

Editorial

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This special issue of *The Geneva Papers* on health continues our series of biennial special issues started exactly 15 years ago. The idea of these special issues is to provide a rigorous forum for researchers to better understand the role of insurance mechanisms in financing health risks, with special emphasis on an ageing population.

This special issue contributes to this understanding and concentrates on four topics that are dear to The Geneva Association research programme on health and ageing. These are the phenomena of asymmetric information in markets for health and long-term care (LTC) insurance, the financing of care for an ageing population, the characteristics of the demand for health insurance, and the impact of health insurance on health expenditures and drug prices.

Information asymmetries between consumers and insurers can affect the supply of and the demand for insurance coverage in ways that distort insurance market outcomes. Asymmetric information can lead to adverse selection or moral hazard, two phenomena that are reflected in a positive relation between risk and insurance coverage. Adverse selection is the tendency of individuals who are at higher risk to buy more insurance.¹ Or in the case of moral hazard, this positive correlation is due to a causal effect: having insurance modifies the insured's behaviour, either by taking less preventive action or by using more health services than are optimally needed.² In the specific case of LTC insurance, another form of moral hazard exists known as intra-family moral hazard, which refers to the disincentives for children as potential informal care-givers to provide care when a parent has LTC insurance.³

While adverse selection and moral hazard explain a positive relation between risk and insurance, a negative relationship between risk and insurance can also be observed in many circumstances. One explanation for this relation is the phenomenon of advantageous selection.⁴ According to advantageous selection, more risk-averse individuals would both engage themselves more in preventive activities and also buy more insurance. Hence those at lower risk buy more insurance. The first three papers of this special issue address the effect of asymmetric information on health and LTC insurance markets, each from a different perspective.

¹ Rothschild and Stiglitz (1976).

² Zweifel and Manning (2000).

³ Pauly (1990).

⁴ de Meza and Webb (2001).

The first paper, by *Mark Browne and Tian Zhou-Richter*, investigates whether information known to the buyer of insurance but not to the insurer, that is, private information, results in adverse selection or advantageous selection in the German private LTC insurance market. They first question whether individuals have private information that is associated with either adverse or advantageous selection. Second, they look into which selection effect (adverse or advantageous) is more pronounced. Their analysis reveals sources of both adverse and advantageous selection in the German private LTC insurance market, and that the sources of adverse selection have a dominant impact over those of advantageous selection. These results give support to the conventional claim that asymmetric information distorts market efficiency and results in a lack of insurance demand, at least in the German private LTC insurance market.

The paper by *Xuezheng Qin and Tianyi Lu* examines whether participating in a publicly subsidised health insurance programme recently implemented in rural China leads to *ex ante* moral hazard, that is, does insurance coverage encourage individuals to engage in risky health behaviours? On the basis of a 2000–2009 longitudinal database, they find that participation in this public programme has a statistically significant impact on people's tendency towards smoking, heavy drinking, spending time in sedentary activities, consuming high-calorie food and being overweight. The increase in these unhealthy lifestyles in turn leads to elevated disease risks, indicating *ex ante* moral hazard. These results have implications for the pricing and administrative practices of China's largest health insurance campaign and for public insurance schemes in other developing countries.

The paper by *Xian Xu and Peter Zweifel* examines the concept of bilateral intra-family moral hazard, which is thought to be one of the most important reasons for the sluggish development of private LTC insurance. The authors test for intra-family moral hazard in China using a survey conducted in October 2012 in Shanghai. Their results are consistent with the presence of bilateral intra-family moral hazard. However, contrary to earlier predictions on the topic, neither a decrease in parental wealth nor a decrease in the child's expected inheritance are found to trigger net bilateral intra-family moral hazard effects. These findings have important implications both for insurance companies planning to develop LTC products and for Chinese public policy concerning the financing of LTC for an ageing population.

