



Note: Studies in red are recent studies. Studies in black were included in the 2008 ISA for Oxides of Nitrogen. Relative risks are standardized to a 20 ppb or 30-ppb increase in NO<sub>2</sub> concentration for 24-h and 1-h averaging times, respectively. Model estimates are presented as pairs with the top estimate (Circles) for the single pollutant model and the bottom estimate (Triangles) for the copollutants model. Horizontal lines indicate 95% confidence intervals around the central estimate. Associated data presented in below.

**Supplemental Figure S5-3 Results of single-pollutant and copollutant models of short-term exposure to NO<sub>2</sub> (with CO [triangles] and without CO [circles]) and hospital admissions for cardiovascular disease.**

---

**Corresponding risk estimates of ambient NO<sub>2</sub> for hospital admissions for cardiovascular disease in studies conducting copollutant models with CO presented in [Supplemental Figure S5-3](#).**

| Study                    | Location          | Notes   | Mortality Cause | Single Pollutant Relative Risk <sup>a</sup> (95% CI) | Copollutant Relative Risk <sup>a</sup> (95% CI) |
|--------------------------|-------------------|---------|-----------------|--|---|
| Tolbert et al. (2007)    | Atlanta, GA       |         | CVD             | 1.02 (1.01, 1.03)                                    | 0.99 (0.97, 1.02)                               |
| Chang et al. (2005)      | Taipei, Taiwan    | ≥ 20 °C | CVD             | 1.39 (1.32, 1.45)                                    | 1.31 (1.22, 1.41)                               |
| Chang et al. (2005)      | Taipei, Taiwan    | <20 °C  | CVD             | 1.24 (1.12, 1.37)                                    | 1.27 (1.09, 1.47)                               |
| Yang et al. (2004)       | Kaohsiung, Taiwan | ≥ 25 °C | CVD             | 1.46 (1.32, 1.62)                                    | 1.11 (0.91, 1.21)                               |
| Yang et al. (2004)       | Kaohsiung, Taiwan | <25 °C  | CVD             | 2.45 (2.27, 2.84)                                    | 2.89 (2.43, 3.42)                               |
| Nuvolone et al. (2011)   | Tuscany, Italy    |         | MI              | 1.09 (1.02, 1.16)                                    | 1.04 (0.94, 1.14)                               |
| Hsieh et al. (2010)      | Taipei, Taiwan    | ≥ 23 °C | MI              | 1.24 (1.16, 1.35)                                    | 1.18 (1.06, 1.31)                               |
| Hsieh et al. (2010)      | Taipei, Taiwan    | <23 °C  | MI              | 1.26 (1.18, 1.35)                                    | 1.24 (1.10, 1.42)                               |
| Cheng et al. (2009)      | Kaohsiung, Taiwan | ≥ 25 °C | MI              | 1.23 (1.06, 1.44)                                    | 0.99 (0.80, 1.23)                               |
| Cheng et al. (2009)      | Kaohsiung, Taiwan | <25 °C  | MI              | 1.76 (1.55, 2.02)                                    | 1.74 (1.42, 2.13)                               |
| Stieb et al. (2009)      | 7 Canadian Cities |         | MI/Angina       | 1.03 (1.00, 1.05)                                    | 1.01 (0.97, 1.06)                               |
| Poloniecki et al. (1997) | London, U.K.      | Cool    | MI              | 1.00 (1.00, 1.00)                                    | 1.00 (1.00, 1.00)                               |
| Poloniecki et al. (1997) | London, U.K.      | Warm    | MI              | 1.00 (1.00, 1.00)                                    | 1.00 (1.00, 1.00)                               |
| Tsai et al. (2009)       | Taipei, Taiwan    | ≥ 23 °C | Arrhythmia      | 1.19 (1.10, 1.27)                                    | 1.14 (1.02, 1.27)                               |
| Tsai et al. (2009)       | Taipei, Taiwan    | <23 °C  | Arrhythmia      | 1.34 (1.25, 1.46)                                    | 1.32 (1.16, 1.51)                               |
| Yang (2008)              | Taipei, Taiwan    | ≥ 20 °C | CHF             | 1.41 (1.30, 1.53)                                    | 1.39 (1.21, 1.58)                               |
| Yang (2008)              | Taipei, Taiwan    | <20 °C  | CHF             | 1.04 (0.90, 1.21)                                    | 0.96 (0.76, 1.21)                               |
| Tsai et al. (2003)       | Kaohsiung, Taiwan |         | Cerebral Stroke | 1.68 (1.38, 2.04)                                    | 1.73 (1.30, 2.32)                               |
| Tsai et al. (2003)       | Kaohsiung, Taiwan |         | Ischemic Stroke | 1.67 (1.48, 1.87)                                    | 1.66 (1.40, 1.98)                               |

Note: Studies correspond to studies presented in [Supplemental Figure S5-3](#).

<sup>a</sup>Effect estimates are standardized to a 20 ppb or 30-ppb increase in NO<sub>2</sub> concentration for 24- h and 1-h averaging times, respectively.