

Time Dimension of the Link between Income Inequality and Health: The Immediate, Cumulative, and Comparative Effects

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All suggestions/comments are warmly welcomed.*

Abstract

Since Wilkinson proposed the income inequality hypothesis (IIH), the contextual effect of income inequality on individual health has been under extensive examination, yielding mixed results at best. We attribute the contradictory evidence in the current literature to the understudied complexity of the temporal dimension under the IIH. This study revisits the IIH by clarifying the immediate, cumulative, and comparative effects — namely, the impacts of the Gini index at specific points, from previous periods, or in comparison with historical benchmarks.

Leveraging the World Values Survey (1981-2016) repeated cross-sectional database, we explore these effects using multilevel random-effect and fixed-effect models controlling for individual and national confounders across more than 90 countries or regions. Our results strongly support our investigation into the temporal structure of the IIH, confirming distinctions among the three time dimensions. Intriguingly, a positive correlation from income inequality to individual health is evident in the immediate and cumulative dimensions, especially among nations on both poles of the national

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development gradient —contrary to the classic IHH. In contrast, the comparative version of the IHH receives the strongest empirical support, irrespective of national development stages. These findings are robust against the influences of the neo-materialism pathway and absolute income confounders.

Thus, we emphasize the importance of advancing relevant research through giving more attention to the temporal structure of the inequality-health link, understanding regional differences on a global scale, and conducting careful methodological comparisons between random- and fixed-effect models.

Keywords: Income inequality hypothesis; Self-rated health; Time dimensions; Multi-level models; Random-effect models;