

## Chapter 68

# On Health Expenditure and Income Inequality

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### ABSTRACT

*This study investigates the relationship between health care expenditure and income inequality empirically. Using data from a large panel of countries covering a sizeable period of time, how level and composition of health care expenditures correlate with income inequality is studied via the panel data fixed effects estimation methodology. These estimations yield several robust findings. First, there is a significant positive correlation between income inequality and reliance on private resources for health care financing. Second, there exists a significant negative correlation between health care expenditure per capita and income inequality. Third, there is a significant negative correlation between income inequality and health care expenditure as a share of GDP. Next, this study analyzes a select group of well-established democracies with developed economies to detect if health expenditure and income inequality variables correlate with public beliefs and preferences. Empirical analyses reveal that indeed belief and preferences accord well with policy choices.*

### INTRODUCTION

Since late 1970s, economic inequalities have been on the rise globally. A large body of literature has been discussing this upward trend via the evolution in income inequality measures.<sup>1</sup> Recent work by Piketty (2015) documents that the upward time trend in income inequality is not secular, but coupled with ever-increasing wealth inequality. Figure 1 illustrates these developments by reporting the evolution of top income and wealth percentile share ratios in a select group of countries, and demonstrates that income and wealth concentration has already reached alarming levels in many different parts of the world.<sup>2</sup>

Advances in the study of economic inequality, along with higher-quality micro-level data sets have drawn considerable attention on the interaction between the distribution of economic variables, and numerous other economic and political subjects.<sup>3</sup> Access to health care is inherently affected by the

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rise in economic inequalities, since in most parts of the world households' private health care coverage is rather limited, either due to insufficient fiscal capacity and/or ideological health policy choices. As such, in order to have a comprehensive understanding of global analysis of universal health coverage, it is imperative to explore the historical and actual linkages between economic inequality and health care expenditure variables.

This study intends to contribute to research front on this end by investigating cross-country correlations between income inequality and the most objective and cross-country-comparable health care variable: expenditure on health care, along with its public versus private composition, share in GDP and its average per capita value. In particular, using a large panel data set covering over 150 countries and 20 years, I study associations between income inequality, and the level and composition of health expenditure variables, along with the fraction of GDP devoted to health care expenditure and health care expenditure per person. My estimations via panel-data fixed-effect regressions first reveal a robust and positive correlation between income inequality and reliance on private resources for health care financing: countries where health care provision is predominantly privately financed are also high-income inequality countries. Second, my estimation results document a robust negative correlation between health care expenditure per capita and income inequality: countries that engage in higher expenditure on health care services are also more frequently low-inequality countries, and as such, when low public health care provision is coupled with low overall health spending, higher income inequality emerges. Third, I document that the fraction of health care expenditure to GDP correlates negatively income inequality: low-inequality countries succeed in devoting a higher fraction of their GDP to health care provision. I verify that these findings are robust over variable specifications and methodological choices. These robust findings signal that if public health care provision is low in level, its dismal implications on more pronounced income inequality is more than probable.

The fact that these robust findings come from a large panel of countries covering a long time-span is of particular value, since previous studies on the subject tend to concentrate on variations in rather small samples: either via a limited spatial or time span. As such, the external validity of findings from these earlier studies are not without valid concern. The panel data set I rely on my econometric estimations cover a heterogeneous body of countries from all over the globe, and it does so for a broad period of time. Accordingly, the results from this heterogeneous cluster of countries and time series observations pave the way for a broader understanding on the link between health care spending level and composition and income inequality.

Next, I concentrate on a select group of well-established democracies to detect if health expenditure and income inequality variables correlate with public beliefs and preferences. My findings reveal that indeed this is the case, and belief and preferences accord well with policy choices. These findings indicate that a thorough understanding of health care expenditure variations is to be considered together with public beliefs and preferences. These novel findings shed light on why health expenditure variables exhibit the immense heterogeneity in the data.

The rest of the paper is organized as follows: in the Literature Review section, I review the related studies literature; in the Data and Methodology section, I describe the data and methodology I use throughout my analyses; in the Results section, I present and discuss my findings; in the Solutions and Recommendations section, I discuss methods to tackle observed problems; in the Future Research Directions section, I discuss ways to complement and improve my empirical results; and the Conclusion section offers my concluding remarks.

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