

Price sensitivity and regional variation in health care

Akademisk avhandling

Som för avläggande av medicine doktorexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligen försvaras i hörsal Arvid Carlsson, Medicinaregatan 3, fredagen den 5 mars, klockan 13:00.

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Avhandlingen baseras på följande delarbeten

- I. Johansson, N., Jakobsson, N. & Svensson, M. Regional variation in health care utilization in Sweden – the importance of demand-side factors. *BMC Health Services Research*, 2018, 18:403.
- II. Johansson, N. & Svensson, M. Regional variation in drug expenditures – evidence from regional migrants in Sweden. Manuscript.
- III. Johansson, N., Jakobsson, N. & Svensson, M. Effects of primary care cost-sharing among young adults: varying impact across income groups and gender. *The European Journal of Health Economics*, 2019, 20(8):1271–1280.
- IV. Johansson, N., de New, S.C., Kunz, J., Petrie, D. & Svensson, M. Reductions in out-of-pocket prices and forward-looking moral hazard in health care. Manuscript.

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Abstract

Understanding the consequences of current health policy is important in order to design and develop a health care system suitable for future challenges. The purpose of this thesis is to bring evidence on the determinants of regional variation in health care and on individuals' responsiveness to patient out-of-pocket prices in Sweden. The papers included in the thesis are longitudinal register based studies, using representative samples of the Swedish population, with data obtained from national and regional databases. The analyses are primarily based on econometric methods drawing on quasi-experimental approaches to estimate causal effects. The results in Paper I show that regional level mortality and demographics explain a large part of regional variation in visits to specialists, but has limited association with regional variation in visits to primary care physicians. In Paper II, the results show that the relative effect of individual level characteristics outweighs the effect of region-specific characteristics as the drivers of regional variation in pharmaceutical expenditures. The findings in Paper III show that young adults are price sensitive and reduce their use of primary care services after the introduction of patient out-of-pocket prices, with especially strong effects among low-income groups and women. In Paper IV, the findings show that older adults respond to an upcoming elimination of patient out-of-pocket prices by delaying primary care visits in the months before the policy change, but the results show no evidence of a persistent increase in primary care use after the out-of-pocket price elimination.

In conclusion, the findings show that the determinants of regional variation differ within the same health care system, which suggests that the specific institutional settings by type of care are key in understanding regional variation. Further, the results imply that policymakers need to consider heterogeneity and forward-looking behavior in individuals' sensitivity to out-of-pocket prices when developing health care policy.

Keywords: health care utilization, health insurance, regional variation, price sensitivity