

Expansion of the Multi-City Mortality and Morbidity Study

Environment Protection and Heritage Council

FINAL REPORT

Volume 3 Tabulated Results

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University of Queensland
New South Wales Health
Environment Protection Authority Victoria
Queensland Health
Department of Environmental Protection Western Australia
Environment ACT
New Zealand Ministry for the Environment

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Appendix 1

Appendix 1: Auckland Data Summary

EPHC

Air Pollution, Morbidity and Mortality Study

Auckland

Descriptive Statistics

A1	Pollutants
A2	Meteorology
A3	Morbidity
A4	Mortality

A1: Pollutants

Table A1.1 Mean daily pollutant concentrations (network average), Auckland statistical division, January 1998 – December 2001

	N	Mean	SD	Min	Max
O₃ (ppb)					
8 hour	1439	21.62	5.46	7.44	40.13
4 hour	1439	22.91	5.55	8.24	42.65
1 hour	1439	23.93	5.65	8.84	44.17
NO₂ (ppb)					
24 hour	1455	10.19	4.15	1.71	28.85
1 hour	1455	19.09	7.28	4.20	86.34
CO (ppm)					
24 hour	1249	1.37	0.73	0.15	4.08
8 hour	1249	2.14	1.14	0.24	7.94
1 hour	1249	3.66	1.99	0.37	13.40
bsp (10⁻⁴m⁻¹)					
24 hour	517	0.61	0.16	0.18	1.15
1 hour	517	0.85	0.22	0.38	2.15
PM₁₀ (µg/m³)					
24 hour	287	19.82	7.70	3.75	62.37
PM_{2.5} (µg/m³)					
24 hour	274	11.00	5.66	2.08	37.64
SO₂ (ppb)					
24 hour	1368	4.29	2.61	0.00	24.26

Table A1.2 Network average correlation coefficients, Auckland statistical division, January 1998 – December 2001*

	4 hr O ₃	1 hr O ₃	24 hr NO ₂	1 hr NO ₂	24 hr CO	8 hr CO	1 hr CO
8 hr O ₃	0.99	0.96	0.28	0.33	0.05 ^{ns}	0.05 ^{ns}	0.05 ^{ns}
4 hr O ₃		0.99	0.34	0.38	0.11 ^c	0.11 ^c	0.11 ^c
1 hr O ₃			0.35	0.39	0.13	0.13	0.13
24 hr NO ₂				0.88	0.55	0.53	0.55
1 hr NO ₂					0.44	0.44	0.45
24 hr CO						0.98	0.91
8 hr CO							0.93
1 hr CO							
24 hr bsp							
1 hr bsp							
24 hr PM ₁₀							
24 hr PM _{2.5}							

	24 hr bsp	1 hr bsp	24hr PM ₁₀	24hr PM _{2.5}	24hr SO ₂
8 hr O ₃	-0.05 ^{ns}	-0.08 ^{ns}	-0.06 ^{ns}	0.03 ^{ns}	0.13
4 hr O ₃	-0.11 ^a	-0.10 ^a	-0.02 ^{ns}	0.08 ^{ns}	0.16
1 hr O ₃	-0.13 ^b	-0.10 ^a	0.00 ^{ns}	0.09 ^{ns}	0.16
24 hr NO ₂	-0.56	-0.26	0.25	0.43	0.34
1 hr NO ₂	-0.44	-0.19	0.19 ^b	0.33	0.26
24 hr CO	-0.56	-0.31	0.40	0.55	0.27
8 hr CO	-0.52	-0.27	0.38	0.54	0.25
1 hr CO	-0.46	-0.21	0.31	0.52	0.25
24 hr bsp		0.79	-0.65	-0.71	-0.55
1 hr bsp			-0.42	-0.48	-0.40
24 hr PM ₁₀					0.33
24 hr PM _{2.5}					0.40

