The implications of health insurance for the labour market and patient satisfaction with medical care in Vietnam

Dissertation summary

The main aim of this dissertation is to investigate the effects of health insurance on the labour market and on patient satisfaction with medical care. These focuses are relevant in the context of moving toward Universal Health Coverage (UHC) in low and middle income countries (Rodin and de Ferranti, 2012; Lagomarsino et al., 2012; Cotlear et al., 2015). This dissertation focuses on Vietnam as an example for this global trend as the country is fervently taking the path toward UHC despite many inefficiencies in its healthcare delivery as well as in the Social Health Insurance (SHI) programme (Somanathan et al., 2014; Takashima et al., 2017). This dissertation is motivated by the concern that rapid insurance coverage expansion in Vietnam may not necessarily translate into quality healthcare for all. Another concern is centred around the potential undesirable effects of health insurance on the labour market.

Chapter 1

In this chapter, policy problems, the motivation and relevance of the topics are discussed. The chapter starts with the policy context of Vietnam in which its government is showing unprecedented political commitment to moving toward Universal Health Coverage. However, challenges remain. Chronic problems of the Vietnamese healthcare system (i.e. limited resources at primary care and in rural areas, overcrowding and informal payments in hospital care) are discussed. Inefficiencies of the health insurance programme (the SHI), especially the fragmentation in its management, are analysed. The inefficiencies of the SHI, combined with the issues of the healthcare system as a whole, potentially weaken the desirable impacts of health insurance and raise scepticism about whether providing universal health insurance is a good way to achieve affordable and quality care for all. This puts quality of care and patient satisfaction with medical care at the core of moving toward UHC in Vietnam. Meanwhile, the expansion of health insurance may

have important implications for the labour market, which, in turn, may negatively affect economic achievements that Vietnam has been gaining.

Therefore, this dissertation asks two central questions:

- Question 1. What are the labour market effects of health insurance in Vietnam?
- Question 2. What are the implications of health insurance for patient satisfaction with medical care in Vietnam?

Specific research questions of the dissertation are as follows:

- Sub-question 1. What can we learn from the existing literature on the labour supply effects of health insurance?
- Sub-question 2. In Vietnam, what are the effects of health insurance on the number of hours worked and labour force participation?
- Sub-question 3. In Vietnam, what are the effects of health insurance on self employment?
- Sub-question 4. With the health insurance coverage expansion in Vietnam, how do patients evaluate the quality of healthcare?

The chapter also highlights knowledge gaps and pinpoints specific areas of focus for the dissertation. Data and methodologies used across the dissertation are summarised.

Chapter 2

Chapter 2 presents a systematic review of the existing literature on the effects of health insurance on labour supply. The review is conducted in a systematic way, covering all English language studies published after the year 2000 in many related disciplines, such as health economics, labour economics, public economics, public policy, health and medical studies. The databases used included Web of Science, Google Scholar, Pubmed, NBER, ECONSTOR, IDEAS, IZA, CEPR, SSRN, World Bank Working Paper Series. The final collection of studies reviewed includes 63 articles.

One of the key findings is that the current literature is vastly concentrated on the US whilst the literature for LMIC is very scant and sporadic. We show that spousal coverage in the US is associated with reduced labour supply of secondary earners. The effect of Medicaid in the US on labour supply of its recipients is ambiguous. However there is evidence of labour supply distortion caused by the Children's Health Insurance Program, the Affordable Care Act and other health insurance expansions. A tentative result is that dependent young adults in the US who can access health insurance via their parents' employer have lower labour supply through fewer hours worked while keeping the same employment probability. The employment-coverage link is an important determinant of the labour supply of people with health problems. The link between health insurance and employment

is also related to self-employment decisions, manifested in the entrepreneurship lock[4] or the entrepreneurship promotion effect of health insurance.

Despite the under-representation of LMIC-relevant studies, we found some important and suggestive evidence. Universal coverage may create either an incentive or a disincentive to work depending on the design of the system as shown in studies for Thailand (Wagstaff and Manachotphong, 2012) and Taiwan (Chou and Staiger, 2001; Chou et al., 2002; Liao, 2011). Evidence of the relationship between health insurance and the level of economic formalisation in developing countries is fragmented and limited.

