Supplementary Material

Dealing with risk discontinuities to estimate cancer mortality risks when the number of small areas is large

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This supplementary material contains some results of the simulation study described in Section 4 and Section 5 of the paper entitled *"Dealing with risk discontinuities to estimate cancer mortality risks when the number of small areas is large"*.

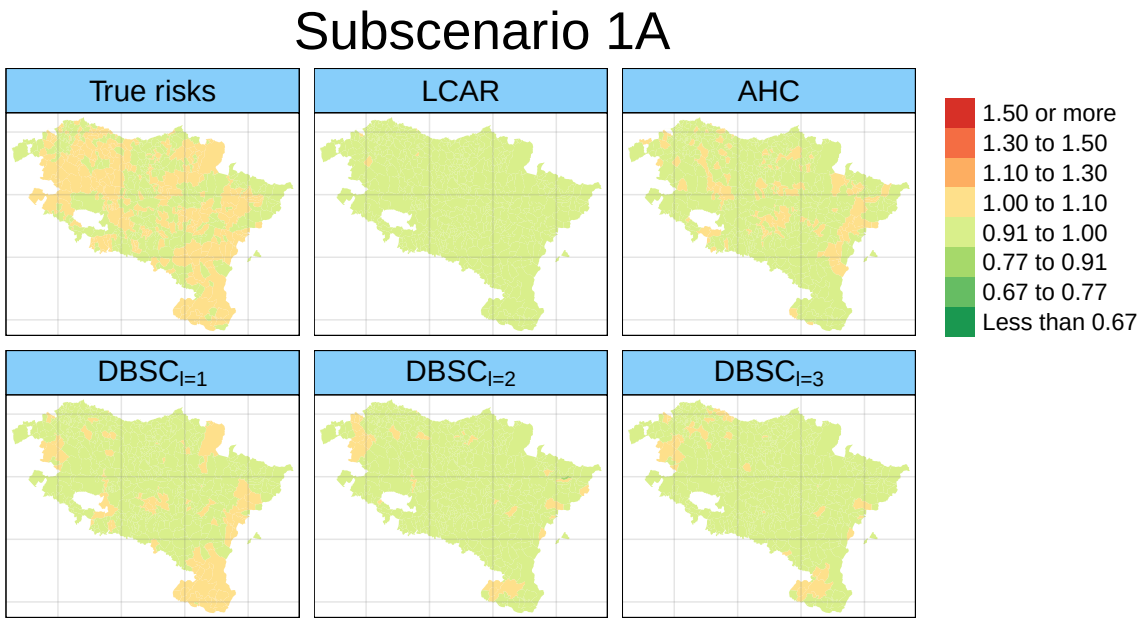

Figure S1: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 1A for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

