**Compulsory health insurance and life expectancy**

Owing to the cumulative achievement of global health research and policy, both the life expectancy at birth (LEAB) and healthy life expectancy (HLE) have significantly risen worldwide. However, there is still obviously uneven distribution of life expectancy across countries (WHO, 2014). It is significant to understand this disparity and the factors that associated it.

A wide range of factors, including employment (Assari S, 2018), education (Baker DP et al., 2011), diet and quality of life(Rehm J & Probst C, 2018), environment (Schwartz JD, 2018) and government health expenditure (Jakovljevic B, 2016; Ranabhat CL, 2018), income (Wilkinso RG, 2018) have been proven to have significant effect on the life expectancy in developing and developed countries. Dieleman et al. (2017) and Rabbi (2013) also found that all kinds of mortality and life expectancy were directly related. To improve the life expectancy and reduce mortality, an effective health financing assignment, such as Universal Health Coverage, were largely agreed as a useful measure, because it could balance the key factors including income, education, employment and lifestyle (Lin et al., 2012).

Compulsory health insurance (CHI), is known as one of the effective ways to realize Universal Health Coverage (UHC) and is gaining growing attention. CHI was firstly introduced I Germany in 1883, namely the Bismarck sickness insurance. It guaranteed that all the workers and their family had access to health service. Then Australia (1888), Hungary (1891), England (1911) and Japan (1922) respectively established national compulsory health insurance system (Walker F, 1969). Today, most countries in the world have in operation either national compulsory insurance plans or plans having many of the same basic characteristics. However, to our best knowledge, there have been inadequate investigation of its long-term influence on life expectancy. Though several studies have examined the relationship between mortality and CHI, such as, Brown B (2016) investigated the casual link between the CHI and morality rate in Prussia and found that CHI caused the mortality decline; the same conclusion was proven in the research (Bauernschuster et al. 2017). The association between compulsory health insurance and life expectancy in different countries, and the strength and the changes have not been systematically investigated and compared.

In this study, we …….

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