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Paying on the Margin for Medical Care: Reading Notes

The paper compares the relative patient demand and the welfare gain of an alternative insurance policy named “Top-up,” to those of the other two insurance policies commonly adopted in U.K. (no top-up policy) and in U.S. (full coverage policy). The authors define top-up policy as insurance covers only the baseline treatment is the commonly deemed cost-effective. Patients have to pay out of its own pocket if wanting treatment that are expensive and equally effective. The paper focuses on breast cancer treatment and focuses on the shift in demand of the more expensive treatment option named “lumpectomy.” Using the model, the paper estimates that, comparing to non-top-up policy, top-up policy makes patient more willing to take lumpectomy treatment, but less when compared to full coverage policy. Given the implied costs and price in the data, the paper finds that there is a final welfare gain under the top-up policy and is thus recommended.

The paper builds the demand model by considering patients’ costs by choosing the lumpectomy treatment. However, since lumpectomy treatment does not vary in price very much, the paper uses patient travel distance and time as the way to monetize the time opportunity cost to estimate the relative demand model. Thus, the patient’s utility model here considers both the patients’ distances to the treatment facility and the amount patients have to pay out of pocket. The results are not surprising: patient who live close to the treatment facilities show stronger tendency to choose lumpectomy treatment, holding all other the same.

The paper then construct these counterfactual policies of top-up and use it to estimates the probability of taking the lumpectomy treatment given different out of pocket expenses. The data is then used to estimates the reduction in consumer surplus and the social costs. The data reveals superior results for modified top-up policy.

After reading the paper, I have a question regarding the model. It seems like the utility function here missed some factors that should be counted into the model: aesthetic utility. While it may hard to be controlled or measured. I believe that when dealing with breast cancer and treatment of removing the cancer breast vs another treatment that allows to patient to keep the breast, patient could choose the later not because of price nor distance traveled, but from a quality-of-life point. Survey could be used to at least pointed out this problem, but I believe the article just ignore it.