Alcohol consumption and liver cirrhosis mortality: New evidence from a panel data analysis for sixteen European countries

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Abstract:

Empirical evidence gives support to a close association between liver cirrhosis mortality and the intake of alcohol and most often a semi-logarithmic relationship is assumed in the econometric modelling. The present analysis investigates for unit roots in a panel data set for sixteen European countries – covering the period 1970-2006 - where both alcohol consumption and liver cirrhosis seem best described as trend-stationary variables. Consequently, a flexible non-linear functional form with fixed effects including individual trends is applied in the analysis. It is argued that fewer restrictions on the relationship between liver cirrhosis mortality and alcohol consumption is appropriate for empirical modelling. The conclusion is that the total level of alcohol consumption as well as the specific beverages – beer, wine and spirits – contribute to liver cirrhosis mortality, but the present study also reveals that addressing the question of panel unit roots directly and in this case subsequently applying a trend-stationary modeling methodology reduces the estimates of the impacts from alcohol consumption to liver cirrhosis. Finally, more restrictive alcohol policies seem to have influenced the country-specific development in cirrhosis mortality positively.

Keywords: Alcohol consumption, Liver cirrhosis mortality, Trend-stationary panel data, Non-linear modelling.

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