

## Supplementary material

**Table S1** Values of the Watanabe-Akaike information criterion (WAIC) comparing “BYM2” models under Poisson distributions and negative binomial distributions.

<b>Outcomes/Sex, age group</b>	<b>Poisson</b>	<b>Negative binomial</b>
<b>Hospital admissions</b>		
Female (years)		
20-59	418.08	466.93
60+	528.37	671.82
Men (years)		
20-59	456.19	528.60
60+	535.06	676.88
<b>Deaths</b>		
Female (years)		
20-59	190.26	191.71
60+	479.19	562.65
Men (years)		
20-59	282.44	285.33
60+	457.74	540.73
<b>Fatality</b>		
Female (years)		
20-59	205.32	206.54
60+	479.24	557.86
Men (years)		
20-59	280.17	280.57
60+	458.61	527.59

Note: multivariate models including gross geographic product (GGP) per capita and the healthcare accessibility index in Spain, 2016-2018.