* all coefficients significant at p=0.0001 unless indicated

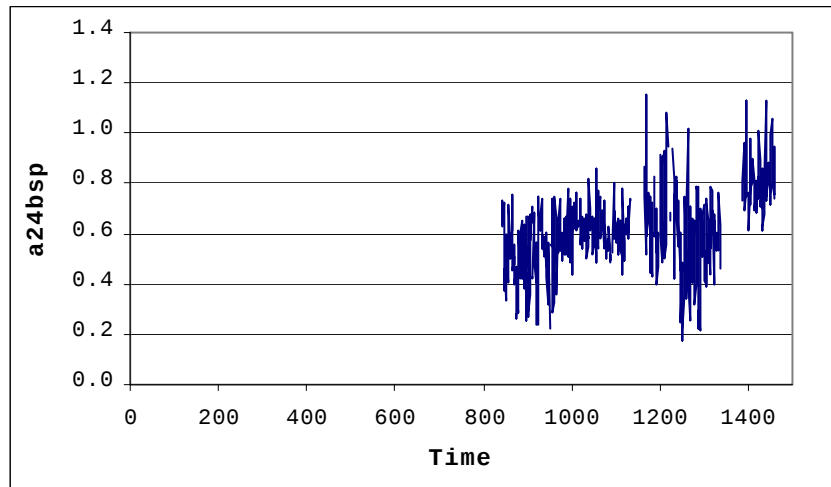
^a significant at p<0.05

^b significant at p<0.01

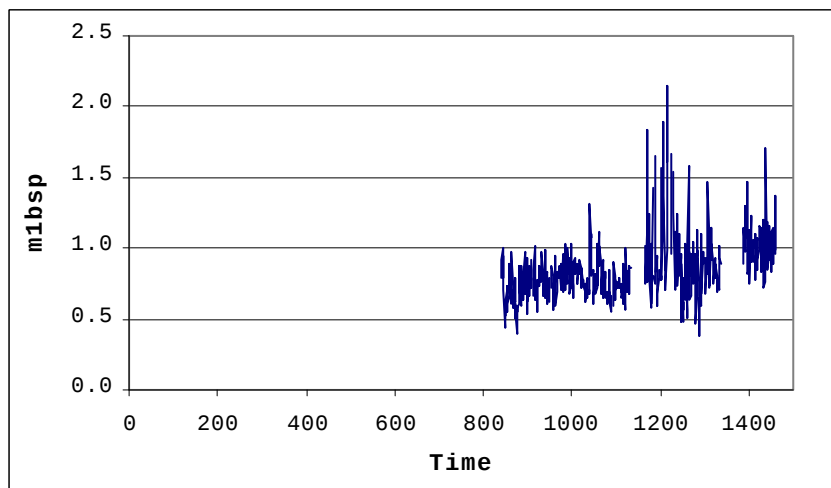
^c significant at p<0.001

^{ns} not significant

**Figure A1.1 Time series: 24-hour bsp (network average),
Auckland, January 1998 – December 2001**



**Figure A1.2 Time series: 1-hour bsp (network average),
Auckland, January 1998 – December 2001**



**Figure A1.3 Time series: 8-hour ozone (network average),
Auckland, January 1998 – December 2001**

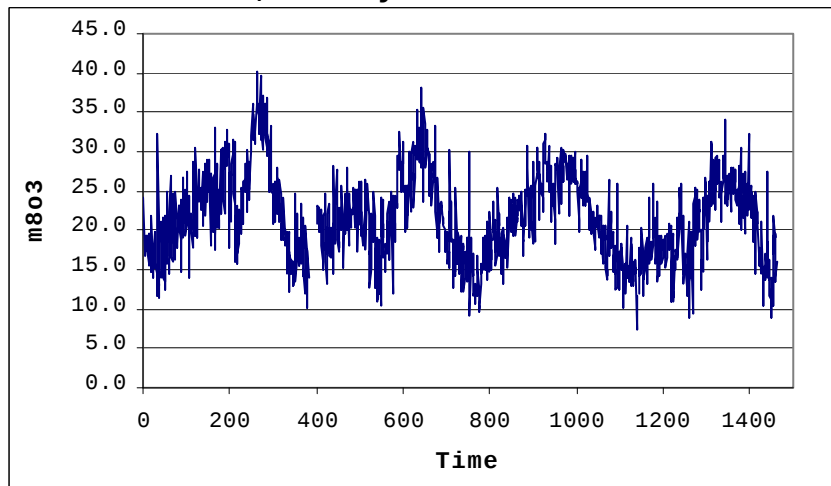


Figure A1.4 Time series: 4-hour ozone (network average), Auckland, January 1998 – December 2001

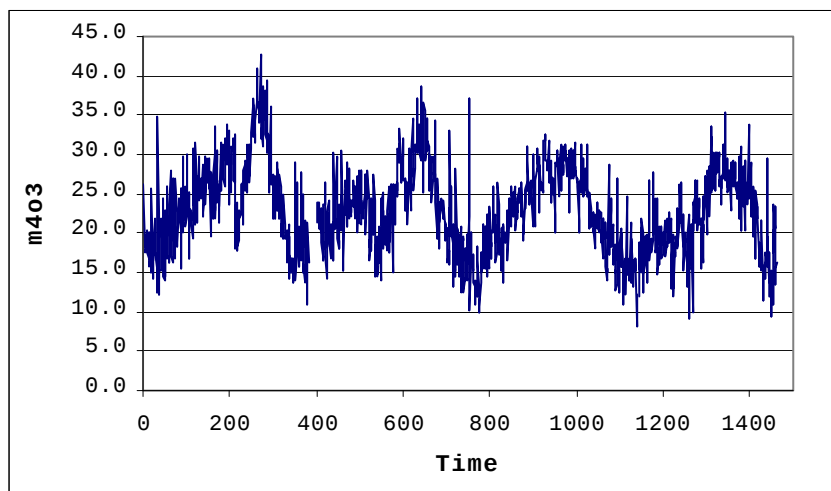


Figure A1.5 Time series: 1-hour ozone (network average), Auckland, January 1998 – December 2001

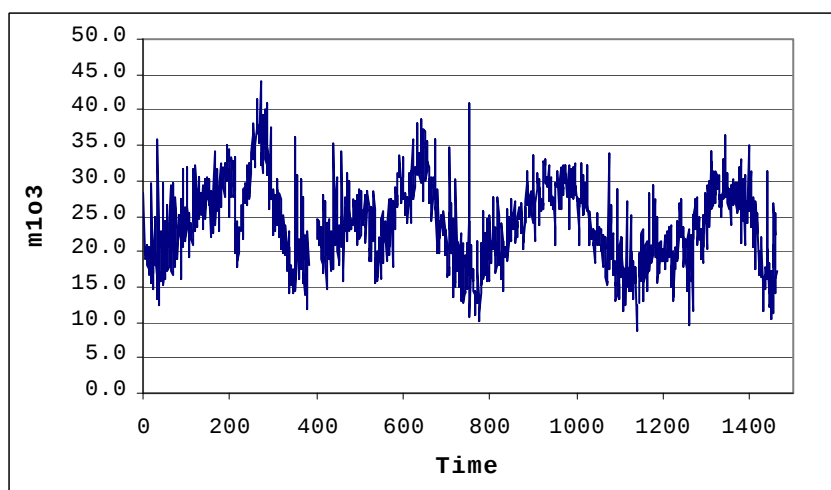


Figure A1.6 Time series: 24-hour nitrogen dioxide (network average), Auckland, January 1998 – December 2001