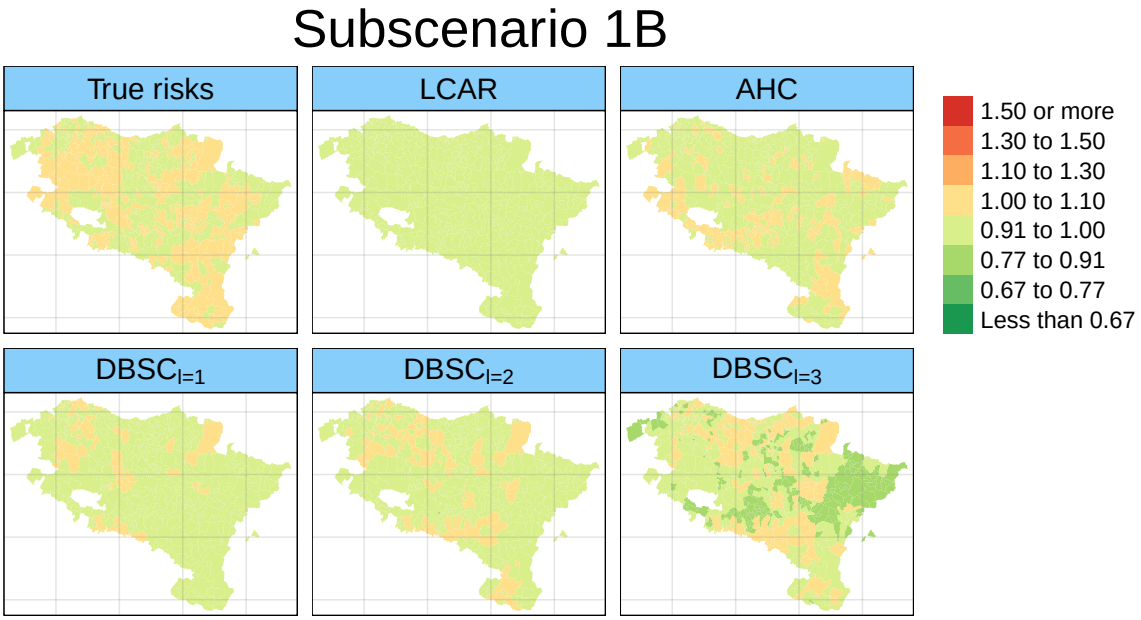

Figure S2: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 1B for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

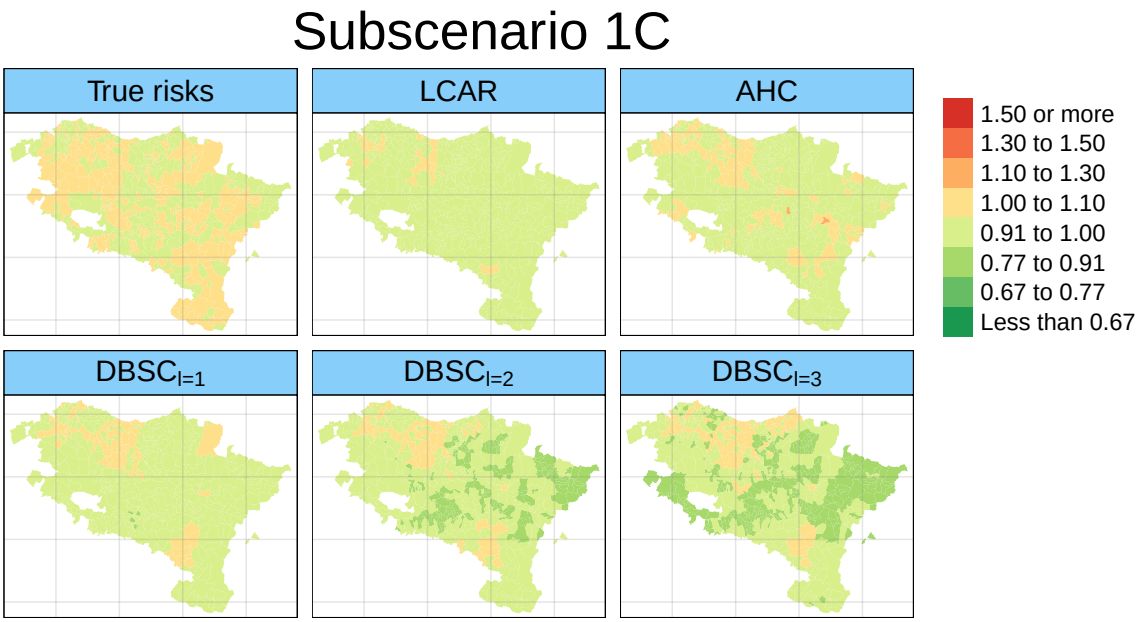

Figure S3: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 1C for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

