Workshop on the Applications of Industrial Organization: Health Care

September 16 – 17, 2016

Organizers: Laura Lasio (McGill Econ) and Nathan Yang (McGill Desautels)

Workshop Location: McGill Desautels, 1001 Sherbrooke O, Room 245 (second floor)

The mission of the workshop is to highlight fields of study that interface with industrial organization. For its 2016 edition, the workshop will focus on the applications of industrial organization to health economics, and will feature the following presentations by distinguished speakers from economics, marketing, and health care management:

Pierre Dubois (TSE) - On the Role of Parallel Trade on Manufacturers and Retailers Profits in the Pharmaceutical Sector

Liran Einav (Stanford) - Provider Incentives and Health Care Costs: Evidence from Long-Term Care Hospitals

Paul Grieco (PSU) - Strategic Patient Discharge

Kate Ho (Columbia) - Equilibrium Insurer-Provider Networks: Tiering and Steering in Health Care

Bradley Shapiro (Chicago) - Advertising in Health Insurance Markets

Amanda Starc (Wharton) – Internalizing Behavioral Externalities: Benefit Integration in Health Insurance

We thank the following organizations for sponsoring the event

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Workshop Schedule

September 16, 2016

1:00 – 2:00 Pierre Dubois (TSE)

2:00 – 2:30 Coffee break

2:30 – 3:30 Amanda Starc (Wharton)

3:30 – 4:30 Bradley Shapiro (Chicago)

7:00 – 9:00 Dinner (by invitation only)

September 17, 2016

9:00 – 10:00	Paul Grieco (PSU)
10:00 – 10:30	Coffee break
10:30 – 11:30	Liran Einav (Stanford)
11:30 – 12:30	Kate Ho (Columbia)
12:30 – 2:00	Closing lunch

List of Presentation Abstracts

Presenter: Pierre Dubois (TSE)

Title: On the Role of Parallel Trade on Manufacturers and Retailers Profits in the Pharmaceutical Sector

Abstract: We study how cross-national differences in regulated pharmaceutical prices within the EU lead to arbitrage decisions by pharmacy retailers through parallel imports of versions of drugs originally marketed in other countries by the same company. Such strategic decisions can affect the distribution of profits in markets for prescription drugs, including the profitability of innovating pharmaceutical companies even before patents expire and generic competition enters. Before patent expiry, parallel trade is the unique source of upstream competition from the perspective of a pharmacy retailer. We develop a structural model where retailers can alter the set of goods which the consumer can choose from, in response to differences in profitability across products. Our demand model with unobserved choice sets can be identified using individual consumers' choices and supply side conditions for optimal choice sets decisions. Estimating our model with rich data on a pharmaceutical market featuring parallel imports, we find that retailer incentives play a significant role for the observed outcome. Our counterfactual simulations show that parallel imports of drugs has small effects on average consumer welfare, while it has large implications for the distribution of industry profits. In particular, retailers gain at the expense of pharmaceutical companies, while parallel traders only attain modest profits.

Presenter: Amanda Starc (Wharton)

Title: Internalizing Behavioral Externalities: Benefit Integration in Health Insurance

Abstract: We show that profit-maximizing firms alter product design in the market for Medicare prescription drug coverage to account for underutilization by consumers. Using plausibly exogenous variation, we document that plans that cover all medical expenses spend more on drugs than plans that are only responsible for prescription drug spending, consistent with drug spending offsetting some medical costs. The effect is driven by drugs that are likely to generate substantial offsets. Our supply side model confirms that differential incentives across plans can explain this disparity. Counterfactuals show that the externality created by stand-alone drug plans is $405 million per year.

