

IGM Highlight 4: Higher cost sharing in health insurance reduces moral hazard AND increases risk selection

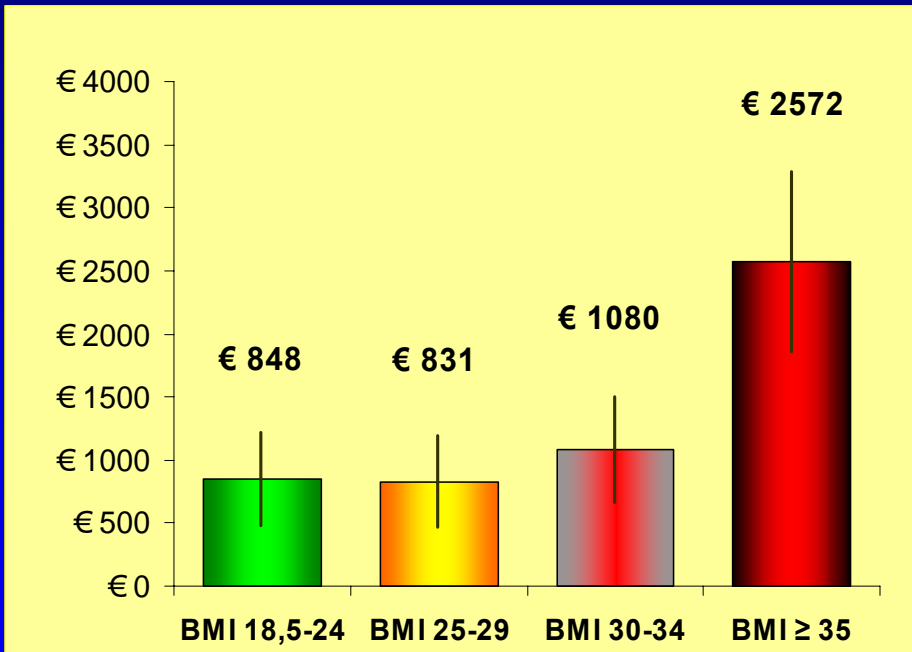
When individuals are offered the choice between health insurance contracts with differing levels of cost sharing, typically, lower utilization of medical services is observed for individuals with a higher level of cost sharing, i.e. the less generous contracts. Theoretically, the negative correlation between the degree of cost sharing and the demand for health care can be due to two reasons: selection processes or moral hazard, the latter describing an increase in health care demand due to the fact that someone is insured. If only healthy people who do not go to the doctor anyway choose high deductibles the observed negative correlation is mainly due to a selection process. In this case the size of the deductible has no impact on individual health care demand and health care costs. If on the other hand people become more cost-aware and reduce their health care demand there is a causal effect of cost sharing, thus reducing the moral hazard problem. Increased cost-sharing as a mean to reduce spending on health care, but also to increase efficiency is on the agenda of many health care reform proposals. In order to assess the cost-reducing potential of such proposals it is necessary to isolate the moral hazard (statistically: the treatment) effect.

In this study we evaluate the effect of the size of deductibles on the probability of a doctor visit using data from the basic health insurance in Switzerland. We employ nonparametric bounding techniques to minimise statistical assumptions. In order to tighten the bounds we consider two further assumptions: mean independence of an instrument and monotone treatment response. Under these two assumptions we are able to bound the causal effect of high deductibles compared to low deductibles below zero. We conclude that the difference in health care utilisation is partly due to a reduction of moral hazard effects. Our results suggest that roughly two thirds of the observed reduction in the probability of a physician visits are caused by selection processes and one third is caused by the differing incentives on health care demand provided by insurance contracts with high and low deductibles.