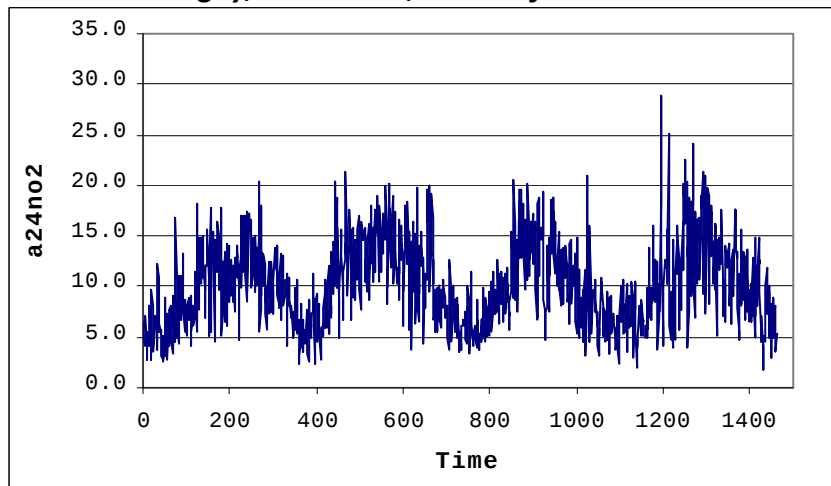


Figure A1.7 Time series: 1-hour nitrogen dioxide (network average), Auckland, January 1998 – December 2001

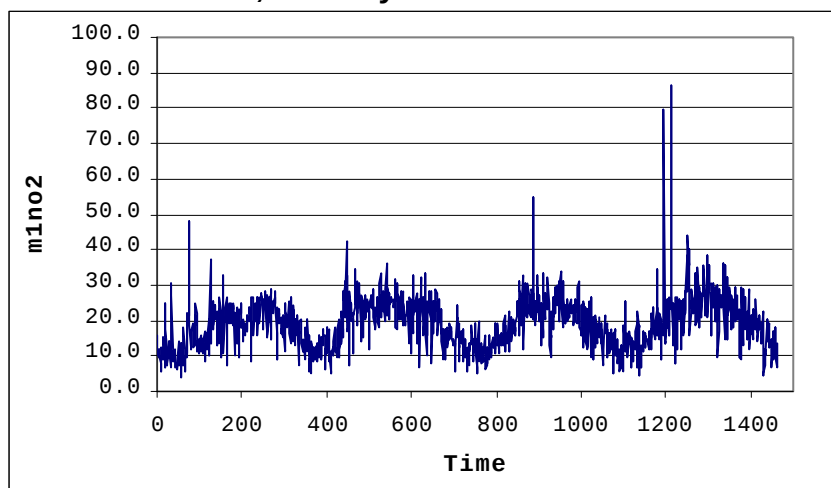


Figure A1.8 Time series: 24-hour carbon monoxide (network average), Auckland, January 1998 – December 2001

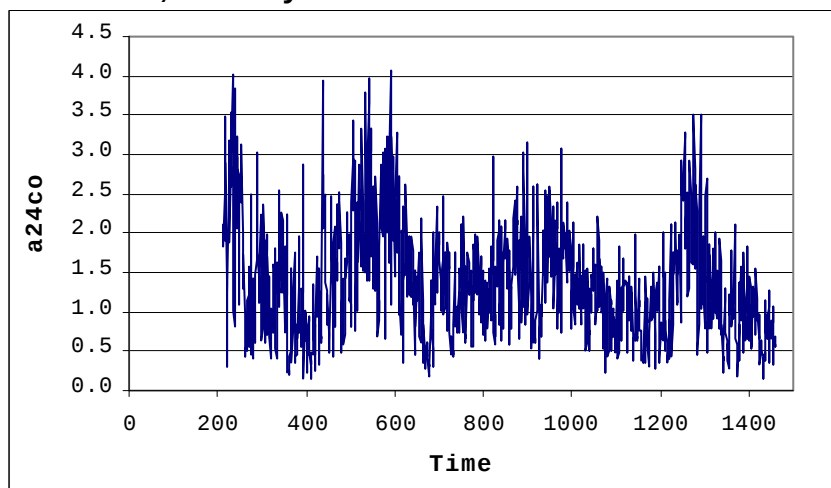


Figure A1.9 Time series: 8-hour carbon monoxide (network average), Auckland, January 1998 – December 2001

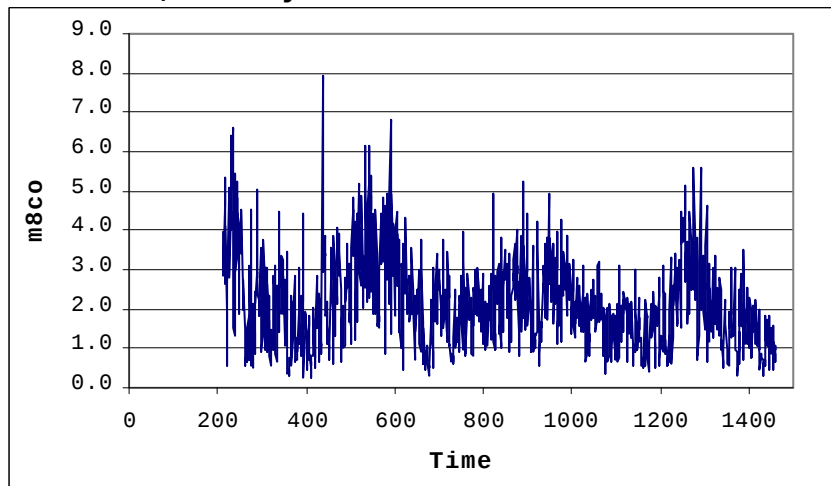


Figure A1.10 Time series: 1-hour carbon monoxide (network average), Auckland, January 1998 – December 2001

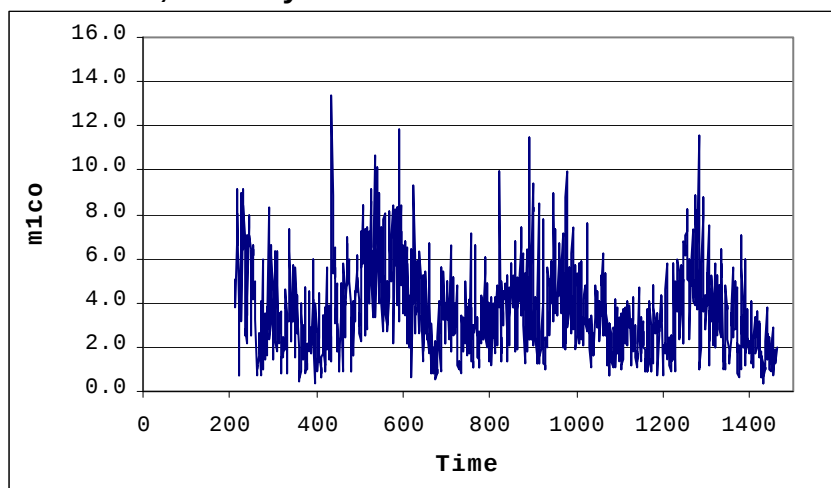


Figure A1.11 Time series: 24-hour PM₁₀ (network average), Auckland, January 1998 – December 2001

