Georgia Health Economics Research Day

Hosted by:
The Department of Economics, Andrew Young Schools of Policy Studies, Georgia State University
and the Department of Economics and Institute for Quantitative Theory and Methods (QuanTM), Emory University

Atlanta, GA
October 20, 2017

Location: Andrew Young School, room 749.

Schedule

8:00 – 8:30	Breakfast	
Session 1:		
8:30 – 9:15	Montanera	
9:15 – 10:00	McCarthy	
Break		
Session 2:		
10:15-11:00	Skira	
11:00-11:45	Pesko	
Lunch		
Session 3:		
1:15 – 2:00	Eli Sellinger-Liebman	
2:00 – 2:45	Wilk	
Break		
Keynote Presentation:		
3:00 - 4:15	Grabowski	

Selection-Proof Health Insurance Exchanges

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August 7, 2017

ABSTRACT

BACKGROUND: Despite efforts at risk adjustment, the Affordable Care Act (ACA) Health Insurance Exchanges exhibited higher premiums and fewer options in 2017 than in previous years. This could indicate both adverse and/or preferred risk selection; losses to plans that attract high-risk enrollees, as well as rewards for plans that can reject or avoid them. This vulnerability to selection may undermine present and future exchange-based health care reforms.

OBJECTIVES: This article proposes an elaborate mechanism (BARDR) for coordinating prospective reimbursement and premiums in health insurance exchanges. It then investigates whether or not the mechanism eliminates all selection incentives, or is "selection-proof".

METHODS: The article models a health insurance exchange within which consumers, health plans, and a sponsor interact. Plans and consumers each hold private information regarding some aspect of the underlying cost of an insurance arrangement, of which the sponsor is unaware. The BARDR mechanism

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relies on four parts. First, consumers choose a set of health plans with which enrollment would be "acceptable" at a predetermined price. Simultaneously, plans submit individual-specific bids to enroll patients, with the winner determined by second-price sealed-bid auction from within the chosen acceptable set. Third, there is a mandate for each winning plan to purchase a reinsurance policy on the enrolled individual, with payout based on the characteristics of the chosen acceptable set. These three parts determine the insurance premium and prospective reimbursement. Lastly, after the final treatment cost is realized, each plan must report the cost of insuring each consumer enrolled under a modified Duggan-Roberts mechanism.

RESULTS: Under traditional prospective payment, with different premiums set by each health plan, both adverse and preferred risk selection occur. The BARDR mechanism, despite also being prospective, exhibits no evidence of either type of selection. Furthermore, numerical simulations show that the BARDR mechanism achieves the first-best outcome for over 61% of patients, while the traditional market mechanisms achieve it for less than 22% of patients.

CONCLUSION: In an environment where traditional market mechanisms produce both adverse and preferred risk selection, the BARDR mechanism eliminates both forms of selection while remaining fully prospective, and is thus selection-proof. This advancement in health care financing allows an uninformed sponsor to administer competitive health insurance exchanges without inefficiency due to selection.

Multimarket Contact in Medicare Advantage

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August 2017

A large literature in management and economics suggests that competition between firms may be softened as a result of multimarket contact (MMC) (Bernheim & Whinston, 1990; Evans & Kessides, 1994; Jans & Rosenbaum, 1997; Ciliberto & Williams, 2014). Known as the mutual forbearance hypothesis, this theory posits that firms competing in multiple markets will be more likely to collude since deviations in a single market might lead to responses in all contested markets. This form of tacit collusion may ultimately yield higher prices, lower quality, reduced entry, or faster exit. Given the natural concerns surrounding collusion and its effects on market outcomes, understanding the empirical effects of MMC is critical in designing appropriate antitrust and regulatory policy.

