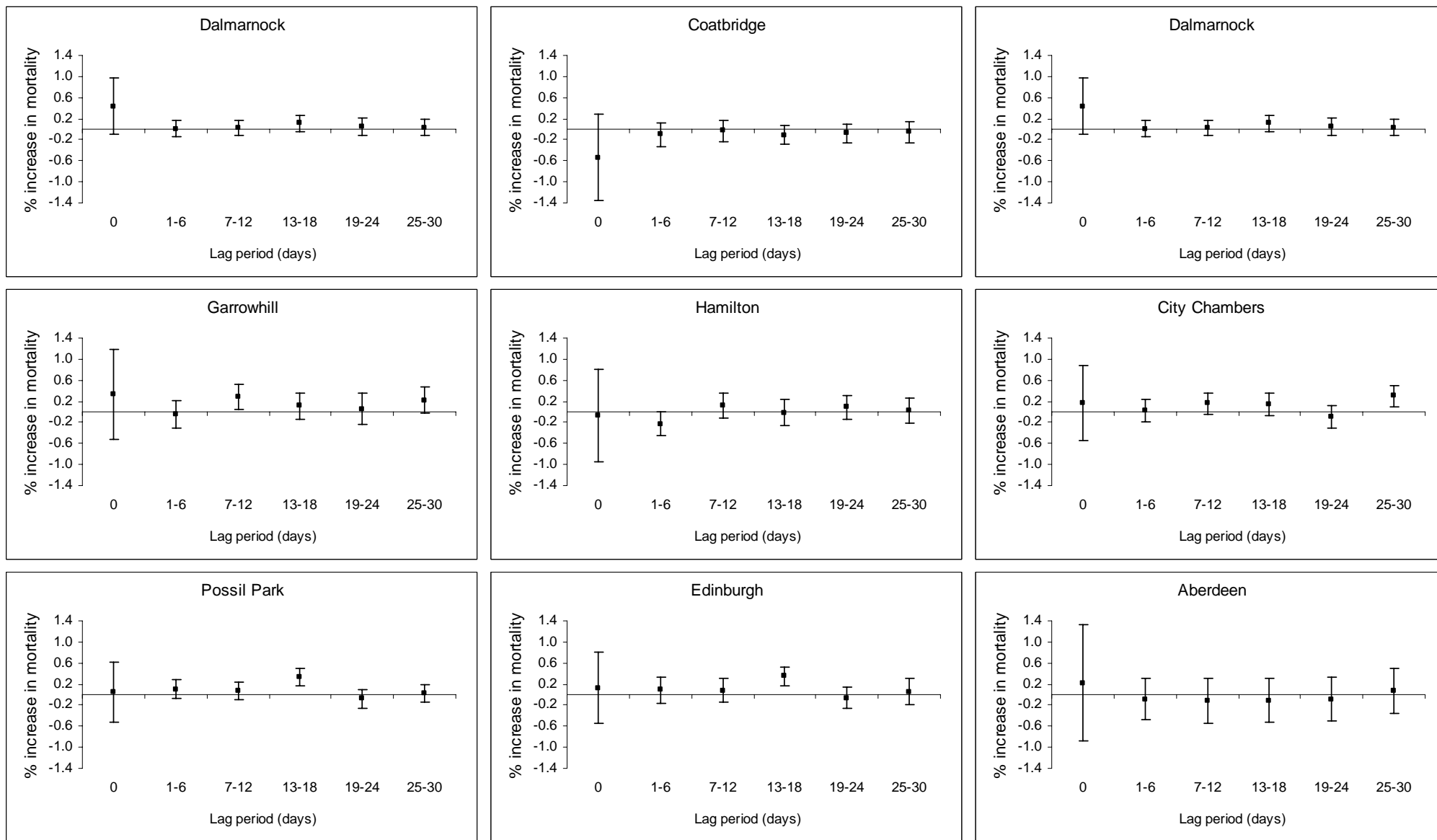


Figure 1 Percentage increase in (respiratory) mortality associated with a (one day) $10\mu\text{g}\text{m}^{-3}$ increase in black smoke, at increasing lag - individual areas



All lag periods included in the model simultaneously

All coefficients refer to an increase of $10\mu\text{g}\text{m}^{-3}$ in black smoke concentration on *only one day* within the lag period.

Table 1 The change in estimated percent increase (and associated 95% confidence intervals) in all cause mortality associated with a (one day) 10 μgm^{-3} increase in black smoke when temperature decreases by 1 degree C – sensitivity of results to imputation for missing data.

	Multiple imputation for missing data	No imputation for missing data
BS(Lag 0):temperature	0.0023 (-0.0051, 0.0097)	0.0016 (-0.0060, 0.0092)
BS(Lag 1-6): temperature	0.0029 (0.0008, 0.0050)	0.0019 (-0.002, 0.0041)
BS(Lag 7-12):temperature	-0.0005 (-0.0028, 0.0018)	-0.0004 (-0.0028, 0.0020)
BS(Lag 13-18):temperature	0.0016 (-0.0010, 0.0041)	-0.0004 (-0.0031, 0.0023)
BS(Lag 19-24):temperature	-0.0008 (-0.0035, 0.0019)	-0.0006 (-0.0034, 0.0022)
BS(Lag 25-30):temperature	-0.0002 (-0.0023, 0.0019)	0.0008 (-0.0014, 0.0029)

All models contain terms for season and other long term trend, day of week, BS (lag 0, 1-6, 7-12, 13-18, 19-24 and 25, 30 days), temperature (modelled as a double linear, lagged 0, 1-6, 7-12, 13-18, 19-24 and 25-30 days), plus interaction terms (shown – a value of ‘0’ would indicate no interaction) defined as the products of recent temperature (lag 1-6 – modelled as a continuous variable) and each of the black smoke variables (i.e. assuming linear increase in BS effect as temperature decreases).

All lag periods are included in the model simultaneously.

All coefficients refer to an increase of 10 μgm^{-3} in black smoke concentration on *only one day* within the lag period.