<u>Supplemental Material</u>

PM$_{2.5}$ composition and disease aggravation in amyotrophic lateral sclerosis: an analysis of long-term exposure to components of fine particulate matter in New York State

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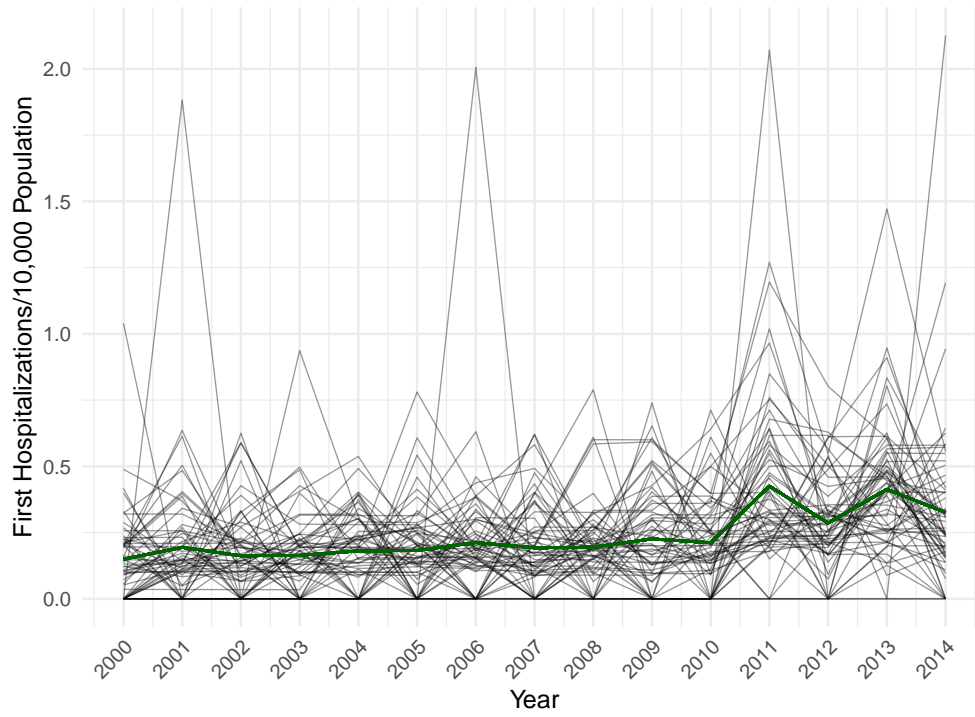
List of Figures

