Editorial

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The Geneva Papers (2017) 42, 1–4. doi:10.1057/s41288-016-0040-1

The Geneva Papers on Risk and Insurance publishes on a regular basis, mostly biannually, a special issue on health. The intent is to provide a rigorous forum for researchers to exchange ideas on how best to plan for the management of health risks and to structure the organisation of health systems, with a special focus on insurance mechanisms. We are delighted to edit this eighth special issue on health devoted to four topics: the links between health consumption and health insurance coverage, the competition in health insurance markets, the supply of medical malpractice insurance and finally, the health of an ageing population and its financing. Let us briefly present the main issues at stake regarding these topics.

The links between health-care consumption and health insurance drive many phenomena that can be found in insurance markets and, in particular, touch upon the benefit and cost of insurance for society. The benefit of health insurance is that it provides a way to reduce and distribute the financial risk associated with health-care expenditure by sharing cost, either through time or across individuals. Additionally, by implicitly transferring resources to those who become ill, insurance intentionally enlarges the set of goods and care accessible to sick insured persons which would not otherwise be available to patients.¹ But some of the additional health care consumed because of insurance—moral hazard—also represents a welfare cost if it is valued at less than the costs of producing it. As a result, distinguishing between the additional insurance-generated health care that represents an efficient access-improving welfare gain and the additional health care that represents an inefficient welfare loss is a challenge.

Cost-sharing policies represent one way to fight against the inefficient portion of moral hazard and possibly against the impact of adverse selection, particularly in public health insurance systems. However, to be optimal, they must be directed in a way that does not also reduce access to needed care. Establishing the optimal level of the cost-sharing policy that reduces waste in health-care utilisation without impeding legitimate access is thus an important and difficult issue. The first step in identifying optimal cost-sharing policies is to understand the effect of insurance and different cost-sharing policies on the quantity of health care consumed. The two first articles of this special issue address the link between health consumption and health insurance, each from a different perspective.

¹ Nyman [1].

The paper by *Renate Lange, Joerg Schiller and Petra Steinorth* empirically assesses selection effects and determinants of the demand for supplemental health insurance that covers hospital and dental benefits in Germany. Controlling for a wide range of individual preferences, they find evidence that individuals aged 65 and younger with hospital coverage are sicker than those without. In addition, they show that insurance propensity and income are the most important drivers of the demand for supplemental hospital and dental coverage. Such results can be useful in designing a reformed health-care system that relies on supplemental health insurance and that aims at ensuring that everyone receives access to appropriate care.

The paper by *Chung Jen Yang, Ying Che Tsai and Joseph J. Tien* examines empirically the effects of persistent behaviour and cost-sharing policy on outpatient medical utilisation for Taiwan's elderly in the National Health Insurance programme. They find positive and negative coefficient estimations for persistent behaviour and price elasticities, respectively, thereby creating a clear trade-off effect of the cost-sharing policy on health-care utilisation. They also show that the price elasticity for females and patients with high medical expenditures, low income, high chronic diseases and good health is higher than that for males and patients with low medical expenditure, high income, low chronic diseases and bad health. Such empirical results in public health insurance could be referred to policymakers of other countries to understand how a change to the out-of-pocket payment might affect the different types of population with different health-care needs.

The two following papers focus on competition in health insurance markets and address two questions that have arisen from changes in public policy. While economists typically assume that greater competition leads to lower prices and commodities that better match consumer preferences, competition can also lead to increased production or transaction costs. A change in policy to promote greater competition for enrollees among insurers, therefore, may have positive or negative impacts on welfare depending on whether prices fall, quality improves or costs rise. Second, greater competition in the insurance market can also be operationalised as a move from community-rated payments and prices to risk-based ones. How the introduction of risk-based systems interacts with consumer preferences determines whether such competition improves welfare or diminishes it.

The paper by *Jacob Bikker* investigates competitive behaviour and scale economies of the health-care insurance market in the Netherlands. He focuses on the impact on the market structure of the 2006 health-care reform, which replaced the dual system of public and private insurance with a single compulsory health insurance scheme in which insurance providers compete for customers in a free market. His findings point to an increase of fixed costs after the health-care reform in 2006. The interpretation of this change is that fixed costs increased after the reform, as insurers now have to monitor care providers and negotiate with them about lower prices or higher quality. The paper also finds that over time, competition in health insurance has increased significantly, but reform-induced market turbulences in 2006 caused a fall in the average level of competitive pressure. These results underline that it may take longer before the fruits of the reform in terms of competition can be harvested in full.