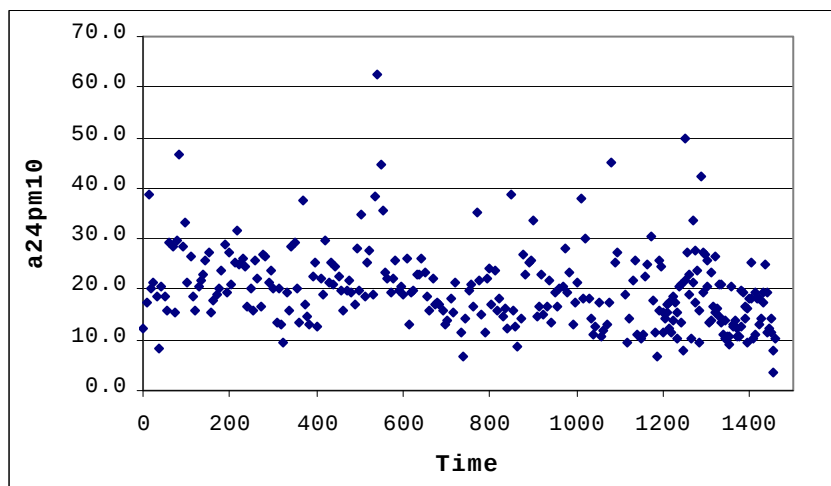


Figure A1.12 Time series: 24-hour PM_{2.5} (network average), Auckland, January 1998 – December 2001

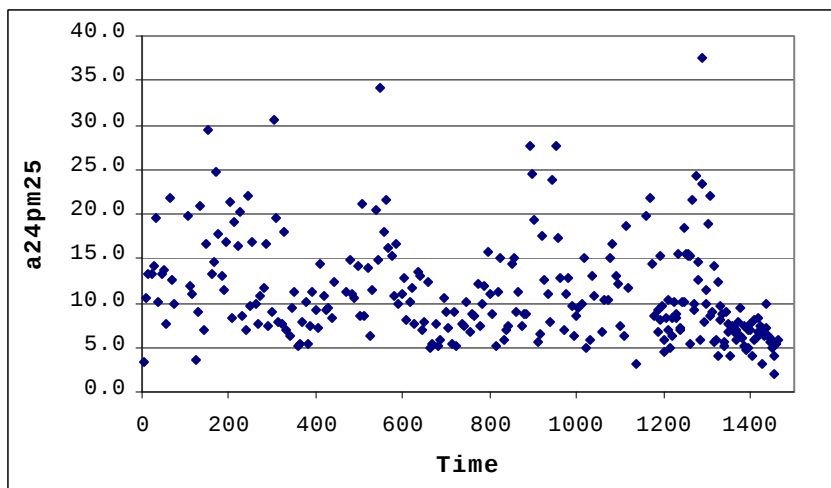
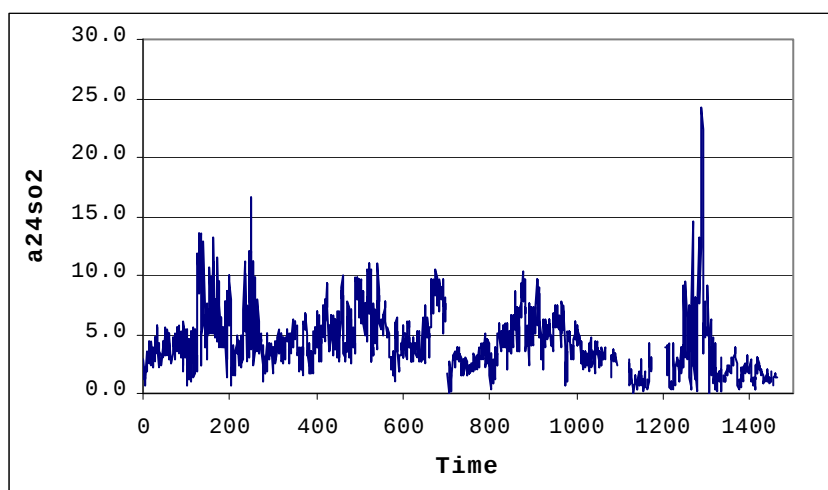


Figure A1.13 Time series: 24-hour SO₂ (network average), Auckland, January 1998 – December 2001



A2: Meteorology

Table A2.1 Meteorology variables, Auckland statistical division, January 1998 – December 2001

		N	Mean	SD	Min	Max
Temperature (°C)	- Av.	1461	15.72	3.56	6.28	24.06
	- Min	1461	12.60	3.96	1.00	21.50
	- Max	1461	19.09	3.71	10.00	29.80
Apparent Temperature (°C)	- Av.	1461	15.36	4.73	3.79	27.51
	- Min	1461	11.71	5.08	-1.66	24.53
	- Max	1461	19.10	4.84	8.34	32.92
Dewpoint Temperature (°C)	- Av.	1461	11.93	3.51	2.40	21.28
	- Min	1461	9.76	3.85	-0.30	19.80
	- Max	1461	14.01	3.36	4.60	24.60
Pressure (hPa)	- Av.	1461	1016.98	7.73	989.57	1035.07
	- Min	1461	1014.64	8.36	985.40	1033.60
	- Max	1461	1019.51	7.21	991.50	1036.80
Relative Humidity (%)	- Av.	1461	79.08	7.21	52.08	100.00
	- Min	1461	64.31	9.90	30.00	100.00
	- Max	1461	90.38	5.15	64.60	100.00
Daily Rainfall (mm)	- Total	1461	3.06	7.69	0.00	71.60