Figure S.1: Time trends in hospitalization counts. The spaghetti plot show the hospitalization counts per 10,000 population per county (gray lines) and the NYS average (dark green line) from 2000 to 2014.
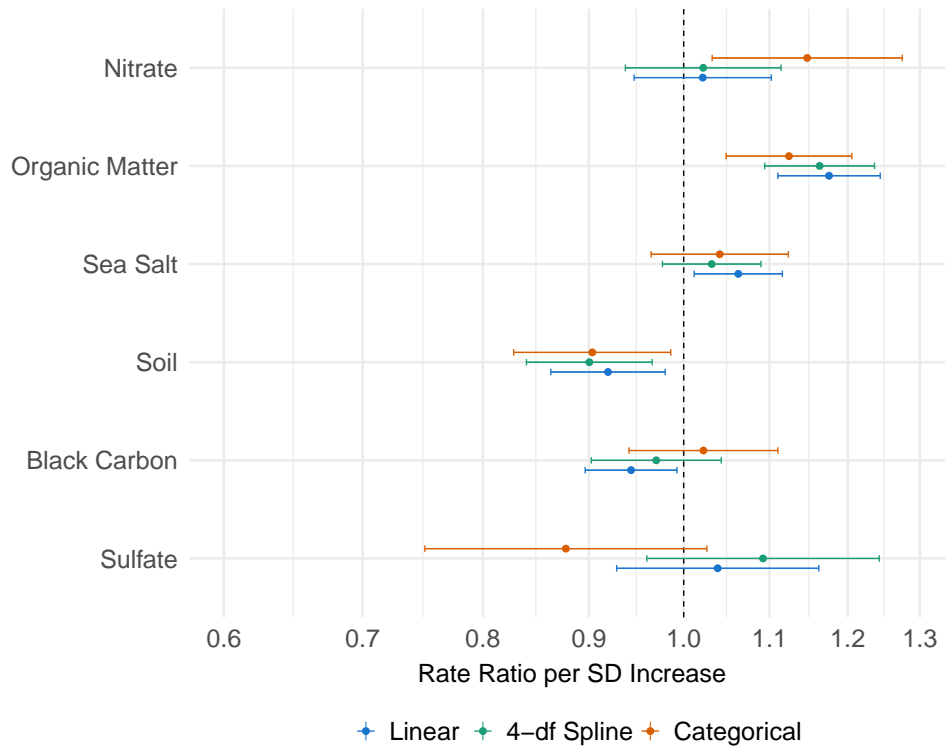
Figure S.2: Sensitivity analysis: confounding by time trends. Linear associations between one-year exposure to each $PM_{2.5}$ component and first ALS hospitalization in New York State (2000–2014) using three different parameterizations of the variable "year": 1) as a linear term (Linear); 2) with a natural spline with 4 degrees of freedom (4-df Spline); and 3) as a categorical variable (Categorical). All models were adjusted for potential SES confounders. The effect estimates correspond to the rate ratios of first ALS hospitalization per one standard deviation increase in annual $PM_{2.5}$ component concentrations. Bars represent 95% confidence intervals.
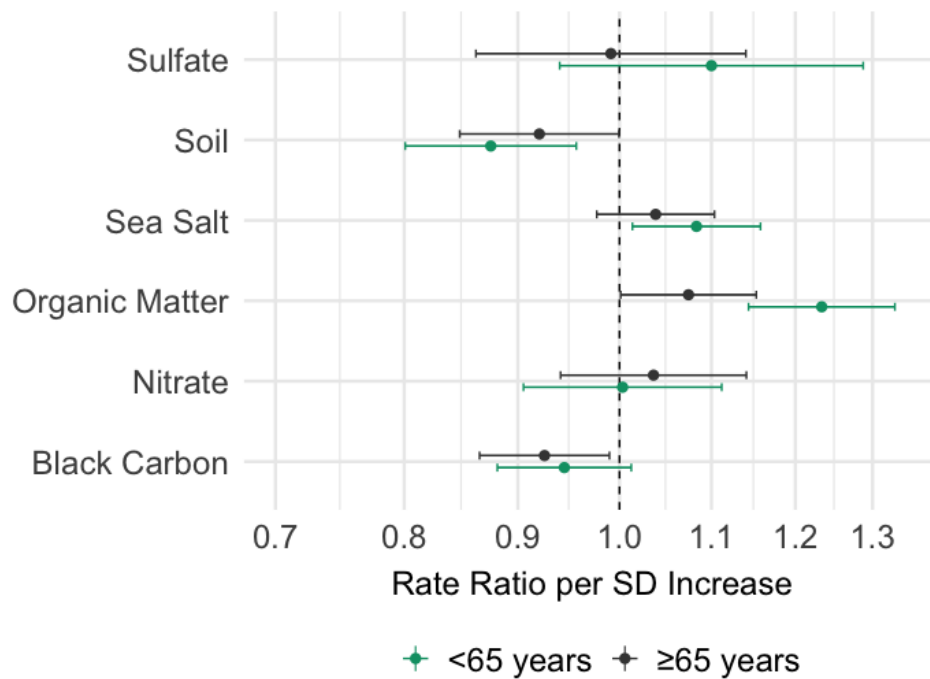
Figure S.3: Sensitivity analysis: age stratified analysis. Linear associations between one-year exposure to each PM$_{2.5}$ component and first ALS hospitalization in New York State (2000–2014) by age (≥ 65 dark gray and < 65 green). Both models were adjusted for potential SES confounders and included all PM$_{2.5}$ components. The effect estimates correspond to the rate ratios of first ALS hospitalization per one standard deviation increase in annual PM$_{2.5}$ component concentrations. Bars represent 95% confidence intervals.