In this paper, we examine the effect of MMC on prices, quality, entry, and exit in the Medicare Advantage (MA) market.[1] The MA market has at least four important features that offer a textbook environment for the examination of the mutual forbearance hypothesis. First, geographic markets are clearly delineated by county, and the market is increasingly defined by relatively few large national and regional insurers. Second,

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[1]The presence of MMC and mutual forbearance has been examined empirically across several industries, including airlines (Evans & Kessides, 1994; Ciliberto & Williams, 2014), cement (Jans & Rosenbaum, 1997), banking (Molnar *et al.*, 2013), movies (Feinberg, 2015), and radio (Waldfogel & Wulf, 2006), among others. More recently, Schmitt (2015) examines the role of MMC in hospital markets; however, to our knowledge, MMC has not been examined in the context of health insurance markets.

theoretical literature suggests that MMC can facilitate tacit collusion on both price and non-price behavior, but existing empirical work prioritizes price as the outcome of interest over quality. The richness in the MA market data allows us to study price and quality provision, along with entry and exit behaviors. Third, a critical condition for mutual forbearance is a firm's ability to detect deviations from collusion. Our study of the MA market has a compelling advantage over existing studies in that price and quality information are publicly available and constant within a calendar year. Finally, MA is a prime example of managed competition in which firm behaviors are highly influenced by federal Medicare policy. Empirical evidence of tacit collusion in the MA market therefore has the opportunity to more directly inform policy relative to some other industries in which MMC has also been examined such as radio, cement, or film.

We collect data on contract/plan characteristics, market shares, and market area characteristics from several publicly available sources from 2008 through 2015, and we measure MMC based on pairwise combinations of insures across markets (counties). In addition to standard fixed effects models, we also pursue an instrumental variable strategy where we exploit plausibly exogenous changes in MMC generated by out-of-market mergers/acquisitions and exogenous MA policy shocks that increased subsidies and bonuses for MA plans in certain counties.[2]

Our initial findings strongly support the mutual forbearance hypothesis in the MA market, where MMC serves to increase premiums and depress quality. For example, we find that a one standard deviation increase in firm-level MMC leads to a 4.6% increase in monthly premiums. We also find that increasing MMC lowers quality, as measured by contract star ratings.

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[2]Increases in benchmark rates for urban counties (i.e., "urban floors") were introduced as part of the Benefits Improvement and Protection Act of 2000. Duggan *et al.* (2015) also exploited this policy in forming their instruments. We also exploit the introduction of "double bonus" counties in 2012-2014, in which CMS selected counties to receive temporary increases in benchmark rates and bonuses paid to MA plans.

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The Impact of Paid Maternity Leave on Maternal Health

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August 1, 2017

Across OECD countries, there is substantial variation in maternity leave benefits. In the United States, the Family and Medical Leave Act of 1993 guarantees 12 weeks of unpaid leave for eligible mothers, but paid leave is not mandatory.[1] In most other high-income countries, there has been an increase in paid maternity leave benefits over the last several decades. For example, prior to 1977, only 12 weeks of unpaid leave were available to working mothers in Norway, but currently, eligible mothers are entitled to a year of paid leave and an additional year of unpaid job protection after the birth of a child. To comprehensively assess maternity leave policies and determine the case for expanded paid leave, one must consider the impact of these policies on the outcomes of children, mothers, and families.

There is a large literature that estimates the effects of maternity leave reforms on maternal employment and earnings as well as a variety of short and long-term outcomes of children, such as health and cognitive development. However, there is surprisingly little causal evidence on the effects of maternity leave on maternal health outcomes. A priori, the effect is unclear. On the one hand, returning to work shortly after giving birth may have negative effects on the health and well-being of mothers if employment increases stress or detracts from time the mother spends caring for herself and recovering from the physical effects of childbirth. On the other hand, employment may bring psychic benefits to the mother and increase household income, which may improve health.

In this paper, we examine the impact of paid maternity leave on maternal health using a reform that increased maternity leave benefits in Norway in July 1977. Before the reform, mothers were eligible for 12 weeks of unpaid leave and no paid leave. Mothers giving birth after July 1, 1977 were entitled to 4 months of paid leave and 12 months of unpaid leave. We combine Norwegian administrative birth registry data with survey data on health of women around the age of 40, including body mass index (BMI), blood pressure, cholesterol levels, diabetes, self-reported pain, and self-reported physical and mental health. We estimate the impact of the 1977 policy reform on medium- and long-term maternal health using a regression discontinuity design, comparing outcomes of mothers who had children just after and just before July 1, 1977. We also use data from the years around the reform and employ

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[1]There are no federally-funded paid leave entitlements in the United States, though some states provide paid leave benefits.

a difference-in-regression discontinuity design to address concerns that there may be differences in the outcomes of mothers who gave birth in the months before and after July 1977 that are unrelated to the reform.