A3: Hospital Admissions

Table A3.1 Daily hospital *respiratory* admissions, Auckland statistical division, January 1998 – December 2001

Whole Year

Health Outcome	Age Group	Mean	SD	Min	Max
Total Respiratory	All Ages	34.86	14.90	5	97
	0	5.32	4.74	0	33
	1-4	5.50	3.65	0	22
	5-14	2.40	1.87	0	13
	15-64	11.98	5.44	1	33
	65-74	3.94	2.36	0	15
	75+	5.72	3.20	0	19
Asthma	All Ages	6.43	3.39	0	21
	0	0.10	0.32	0	2
	1-4	1.81	1.53	0	9
	5-14	1.15	1.27	0	8
	15-64	3.01	2.12	0	13
	65-74	0.22	0.49	0	4
	75+	0.13	0.37	0	3
COPD	All Ages	5.81	3.28	0	22
	0	0.00	0.05	0	1
	1-4	0.03	0.19	0	3
	5-14	0.03	0.19	0	2
	15-64	1.86	1.57	0	9
	65-74	1.83	1.48	0	9
	75+	2.05	1.72	0	11
Pneumonia + Acute Bronchitis	All Ages	13.66	8.41	0	54
	0	4.19	4.31	0	29
	1-4	2.17	2.30	0	15
	5-14	0.58	0.81	0	5
	15-64	3.11	2.16	0	14
	65-74	1.19	1.16	0	6
	75+	2.41	1.81	0	11
Influenza	All Ages	0.20	0.51	0	4
	0	0.01	0.10	0	1
	1-4	0.01	0.12	0	2
	5-14	0.02	0.12	0	1
	15-64	0.15	0.42	0	4
	65-74	0.01	0.09	0	1
	75+	0.00	0.06	0	1

Figure A3.1 Time series: Hospital admissions for respiratory disease, all ages, Auckland, January 1998 – December 2001

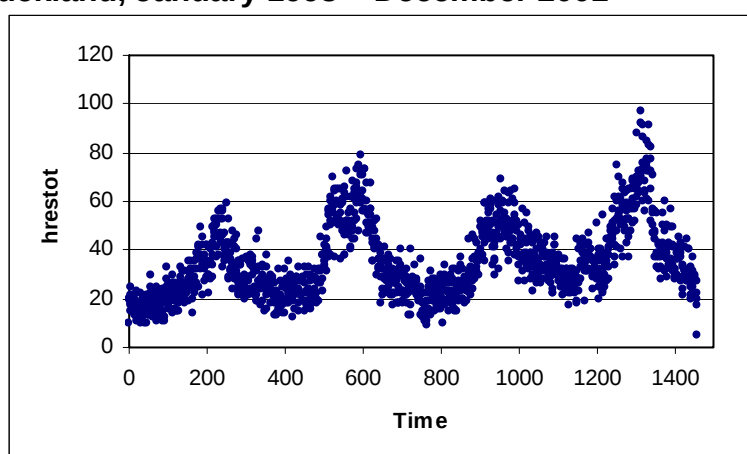
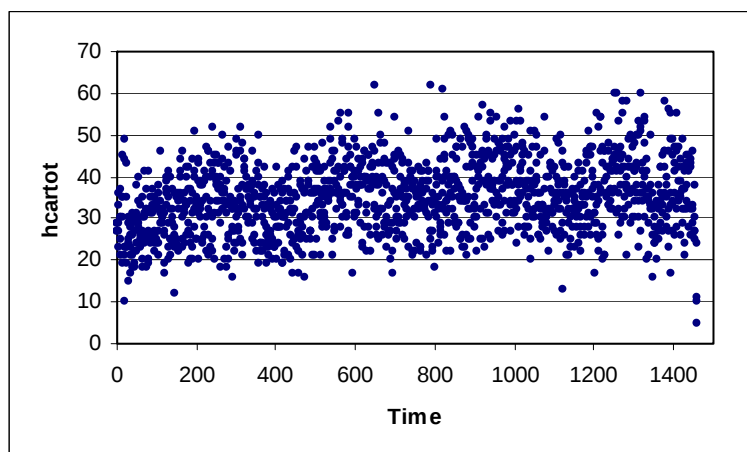


Table A3.2 Daily hospital *cardiovascular* admissions, Auckland statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Cardiovascular	All Ages	34.72	8.52	5	62
	0	0.07	0.27	0	2
	1-4	0.06	0.26	0	2
	5-14	0.22	0.47	0	3
	15-64	13.41	4.33	2	36
	65-74	7.89	3.20	0	21
	75+	13.06	4.53	1	31
Cardiac	All Ages	25.04	6.72	2	51
	0	0.05	0.22	0	2
	1-4	0.03	0.18	0	2
	5-14	0.19	0.44	0	3
	15-64	10.00	3.56	1	28
	65-74	5.76	2.67	0	17
	75+	9.01	3.57	0	24
IHD	All Ages	12.73	4.21	0	33
	0	0.00	0.00	0	0
	1-4	0.00	0.03	0	1
	5-14	0.00	0.03	0	1
	15-64	5.19	2.43	0	16
	65-74	3.08	1.92	0	12
	75+	4.47	2.29	0	12
Stroke	All Ages	5.90	2.60	0	15
	0	0.00	0.05	0	1
	1-4	0.00	0.06	0	1
	5-14	0.01	0.11	0	1
	15-64	1.81	1.38	0	8
	65-74	1.38	1.22	0	7
	75+	2.69	1.71	0	10
Arrhythmia	All Ages	5.32	2.51	0	15
	0	0.02	0.15	0	2
	1-4	0.01	0.11	0	1
	5-14	0.03	0.17	0	2
	15-64	2.31	1.62	0	10
	65-74	1.27	1.14	0	8
	75+	1.69	1.33	0	7
Cardiac Failure	All Ages	4.08	2.30	0	13
	0	0.01	0.10	0	1
	1-4	0.00	0.05	0	1
	5-14	0.00	0.06	0	1
	15-64	0.97	0.99	0	6
	65-74	0.90	0.97	0	6
	75+	2.19	1.61	0	9
Myocardial Infarction	All Ages	4.40	2.26	0	15
	0	0.00	0.00	0	0
	1-4	0.00	0.03	0	1
	5-14	0.00	0.00	0	0
	15-64	1.77	1.34	0	8
	65-74	0.95	1.02	0	6
	75+	1.67	1.37	0	9