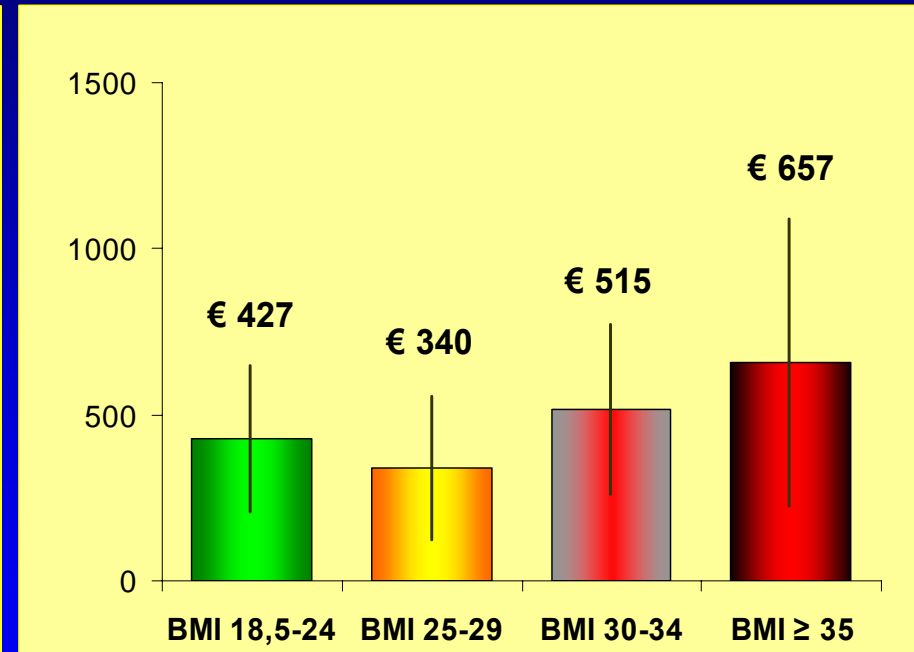
Source: Gerfin, M. and M. Schellhorn (2006): Nonparametric bounds on the effect of deductibles in health care insurance on doctor visits– Swiss evidence, Health Economics 15(9): 1011-1020.

