Dissertation Abstract
The Demand for Outpatient Health Care in Indonesia
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A well established literature examines the link between health care facility utilization in lower income nations and the characteristics of the health care supply side confronting consumers in those societies. Using a sample of Indonesian adults, this dissertation advances this literature on several fronts. The first essay focuses on multinomial provider choice, the dominant demand concept in the work to date. It begins with the introduction of a theoretical framework. In a fully dynamic setting, consumers make discrete choices among health care facility alternatives, taking account of the implications of current decisions for expected future values of all state variables. Surprisingly, some intuitive predictions obtain only through numerous parameter restrictions. The focus then shifts to empirical modeling of multinomial facility demand. Much attention has been paid to the consequences of the assumption that the stochastic portion of indirect utility is independently and identically distributed (iid) across alternatives. After thorough discussion of various alternatives employed to relax this assumption, a flexible semi-nonparametric alternative is introduced. It involves a semi-nonparametric error-components structure for the stochastic portion of indirect utility that relaxes the iid assumption in a very general way while avoiding many of the pitfalls associated with other models. In particular, it does not require further distributional assumptions, unjustifiable exclusion restrictions or the adoption of some arbitrary nesting structure. To secure stronger identification, the model is jointly estimated with binary models for three types of informal self-treatment. Elasticities with respect to key provider characteristics are calculated for alternative samples and specifications. Alternative specifications are introduced partly to permit sensitivity to key covariates to differ for certain population subgroups. Using insights from recent work, the difference in elasticities for these subgroups is calculated in the technically appropriate but rarely adopted manner.

The second essay compares multinomial models with others that focus on total demand (represented by the number of provider visits) since, in many respects, that is the concept of underlying interest. Analytical expressions for multinomial and total demand elasticities are derived and compared. It is shown that the two demand concepts should yield different elasticity estimates, principally because they weight successive visit count probabilities differently. A dynamic theoretical model of discrete-choice health care demand is developed as a vehicle for considering particular behavioral mechanisms by which the two demand concepts might be expected to yield different elasticity estimates. Innovative empirical models are employed to compare elasticity estimates generated by empirical models of multinomial and total demand for public health clinics. These include a new, extremely flexible estimator for the conditional mean of visit counts, or the expected number of visits. Multinomial models are found to provide reassuringly useful insights into the distribution of total demand for this sample, though the correspondence is less strong for the poorest Indonesians.