Figure A3.36 Time series: Hospital admissions for cardiovascular disease, all ages, Auckland, January 1998 – December 2001

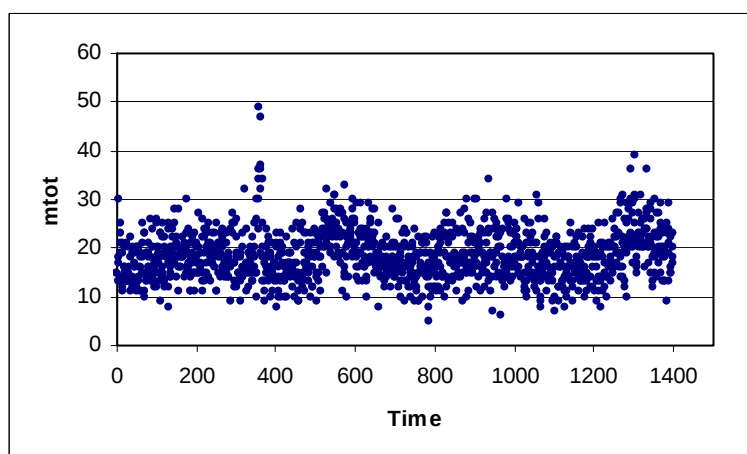


A4: Mortality

Table A4.1 Daily mortality, Auckland statistical division, January 1998 – December 2001

Health Outcome	Age Group	N	Mean	SD	Min	Max
Total All Cause	All Ages	1400	18.40	5.00	5	49
	0-14	1400	0.34	0.62	0	5
	15-64	1400	3.67	1.96	0	12
	65-74	1400	3.47	1.90	0	10
	75+	1400	10.92	3.80	2	32
Total Respiratory	All Ages	1400	1.68	1.45	0	9
	0-14	1400	0.01	0.09	0	1
	15-64	1400	0.16	0.40	0	3
	65-74	1400	0.35	0.63	0	4
	75+	1400	1.17	1.16	0	8
Total Cardiovascular	All Ages	1400	7.76	3.05	1	21
	0-14	1400	0.01	0.10	0	1
	15-64	1400	1.09	1.02	0	5
	65-74	1400	1.19	1.10	0	6
	75+	1400	5.47	2.55	0	16

Figure A4.1 Time series: Daily all cause mortality, all ages, Auckland, January 1998 – October 2001



Appendix 1 continued

Appendix 1: Brisbane Data Summary

EPHC

Air Pollution, Morbidity and Mortality Study

Brisbane

Descriptive Statistics

A1	Pollutants
A2	Meteorology
A3	Morbidity
A4	Mortality

A1: Pollutants

Table A1.18 Mean daily pollutant concentrations (network average), Brisbane statistical division, January 1998 – December 2001

Whole Study Period					
	N	Mean	SD	Min	Max
O₃ (ppb)					
8 hour	1461	25.48	7.70	3.70	58.40
4 hour	1461	28.91	8.97	5.35	75.21
1 hour	1461	31.45	10.40	7.00	92.29
NO₂ (ppb)					
24 hour	1461	7.63	3.42	1.40	19.07
1 hour	1461	17.27	6.73	4.00	44.14
bsp (10⁻⁴m⁻¹)					
24 hour	1461	0.17	0.14	0.01	1.68
1 hour	1461	0.44	0.47	0.04	7.11
PM₁₀ (µg/m³)					
24 hour	1461	16.45	6.14	3.78	50.17
1 hour	1461	35.92	17.28	6.75	217.73
PM_{2.5} (µg/m³)					
24 hour	1337	9.71	5.69	3.18	122.83
1 hour	1337	22.10	24.01	4.04	504.28
SO₂ (ppb)					
24 hour	1447	1.83	1.16	0.00	8.21
1 hour	1447	7.63	5.65	0.00	46.50
CO (ppm)					
8 hour	1242	1.68	0.88	0.00	6.99

Table A1.19 Network average correlation coefficients, Brisbane statistical division, January 1998 – December 2001*

	4 hr O ₃	1 hr O ₃	24 hr NO ₂	1 hr NO ₂	24 hr bsp	1 hr bsp	24 hr PM ₁₀
8 hr O ₃	0.98	0.95	0.11	0.20	0.39	0.34	0.40
4 hr O ₃		0.99	0.17	0.24	0.41	0.34	0.41
1 hr O ₃			0.17	0.22	0.40	0.34	0.40
24 hr NO ₂				0.94	0.45	0.33	0.36
1 hr NO ₂					0.43	0.35	0.36
24 hr bsp						0.87	0.67
1 hr bsp							0.58
24 hr PM ₁₀							
1 hr PM ₁₀							
24 hr PM _{2.5}							
1 hr PM _{2.5}							
24 hr SO ₂							

	1 hr PM ₁₀	24hr PM _{2.5}	1 hr PM _{2.5}	24 hr SO ₂	1 hr SO ₂	8 hr CO
8 hr O ₃	0.35	0.32	0.25	-0.11	-0.05 ^{ns}	-0.01 ^{ns}
4 hr O ₃	0.38	0.34	0.25	-0.08 ^b	-0.03 ^{ns}	-0.03 ^{ns}
1 hr O ₃	0.38	0.34	0.25	-0.05 ^a	-0.00 ^{ns}	-0.01 ^{ns}
24 hr NO ₂	0.33	0.34	0.23	0.15	-0.00 ^{ns}	0.64
1 hr NO ₂	0.36	0.36	0.27	0.12	-0.03 ^{ns}	0.59
24 hr bsp	0.60	0.75	0.60	0.07	-0.01 ^{ns}	0.23
1 hr bsp	0.66	0.71	0.71	0.04 ^{ns}	-0.02 ^{ns}	0.15
24 hr PM ₁₀	0.81	0.67	0.47	0.17	0.16	0.21
1 hr PM ₁₀		0.56	0.52	0.15	0.14	0.21
24 hr PM _{2.5}			0.87	0.12	0.05 ^{ns}	0.20
1 hr PM _{2.5}				0.04 ^{ns}	0.01 ^{ns}	0.11
24 hr SO ₂					0.78	0.29
1 hr SO ₂						0.15