Presenter: Bradley Shapiro (Chicago)

Title: Advertising in Health Insurance Markets

Abstract: We study the effect of television ads in the market for health insurance for the elderly. Regulators are concerned about firms potentially using ads to "cream skim", or attract an advantageous risk pool as well as the potential for firms to use misinformation to take advantage of the elderly. On the other hand, ads could provide useful information or remind people to reconsider their options, making regulation potentially welfare reducing. Using the discontinuity in advertising exposure created by the borders of television markets, we estimate television advertising to have on average zero lift on the share of seniors who choose private Medicare Advantage (MA) plans over government-provided Traditional Medicare (TM) with enough precision to reject the null of positive ROI from market expansion. Leveraging the unilateral cessation of advertising by United Healthcare for three years, we additionally find that rival advertising provided zero average impact on United's brand share with enough precision to reject positive ROI from business stealing. Additionally, advertising is not more effective in counties with a healthier population, potentially easing the concern over cream skimming. The lack of advertising effect cannot be attributed to the shape of the advertising response curve or to long-run effects.

Presenter: Paul Grieco (PSU)

Title: Strategic Patient Discharge

Abstract: Medicare’s prospective payment system for long term-care hospitals (LTCHs) gives providers modest per-diem reimbursements for short patient stays before jumping discontinuously to a large lump-sum payment after a specified number of days. Using Medicare claims data, we show that LTCHs strategically discharge patients after they exceed the large-payment threshold, with identification coming from variation in the length of thresholds across diagnoses and from changes in thresholds within diagnoses over time. We further show that for-profit LTCHs and those within acute-care hospitals are more likely to strategically discharge patients. Using a dynamic structural model, we then evaluate several counterfactual payment policies currently being discussed as alternatives to the existing scheme and find that they would provide substantial savings to CMS.

Presenter: Liran Einav (Stanford)

Title: Provider Incentives and Health Care Costs: Evidence from Long-Term Care Hospitals

Abstract: Health insurers use a broad set of payment schedules to reimburse medical providers, ranging from fixed-price payments, which do not vary with the realized cost of care, to cost-based payments, which are designed to reflect underlying provider costs. We study Medicare payment schedules for long-term care hospitals (LTCHs), which provide cost-based per diem reimbursement for shorter hospitals stays and fixed-price reimbursement for stays beyond a "short stay outlier" threshold. The transition from cost-based to fixed-price reimbursement generates a sharp "jump" in payments of $13,000 for an additional day on average relative to $1,300 per day prior to the jump. We investigate the impact of these incentives on discharge patterns and patient health using Medicare claims data on the universe of LTCH stays over 2007-2012. We estimate a model of discharge behavior that allows us to estimate heterogeneity in LTCH responsiveness by hospital characteristics (e.g., for-profit vs. non-profit) and explore the implications of counterfactual payment schedules.

Presenter: Kate Ho (Columbia)

Title: Equilibrium Insurer-Provider Networks: Tiering and Steering in Health Care

Abstract: In recent years employers and insurers have begun appealing to more sophisticated plan and benefit designs as a means of controlling health care costs. In particular, some insurers construct "narrow network" plans that exclude high-cost providers and are offered at relatively low premiums. Others offer two or more "tiered network" plans that allow for imperfect patient steering to lower-cost providers through a narrow network option while still providing consumers the choice of a higher-premium "full network" plan that includes the majority of providers. Multiple plans with different provider networks can be used by insurers to price discriminate and cream skim (with theoretically ambiguous effects on consumer welfare). They may also effectively (a) control utilization costs by steering patients to lower price providers, and (b) reduce/influence negotiated prices. Which of these effects dominates, however, is an open question. This paper studies the equilibrium determination of insurer-provider networks. We build on the model of the U.S. commercial health care market developed in Ho and Lee (2016) which considers hospital-insurer bargaining over provider prices; insurer premium setting; and consumer demand for hospitals and health insurers. We endogenize insurers' hospital networks by adding a first stage to the model in which insurers and hospitals choose their bargaining partners. We use the resulting framework, and a comprehensive dataset covering California admissions, claims and enrollment, to address policy-relevant questions regarding the sustainability of tiered and narrow networks and their effects on negotiated prices. We also consider who benefits from these types of plans: we investigate the distributional consequences of narrow networks, which may differentially impact particular geographic or demographic populations.