**Table S3:** Odds ratio for presenting to an emergency department with non-specific abdominal pain associated with an interquartile increase in an air pollutant concentration stratified by age for 1- and 2-day lags. NA – not available; CO- carbon monoxide; NO2 – nitrogen dioxide; SO2 - sulphur dioxide; O3 - ozone; PM10 - particulate matter < 10 microns; PM2.5 - particulate matter < 2.5 microns; PPM - parts per million; PPB - parts per billion; mg/m3 - micrograms per meters cubed.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Pollutant** | **All Ages****OR (95% CI)** | **< 15 years****OR (95% CI)** | **15 – 24 years****OR (95% CI)** | **25 – 34 years****OR (95% CI)** | **35 – 44 years****OR (95% CI)** | **45 – 64 years****OR (95% CI)** | **>64 years****OR (95% CI)** |
| *Edmonton* |
| CO (ppm)1-Day Lag2-Day Lag | 1.01(0.99-1.01)1.01(0.99-1.02) | 1.00(0.98-1.02)1.00(0.98-1.03) | 1.03(1.01-1.04)1.02(1.00-1.04)  | 0.98(0.96-1.00)1.00(0.99-1.02) | 1.00(0.98-1.02)1.01(0.98-1.03) | 1.01(0.98-1.03)1.01(0.98-1.03) | 1.02(1.00-1.05)1.01(0.98-1.04) |
| NO2 (ppb)1-Day Lag2-Day Lag | 1.02(0.99-1.01)1.00(0.99-1.01) | 1.00(0.98-1.04)1.01(0.98-1.05) | 1.04(1.01-1.07)1.01(0.98-1.04) | 0.97(0.95-1.00)1.00(0.97-1.03) | 1.01(0.98-1.05)1.02(0.99-1.05) | 0.99(0.96-1.03)0.99(0.96-1.02) | 1.03(0.99-1.07)1.00(0.96-1.04) |
| SO2 (ppb)1-Day Lag2-Day Lag | 1.01(1.00-1.02)1.00(0.99-1.01) | 1.01(0.99-1.03)1.00(0.97-1.02) | 1.00(0.99-1.03)0.99(0.97-1.01) | 1.02(1.00-1.04)1.01(0.99-1.03) | 0.99(0.97-1.02)1.01(0.99-1.03) | 1.01(0.98-1.03)1.00(0.98-1.02) | 1.03(1.00-1.06)1.01(0.99-1.04) |
| O3 (ppb)1-Day Lag2-Day Lag | 0.99(0.98-1.01)1.00(0.98-1.02) | 0.97(0.93-1.02)0.95(0.90-1.00) | 0.98(0.94-1.02)1.01(0.98-1.05) | 1.01(0.98-1.06)1.00(0.96-1.04) | 1.03(0.98-1.07)1.04(1.00-1.09) | 0.98(0.93-1.02)0.96(0.92-1.01) | 0.96(0.91-1.01)0.98(0.93-1.03) |
| PM10 (mg/m3)1-Day Lag2-Day Lag | 1.00(0.99-1.01)1.00(0.98-1.01) | 1.01(0.98-1.04)1.02(0.90-1.05) | 1.02(1.00-1.05)1.00(0.98-1.02) | 0.99(0.97-1.01)0.99(0.97-1.02) | 1.00(0.98-1.03)1.00(0.98-1.03) | 0.97(0.95 1.00)0.98(0.95-1.00) | 1.02(0.99-1.05)1.02(0.98-1.05) |
| PM2.5 (mg/m3)1-Day Lag2-Day Lag | 1.00(0.99-1.02)1.01(0.99-1.02) | 1.02(0.99-1.05)1.01(0.98-1.05) | 1.03(1.01-1.06)1.02(1.00-1.05) | 0.99(0.96-1.01)1.00(0.97-1.03) | 1.00(0.97-1.03)1.01(0.98-1.04) | 0.97(0.95-1.00)1.00(0.97-1.02) | 1.02(0.98-1.05)1.00(0.97-1.04) |
| *Montreal* |
| CO (ppm)1-Day Lag2-Day Lag | 1.00(0.97-1.02)0.99(0.97-1.02) | NA | 1.06(1.01-1.13)1.04(0.97-1.11) | 1.00(0.95-1.05)1.02(0.97-1.07) | 1.01(0.96-1.07)1.06(1.01-1.12) | 1.02(0.98-1.07)0.99(0.95-1.04) | 0.98(0.93-1.03)1.00(0.95-1.06) |
| NO2 (ppb)1-Day Lag2-Day Lag | 1.00(0.98-1.03)1.00(0.98-1.03) | NA | 1.08(1.01-1.16)1.08(1.00-1.16) | 1.03(0.97-1.09)1.05(1.00-1.12) | 1.01(0.96-1.08)1.09(1.03-1.16) | 1.07(1.02-1.13)1.03(0.97-1.08) | 0.99(0.93-1.05)1.03(0.97-1.10) |
| SO2 (ppb)1-Day Lag2-Day Lag | 1.02(0.99-1.04)1.01(0.99-1.04) | NA | 1.16(1.08-1.23)1.14(1.06-1.22) | 1.06(1.01-1.12)1.04(0.98-1.10) | 1.11(1.05-1.17)1.12(1.06-1.19) | 1.11(1.05-1.16)1.09(1.03-1.14) | 1.02(0.97-1.08)1.07(1.01-1.13) |
| O3 (ppb)1-Day Lag2-Day Lag | 0.99(0.96-1.02)1.00(0.98-1.03) | NA | 1.09(1.01-1.18)1.15(1.07-1.24) | 1.04(0.98-1.11)1.05(0.99-1.12) | 1.05(0.98-1.12)1.02(0.96-1.09) | 1.02(0.96-1.08)1.09(1.03-1.16) | 1.06(0.99-1.13)1.01(0.95-1.08) |
| PM10 (mg/m3)1-Day Lag2-Day Lag | 0.98(0.95-1.01)0.99(0.96-1.02) | NA | 0.97(0.89-1.05)1.03(0.94-1.13) | 1.00(0.93-1.07)1.02(0.95-1.10) | 0.97(0.91-1.04)1.00(0.93-1.08) | 1.00(0.94-1.07)0.99(0.93-1.06) | 0.98(0.92-1.05)0.99(0.92-1.07) |
| PM2.5 (mg/m3)1-Day Lag2-Day Lag | 1.00(0.98-1.02)1.01(0.99-1.03) | NA | 1.08(1.03-1.14)1.09(1.04-1.15) | 1.04(1.00-1.08)1.05(1.01-1.09) | 1.05(1.00-1.09)1.09(1.04-1.13) | 1.04(1.00-1.08)1.03(0.99-1.07) | 0.98(0.94-1.03)1.01(0.97-1.06) |