* all coefficients significant at p=0.0001 unless indicated

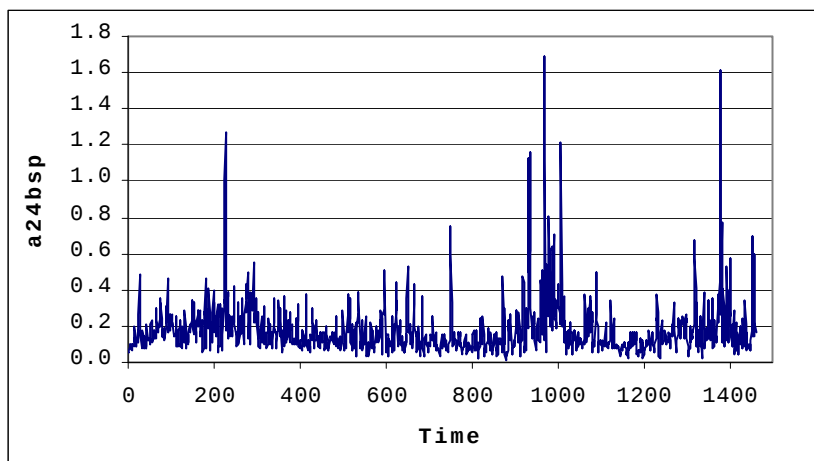
^a significant at p<0.05

^b significant at p<0.01

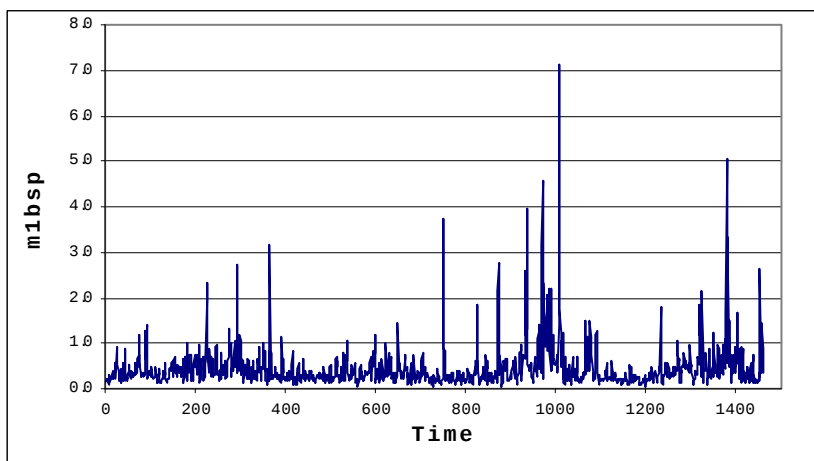
^c significant at p<0.001

^{ns} not significant

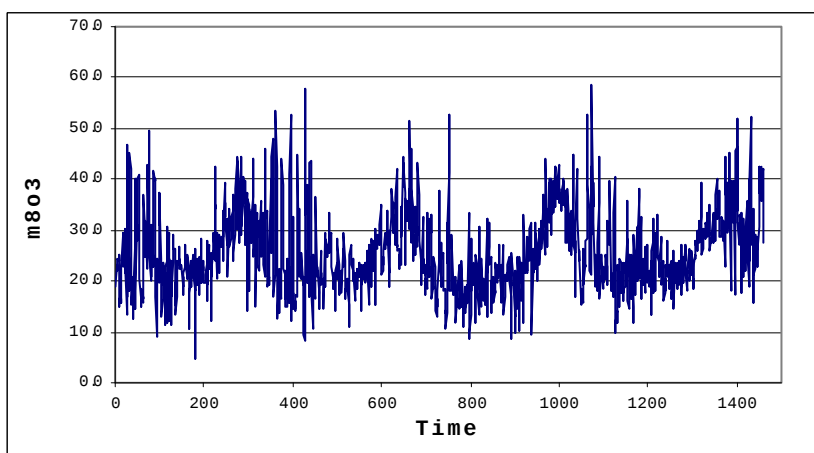
**Figure A1.1 Time series: 24-hour bsp (network average),
Brisbane, January 1998 – December 2001**



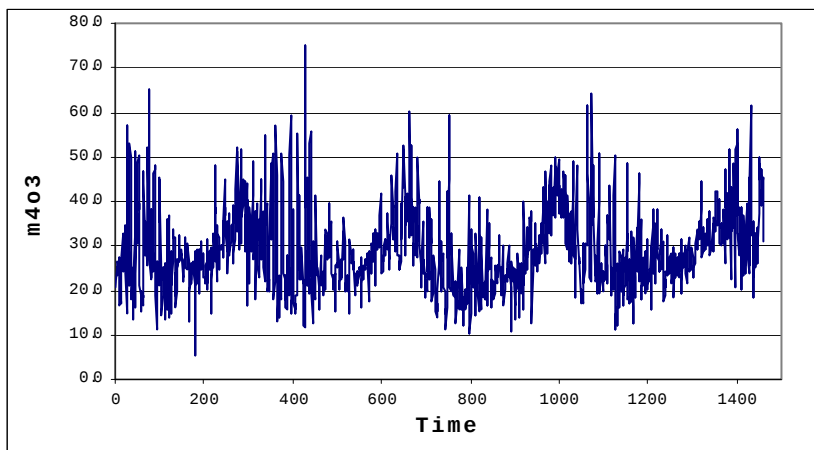
**Figure A1.2 Time series: 1-hour bsp (network average),
Brisbane, January 1998 – December 2001**