Chapter 3

Chapter 3 delves into the effects of health insurance on labour supply. This chapter is motivated by the potential negative effects of health insurance on labour supply, which is discussed in public economics (e.g. Gruber, 2010) and labour economics (Chou et al., 2006; Rosen, 2014). The policy under investigation is the Health Care Fund for the Poor (HCFP) launched in 2003 in Vietnam. Using different matching techniques combined with a Difference-in-Differences model on panel data from the Vietnam Household Living Standard Surveys 2002-2006 (VHLSS 2002-2006), this chapter explores how labour supply of those covered with free health insurance under the HCFP changed over time.

We show that the HCFP has a negative effect on labour supply of those covered with free insurance under this scheme. The negative effect is manifested at both intensive (i.e. the number of hours worked) and extensive margins (i.e. labour force participation) of labour supply. This negative effects indicates that the income effects of health insurance tends to outweigh health-fostering effect of health insurance.

Interestingly, the negative effect of health insurance is mainly driven by the non-poor recipients living in rural areas. This raises the question of the targeting strategy of the programme which seems to trigger more labour responses from the non-poor than from the poor. It also highlights the need to discuss the labour supply effects of health insurance in Vietnam to avoid unintended labour supply distortions.

Chapter 4

Chapter 4 explores the relationship between health insurance and self-employment transitions in Vietnam by comparing the voluntary scheme for the informal sector (mostly self-employed workers) and the compulsory insurance for the formal sector (mostly wage workers). This chapter is motivated by the issue of 'entrepreneurship lock' (Fairlie et al., 2011) which refers to the insurance-induced rigidity of the labour market when people prefer staying in wage employment for the health insurance benefits attached to the job.

We employ a Probit model with selection (Van de Ven and Van Praag, 1981) on panel data from the Vietnamese Household Living Standards Surveys 2010-2014 (VHLSS 2010-2014) to investigate the association between health insurance and self-employment entry and exit

[4] Entrepreneurship lock of health insurance is a phenomenon where a wage employee does not want to move to self-employment because he/she is locked in his/her salary job with its health insurance benefits.

over time. We find that those with compulsory health insurance in Vietnam, the formal workers, are 10 percentage points less likely to enter self-employment compared to those having voluntary insurance. The effect is partly explained by the better enforcement of the compulsory health insurance scheme in Vietnam, making staying out of self-employment (often informal self-employment) a preferred choice. With respect to the effect of health insurance on self-employment exit, we find that those covered by compulsory insurance are more likely to exit self-employment. However, the effect size is relatively small. This chapter also highlights the rigidity of the Vietnamese economy, suggesting the need to tackle the enforcement issue of the SHI programme in Vietnam.

Chapter 5

Chapter 5 examines the relationship between health insurance and patient satisfaction with medical care in Vietnam. This chapter is motivated by quality concerns in healthcare delivery in Vietnam, especially at primary care and in remote areas (Somanathan et al., 2013, 2014; Tran et al., 2016). Primary care in the country, especially in disadvantaged and remote regions, is chronically in need of financial and human resources as well as other medical inputs (Lieberman and Wagstaff, 2009; Somanathan et al., 2014). This creates patient's lack of trust in the quality of care at primary care facilities and in rural areas. Many patients, therefore, decide to skip the referral line and seek care at higher level facilities, resulting in excessive demand and overcrowding in hospitals.

This chapter investigates the relationship in the context of the poorest regions of Vietnam, which are suffering from far more severe shortage of resources, inputs and medical personnel (Tran et al., 2016; Takashima et al., 2017). This chapter employs multi-level models for ordinal responses on a cross-sectional dataset of the poorest regions of Vietnam in 2012. We find that it is not health insurance coverage per se but the financial coverage when seeking healthcare that matters to improve patient satisfaction. Patient satisfaction depends on the depth of insurance coverage (i.e. services and medicines covered and the co-payment rate for each service) and the ability to use health insurance to reduce medical costs via the co-payment mechanism. The chapter also highlights the limited financial coverage of the SHI programme as many insured patients cannot get the cost-sharing benefits of the insurance coverage. As a surprising result, this chapter also finds that most people living in these disadvantaged regions of Vietnam are relatively satisfied with medical care. This is explained by the low terms of reference of those living in remote and poor regions of Vietnam. It also highlights the need to complement patient satisfaction analyses with other objective measures of healthcare quality.