The paper by *Julie Shi* explores the impacts of risk adjustment and risk-based pricing on the efficiency of consumer insurance selection in the Health Insurance Exchanges created by the health-care reform in the United States. Selecting a population likely to participate in the Health Insurance Exchanges from the Medical Expenditure Panel Survey, consumer

choice between plans with different levels of generosity is simulated under various scenarios of policy implementation. The results show that risk-based pricing could, in general, improve or impair efficiency, depending on the heterogeneity of the health-care spending of the enrollees and the selection of rating bands, while risk adjustment always encourages consumers to enrol in more generous plans, which in the model implies improvement in efficiency. This shows that both risk adjustment and risk-based pricing positively affect consumer choice in terms of bearing lower financial risk.

The following two papers address the health of an ageing population and its financing. Most industrialised countries are facing an ageing of their populations, which raises many concerns in terms of health. In particular, one important issue is the health status of an ageing population, and whether older people age in good or poor health. This result would strongly condition future needs for long-term care. Another important issue is that growing long-term care needs, as well as the reshaping of traditional modes of care-giving, increase the pressure for sustainable funding of comprehensive long-term care systems.

The paper by *Joelle Fong* examines the patterns in old-age frailty within a multistate model that characterises the stochastic process of biological ageing. Using aggregate population-level US mortality data, the paper studies differences in frailty by gender and cohort. Her results show that, on average, women tend to be frailer than men at older ages, with the male–female divergence growing considerably past age 80. She also finds that average frailty levels have fluctuated over time with a distinct peak-and-trough pattern. These cohort trends in frailty and the subsequent dynamic forecasts of frailty among newer cohorts closely mirror how late-life disability has evolved among older Americans in recent decades, underscoring the important connection between frailty conditions and disability among older adults. The implications of these findings on spending for long-term care programmes within the broader health insurance system are discussed.

The paper by *Les Mayhew, David Smith, Duncan O’Leary* deals with the financing of long-term care in the UK. Indeed, with the number of U.K. citizens aged 75+ doubling by 2040, and with many people already receiving social care services in England alone, social care funding is a key public policy challenge, as in many other countries. The government has launched a set of reforms designed to encourage individuals to explore how best to use their available wealth and assets to meet care costs through a mixed system of local authority and private sector care-funding options. One option is to use the value in the home to cover out-of-pocket costs and care home fees. In this article, the authors consider two new financial arrangements designed to meet the needs of people in different financial circumstances based on releasing equity from their homes. These consist of an equity-backed insurance product and an “equity bank” that lets a person draw an income from the value of their home.

Last but not least, the final paper of this special issue is by *Yu Lei and Mark Browne* and deals with the underwriting cycle, i.e. the periodic swing in underwriting profitability in the insurance industry, in medical malpractice insurance. Although the underwriting cycle has received considerable research attention, little, if any, research has focused on changes in underwriting practices over the course of the underwriting cycle. Their paper considers three aspects of insurers’ underwriting strategy: product concentration, geographic concentration and the states with caps on general damages. Their analyses of the NAIC data show that all three aspects display trends that run opposite that of the combined ratio in medical malpractice insurance. During soft markets, which are characterised by low

prices, low underwriting profitability and high loss ratios, insurers employ a looser underwriting strategy with lower product and geographic concentration and less focus on safer states. They observe the use of a tighter underwriting strategy during hard markets, when loss ratios are low and prices and profitability are high. These results offer some important indications of the financial condition of insurers at particular points in time in the field of medical malpractice insurance.

All in all, these contributions, illustrated in the light of various health systems and countries, provide some important messages for all stakeholders on how best to plan and organise the coverage and financing of health risks with a significant role played by insurance. Once again, we have been privileged to benefit from the research of the authors who contributed to this volume. We hope that you will enjoy reading their articles as much as we had enjoyed editing this special issue of *The Geneva Papers on Risk and Insurance*.

Reference

1. Nyman, J.A. (2006) 'Evaluating health insurance: A review of the theoretical foundations', *The Geneva Papers on Risk and Insurance—Issues and Practice* 31(4): 720–738.