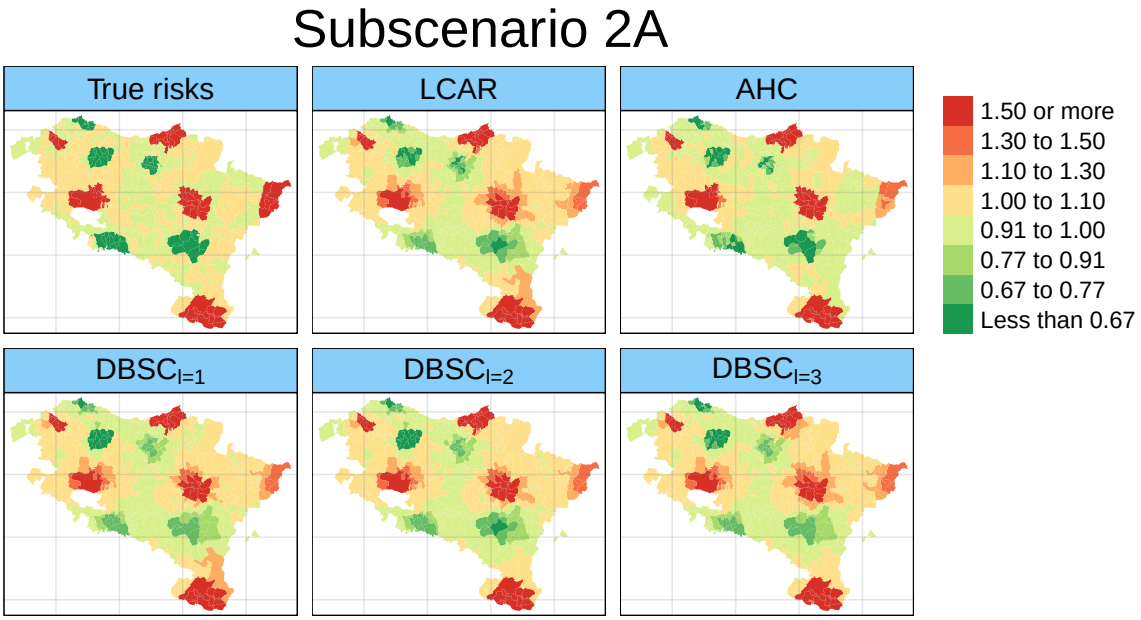

Figure S4: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 2A for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

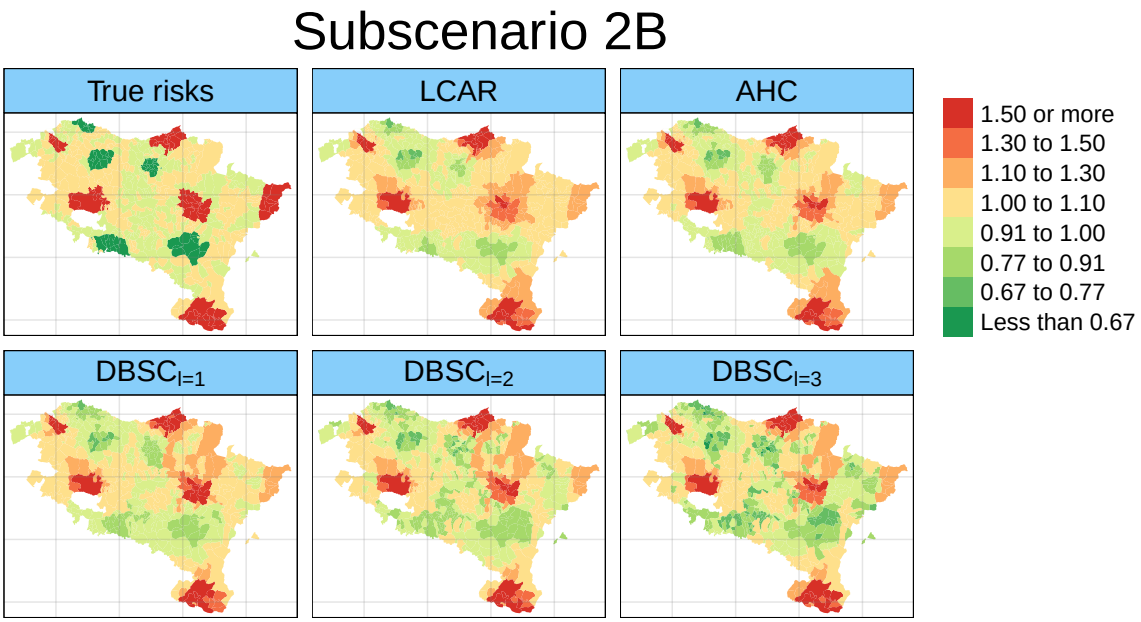

Figure S5: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 2B for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

