Objectives: To study census-tract distribution of chronic liver disease and cirrhosis mortality in the Madrid Region and its association with socio-economic deprivation. Methods: Cross-sectional, ecological (3906 censustract) study, using mortality data for 1996-2003 and a deprivation index drawn up on the basis of 2001 census data. Standardised mortality ratios were calculated taking Spanish rates for 2001 as reference. Smoothed censustract relative risks were computed using the Besag-York-Mollie model. Relative risks (RRs) of dying and their 95% credibility intervals (95% CIs) were calculated according to quartiles of the deprivation index (with the fourth quartile -Q- of the indicator being the most unfavourable situation). Maps were plotted depicting the distribution of the posterior probability of RR > 1. Results: Census tracts with a high risk of mortality were detected, mostly located in the centre and on the eastern, south-eastern and south-western fringes of the city of Madrid. Mortality increased with deprivation. RRs of mortality according to quartiles of the deprivation index were: Q2 = 1.5 (CI: 1.3-1.6), Q3 = 1.9 (CI:1.7-2.2) and Q4 = 2.5 (CI:2.2-2.8) for men; and Q2 = 1.3 (CI:1.1-1.5), Q3 = 1.5 (CI:1.3-1.7) and Q4 = 1.6 (CI:1.3-1.8) for women. Conclusions: This small-area study enabled census tracts with excess mortality eligible for a special public health intervention to be identified, and their association with socio-economic deprivation to be confirmed.

Keywords
Liver cirrhosis, Mortality, Social deprivation, Inequalities, Small-area studies.