We find strong evidence across a variety of specifications that the 1977 reform was protective of maternal health. Various aspects of metabolic health improve for mothers who were eligible for the reform including BMI, the probability of being obese, blood pressure as well as a summary index that aggregates the measures of metabolic health. The reform decreased the probability of experiencing pain around age 40, with the improvements driven by declines in back, neck and shoulder, and leg and hip pain. We find significant improvements in self-reported mental and general health. We also estimate the impact of the reform on health behaviors and find the reform increased vigorous exercise and decreased the probability of smoking around age 40. We analyze whether there were heterogeneous effects across several characteristics of the mother and the birth experience. The reform had larger effects on women who experienced complications at delivery and smaller effects on those who had a cesarean section.

We contribute to the fairly sparse literature that estimates the causal relationship between maternity leave and maternal health in a variety of ways. First, our data contains a large and comprehensive set of health outcomes, including self-reported measures as well as biomarkers from medical examinations (e.g., blood pressure, cholesterol, blood sugar). Thus, we analyze the impact of maternity leave on many aspects of health. The biomarkers we consider predict well a variety of future health conditions, and they allow us to learn more about the causal mechanisms through which maternity leave affects maternal health than other studies. Second, we observe the health of mothers around age 40 which allows us to analyze the effects of maternity leave potentially several years after the woman has given birth. For the most part, the prior literature has focused on maternal health outcomes shortly after childbirth. Our results are informative for understanding the medium- and long-term effects of maternity leave benefits. Third, our sample includes mothers of all types (first time, non-first time, single, married, etc.) who gave birth in Norway during the time frame we consider. Prior studies often focus on selected samples of mothers such as new mothers, married mothers, or currently employed mothers. Thus, we overcome some of the limited generalizability of these studies. Last, parental leave expansions are currently under debate in the United States, and the reform we consider changed maternity leave benefits when they were at a very low level, similar to benefits in the United States today. Our results, therefore, may inform the current debate over family leave policy.

The Effect of Prices on Youth Cigarette and E-cigarette Use: "Exit Ramps" or Gateways?*

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August 14, 2017

Abstract

Over the past several decades conventional cigarette smoking has declined significantly among youth and young adults in the United States. However, in recent years, these same groups have exhibited striking increases in their use of electronic cigarettes (e-cigarettes). In 2014, e-cigarettes overtook cigarettes as the most commonly used tobacco product among youth. E-cigarette use is strongly associated with the use of other tobacco products among youth and young adults including combustible tobacco products; however, it is unclear if the association is causal. In this study, we explore the relationship between cigarette and e-cigarette use by using state level variation in the prices for each product.

We explore the effect of e-cigarette disposable and refill cartridge prices on youth use of e-cigarettes and cigarettes. We document substantial price variation from 2011 to 2015 in e-cigarette prices from 35,000 retailers participating in the Nielsen retail data system. We match this price variation to survey data on current and ever use of e-cigarettes and cigarettes for over 80,000 11-17 year olds from the National Youth Tobacco Survey (NYTS). We find that higher e-cigarette cartridge prices reduce e-cigarette use and increase current cigarette consumption, especially for females. Our results suggest that on average e-cigarettes reduce youth smoking.

Title: Bargaining in Markets with Exclusion: An Analysis of Health Insurance Networks

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This paper builds an empirical framework to quantify the welfare consequences of narrow network health insurance plans, under the hypothesis that insurers exclude hospitals from their networks to gain bargaining leverage. The challenge is this requires a credible model of hospital insurer bargaining, in a setting where there are many insurers and many hospitals, and where the networks are endogenous. I propose a model in this setting that can explain the existence of narrow networks. While insurers will lose revenue, due to their more restrictive networks necessitating lower premiums, they can offset this lost revenue by reimbursing in-network hospitals at lower rates.