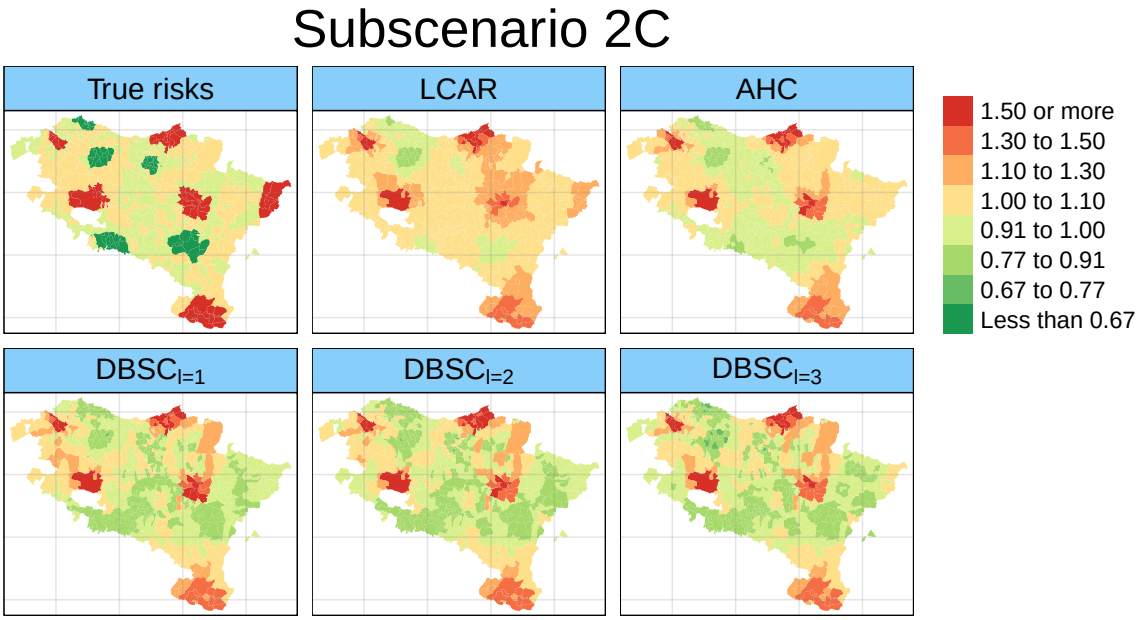

Figure S6: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 2C for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

