

Report Type

Mid Term Award Report

Full Name

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Faculty/Department

Faculty of Economics

Project Title

Health Insurance and Household Financial Well-being

Project Start Date

May 01, 2020

Project End Date

Apr 30, 2021

Amount Awarded

*Up to £4500:
£3500 towards Research Assistants
£1000 towards data purchases*

Project Abstract

Protection against risk associated with medical expenses is a major purpose of health insurance. Uninsured households face potential financial hardship when they are stricken with illness, especially in developing countries where consequences of illness and lack of insurance can be more severe because of sizable treatment costs relative to income. Uninsured health expenditure risks may also disincentivize households from engaging in risky entrepreneurial activities. This project investigates how public insurance provision affects households' financial well-being as well as how reductions in health expenditure risk change households' risk-taking behaviors, including allocation of investments among different types of informal cultivation activities. We exploit exogenous changes in medical expenditure risk and potential demand for healthcare among the previously uninsured households caused by a major health reform in Thailand in 2001. Using panel data from Townsend Thai Monthly households surveys of rural households, we predict potential demand for healthcare using pre-reform history of health conditions and verify that households with higher demand experienced larger reduction in the expected cost of illness and thus benefit more from the reform. The difference-in-differences strategy is then employed to gauge the effects of insurance.

Activities and Achievement

The goal of this study is to analyze the impact of providing public health insurance on financial well-being. Our empirical strategy mainly exploits the exogenous variation in household potential demand for health services caused by the 30-Baht reform in Thailand. The idea is that, in a given month, the potential demand for healthcare of households can be predicted by their expected cost of health shock, which in turn is governed by households' self-perception of health risk and healthcare price. Households that suffer from health shocks more frequently are more likely to perceive themselves as having higher health risk and expected cost of health shock, and thus potentially demand more health services than healthier households. Given that the previously uninsured households faced the same reduction in price of public care following the reform, households with worse health conditions (high-demand type) would therefore experience a larger reduction in their expected cost of health shock and benefit more from the reform relative to healthier households (low-demand type). Such heterogeneity facilitates a treatment-control strategy in estimating the impact of the reform. The main assumption for the strategy is that the evolution of outcome of interest among households with different demand for healthcare would have been the same in absence of the reform (parallel trend assumption).

We have so far already obtained and cleaned the data, and started empirical analysis that produced some preliminary insights into the impact of health insurance provision using the above strategy. We consider various outcome variables which can be divided into five categories: health expenditure, education and child labor, borrowing and transfers, cultivation activities, and consumption. As our empirical strategy relies crucially on the parallel trend assumption, for each outcome, we first estimate the impact of the reform using an event study analysis. The event study specification allows us to test whether there exist any pre-existing differential pre-trend in each outcome graphically. We also carry out the F-test of joint significance of the pre-reform coefficients to test for an evidence of pre-trend. In the attached file, we describe our event study specification fully and report the results for each outcome of interest. Overall, for most outcomes, we find no significant evidence of pre-trend. Our preliminary results illustrate that public health insurance provision led to relative reductions in medical expenditure and the associated risk, incidence of child labor, loan default rate and loans-to-assets ratio, as well as a relative increase in consumption among the households that benefit more from the reform. The results therefore are in favor of the significant role of the provision of public health insurance especially to poor, previously uninsured households.

Dissemination

A. We plan to produce and publish a full paper as soon as we have completed all empirical analysis and manuscript write-ups. We also aim to present the project at academic conferences. In fact, the paper was already accepted for oral presentation in mid-July at the European Association of Health Economics (EuHEA) Conference 2020 held in Oslo, but the event was postponed due to the Covid-19 pandemic.

B. Our analyses reveal that the reform led to relatively higher fall in out-of-pocket spending for households with higher demand for healthcare, which highlights the important role of universal health coverage policy in protecting households against potential financial risk associated to medical expenditure. In addition, our preliminary results also show that expanding health insurance not only has pronounced effects in improving financial well-being of households, but also allows high-demand households to allocate relatively more resources

towards riskier cultivation activities such as growing cash-crops. These would suggest that the financial implications of health insurance coverage expansion spreads well beyond just healthcare providers and patients and into various aspects of the economy.

Outputs

At this stage, we have obtained some preliminary results using an event study analysis. Please see the attached file for details.

Major Difficulties and Any Other Issues

Because the panel data that we employ are very detailed and complex in structure, they are collected and store separately in a number of modules and data files. The Covid-19 pandemic has caused some delays in obtaining the full and correct data files. We discovered some errors in the raw data which require further communications and corrections with the institution that disseminate the dataset in Thailand. However, we have now already obtained the correct data across all modules that we require for our analyses.

We also had to switch fully to an online platform to continue working together on the project. We have now fully adapted to work effectively under such condition.

Web Links

At this stage, there are none.

Optional - detailed findings and output

application/pdf: 790628 bytes

Additional Information

Declaration

This award has not yet produced any relevant outputs, but details of any future publications will be submitted to the CERF database as soon as they become available.

Signature - Main Award Holder

1