



## **APPENDIX AVAILABLE ON REQUEST**

### **Research Report 97**

#### **Identifying Subgroups of the General Population That May Be Susceptible to Short-Term Increases in Particulate Air Pollution: A Time-Series Study in Montreal, Quebec**

#### **Appendix O. Synthesis of Results for Disease Groups**

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**Table O.1.** Synthesis of Results for the Composite Subgroups of the Mean Percent Change in Daily Nonaccidental Mortality across the Different Measures of Particulates Evaluated at the Interquartile Range, Montreal, 1984-1993<sup>a</sup>

Subgroup	COH	Extinction	Predicted PM <sub>2.5</sub>	Sulfate from Sutton	Predicted sulfate from PM <sub>2.5</sub>
			<b>Lag 0</b>		
No history of cardiovascular and respiratory diseases, including respiratory cancer	1.87*	1.16*	2.37*	1.43*	1.67*
No cancer, cardiovascular and respiratory diseases	1.73*	1.22*	2.51*	1.21*	1.59*
Cancer only	1.23	0.86	1.25	1.07	1.30*
Lower respiratory only	0.34	0.80	0.53	-0.89	-0.27
Lower respiratory and cancer	1.39	1.84	2.46	1.05	1.61
Cardiovascular only	2.19*	0.29	1.78*	0.82	1.01
Cardiovascular and cancer	0.65	2.83*	1.46	1.33	1.92
Cardiovascular and lower respiratory	1.92	1.65	2.36*	0.22	1.01
Cardiovascular and lower respiratory and cancer	1.20	0.62	2.24	0.18	1.07
			<b>Lag 1</b>		
No history of cardiovascular and respiratory diseases, including respiratory cancer	0.09	1.14*	1.39*	1.28*	1.48*
No cancer, cardiovascular and respiratory diseases	-0.42	1.09	1.11	1.23*	1.45*
Cancer only	0.73	0.82	0.76	0.32	0.46
Lower respiratory only	0.12	0.94	1.34	1.83*	1.49
Lower respiratory and cancer	1.62	-1.16	0.98	0.12	0.27
Cardiovascular only	2.73*	0.64	2.25*	0.98	1.30*
Cardiovascular and cancer	2.29	2.12	1.91	0.31	1.12
Cardiovascular and lower respiratory	4.00*	1.48	2.92*	1.28	1.54
Cardiovascular and lower respiratory and cancer	1.59	1.31	2.71	2.33	2.39

Continued...

**Table O.1, continued.**

Subgroup	COH	Extinction	Predicted PM <sub>2.5</sub>	Sulfate from Sutton	Predicted sulfate from PM <sub>2.5</sub>
			<b>3-day mean</b>		
No history of cardiovascular and respiratory diseases, including respiratory cancer	1.10	1.87*	2.45*	2.23*	2.28*
No cancer, cardiovascular and respiratory diseases	0.31	2.57*	2.27*	2.17*	2.39*
Cancer only	1.60	0.48	1.03	0.84	0.68
Lower respiratory only	1.59	2.56	3.39*	1.52	2.48*
Lower respiratory and cancer	3.51*	1.29	2.66	0.85	1.46
Cardiovascular only	4.16*	0.97	2.83*	1.22	1.38
Cardiovascular and cancer	2.18	4.26*	1.76	0.84	1.50
Cardiovascular and lower respiratory	3.31*	1.86	2.79*	1.18	1.65
Cardiovascular and lower respiratory and cancer	2.84	0.71	3.07	1.28	1.97

\* Corrected t-value > 1.96.

<sup>a</sup> The statistical model was  $E(\log(y_i)) = \alpha + \text{loess}(i, \text{span}=2.49\%) + \text{loess}(\text{year}) + \text{loess}(\text{Mean temperature}_0, \text{Change in barometric pressure from the previous 24 hours}_0) + \beta * \text{pollutant}$ , where  $y_i$  is the number of nonaccidental deaths on day  $i$  for subjects included in each subgroup.