China is obviously not the only country to be confronted with an ageing of its population. Indeed, most industrialised countries face increasing needs for LTC. So far, no single and consensual approach has been achieved as the best way to share responsibilities and actions among the various sources of financing in order to ensure sustainable funding of LTC risks. A great diversity exists among these sources in Europe and elsewhere, and various LTC models have been implemented either based mainly on the market (U.K., U.S.), relying heavily on family solidarity (Italy), involving professional solidarity (Germany) or based on the principle of citizenship (northern Europe). Innovative solutions are urgently needed to attract more funds to finance LTC. The paper by *Les Mayhew and David Smith* proposes a new savings product called "personal care savings bonds" as a way to finance LTC in the U.K. They are designed to encourage saving for social care by providing extra money at the time of greatest financial need. Personal care savings bonds are likely to be attractive to older people who have only a basic pension and modest savings, but also to other age groups, as they not only earn interest but also pay prizes. Based on reasonable assumptions, the paper shows how the fund could build into a substantial investment with regular monthly prize

payouts. In concept, they are somewhat similar to premium bonds, another U.K. personal savings product which has been successfully operating since 1956.

Another set of papers focuses on the characteristics of the demand for health insurance in order to better understand the needs-for-coverage pattern of health risks. The paper by *David Dror and Lucy Firth* identifies the need for a theory of demand for health insurance suited to the informal sector in low- and middle-income countries, where some three billion people lack health cover. They explore the fundamental assumptions of standard economic theories of demand for health insurance in the light of arguments from the literature and field evidence. They show that these assumptions are largely inconsistent with the context of poverty and informality, and propose a new theory based on assumptions better suited to low- and middle-income countries. They conclude that it is first necessary to strengthen ground-up governance consistent with group-based decision-making under local conditions in order to increase the demand for health insurance in the informal sector in low- and middle-income countries.

The paper by *Veloshnee Govender, John Ataguba and Olufunke Alaba* focuses on private health insurance in South Africa. Private insurance covers 17 per cent of the South African population and shows evidence of declining coverage within households over time, raising concerns in a context of growing support for universal coverage. Their paper attempts to advance our understanding of coverage patterns within partially insured households, that is, households where at least one, but not all, members belong to a medical scheme. Govender *et al.* find that partially insured households differed from fully insured households across a range of demographic and socio-economic factors in ways that increase their economic vulnerability. While employment status and highest educational level attained of the household head are significant predictors of the likelihood of being insured, economic dependency and dependency on social assistance are the significant policy levers for increasing intra-household insurance coverage.

Finally, the two last papers focus on the market for health insurance in the U.S. and more particularly, its effect on health-care and drug expenditures. The paper by *Minkyung Yoo* looks at how changes in the cost-sharing provisions of employment-sponsored health insurance in the 2000s modified health expenditure risk exposure in the U.S. population. These changes in cost sharing were designed to control health-care spending. However, such provisions may also increase the financial burden on families who need medical care and may differentially affect families according to their socio-economic characteristics and the health status of family members. Using quantile regressions, Yoo assesses whether the distribution of out-of-pocket spending and hence the risk-protection function of private insurance has been affected by such changes. The empirical results reveal that families who are likely to incur higher health-care spending because of family members' existing health conditions were most affected by changes in cost-sharing, while families with older policyholders at higher percentiles of the out-of-pocket spending distribution experienced decreases in such spending.

Lastly, the paper by *William Encinosa, Chad Meyerhoefer, Samuel Zuvekas and Dongyi Du* analyses the impact of direct-to-consumer advertising (DTCA) on health insurance markets in the U.S. DTCA for drugs has increased dramatically in the last decades and, while studies show that DTCA impacts the patient-physician relationship, little is known of the effect of DTCA on health insurance markets. This paper tests whether DTCA raises insurers' negotiated prices or makes the markets more efficient in drug pricing in the U.S. Controlling for unobserved pharmacy attributes and manufacturer advertising market selection effects, the authors find that an increase in a manufacturer's DTCA spending per drug lowers insurer prices, reduces

insurance market price dispersion and reduces pharmacy profit margins. These competitive effects intensify as DTCA competition increases among drug manufacturers.

All in all, these contributions, illustrated in the light of various health systems and different countries, provide some important messages for policymakers on how best to plan the financing and the organisation of health systems, and on the role of insurance in covering health risks. Once again, we have been privileged to benefit from the thoughts, skills and knowledge of all the authors who contributed to this volume. They have been unstinting in their efforts and we sincerely hope that you will enjoy reading their work.

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