Chapter 6

This Chapter summarises and discusses the main findings of the dissertation across Chapters 2-5. They are presented in concise policy statements, which can be used as take-away policy messages for the reader. For each statement, policy and research implications are provided to help inform future health policy reforms in Vietnam. These statements include:

Statement 1: The American literature on the labour supply effects of health insurance is rather informative for LMIC in their path toward UHC.

The US literature has laid a firm theoretical foundation for the limited literature beyond the US. The main findings across Chapter 3-5 suggest that the labour supply effects of health insurance are not only relevant for an employment-tied insurance system such as that of the US. Therefore, with the current shortage of LMIC literature, US studies are useful to shed some lights on the topic of the labour supply effects of health insurance.

Statement 2: Within the SHI programme, free health insurance for the poor in Vietnam is found to have a negative effect on labour supply, manifested in both the number of hours worked and labour force participation.

This statement is based on Chapter 3 which examines the effects of the HCFP on labour supply in Vietnam. Even though health insurance may theoretically have both positive and negative effects on labour supply (i.e. via the health-fostering effect and the income effect), it seems that the latter will dominate if the insurance coverage is not enough to generate any sizable health effect.

Statement 3: To improve the efficiency of the SHI in Vietnam and overcome the undesirable link between employment and health insurance coverage, the boundaries between different health schemes need to be removed.

This statement is based on the finding that the SHI in Vietnam is fragmented both vertically and horizontally. There remain gaps in enforcement among different health insurance sub-schemes, especially between the voluntary and compulsory schemes. The gap then leads to the undesirable entrepreneurship lock when people with compulsory insurance are less likely to enter self-employment compared to those covered by voluntary insurance.

Statement 4: Health insurance can make insured patients more satisfied with medical care if they can benefit from its financial coverage.

Health insurance can make patients who are living in the poorest regions of Vietnam more satisfied with medical care thanks to its financial coverage. This statement suggests that future interventions to improve patient satisfaction in Vietnam should focus on expanding the financial coverage of the SHI programme.

Statement 5: Currently, health insurance coverage in Vietnam is rather limited and ineffective, which negatively affects patient satisfaction of those who are insured but cannot benefit from its financial coverage.

Statement 5 highlights that despite the fast expansion of coverage rate, SHI coverage in Vietnam is very shallow as a large proportions of insured patients cannot benefit from its financial coverage when seeking care. This once again suggests the urgent need to increase the depth of the SHI coverage.

In Chapter 6, policy implications are also provided regarding health and labour policy making. Areas for further research are also pinpointed. It is recommended that policy making in Vietnam and other LMIC should pay attention to the design, management and monitoring of the health insurance system to improve the efficiency and effectiveness of

the insurance coverage. To improve efficiency in managing the SHI whilst improving the equity and equality in SHI enrolment compliance, it is important to focus on tackling its fragmentation. Besides, objective quality measures should complement subjective quality assessments to have a complete view. The fact that most people living in disadvantaged regions of Vietnam are rather satisfied with medical care (Chapter 5), despite the severe lack of resources and medical staff in those regions, is a strong indication of the subjective nature of patient satisfaction. Therefore, this finding should not be a reason for being over-optimistic.

In addition to empirical analyses, Chapters 2-5 also highlight the knowledge gaps to be filled. LMIC-relevant areas for further research include the effects of health insurance on labour supply (the number of hours worked and labour force participation), self-employment and economic formalisation. More research on the labour supply effects of health interventions for the poor and low-income people are needed to guide policy making in LMIC. Future research should also focus on the health effects of health insurance for adults due to the lack of evidence of positive insurance-induced health effect (Sommers et al., 2012). Finally, more research for LMIC on the relationship between health insurance and self-employment is also recommended.