Severe obesity increases health care cost and productivity loss

Mean annual health care cost by BMI groups*



Mean annual productivity losses by BMI groups*

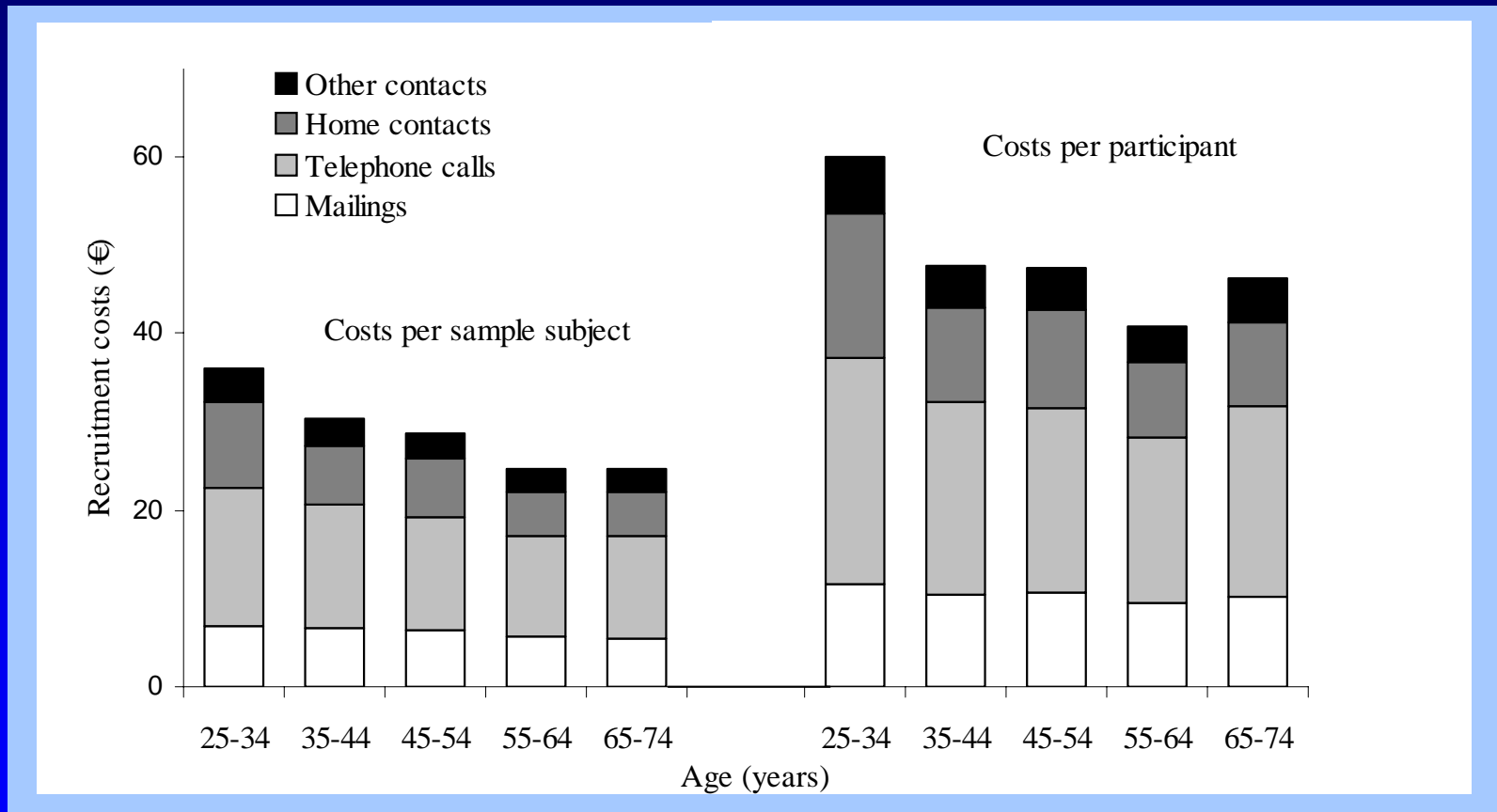


* adjusted for age, sex, socioeconomic status (Helmert-Index), region and health insurance

Lengerke T von, Reitmeir P, John J: Direkte medizinische Kosten der (starken) Adipositas: ein Bottom-up-Vergleich über- vs. normalgewichtiger Erwachsener in der KORA-Studienregion. Das Gesundheitswesen 68, 110-115 (2006).

Prolonged recruitment only slightly increases representativeness – at increasing marginal costs

Recruitment costs are highest in younger age groups who are more difficult to reach and less willing to participate



Holle R, Hochadel M, Reitmeir P, Meisinger C, Wichmann H-E. for the KORA Study Group: Prolonged recruitment efforts in health surveys. Effects on response, costs, and potential bias. *Epidemiology* 17, 639-643 (2006)

EQ-5D a reasonable preference-based index of quality-of-life of patients after acute cardiac event

For patients in rehabilitation after an acute cardiac event, EQ-5D VAS scores (utilities) mostly correlate well with established quality-of-life measures

	Admission	Discharge	3 Months
SF-36 Subscales			
General health perception	0.61	0.58	0.69
Physical functioning	0.68	0.71	0.71
Social functioning	0.61	0.49	0.55
Pain	0.57	0.67	0.61
Vitality	0.54	0.63	0.60
Role limitations (physical problems)	0.50	0.57	0.67
Mental health	0.46	0.46	0.49
Role limitations (emotional problems)	0.21	0.33	0.32
Mac New			
Global score	0.63	0.63	0.68
Subscale: social functioning	0.59	0.61	0.65
Subscale: emotional functioning	0.55	0.52	0.60
Subscale: physical functioning	0.68	0.68	0.72

Schweikert B, Hahmann H, Leidl R: Validation of the EuroQol Questionnaire in cardiac rehabilitation. *Heart* 92:62-7 (2006).

Higher cost sharing in health insurance reduces moral hazard *and* increases risk selection

Higher cost sharing lowered the number of physician visits

Effects of higher cost sharing: about 1/3 due to incentives, 2/3 due to selection