I show how my model nests the Nash-in-Nash framework that has been used in the recent hospital-insurer bargaining literature, though it treats the networks as exogenously formed. I estimate both models using data from the Colorado All-Payer Claims Database, focusing on the on- and off-exchange non-group market. I use the model estimates to empirically explore the welfare consequences of a hypothetical network adequacy law, a law which restricts insurers' ability to form narrow networks. Using a counterfactual analysis, I find that restricting insurers' ability to exclude would lead to higher negotiated prices, higher premiums for consumers, and reduced welfare. The welfare losses due to premium increases are larger than the value consumers gain by having a larger health insurance network. While the policy is mostly a transfer from consumers to hospitals, I find small losses in total welfare. These results differ from the Nash-in-Nash model, whose counterfactual suggests lower negotiated prices and premiums.

Medicaid Today, Uninsured Tomorrow? Medicaid Beneficiary Disenrollment Rates and Physician

Participation in Medicaid

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Abstract

Background: Physician practices may be less willing to accept Medicaid patients—harming Medicaid beneficiaries' access to care—if Medicaid patients have a high likelihood of disenrolling and becoming uninsured. For beneficiaries with chronic physical or mental health conditions who require regular care, this factor may be especially important in physician practices' decision-making, and the health consequences of poor access to care are exacerbated.

Objective: To examine the effects of local Medicaid beneficiaries' average disenrollment rates on physician practices' Medicaid participation decisions.

Design, Setting, and Participants: Cross-sectional comparison of Medicaid participation in a nationally representative sample of U.S. physician practices located in counties differing in rates of disenrollment from Medicaid among key patient groups. We focus on specific physician practice subgroups of interest—those of primary care physicians treating adults, behavioral health specialists, and pediatricians—and the disenrollment rates of the chronically ill Medicaid patients they treat. Naïve regressions in this setting may fail to account for endogeneity due to unmeasured health status differences across counties as well as reverse causality (if poor access to physician care lead chronically ill beneficiaries to seek additional care in inpatient settings, where patients receive additional aid in demonstrating their Medicaid eligibility). We account for endogeneity in our analysis by using an

instrumental variables analysis that exploits differences in states' Medicaid eligibility redetermination regulations to identify effects.

Main Outcomes: Dichotomous indicators for whether practices were accepting new Medicaid patients, and whether practices received at least 2, 5, or 10 percent of practice revenues from Medicaid, as indicated in survey data.

Results: In our instrumental variables analyses, for every 10 percentage-point increase in the county's Medicaid disenrollment rate among chronically ill adult beneficiaries (due to restrictive eligibility redetermination rules), primary care physicians treating adults were 8.5 percentage points less likely to accept any new Medicaid patients ($p=0.043$). Similarly, for every 10 percentage-point increase in the county's Medicaid disenrollment rate among chronically ill child beneficiaries, pediatricians were 9.8 percentage points less likely to accept new Medicaid patients ($p=0.043$). Estimated effects on behavioral health specialists' Medicaid participation were muted, perhaps in part because of their low average participation in Medicaid versus other specialists. Findings were similar in analyses of physician practice revenues from Medicaid. Across physician practice groups and alternative model specifications, our instrumental variables results appear to significantly reduce positive bias in our naïve, endogenous regression results.

Conclusions: States concerned about access to care for Medicaid recipients should consider retaining relaxed program eligibility redetermination rules and other approaches to address physicians' concerns about Medicaid patients' disenrollment risk.

Do Report Cards Measure True Quality? The Case of Skilled Nursing Facilities

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Abstract

Report cards are intended to improve consumer decision-making and foster a market for quality. However, inadequate risk adjustment of report card measures often biases comparisons across firms. We test whether skilled nursing facility (SNF) star ratings causally predict quality outcomes. We exploit variation over time in the distance from a patient's residential ZIP code to SNFs with different ratings to estimate the causal effect of admission to a higher-rated SNF on health care outcomes, including mortality. We found that patients who go to higher-rated SNFs achieved better outcomes, supporting the validity of the SNF report card ratings.