

Does it pay to pay for health? How health expenditures translate into GDP growth in OECD countries

There is a long strand of literature investigating the relationship between health, health expenditures and economic variables, such as GDP. Investigating this linkage in reduced-form regressions, e.g. aimed to explain additional amount of money spent on health (independent variable) increases GDP (dependent variable) appears to be a simplistic approach: firstly, health expenditures – as any kind of final good purchase – increase GDP by definition (i.e. they do not lead to higher GDP, but they ARE GDP); secondly, consumers can spend a fixed proportion of their income on health purposes (i.e. they pay more for health when they are wealthy, but not get more health because of the money spent). Both issues give rise to endogeneity problems and lead to demonstrating short-term effects of secondary importance. We argue that long-term effects are far more important, as higher stock of population health may lead to higher potential output and avoidance of so called indirect costs of illnesses. These costs encompass the economic cost of unproduced goods related to absence from work (absenteeism), low-productivity presence at work (presenteeism), quitting the labour market or death of a worker. We propose to tackle the problem by factorizing the GDP into: GDP per employee, employment ratio and working age population. For all these variables, we run separate panel regressions for OECD countries using the FM-OLS estimator for nonstationary variables. Every dependent variable is regressed on health expenditures in a given year or country (which allows to simulate the effect of a given health expenditure growth), as well as on a number of equation-specific control variables (which should i.a. alleviate the issue of endogeneity). This approach also allows to decompose the resulting growth in GDP into the effect of reducing absenteeism and presenteeism (predicted growth in GDP per employee), improving labour market participation and employment (predicted increase in employment ratio) and positive effect on the survival tables (predicted rise in survival probability over the working age).