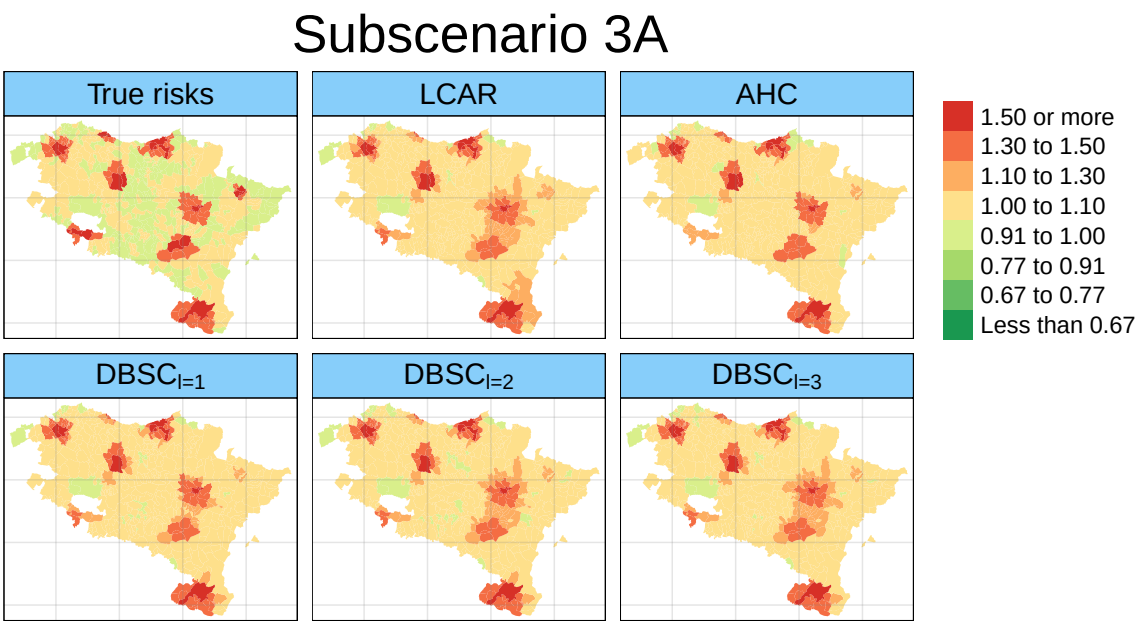

Figure S7: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 3A for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

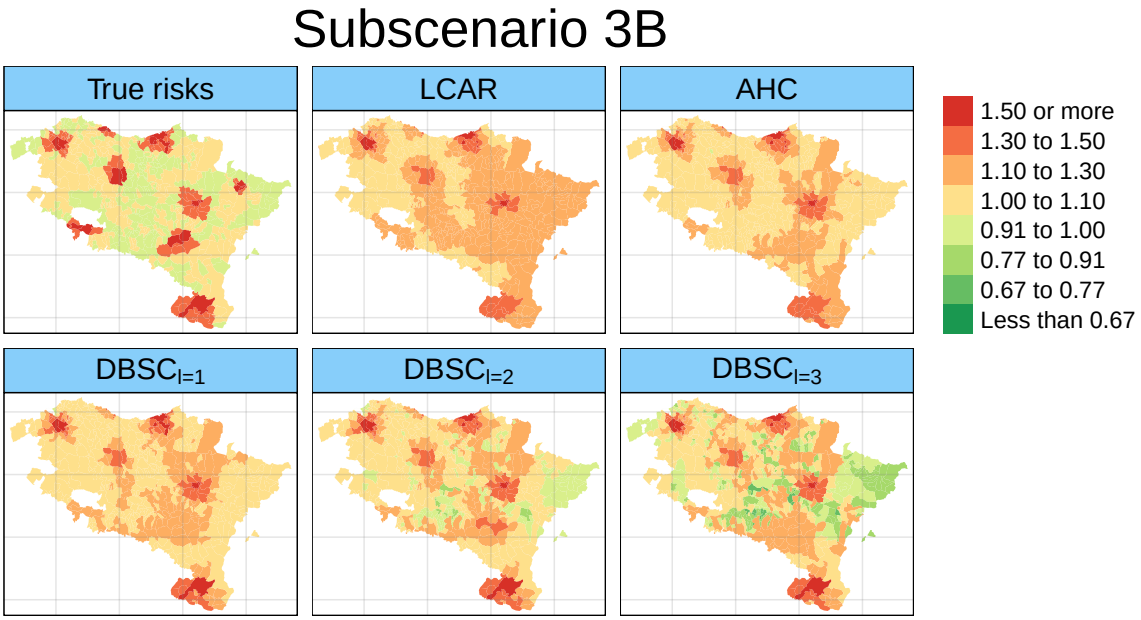

Figure S8: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 3B for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

