

PhD in Economics Reading Group  
**Applied Health Economics and Policy (Spending, Education, Migration)**  
(Gilberto Turati, Elena Cottini, Luca Salmasi)

*Objective of the module*

The healthcare sector is characterized worldwide by a large role of public funding and provision, a characteristic that calls for an understanding of the effects of public policies and regulations. Like in many other sectors, a large strand of the empirical literature has focused the attention on the evaluation of the effects of public policies, but providing causal estimates useful for policy design proved to be challenging. As a response, in more recent years it has become increasingly common to rely on *quasi-experimental* settings and to adopt empirical methods like *Regression Discontinuity Designs* (RDD), *Difference-in-Differences* (DD) models and *Instrumental Variable* (IV) regressions. Starting from these premises, the objective of this module is to discuss three selected topics within the broad field of applied health economics and policy focusing on: (i) the evolution of health expenditure, (ii) the relationship between education and health, (iii) the relationship between immigration and health. For each topic, we will first provide a conceptual framework to identify the research questions that have been analyzed in the literature, and then discuss relevant empirical papers in the field.

(i) *Health expenditure.* Healthcare spending represent an equilibrium outcome and traditional models looking at the drivers of spending considered both supply side and demand side variables. On the supply side, for instance, one can think to structural parameters like the number of beds in terms of population. On the demand side, a usual variable considered in empirical papers is the share of the elderly out of the total population. However, since most of healthcare spending is publicly funded, the literature has started focusing on the role of political variables as drivers of expenditure. This is where political economy intersects health economics, in a new and very recent field of study. Within this field, a number of studies have looked for instance at the impact of policies such as fiscal decentralization, or at the role of democracy and ideology.

(ii) *Education and health.* One of the most robust findings in the social sciences is the strong positive correlation between education with a variety of health outcomes at all ages. However, such evidence is consistent with alternative pathways: (i) greater education causes better health, (ii) better health causes greater education, or (iii) the same observed and unobserved factors that determine educational attainment (for example, parental socioeconomic position, genetic ability, time and risk preferences) also determine returns to investments in health. For this reason, establishing causality in the relationship between education and health is hard and it is an important topic for researchers and policymakers. Empirical researchers have resorted to quasi-natural experiments, typically reforms which have increased individuals' educational achievement, to investigate the health returns to education (most studies leverage compulsory schooling laws in fuzzy RDD). Few studies focused on reforms changing school tracks or other quasi-natural experiments that affect an individual's likelihood of completing a higher level of education. Only recently a handful of studies have focused on the potential health returns to tertiary education.

(iii) *Immigration and health.* Immigration represents a highly debated topic in the political agenda of many European Countries, and it has become of increasing interest understanding how the presence of immigrants affects the socio-economic conditions of the entire society in the country of destination.

Traditionally the economic literature has focused on the effects of immigration on employment and wages of natives. More recently, a relevant number of studies started considering the effects of immigration on a broader variety of outcomes; for what concerns health and healthcare, the literature focused on: waiting times, health expenditure, newborns' health, fertility decisions, and abortions.

### *Structure of the module and evaluation*

The module is composed by three parts:

1. health expenditure
2. education and health,
3. immigration and health.

Each part will be organized as follows: the first lecture (2 hrs) will be devoted to introduce the relevant theoretical and methodological aspects of the topic, whereas the second lecture (3 hrs) will consist in a workshop in which students will present papers included in the reading list. Afterwards, each student will write a referee report on an unpublished paper. Final evaluation will be based on workshop presentation (66%) and referee reports (34%).

### *Reading list*

- Adda, J., Pinotti P. and Tura G. (2019), There's More to Marriage than Love: The Effect of Legal Status and Cultural Distance on Intermarriages and Separations Revise & Resubmit, *Journal of Political Economy*.
- Atella, V. and Kopinska, J. (2014). Body weight, eating patterns, and physical activity: The role of education. *Demography*, 51(4):1225–1249.
- Avitabile, C., Clots-Figueras I., and Masella P. (2014), Citizenship, Fertility and Parental Investment, *American Economic Journal: Applied Economics*, 6 (4).
- Bordignon, M., Turati, G. (2009), Bailing out expectations and public health expenditure, *Journal of Health Economics*, 28(2), 305-321.
- Brunello, G., Fabbri, D., and Fort, M. (2013), The causal effect of education on body mass: Evidence from Europe. *Journal of Labor Economics*, 31(1):195–223.
- Card, D. (2001), Immigrant inflows, native outflows, and the local labor market impacts of higher immigration, *Journal of Labor Economics* 19 (1), 22–64.
- Chandra A., D. Cutler, Z. Song (2011), Who Ordered That? The Economics of Treatment Choices in Medical Care, in M. V. Pauly, T. G. McGuire, P. P. Barros (eds.), *Handbook of Health Economics*, Elsevier, Volume 2, 397-432.
- Chernew M. E., J. P. Newhouse (2011), Health Care Spending Growth, in M. V. Pauly, T. G. McGuire, P. P. Barros (eds.), *Handbook of Health Economics*, Elsevier, Volume 2, 1-43.
- Clark, D. and Royer, H. (2013), The effect of education on adult mortality and health: Evidence from Britain. *American Economic Review*, 103(6):2087–2120.
- de Walque, D. (2007), Does education affect smoking behaviors? evidence using the Vietnam draft as an instrument for college education. *Journal of Health Economics*, 26:877–95.
- Gerdtham U.G., B. Jönsson (2000), International Comparisons of Health Expenditure: Theory, Data and Econometric Analysis, in A. J. Culyer, J. P. Newhouse (eds.), *Handbook of Health Economics*, Volume 1, Part A, 11-53.

- Giuntella, O., and Mazzonna, F. (2015), Do immigrants improve the health of natives?. *Journal of Health Economics* 43,140-153.
- Giuntella, O., Nicodemo, C. and Vargas-Silva, C. (2018), The Effects of Immigration on NHS Waiting Times. *Journal of Health Economics*, 58, 123-143.
- Jaeger, D. A., Ruist, J., and Stuhler, J. (2018), Shift-share instruments and the impact of immigration, National Bureau of Economic Research.
- Janke, K., Johnston, D. W., Propper, C., and Shields, M. A. (2020), The causal effect of education on chronic health conditions in the Uk. *Journal of Health Economics*, 70.
- Jurges, H., Reinhold, S., and Salm, M. (2011), Does schooling affect health behavior? Evidence from the educational expansion in Western Germany. *Economics of Education Review*, 30:862–872.
- Kamhofer, D. A., Schmitz, H., and Westphal, M. (2019), Heterogeneity in marginal nonmonetary returns to higher education. *Journal of the European Economic Association*, 17(1):205–244.
- Kemptner, D., Jurges, H., and Reinhold, S. (2011), Changes in compulsory schooling and the causal effect of education on health. *Journal of Health Economics*, 30: 340–354
- Mastrobuoni, G. and Pinotti P. (2015), Legal status and the criminal activity of immigrants. *American Economic Journal: Applied Economics*, 7 (2).
- Pinotti, P. (2017), Clicking on heaven's door: The effect of immigrant legalization on crime. *American Economic Review*, 107(1).
- Salmasi, L. and Pieroni, L. (2015), Immigration policy and birth weight: Positive externalities in Italian law, *Journal of Health Economics*, 43(C), 128-139.