

Ke ZENG

PHD CANDIDATE · ECONOMICS

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EDUCATION

Graduate Center, City University of New York

New York, USA

PHD CANDIDATE IN ECONOMICS

Aug. 2017 - June. 2023 (exp.)

• **Thesis:** "Essays on physician behavior and healthcare policy."

Lund University, Lund Sweden Master of Science, Major in Intl' Economics, Aug. 2015 - Jun. 2016

Northeastern University, Shenyang, China Bachelor of Economics, Major in Finance, Sep. 2011 - Jul. 2015

RESEARCH & TEACHING FIELDS

Primary Fields: Health Economics, Industrial Organization

Secondary Field: Applied Microeconometrics

JOB MARKET PAPER

Practice-style spillovers in hospital care: evidence from lower extremity joint replacement surgery

We analyze Medicare policy effects on how hospitals and surgeons change their practices to treat the targeted and non-targeted patients. Leveraging on a mandatory bundled payment model, we find that hospitals will follow the way of treating the non-targeted patients as the way treating Medicare patients. We show the model resulted in increased use of Home-with-Healthcare (HHC) discharge and total cost per patient and a decreased use of both Skilled Nursing Facility (SNF) and Home discharge. Larger effects are identified for Private insurance recipients. In addition, we show substantial heterogeneity of policy effects. Turning our focus to the surgeons, we show the surgeons who treated the targeted patients will also be affected when treating the patients belonging to related diagnosis group, regardless of payment type. Surgeons exposing to more Medicare patients will be more affected by the Model. However, we do not find practice style changes due to Model on patients partly treated by the Model surgeons. To reveal the type of transmission from Medicare to private sector and evaluate if hospital makes insurance-based decisions, we construct the instrument using predicted outcomes of Medicare patients, then apply the 2SLS on private-insured patients. The results further confirm the following type of transmission, which is almost one-dollar-to-one-dollar increase in total cost.

PUBLICATION

Evolution of Government's Performance Through Yardstick Competition in the Spatial Game of Gubernatorial Elections

Tang, T., & Zeng, K.* (2018), Journal of Artificial Societies and Social Simulation, 21(2)

SELECTED ONGOING RESEARCH

The Effects of Hospital-Acquired Condition (HAC) Reduction Program on Patient Outcomes: An Regression Discontinuity Approach
Is the policy effective? outcome analysis of The Skilled Nursing Facility Value-Based Purchasing program

with Kun Li @ George Washington University

Aftershock - the effect of unemployment on drug epidemic: evidence from China shock

with Jiakai Zhang @ New Mexico Tech

Medicare bundled payment model impacts on procedures level, an Machine Learning approach

Intergenerational mobility in education under the Hukou system in China

The China syndrome revisited: China's impact on cross-country inequality

TEACHING

2019	ECON321-Introduction to Econometrics	Hunter College
2019	ECON2100-Elementary Macroeconomics	Brooklyn College
2020	ECON321-Introduction to Econometrics	Hunter College
2020	ECON2100-Elementary Macroeconomics	Brooklyn College
2021	ECON2100-Elementary Macroeconomics	Brooklyn College

PRESENTATIONS

2022	Annual Meeting of the Southern Economic Association	Fort Lauderdale, FL
2022	Midwest Economics Annual Meetings	Minneapolis, MN
2022	ASHEcon 2022 Session Chair	Austin, TX
2022	15th RGS Doctoral Conference	Ruhr, Germany

OTHER EMPLOYMENT

2021 -	External Consultant World Bank Group & Data-Whale	New York, USA
2021 -	Quantitative Analyst Immigration Research Initiative	New York, USA

PROFESSIONAL ACTIVITIES

Reviewer@ Computational Economics

Visiting Student@ National Bureau of Economic Research in New York

HONORS AND ACHIEVEMENT

2020	Grant Doctoral Student Research Grant, 2022 Spring, Graduate Center, CUNY, 1500 USD Grant	New York, USA
2020	Fellowship ARC fellowship, 2020 Spring, Graduate Center, CUNY, 5000 USD Grant	New York, USA
2018	Fellowship Graduate Center Fellow, Graduate Center, CUNY, 12000 USD annually	New York, USA

SKILLS

Programming	Python, Stata, R, \LaTeX , Matlab
Databases	MySQL
Languages	Mandarin, Cantonese, English, Hakka, French(A2)

REFERENCE

Partha Deb

Professor, Hunter College and the Graduate Center, City University of New York and NBER
partha.deb@hunter.cuny.edu

Michael Grossman

Distinguished Professor of Economics Emeritus, City University of New York Graduate Center and NBER
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Jessica Van Parys

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Practice-style spillovers in hospital care: evidence from lower extremity joint replacement surgery I

We analyze Medicare policy effects on how hospitals change their practices to treat targeted and non-targeted patients. Leveraging on a mandatory bundled payment model, we find that hospitals will follow the way of treating the non-targeted patients as the way treating Medicare patients. We show the model resulted in increased use of Home-with-Healthcare (HHC) discharge and total cost per patient and a decreased use of both Skilled Nursing Facility (SNF) and Home discharge. Larger effects are identified for Private insurance recipients. The results provide the first quantitative evidence of hospitals' increasing costs of adapting to new practice styles. In addition, we show substantial heterogeneity of policy effects using the Bartik instrument. We focus on three dimensions of heterogeneity - relative employment between HHA and SNF facilities, lower extremity joint replacement (LEJR) share, and LEJR Medicare share. We find that hospitals exposed to a higher level of HHA-SNF and LEJR share will experience more significant practice changes.

Practice-style spillovers in hospital care: evidence from lower extremity joint replacement surgery II

Our study has found significant practice changes at the hospital level. In this paper, we delve into the surgeons, who are the frontier agents to adopt the changes in practice. We collect the patient and surgeon information from patient records and investigate if the surgeon will separate the patients and tailor the treatments for them. Our difference-in-difference results show that surgeons who treated the targeted patients (Model surgeons) will also be affected when treating the patients belonging to related diagnosis groups, regardless of payment type. In addition, the Model surgeons exposed to more Medicare patients will be more affected by the Model. However, we do not find practice style changes in patients partly treated by the Model surgeons. These results provide evidence supporting the norms hypothesis.

Universal payment in US, the outcomes of Maryland All-Payer Model on patients with substance use disorder: a DiD approach

In 2014, the CMS and the state of Maryland partnered to implement the universal payment scheme and the all-hospital rates will be used for the same services in Maryland hospitals. This study focuses on patients with substance use disorder under the Maryland model and investigates their treatments applied. Using patient record data and a DiD framework, this study shows that Maryland hospitals are more likely to use institutional facilities and less likely to directly discharge patients to home without the following healthcare. We also show that physicians working across states will carry the Maryland Model effects in other states.