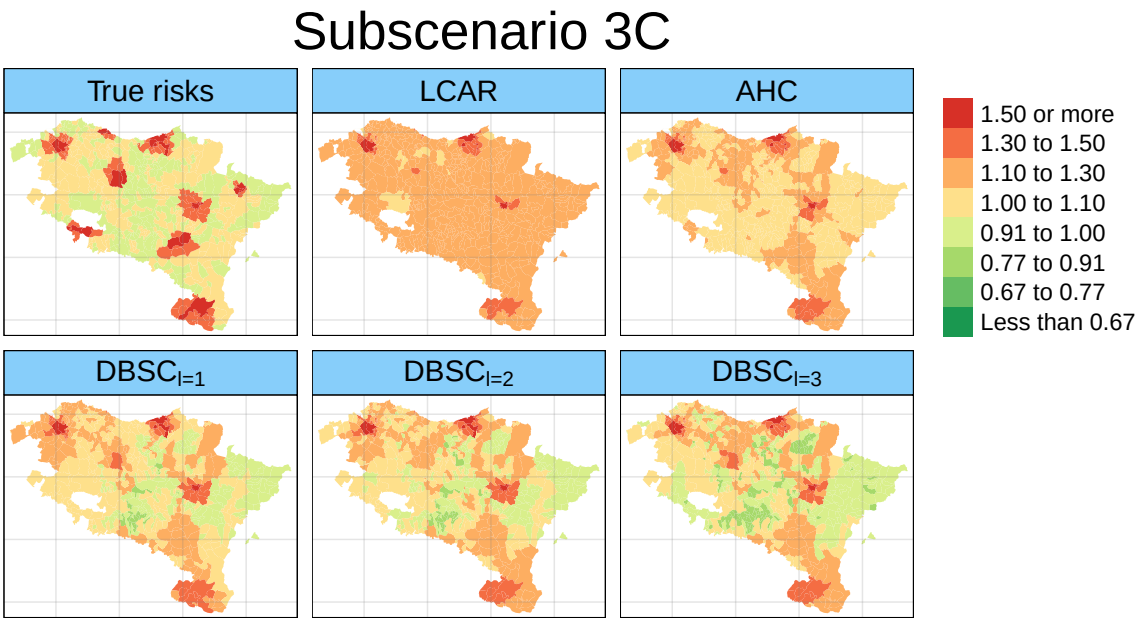

Figure S9: True risks and average values of the relative risks r_i posterior median estimates for the simulation study of Scenario 3C for LCAR, AHC and DBC (with $\ell = 1, 2, 3$) models

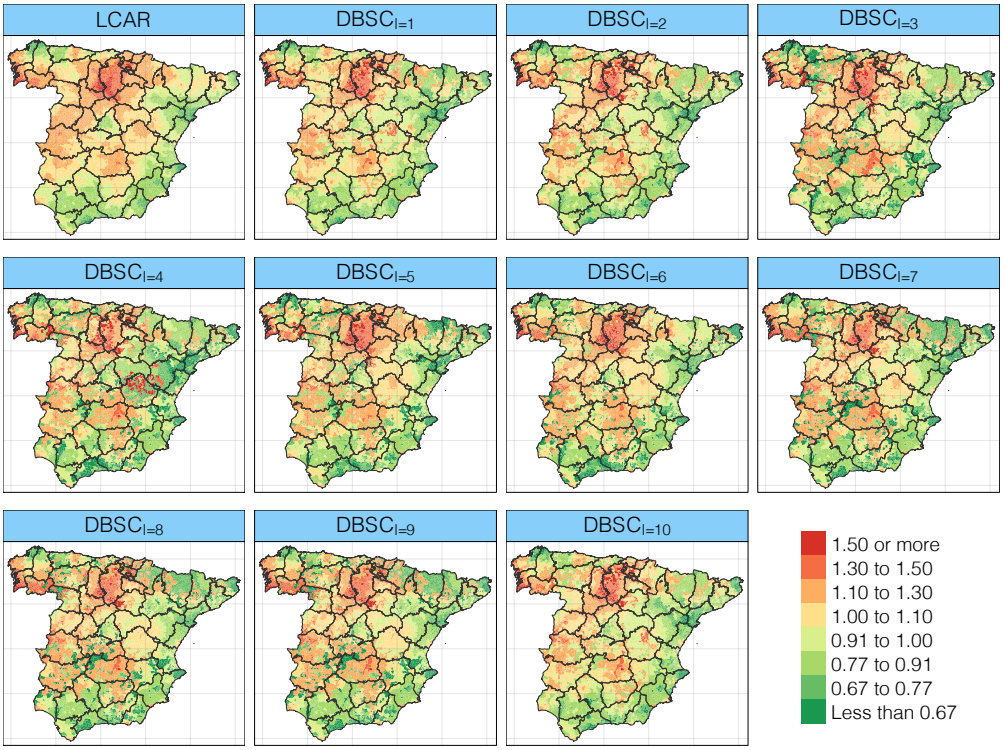

Figure S10: Maps posterior median estimates for r_i of stomach cancer mortality risks in the municipalities of Spain for males during the period 2011-2015 for LCAR and DBSC (with $\ell = 1, \ldots, 10$) models.

