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Medical Technology and the Production of Health Care

by Badi H. Baltagi, Francesco Moscone, Elisa Tosetti
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Abstract:

This paper investigates the factors that determine differences across OECD countries in health outcomes, using data on life expectancy at age 65, over the period 1960 to 2007. We estimate a production function where life expectancy depends on health and social spending, lifestyle variables, and medical innovation. Our first set of regressions include a set of observed medical technologies by country. Our second set of regressions proxy technology using a spatial process. The paper also examines whether in the long-run countries tend to achieve similar levels of health outcomes. Our results show that health spending has a significant and mild effect on health outcomes, even after controlling for medical innovation. However, its short-run adjustments do not seem to have an impact on health care productivity. Spatial spill overs in life expectancy are significant and point to the existence of interdependence across countries in technology adoption. Furthermore, nations with initial low levels of life expectancy tend to catch up with those with longer-lived populations.

Text: See [Discussion Paper No. 5545](#)



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