

論文の内容の要旨

論文題目 Essays in Empirical Health Economics
(実証医療経済学に関する研究)

氏名 及川 雅斗

In this dissertation, we analyzed the health related behaviors and the consequent health outcomes. This dissertation consists of three studies. In Chapters 2 and 3, we focus on the elderly people and analyze the effects of health related policies on behaviors and consequent health outcomes. In Chapter 4, we analyze the effects of a natural disaster on the pregnancy outcome, which is an important determinant of their health in life cycle.

In Chapter 2, I analyzed effects of health checkup on health outcomes and behaviors focusing on the heterogeneous effects depending on education. In Japan, the checkup policy was reconstructed based on the scientific evidence in April 2008 and would become more effective. I use this variation to estimate the effects of health checkup. Since the checkup is mandatory for salaried workers but voluntary for self-employed workers, the participation rate of the checkup is significantly higher among salaried workers. In other words, salaried workers have more proportion of individuals affected by the policy reform. Using this institutional setting, I regard salaried workers as treatment group and self-employed workers as control group and employ a difference-in-differences approach. According to the estimated results, by the policy reform, university graduates with relatively high obesity risk significantly decrease the Body Mass Index and some diagnosed health problems although there are no significant changes among non-university graduates with the risk. Additionally, there are significant changes in the health behaviors such as physical activity and energy intake only among the university graduates.

In Chapter 3, we analyzed the effect of retirement on cognitive function; specifically, the hypothesis from human capital theory that because cognitive investment increases a worker's

wage, workers may invest in their cognitive ability more than retirees, contributing to a post-retirement decline in cognitive function. While this topic is of great interest to health economics, we show that the method of analysis of some previous studies is not valid for examining this effect, and we propose an alternative method that addresses this concern. Further, our estimates indicate that retirement has only a weak effect on cognitive ability in a wide range of analyzed countries and heterogeneous groups. Therefore, according to our analysis, policies that have been widely adopted in developed countries to delay retirement, such as increasing the pensionable age, appear to have little detrimental affect on post-retirement cognitive ability.

In Chapter 4, we analyzed the effects of the Fukushima-Daiichi Nuclear Power Plant accident on pregnancy outcomes of the babies in-utero on the date of the accident in Fukushima prefecture. The radioactive substances has been released into outside of the plant because of the meltdowns caused by the earthquake with a giant tsunami and has influenced throughout Japan. In this paper, we focus on the effects of the Fukushima-Daiichi accident on pregnancy outcomes. According to the estimated results, we found the negative effects of the Fukushima-Daiichi accident on the pregnancy outcomes among boys. We also found the heterogeneous effects depending on the timing of conception. The effects among the boys who affected by the accident during their 3rd trimester are robust with respect to the various measure of birth outcomes.