Measuring Health Inequality and Health Opportunity

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Abstract: The paper considers the measurement of health opportunity with categorical data of health status. A society’s health opportunity is represented by an income-health matrix that relates socioeconomic class with health status; each row of the matrix corresponds to a socioeconomic class and contains the respective probability distribution of health. In the first part of the paper, we formally demonstrate an important limitation in applying standard inequality criteria to distributions of health: without specifying the cardinal value for each health status, it is impossible to employ Lorenz dominance in measuring health inequality. In the second part of the paper, we argue that it is a more sensible approach to measure inequality of health opportunity. By introducing a monotone assumption on the income-health matrix, we derive a sequence of welfare-dominance conditions for health-opportunity comparisons. We then obtain dominance conditions for Lorenz curve-based inequality-rankings of health opportunities. Finally, we apply the results to compare health opportunities in the US and Canada using the newly released JCUSH data.

Key Words: health inequality, health opportunity, Lorenz dominance, income-health matrix, super-Lorenz dominance, income mobility.

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