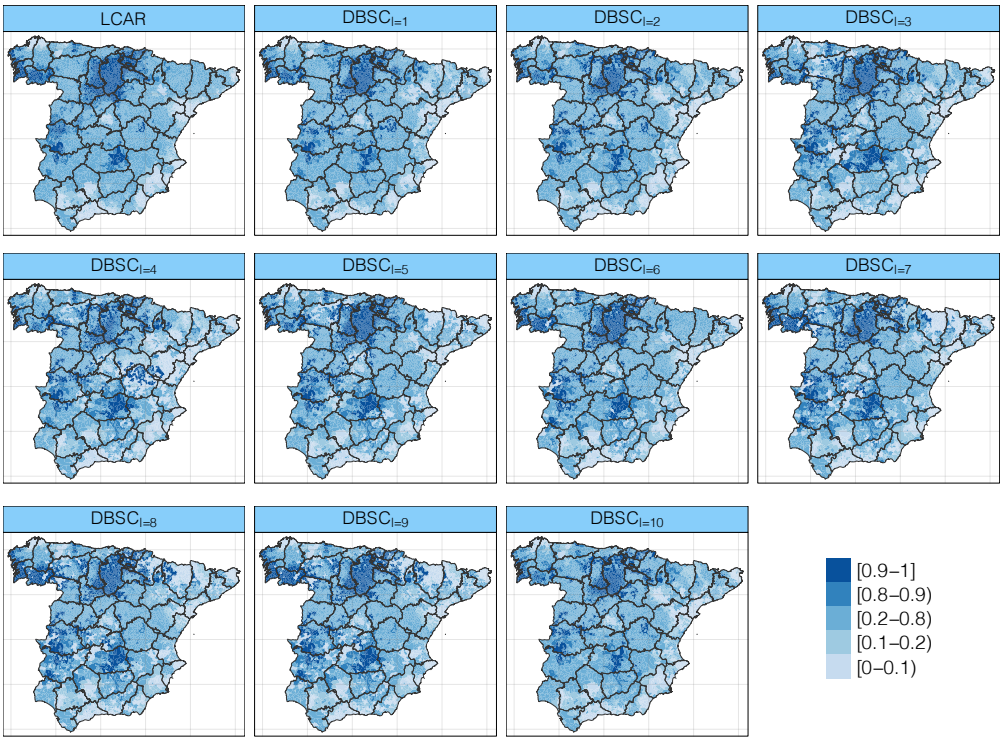

Figure S11: Maps of posterior exceedence probabilities $P(r_i > 1|\mathbf{O})$ of stomach cancer mortality risks in the municipalities of Spain for males during the period 2011-2015 for LCAR and DBSC (with $\ell = 1, \ldots, 10$) models.

