**Supplementary Materials**

**An evaluation of the air quality warning system for vulnerable and susceptible individuals in Korea: an interrupted time series analysis**

**YouHyun Park1,2, Koo Jun Hyuk2, Hoyeon Jeong1,2, Ji Ye Jung3, Changsoo Kim4, Dae Ryong Kang2,5**

*1**Department of Biostatistics, Graduate School of Yonsei University, Seoul, Korea;*

*2National Health Big Data Clinical Research Institute, Yonsei University Wonju Industry-Academic Cooperation Foundation, Wonju, Korea*

*3Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea;*

*4Department of Preventive Medicine, Yonsei University College of Medicine, Seoul, Korea;*

*5Department of Precision Medicine, Wonju College of Medicine, Yonsei University, Wonju, Korea*

Supplementary Material 4. Immediate and gradual changes for incidence of environmental diseasesa after implementation of the Air Quality Warning System in multivariate analysisb by disability.

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| --- | --- | --- | --- | --- |
| Environmental diseases\* | **Disabled** | | **Non-disabled** | |
| Immediate Effects | Gradual Effects | Immediate Effects | Gradual Effects |
| RR\* (95% CI) | RR (95% CI) | RR (95% CI) | RR (95% CI) |
| COPD | 0.84 (0.65-1.08) | **0.99 (0.98-0.99)** ‡ | 0.97 (0.89-1.04) | **0.97 (0.95-0.99)** ‡ |
| Asthma | 1.04 (0.85-1.29) | **0.97 (0.96-0.99)** ‡ | **0.12 (0.03-0.45)** ‡ | **0.82 (0.75-0.88)** ‡ |
| Cardiovascular disease | 0.92 (0.83-1.03) | 0.99 (0.98-1.01) | 0.80 (0.55-1.15) | 1.00 (0.99-1.02) |
| Stroke | 0.80 (0.61-1.05) | 0.98 (0.96-1.01) | **0.60 (0.41-0.87)** ‡ | 0.98 (0.96-1.00) |
| Digestive disease\* | 0.61 (0.23-1.58) | 0.94 (0.89-1.00) | - | 1.03 (0.80-1.33) |

†: p<.01, ‡: p<.001

\*Environmental disease: COPD, ASTHMA, Heart Failure, Stroke. RR: Relative Risk, Digestive disease: Control disease for study excluding peptic ulcer diseases.

a. Age standardized based on the Korea Standard Population in 2005.

b. Adjusted for seasonality, temperature, humidity, time trend, CO, SO2, NO2, PM10, and O3.