support their general consumption needs as they age.

The labor market also has the potential to affect retirement, since job loss is relatively common for older workers, especially when the labor market is weak. Using the same data and methods, the authors show that when the unemployment rate rises, more workers between the ages of 62 and

69 retire, particularly those with less education. The fact that this response occurs only starting at age 62 appears to be due to the availability of Social Security benefits beginning at this age.

Given that both stock and labor market fluctuations affect retirement for certain segments of the population, what is the overall expected effect of the current crisis on retirement? The authors use their estimates to simulate the effect of a 5-point increase in the unemployment rate (an increase similar to that experienced in the U.S. over the past two years) and a 110-point drop in the real ten-year return in the stock market (a change that is equivalent to moving from the average return over the past 30 years to that experienced in the period ending in 2008).

Assuming a steady return to normal conditions in both markets over a five-year period, the authors' simulations suggest that 258,000 workers would delay retirement over the course of the stock market downturn. On the other hand, 378,000 workers would be forced to retire early as a result of the weak labor market. On net, the

authors predict that the increase in retirement attributable to the rising unemployment rate will be almost 50 percent larger than the decrease in retirement brought about by the stock market crash.

Taken as a whole, the authors' results indicate that the public discussion regarding the impact of the recent economic crisis on retirement is off target. Some relatively wealthier workers will be forced to delay retirement, but a larger number of workers with fewer economic resources will be forced into retirement because of their inability to find new jobs. These workers may need to start collecting retirement benefits now to make ends meet, resulting in lower income in retirement and an increased risk of poverty in old age. Indeed, the fact that Social Security claims have risen sharply since the recession began suggests this response has already begun. Despite a wealth of media attention to the effect of the economic crisis on older workers, the risks they face as a result of weak labor markets have gone largely unnoticed.

Abstracts of Selected Recent NBER Working Papers

15041

Seema Jayachandran, Ilyana Kuziemko Why Do Mothers Breastfeed Girls Less Than Boys? Evidence and Implications for Child Health in India

Medical research indicates that breastfeeding suppresses post-natal fertility. We model the implications for breastfeeding decisions and test the model's predictions using survey data from India. First, we find that breastfeeding increases with birth order, since mothers near or beyond their desired total fertility are more likely to make use of the contraceptive properties of

nursing. Second, given a preference for having sons, mothers with no or few sons want to conceive again and thus limit their breastfeeding. We indeed find that daughters are weaned sooner than sons, and, moreover, for both sons and daughters, having few or no older brothers results in earlier weaning. Third, these gender effects peak as mothers approach their target family size, when their decision about future childbearing (and therefore breastfeeding) is highly marginal and most sensitive to considerations such as ideal sex composition. Because breastfeeding protects against water- and

food-borne disease, our model also makes predictions regarding health outcomes. We find that child-mortality patterns mirror those of breastfeeding with respect to gender and its interactions with birth order and ideal family size. Our results suggest that the gender gap in breastfeeding explains 14 percent of excess female child mortality in India, or about 22,000 "missing girls" each year.

15096

Dana Goldman, Darius Lakdawalla, Yuhui Zheng

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Food Prices and the Dynamics of Body Weight

A popular policy option for addressing the growth in weight has has been the imposition of a "fat tax" on selected foods that are deemed to promote obesity. Understanding the public economics of "fat taxes" requires an understanding of how or even whether individuals respond to changes in food prices over the long-term. We study the short- and long-run body weight consequences of changing food prices, in the Health and Retirement Study (HRS). We found very modest short-term effects of price per calorie on body weight, and the magnitudes align with the previous literature. The long-term effect is much bigger, but it takes a long time for the effect to reach the full scale. Within 30 years, a 10% permanent reduction in price per calorie would lead to a BMI increase of 1.5 units (or 3.6%). The long term effect is an increase of 1.9 units of BMI (or 4.2%). From a policy perspective, these results suggest that policies raising the price of calories will have little effect on weight in the short term, but might curb the rate of weight growth and achieve weight reduction over a very long period of time.

