Essays on Public Health Insurance

<u>Doctoral Candidate</u> <u>Thesis Advisory Committee</u>

Titir Bhattacharya Prof. Tanika Chakraborty (Advisor and TAC Chair)

Economics Group, Prof. Sourav Bhattacharya (Member)

IIM Calcutta Prof. Anirban Mukherjee (Member)

ABSTRACT

In this thesis, through three essays, I study the behaviour of the household in the presence of public health insurance in India. In particular, I ask the following questions: (a) what is the impact of public health insurance on maternal and child health, (b) what is the role of networks in determining take-up and use of public health insurance, and (c) whether public health insurance mitigates childhood health shocks and improves educational achievements.

The role of health insurance in protecting households from financial vulnerability is well established. Moreover, access to health insurance has been found to impact several health- and non-health outcomes of the household. However, since public health insurance in India is targeted towards tertiary care, the impact on key health outcomes of the household remains ambiguous. This motivates my first question. While the impact of health insurance for health outcomes may remain ambiguous, health insurance take-up is a rational choice for risk-averse households as a protection against financial vulnerability. However, coverage of both public and private health insurance continues to be low in India. Poor coverage of public health insurance is particularly intriguing as such insurance is essentially free. This phenomenon motivates my second question. Finally, in light of ambiguous impact on non-financial outcomes, it is of interest to examine whether health insurance has second-order effects on non-health outcomes such as education. This motivates my third question. I answer these questions by looking at a free public health insurance in the Indian state of Andhra Pradesh- the Aarogyasri program.

In the first essay, I use the District Level Health Survey (DLHS) Data and National Family Health Survey (NFHS) data to examine the impact of Aarogyasri availability on access to reproductive care and on child health outcomes. I find women substitute the use of reproductive care at public facilities with private healthcare, and that households experience a decline in out-of-pocket costs of child delivery. I also find an improvement in child health outcomes due to Aarogyasri.

In my second essay, I study the role of informal networks in affecting the demand for formal public health insurance using a panel data from Young Lives India. I construct measures of informal financial network and informal information network, and thereafter, assess their impact on adoption of Aarogyasri. I find that for households that have experienced health shock, access to informal financial network reduces the probability of take up (use) of formal health insurance. However, I do not find significant impact of informal information network.

In the third and final essay, I combine panel data from Young Lives India and administrative records to examine the effect of interaction between health shock and exposure to Aarogyasri on long- and short-term education outcome of children. I find evidence that exposure to Aarogyasri partially mitigates adverse impact of health shock, and that the mitigation depends crucially on type of health shock and the age of exposure to health shock.

This thesis contributes to the scholarship on both direct and spillover effects of public health interventions in developing countries. It further aims to enhance our understanding of the determinants of household demand for key public health initiatives. I expect the findings from this thesis to have crucial implications for design and implementation of public health policies in India.