

Supplementary Material

1 TABLES

Table S1: Overview of the impact functions.

Health impact	Pollutant	Age group	Concentration Impact function
Bronchodilator usage adults (BUA)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	20+	14,600 (\pm 14,150) additional days of bronchodilator usage per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 adults aged 20 and older with well-established asthma per year.
Bronchodilator usage children (BUC)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	5-14	2,200 (\pm 6,025) additional days of bronchodilator usage per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 children aged 5-14 years meeting the PEACE study criteria per year.
Cardiac hospital admissions (CHA)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	All	0.65 (\pm 0.16) additional emergency cardiac hospital admissions per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 people (all ages) per year.
New cases of chronic bronchitis (CB)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	18+	14 (\pm 5.95) new cases of chronic bronchitis per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 at-risk adults aged 18 and older per year.
Infant mortality (IM)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	1 month to 1 year	0.87 (\pm 0.29) additional infant deaths per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 live births per year.
Lower respiratory symptoms adults (LRSA)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	18+	20,800 (\pm 8,750) additional lower respiratory symptom days per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 adults aged 18 and older with chronic respiratory symptoms per year.
Lower respiratory symptoms children (LRSC)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	5-14	29,000 (\pm 7,400) additional lower respiratory symptom days per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 children aged 5-14 per year.
Respiratory hospital admissions (RHA)	PM2.5 (>2.4 $\mu\text{g}/\text{m}^3$)	All	0.86 (\pm 0.0625) additional emergency respiratory hospital admissions per 1 $\mu\text{g}/\text{m}^3$ increase in PM2.5 per 100,000 people (all ages) per year.

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Health impact	Pollutant	Age group	Impact function
Minor restricted activity days (MRAD)	PM2.5 (>2.4 µg/m ³)	18-64	5,770 (± 545) additional MRAD per 1 µg/m ³ increase in PM2.5 per 100,000 adults aged 18-64 (general population) per year.
Restricted activity days (RAD)	PM2.5 (>2.4 µg/m ³)	18-64	9,020 (± 552.5) additional RAD per 1 µg/m ³ increase in PM2.5 per 100,000 adults aged 18-64 (general population) per year.
Work loss days (WLD)	PM2.5 (>2.4 µg/m ³)	18-64	2,070 (± 155) additional work loss days per 1 µg/m ³ increase in PM2.5 per 100,000 people aged 15-64 in the general population per year.
Years of life lost (YOLL_PM2.5)	PM2.5 (>2.4 µg/m ³)	30+	101.4 (± 7.5) additional YOLL per 1 µg/m ³ increase in PM2.5 per 100,000 people aged 30 and older in the general population per year.
Years of life lost (YOLL_NO ₂)	NO ₂ (>20 µg/m ³)	30+	93.0 (± 6.9) additional YOLL per 1 µg/m ³ increase in NO ₂ per 100,000 people aged 30 and older in the general population per year.
Prevalence of bronchitic symptoms in asthmatic children (PBSC)	NO ₂	5-14	111,427 (± 2,128) additional bronchitic symptom days per 1 µg/m ³ increase in NO ₂ per 100,000 children aged 5-14 per year.