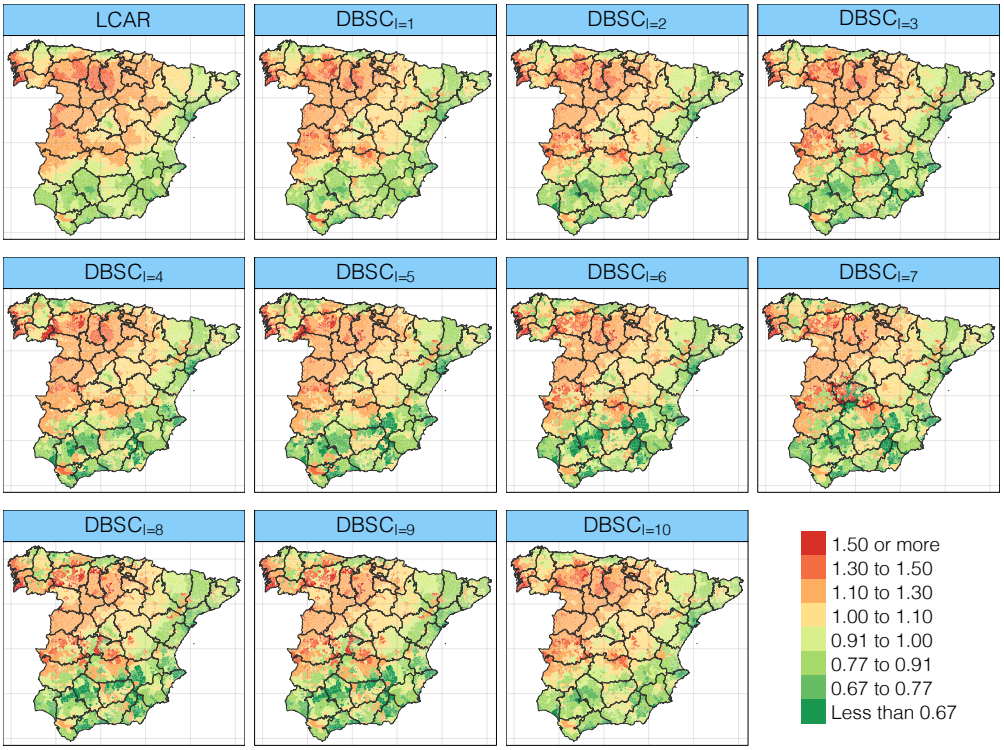

Figure S12: Maps posterior median estimates for r_i of stomach cancer mortality risks in the municipalities of Spain for females during the period 2011-2015 for LCAR and DBSC (with $\ell = 1, \ldots, 10$) models.

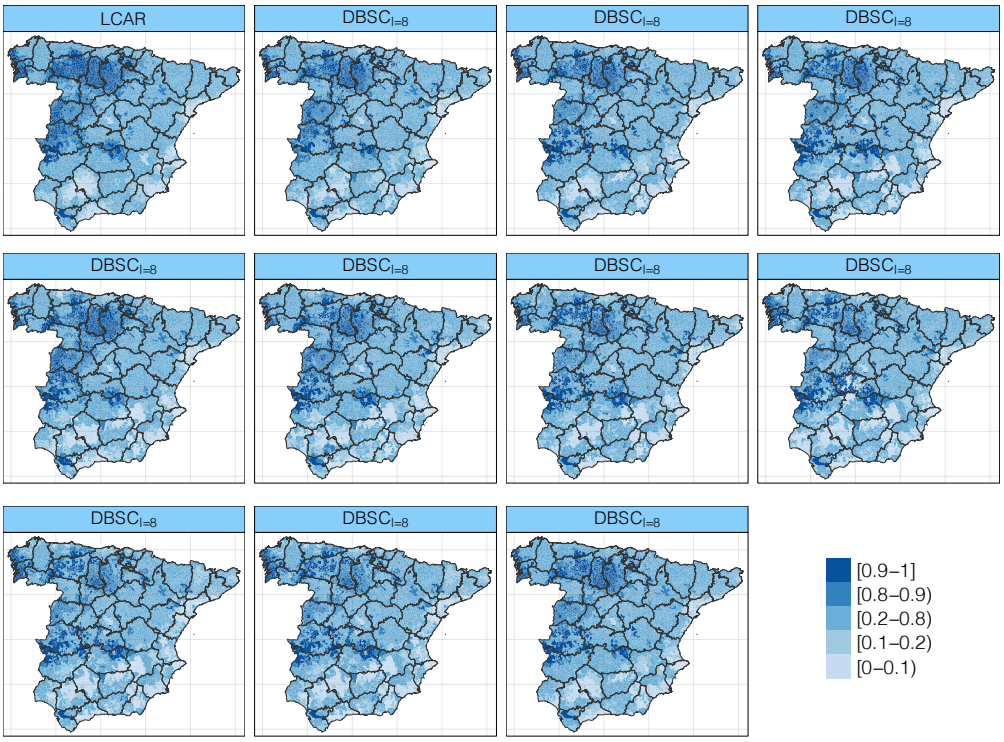

Figure S13: Maps of posterior exceedence probabilities $P(r_i > 1|\mathbf{O})$ of stomach cancer mortality risks in the municipalities of Spain for females during the period 2011-2015 for LCAR and DBSC (with $\ell = 1, \ldots, 10$) models.