Moral Hazard in Prevention and Treatment: A Reference Dependent Model

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Abstract

Moral hazard describes the changes of behaviors in prevention and treatment caused by health insurance. Cheaper treatments may discourage preventive efforts (ex-ante moral hazard), and encourage patients to spend more (ex-post moral hazard). The Von Neumann-Morgenstern utility function, adopted by standard economic analyses to study individual decisions, has inconsistent predictions with what people actually behave regarding prevention and treatment. People could be driven bankrupt by chronic diseases, and have extraordinarily strong preferences over expensive medical products. Motivated by the rising academic interest in moral hazard as well as the puzzles that are difficult to explain by conventional utility theories, this paper endeavors to apply the reference dependent model to analyze the decision of prevention and the demand for treatment. It also studies the effect of health insurance, and sheds lights on the design and regulations of health insurance. In the prevention problem, optimal level of preventive effort is determined solely by one’s concerns over his future health, the expected medical expenses do not distort the incentives of prevention. Thus, a pooling insurance that reduces the cost of treatment universally will not create ex-ante moral hazard. As for treatment, reference dependent model can well explain the phenomena of medical bankruptcy and patients’ unreasonable preferences over expensive medical products, and it favors coinsurance policies over deductibles.

Keywords: theory

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