Explaining Disparities in Health Care Utilization: The Role Health Insurance and Selection Bias

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Abstract With passage of the Patient Protection and Affordable Care Act (PPACA) in 2010, the US government expects to reduce the ranks of the uninsured by 32 million by the end of the decade. Roughly half of the 32 million are expected to gain coverage through private insurers competing in state-based exchanges. Understanding how this public policy expansion will influence demand for services remains a complex issue. This paper develops a model to parse differences in utilization attributable to private health insurance and differences due to self-selection into insurance status, with specific interest in selection on unobservable traits such as insurance preference. To better mesh utilization and insurance status, the continuously uninsured are isolated from a more transitional coverage group for estimation purposes. The model has two components, one component to model insurance outcome, the other to model demand for care measured as the annual number of services used. Recognizing the endogeneity of health insurance, the model allows for correlated unobserved heterogeneity by assuming a latent factor structure. Values for these latent factors are drawn through simulation and the model is estimated using maximum simulated likelihood methods. For the observable characteristics that predict need for health services we find evidence of adverse selection. However, we also find evidence of favorable selection on the unobservable characteristics common to insurance choice and utilization. In other words, unobserved heterogeneity that increases the chances of being uninsured is associated with higher utilization. After controlling for selection, the insurance effect is positive and significant. For the average individual, switching from no coverage to full coverage would result in 2 additional visits to the doctor per year (+160%) and 8 additional prescriptions filled (+207%).

Keywords: Health care; Health insurance; Adverse selection; Treatment effects model, Medical subsidy program

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