15106

Anthony Lo Sasso, Lorens Helmchen, Robert Kaestner The Effects of Consumer-Directed Health

Plans on Health Care Spending

We use unique data from an insurer that exclusively offers high-deductible, "consumer-directed" health plans to identify the effect of plan features, notably the spending account, on health care spending. Our results show that the marginal dollar in the spending account is entirely spent on outpatient and pharmacy services. In contrast, inpatient and out-of-pocket spending were not responsive to the amount in the spending account. Our results represent the first plausibly causal estimates of the components of consumer-driven health plans on health spending. The magnitudes of the effects suggest important moral hazard consequences to higher spending account levels.

15114 Phillip Levine, Robin McKnight, Samantha Heep Public Policy, Health Insurance, and the Transition to Adulthood

This paper assesses the impact of two recent policies designed to increase insurance coverage for older teens and young adults. The introduction of SCHIP in 1997 enabled low

and moderate income teens up to age 19 to gain access to public health insurance. More recent policies adopted by a number of states have enabled young adults between the ages of 19 and (typically) 24 to remain covered under their parents' health insurance. We take advantage of the discrete break in coverage at age 19 to evaluate the impact of SCHIP. We also use quasi-experimental variation across states and years along with the targeted nature of eligibility to evaluate the impact of these "extended parental coverage" laws. Our results suggest that both types of policies were effective at increasing health insurance coverage, especially among their respective target populations. Overall, SCHIP increases insurance coverage by 3 percentage points; those with incomes under 150 percent of poverty are found to experience a 7 percentage point increase. We find little evidence of crowd-out associated with the introduction of SCHIP. Extended parental coverage laws have minimal aggregate effects on coverage, but they increase coverage by up to 5 percentage points for select groups. These laws may generate reverse crowd-out, as individuals leave public insurance coverage to take advantage of the private coverage now available to them.

15149

Mariacristina De Nardi, Eric French, John Bailey Jones

Why Do the Elderly Save? The Role of Medical Expenses

This paper constructs a rich model of saving for retired single people. Our framework allows for bequest motives and heterogeneity in medical expenses and life expectancies. We estimate the model using AHEAD data and the method of simulated moments. The data show that out-ofpocket medical expenses rise quickly with both age and permanent income. For many elderly people the risk of living long and requiring expensive medical care is a more important driver of old age saving than the desire to leave bequests. Social insurance programs such as Medicaid rationalize the low asset holdings of the poorest. These government programs, however, also benefit the rich because they insure them against their worst nightmares about their very old age: either not being able to afford the medical care that they need, or being left destitute by huge medical bills.

15213

Samuel Preston, Jessica Ho Low Life Expectancy in the United States: Is the Health Care System at Fault?

Life expectancy in the United States fares poorly in international comparisons, primarily because of high mortality rates above age 50. Its low ranking is often blamed on a poor performance by the health care system rather than on behavioral or social factors. This paper presents evidence on the relative performance of the US health care system using death avoidance as the sole criterion. We find that, by standards of OECD countries, the US does well in terms of screening for cancer, survival rates from cancer, survival rates after heart attacks and strokes, and medication of individuals with high levels of blood pressure or cholesterol. We consider in greater depth mortality from prostate cancer and breast cancer, diseases for which effective methods of identification and treatment have been developed and where behavioral factors do not play a dominant role. We show that the US has had significantly faster declines in mortality from these two diseases than comparison countries. We conclude that the low longevity ranking of the United States is not likely to be a result of a poorly functioning health care system.

15231

Pierre-Carl Michaud, Dana Goldman, Darius Lakdawalla, Yuhui Zheng, Adam Gailey

Understanding the Economic Consequences of Shifting Trends in Population Health

The public economic burden of shifting trends in population health remains uncertain. Sustained increases in obesity, diabetes, and other diseases could reduce life expectancy—with a concomitant decrease in the public-sector's annuity burden—but these savings may be offset by worsening functional status, which increases health care spending, reduces labor supply, and increases public assistance. Using a microsimulation approach, we quantify the competing public-finance consequences of shifting trends in population health for medical care costs, labor supply, earnings, wealth, tax revenues, and government expenditures (including Social Security and income assistance). Together, the reduction in smoking and the rise in obesity have increased net public-sector liabilities by \$430bn, or approximately 4% of the current debt burden. Larger effects are observed for specific public programs: annual spending is 10% higher in the Medicaid program, and 7% higher for Medicare.

