
CURRICULUM VITAE

PADMAJA AYYAGARI

ADDRESS

130 Rubenstein Hall, 302 Towerview Drive
Duke University
Durham, NC 27708
Work: (919) 613-9371

E-MAIL pa7@duke.edu

WEBPAGE www.econ.duke.edu/~pa7

HOME

723 Glen Hollow Drive
Durham, NC 27705
Cell: (919) 724-2209

EDUCATION

Ph.D. in Economics (expected May 2008), Duke University, Durham, NC, USA

M.S. in Quantitative Economics, Indian Statistical Institute, Calcutta, India, 2002

B.S. in Economics, Calcutta University, Calcutta, India, 2000

AREAS OF SPECIALIZATION

Primary Field: Health Economics

Secondary Field: Industrial Organization

DISSERTATION

Title: Preventive Health Behaviors among the Elderly

Committee: Frank A. Sloan (Chair), Alessandro Tarozzi, Curtis Taylor, Ahmed Khwaja

PROFESSIONAL AND ACADEMIC EXPERIENCE

2004~2007 Center for Health Policy, Duke University, Durham, NC, USA
; Research Assistant to Frank A. Sloan (summers 2004-06, fall 2004-05, spring 2005-06)

2003~2004 Department of Economics, Duke University, Durham, NC, USA
; Teaching Assistant, Intermediate Macroeconomics (ECON 110, spring 2004)
; Teaching Assistant, Intermediate Macroeconomics, (ECON 110, Fall 2003)

WORKING PAPERS

1. "Do Health Shocks Affect Preventive Behavior?", 2007 Job Market Paper
2. "Effect of Medicare Coverage on Flu Shot Demand", 2007
3. ""Determinants of Diabetic Health Investments", 2007
4. "The Effects of Diagnosed Dementia on Medicare and Medicaid Payments" (with Martin Salm and Frank A. Sloan), 2007 forthcoming in Inquiry
5. "Rates of Glaucoma Medication Utilization Among Persons with Primary Open Angle Glaucoma, 1992-2002" (with J.D.Stein, F.A.Sloan and P.P.Lee), 2007 forthcoming in Ophthalmology
6. "Survival and the Changing Role of Chronic Diseases in the 20th Century" (with Frank A. Sloan, Martin Salm and Dan Belsky), 2007

CONFERENCE PRESENTATIONS

6th World Congress of the International Health Economics Association "Explorations in Health Economics", Copenhagen, Denmark, July 2007

Inaugural Conference of the American Society of Health Economists "Economics of Population Health", Madison, WI, USA, June 2006

HONORS AND AWARDS

Phillip Jackson Baugh Fellowship, Graduate School, Duke University: 2006-2007

Summer Dissertation Research Fellowship, Department of Economics, Duke University, Summer 2005

Tuition Grant, Department of Economics, Duke University, 2002-2008

Frank T. DeVyver Endowment Fellowship, Department of Economics, Duke University, 2002-2003 academic year

Government of India Fellowship and Annual Contingency Grant, Economic Research Unit, Indian Statistical Institute, 2000-2002

SKILLS

Computer: SAS, STATA, MATLAB, LaTeX

Datasets: HRS, NLTCS, Medicare Claims, MCBS

Languages: English, Hindi, Telugu, Bengali

REFERENCES

Frank A. Sloan (chair), J. Alexander McMahon Professor of Health Policy and Management and Professor of Economics, Duke University
Center for Health Policy, Box 90253
114 Rubenstein Hall, 302 Towerview Drive
Durham, NC 27708
Phone: (919) 613-9358
Email: fsloan@duke.edu

Alessandro Tarozzi, Assistant Professor of Economics, Duke University
Department of Economics, Box 90097
Durham, NC 27708
Phone: (919) 660-1877
Email: taroz@econ.duke.edu

Curtis R. Taylor, Professor of Economics, Duke University
Department of Economics, Box 90097
Durham, NC 27708
Phone: (919) 660-1827
Email: crtaylor@econ.duke.edu

JOB MARKET PAPER ABSTRACT

This paper examines the effect of new information on individual perceptions about the risk of disease and on preventive health behavior. Specifically, I study beliefs about the risk of pneumonia and vaccine demand among elderly persons. Pneumonia and influenza together are the sixth leading cause of death among the elderly in the United States. Medicare part B covers the cost of the vaccine and its administration. Despite such high risk and the low monetary cost, vaccination rates remain low among this population. While several factors may affect an individual's decision to vaccinate, subjective beliefs about the risk of infection are an important determinant. I consider a simple Bayesian updating model where new information arrives in the form of exogenous health shocks related to pneumonia and influenza and examine whether individuals update their beliefs in response to these shocks. Next, I study whether these health shocks have a corresponding effect on demand for vaccination.

I use data from the Medicare Current Beneficiary Surveys (MCBS) and associated Medicare claims. The MCBS is a rotating panel and the panel structure of the data permits identification of the effect of new information on beliefs and behavior. Answers to a survey question about why a person did not get a pneumonia shot is used to measure perceptions about the risk of infection. Health shocks are identified from Medicare claims with diagnoses of influenza or pneumonia. Variation in the prevalence of pneumonia and the infectious nature of the disease allows me to model these shocks as exogenous.

I find substantial heterogeneity across individuals - those who choose to vaccinate tend to be older and more educated than those who do not. The presence of certain chronic conditions is also a strong predictor of vaccination status. To identify learning, I estimate the effect of health shocks on risk perceptions, controlling for prior perceptions and other covariates. I account for the endogeneity of prior perceptions by using a generalized method of moments estimator suggested by Arellano-Bond (1991) and Blundell-Bond (1998). I find strong evidence of learning - individuals who experience health shocks are less likely to believe that they are not at risk of infection. Since the pneumonia shot is usually taken only once in a person's lifetime, I estimate a Weibull proportional hazards model accounting for unobserved heterogeneity. The unobserved individual specific term is modeled as a Gamma frailty term. I find that experiencing a health shock significantly increases the hazard of vaccinating. Consistent with previous literature, I find that vaccine demand also increases with the prevalence of the disease; however, this effect is substantially smaller than that of a personal health shock. This is consistent with the idea that individuals react more strongly to a personal risk than to the average risk of a disease.