Table S4. Factors associated with respiratory symptoms

|  |  |
| --- | --- |
|  | Respiratory symptoms |
|  | Weather affects your cough(Q1) | Coughing up sputum… | Frequent wheezing(Q4) |
| Predictive variables | without a cold (Q2) | first thing in the morning (Q3) |
| Crude model | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| Climate conditions |  |  |  |  |
| Ambient temperature (10℃) | 1.04 (0.89 — 1.22) | 0.99 (0.87 — 1.12) | 0.90 (0.78 — 1.05) | 0.96 (0.83 — 1.12) |
| Relative humidity (10%) | 1.29 (1.03 — 1.61) | 0.96 (0.80 — 1.16) | 0.85 (0.69 — 1.04) | 1.14 (0.90 — 1.42) |
| Concentrations |  |  |  |  |
| PM2.5 (10 μg/m3) | 1.06 (0.67 — 1.68) | 0.97 (0.69 — 1.38) | 1.21 (0.83 — 1.72) | 1.23 (0.80 — 1.89) |
| PM10 (10 μg/m3) | 1.13 (0.95 — 1.33) | 1.10 (0.97 — 1.26) | 1.17 (1.01 — 1.36) | 1.15 (0.98 — 1.36) |
| NO2 (10 ppb) | 1.14 (0.90 — 1.44) | 1.13 (0.93 — 1.37) | 1.29 (1.04 — 1.61) | 1.14 (0.90 — 1.45) |
| O3 (10 μg/m3) | 1.13 (1.01 — 1.27) | 0.98 (0.89 — 1.08) | 0.97 (0.87 — 1.09) | 1.00 (0.87 — 1.14) |
| Asian sand dust events7 | 1.08 (0.71 — 1.65) | 1.37 (0.98 — 1.91) | 1.55 (1.04 — 2.31) | 1.13 (0.70 — 1.84) |
|  |  |  |  |  |
| Adjusted model | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| Age (1 year) | 1.02 (0.97 — 1.08) | 1.00 (0.96 — 1.05) | 0.97 (0.93 — 1.02) | 0.97 (0.91 — 1.02) |
| Gender (male) | 1.12 (0.29 — 4.34) | 0.71 (0.25 — 2.01) | 0.77 (0.27 — 2.24) | 0.75 (0.08 — 7.32) |
| Body mass index (≤ median) | 1.11 (0.55 — 2.22) | 1.39 (0.77 — 2.50) | 1.06 (0.56 — 2.02) | 0.59 (0.24 — 1.43) |
| Smoking (vs. Never-smoker) |  |  |  |  |
| Ex-smoker | 2.56 (0.73 — 8.94) | 1.54 (0.56 — 4.24) | 1.24 (0.42 — 3.67) | 0.64 (0.16 — 2.60) |
| Current smoker | 3.36 (0.89 — 12.65) | 3.90 (1.33 — 11.45) | 2.16 (0.78 — 6.01) | 2.97 (0.61 — 14.47) |
| COPD† status (vs. No COPD) |  |  |  |  |
| GOLD‡ stage I | 1.05 (0.29 — 3.73) | 6.86 (2.09 — 22.48) | 6.79 (1.77 — 26.08) | 73.23 (10.28 — 521.44) |
| GOLD stage II | 1.58 (0.51 — 4.86) | 4.60 (1.50 — 14.10) | 7.93 (2.33 — 26.92) | 70.53 (12.57 — 395.59) |
| GOLD stage III, IV | 2.34 (0.49 — 11.08) | 9.64 (3.14 — 29.60) | 8.00 (2.23 — 28.65) | 106.94 (18.72 — 610.80) |
| Using air cleaner | 1.22 (0.56 — 2.64) | 0.77 (0.35 — 1.68) | 0.75 (0.33 — 1.71) | 1.74 (0.61 — 5.00) |
| Time spent outdoors (hours/day) | 0.99 (0.90 — 1.08) | 0.99 (0.90 — 1.08) | 1.01 (0.92 — 1.10) | 0.94 (0.84 — 1.05) |
| Climate conditions |  |  |  |  |
| Ambient temperature (℃) § | 0.73 (0.54 — 0.98) | 1.06 (0.80 — 1.41) | 1.01 (0.75 — 1.38) | 0.71 (0.48 — 1.05) |
| Relative humidity (%) § | 1.74 (1.13 — 2.67) | 0.90 (0.61 — 1.33) | 0.77 (0.52 — 1.14) | 1.75 (0.98 — 3.15) |
| Concentrations¶ |  |  |  |  |
| PM2.5 (10 μg/m3) | 0.98 (0.91 — 1.04) | 0.87 (0.48 — 1.57) | 0.94 (0.48 — 1.84) | 2.12 (0.99 — 4.52) |
| PM10 (10 μg/m3) | 1.04 (1.01 — 1.06) | 0.99 (0.78 — 1.25) | 1.05 (0.80 — 1.37) | 1.38 (1.00 — 1.89) |
| NO2 (10 ppb) | 1.08 (1.01 — 1.17) | 1.35 (0.68 — 2.69) | 1.84 (0.85 — 3.98) | 1.08 (0.38 — 3.04) |
| O3 (10 μg/m3) | 1.06 (1.04 — 1.09) | 0.83 (0.63 — 1.09) | 0.94 (0.70 — 1.27) | 1.30 (0.88 — 1.94) |
| Asian sand dust events\* | 1.45 (0.78 — 2.69) | 1.56 (0.85 — 2.86) | 1.64 (0.79 — 3.39) | 0.86 (0.37 — 2.00) |

† chronic obstructive pulmonary disease

‡ Global Initiative for Chronic Obstructive Lung Disease

§ Temperature and relative humidity were included in each pollutant model

¶ Exposures were included in the adjusted model separately

\* Asian sand dust events: occurrence of Asian sand dust events during the 4 weeks before each survey.