

## Analyzing the Connection between Productive Structure and Communicable Diseases: An Econometric Panel Study

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**Abstract :** The aim of this paper is to check possible convergence in health measures (aged-standard rate of morbidity and mortality) for communicable diseases between developed and developing countries, conditional to productive structures features. Understanding the interrelations between health patterns and economic development is particularly important in the context of low- and middle-income countries, where economic development comes along with deep social inequality. Developing countries with less diversified productive structures (measured through complexity index) but high heterogeneous inter-sectorial labor productivity (using as a proxy inter-sectorial coefficient of variation of labor productivity) has on average low health levels in communicable diseases compared to developed countries with high diversified productive structures and low labor market heterogeneity. Structural heterogeneity and productive diversification may have influence on health levels even considering per capita income. We set up a panel data for 139 countries from 1995 to 2015, joining several data about the countries, as economic development, health, and health system coverage, environmental and socioeconomic aspects. This information was obtained from World Bank, International Labour Organization, Atlas of Economic Complexity, United Nation (Development Report) and Institute for Health Metrics and Evaluation Database. Econometric panel models evidence shows that the level of communicable diseases has a positive relationship with structural heterogeneity, even considering other factors as per capita income. On the other hand, the recent process of convergence in terms of communicable diseases have been motivated for other reasons not directly related to productive structure, as health system coverage and environmental aspects. These evidences suggest a joint dynamics between the unequal distribution of communicable diseases and countries' productive structure aspects. These set of evidence are quite important to public policy as meet the health aims in Millennium Development Goals. It also highlights the importance of the process of structural change as fundamental to shift the levels of health in terms of communicable diseases and can contribute to the debate between the relation of economic development and health patterns changes.

**Keywords :** economic development, inequality, population health, structural change

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