15266

John McArdle, James P. Smith, Robert Willis Cognition and Economic Outcomes in the Health and Retirement Survey

Dimensions of cognitive skills are potentially important but often neglected determinants of the central economic outcomes that shape overall well-being over the life course. There exists enormous variation among households in their rates of wealth accumulation, their holdings of financial assets, and the relative risk in their chosen asset portfolios that have proven difficult to explain by conventional demographic factors, the amount of bequests they receive or anticipating giving, and the level of economic resources of the household. These may be cognitively demanding decisions at any age but especially so at older ages. This research examines the association of cognitive skills with wealth, wealth growth, and wealth composition for people in their pre and post-retirement years.

15317

Nina Tang, Olivia S. Mitchell, Gary R. Mottola, Stephen Utkus The Efficiency of Sponsor and Participant Portfolio Choice in 401(k) Plans

Portfolio performance in 401(k) plans depends on both the investment menu made available by plan sponsors and participants portfolio decisions. We use a unique dataset of nearly 1 million participants in one thousand pension plans to identify key portfolio inefficiencies in 401(k) plans,attributing them either to the sponsor's menu design or to participants' own portfolio choices. We show that most sponsors offer efficient investment menus. However, many participants fail to construct efficient portfolios, leading to retirement wealth that could be one-fifth lower due to poor portfolio decisions. Because participants are the main source of inefficient DC portfolio choices, strategies targeting their portfolio choices, such as improved default investment strategies or advice programs, may help. Also, in sponsors' design of 401(k) menus, the number of options offered is less important than the range of funds provided.

15326

Emily Oster, Ira Shoulson, Kimberly Quaid, E. Ray Dorsey

Genetic Adverse Selection: Evidence from Long-Term Care Insurance and Huntington Disease

Individual, personalized genetic information is increasingly available, leading to the possibility of greater adverse selection over time, particularly in individual-payer insurance markets; this selection could impact the viability of these markets. We use data on individuals at risk for Huntington disease (HD), a degenerative neurological disorder with significant effects on morbidity, to estimate adverse selection in long-term care insurance. We find strong evidence of adverse selection: individuals who carry the HD genetic mutation are up to 5 times as likely as the general population to own long-term care insurance. We use these estimates to make predictions about the future of this market as genetic information increases. We argue that even relatively limited increases in genetic information may threaten the viability of private long-term care insurance.

15330

Darius Lakdawalla, Wesley Yin Insurer Bargaining and Negotiated Drug Prices in Medicare Part D.

A controversial feature of Medicare Part D is its reliance on private insurers to negotiate drug prices and rebates with retail pharmacies and drug manufacturers. Central to this controversy is whether increases in market power—an undesirable feature in most settings—confer benefits in health insurance markets, where larger buyers may obtain better prices for their members. We test whether insurers that experience larger enrollment increases due to Part D negotiate lower drug prices with pharmacies. Overall, we find that 100,000 additional insureds lead to 2.5-percent lower pharmacy prices negotiated by the insurer, and 5percent reductions in pharmacy profits earned on

prescriptions filled by enrollees of that insurer. Estimated enrollment effects are much larger for drugs with therapeutic substitutes, and virtually zero for branded drugs without therapeutic substitutes. We also present evidence that most insurer savings are, on the margin, passed on as lower premiums. Out-of-sample estimation suggests that modest insurer consolidation would generate significant savings to Medicare, along with premium reductions and enrollment increases. Finally, we find that greater enrollment leads to lower pharmacy prices negotiated by insurers for their non-Part D market—an external benefit to the commercially enrolled associated with administering Part D through private insurers.

15383

Darius Lakdawalla, Seth Seabury The Welfare Effects of Medical Malpractice Liability

Policymakers and the public are concerned about the role of medical malpractice liability in the rising cost of medical care. We use variation in the generosity of local juries to identify the causal impact of malpractice liability on medical costs, mortality, and social welfare. The effect of malpractice on medical costs is large relative to its share of medical expenditures, but relatively modest in absolute terms—growth in malpractice payments over the last decade and a half contributed at most 5.0% to the total real growth in medical expenditures, which topped 33% over this period. On the other side of the ledger, malpractice liability leads to modest reductions in patient mortality; the value of these more than likely exceeds the cost impacts of malpractice liability. Therefore, policies that reduce expected malpractice costs are unlikely to have a major impact on health care spending for the average patient, and are also unlikely to be costeffective over conventionally accepted ranges for the value of a statistical life.

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