

## Appendix

**Table A1** Concentration-response functions for ozone-related health endpoints

Endpoint	Population	Impact category	ERF	C.I.95% low	C.I.95% high
Morbidity	Entire age groups	Respiratory hospital admissions < 65	3.54E-06	6.12E-07	6.47E-06
	Adults	Respiratory hospital admissions 65 +	1.25E-05	-5.00E-06	3.00E-05
	Adults	Bronchodilator usage	1.04E-02	-3.64E-03	2.24E-02
	Adults	Lower respiratory symptoms	2.29E-03	-6.14E-03	1.16E-02
	Adults	Asthma	4.29E-03	3.30E-04	8.25E-03
	Adults	Minor restricted activity day	1.15E-02	4.40E-03	1.86E-02
	Adults	Consultation for allergic rhinitis	1.60E-04	1.22E-04	2.03E-04
	Children	Consultation for allergic rhinitis	3.03E-04	1.89E-04	4.29E-04
	Children	Cough	9.30E-02	-1.90E-02	2.22E-01
	Children	Lower respiratory symptoms(wheeze)	1.60E-02	-4.30E-02	8.10E-02
	Children	Consultation for allergic rhinitis	3.03E-04	1.89E-04	4.29E-04
	Adults	Consultation for allergic rhinitis	1.60E-04	1.22E-04	2.03E-04
	Children	Acute respiratory symptoms days	9.30E-02	-1.90E-02	2.22E-01
	Adults	Acute respiratory symptoms days	1.60E-02	-4.30E-02	8.10E-02
	Mortality	Adult 30 +	Mortality from chronic exposure	2.00E-03	6.50E-04
Work loss	Adults	Work loss day	4.13E-03	1.65E-03	6.63E-03
VSL	Entire age groups	Value of statistical life (million USD)	2.50E-01		

Notes: Source (Bickel et al., 2005; Amann, 2008; Jin, 2017; Turner et al., 2016).

**Table A2** Concentration-response functions for PM<sub>2.5</sub>-related health endpoints

Category	Population	Endpoint	Medium	C.I. (95%) Low	C.I. (95%) High
Morbidity	Adult	Work loss day	0.0207	0.0176	0.0238
	All ages	Respiratory hospital admissions	1.17E-05	6.38E-06	1.72E-05
	Adult	Cerebrovascular hospital admission	8.4E-06	6.47E-07	1.16E-05
	Adult	Cardiovascular hospital admissions	7.23E-06	3.62E-06	1.09E-05
	Age 27 +	Chronic bronchitis	4.42E-05	-1.8E-06	9.02E-05
	All ages	Asthma attacks	0.000122	4.33E-05	0.001208
	All ages	Respiratory symptoms days	0.217	0.025	0.405
Mortality	Age 30 +	All cause	0.004	0.0003	0.008

Notes: Source (Pope et al., 2002; Bickel et al., 2005; Apte et al., 2015).

## References

- Amann M (2008). Health Risks of Ozone from Long-Range Transboundary Air Pollution. Copenhagen: WHO Regional Office Europe
- Apte J S, Marshall J D, Cohen A J, Brauer M (2015). Addressing global mortality from ambient PM<sub>2.5</sub>. *Environmental Science & Technology*, 49(13): 8057–8066
- Bickel P, Friedrich R, Droste-Franke B, Bachmann T, Gressmann A, Rabl A, Hunt A, Markandya A, Tol R, Hurley F (2005). ExternE Externalities of Energy Methodology 2005 Update. Luxembourg: Office for Official Publications of the European Communities
- Jin Y, Andersson H, Zhang S (2017). China's cap on coal and the efficiency of local interventions: A benefit-cost analysis of phasing out coal in power plants and in households in Beijing. *Journal of Benefit-Cost Analysis*, 8 (2): 147–186
- Pope C A 3rd, Burnett R T, Thun M J, Calle E E, Krewski D, Ito K, Thurston G D (2002). Lung cancer, cardiopulmonary mortality, and long-term exposure to fine particulate air pollution. *Journal of the American Medical Association*, 287(9): 1132–1141
- Turner M C, Jerrett M, Pope C A 3rd, Krewski D, Gapstur S M, Diver W R, Beckerman B S, Marshall J D, Su J, Crouse D L, Burnett R T (2016). Long-term ozone exposure and mortality in a large prospective study. *American Journal of Respiratory and Critical Care Medicine*, 193(10): 1134–1142