

## **Multiple air pollutants and their health impacts during pollution episodes across the UK**

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Evidence showing the adverse impacts of air pollution on human health due to exposure is in abundance. Both short-term and long-term exposures to particular matter (PM) have been associated with increased mortality. This study is focused on the short-term effects of PM. Poor air quality episodes are surrounded by rapid changes in pollutant concentrations, thus a key requirement of modelling is the ability to capture such changes. This study investigates air pollution episodes across the UK to analyse the impact on health. Pollutant concentrations are obtained by using a high resolution version of the UK chemistry and aerosol (UKCA) model.