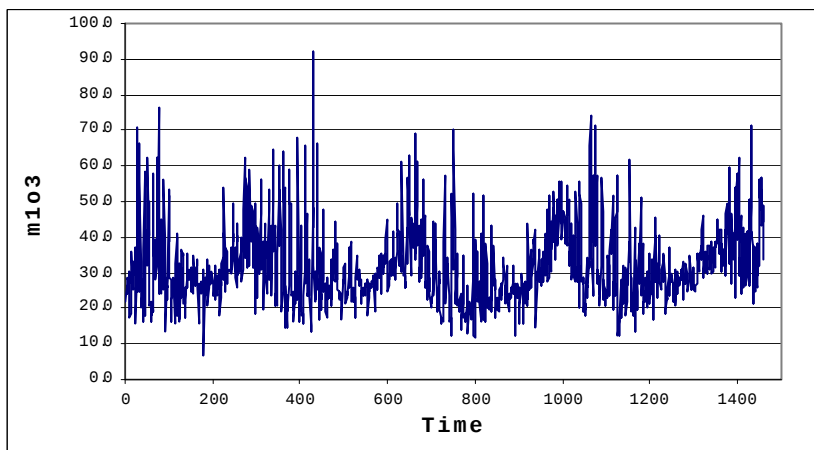
**Figure A1.3 Time series: 8-hour ozone (network average),
Brisbane, January 1998 – December 2001**



**Figure A1.4 Time series: 4-hour ozone (network average),
Brisbane, January 1998 – December 2001**



**Figure A1.5 Time series: 1-hour ozone (network average),
Brisbane, January 1998 – December 2001**



**Figure A1.6 Time series: 24-hour nitrogen dioxide (network average), Brisbane,
January 1998 – December 2001**

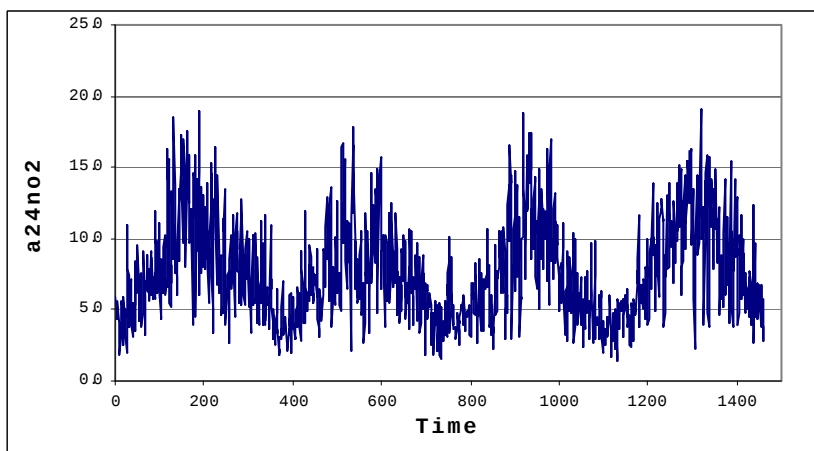


Figure A1.7 Time series: 1-hour nitrogen dioxide (network average), Brisbane, January 1998 – December 2001

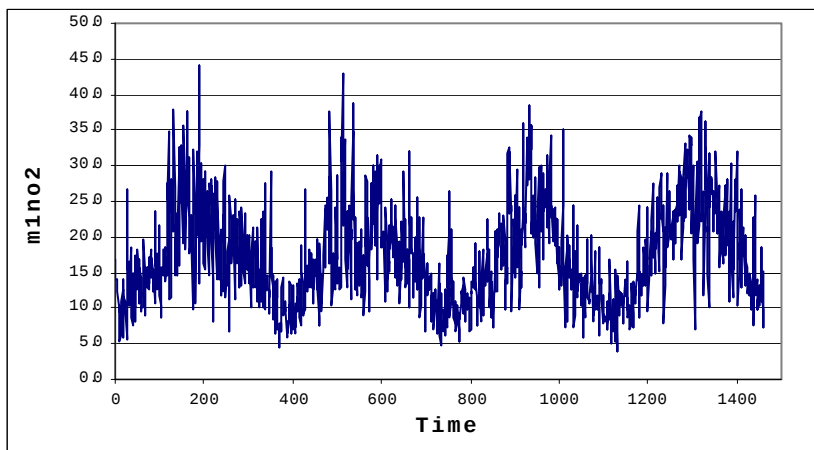


Figure A1.8 Time series: 24-hour sulfur dioxide (network average), Brisbane, January 1998 – December 2001

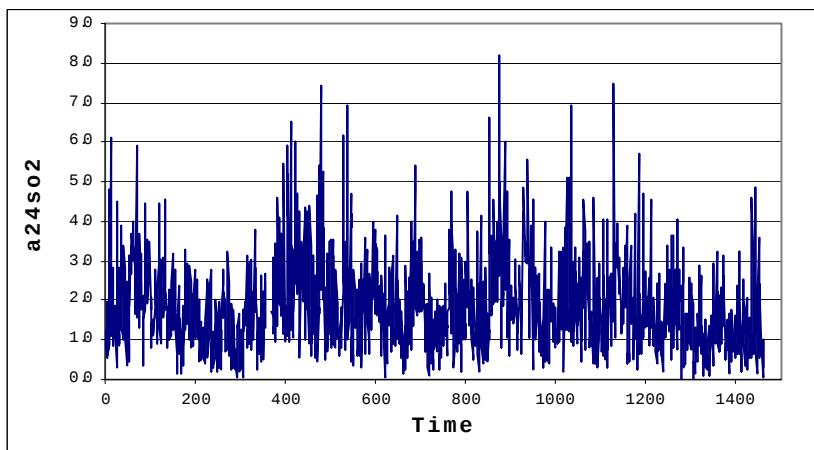


Figure A1.9 Time series: 1-hour sulfur dioxide (network average), Brisbane, January 1998 – December 2001

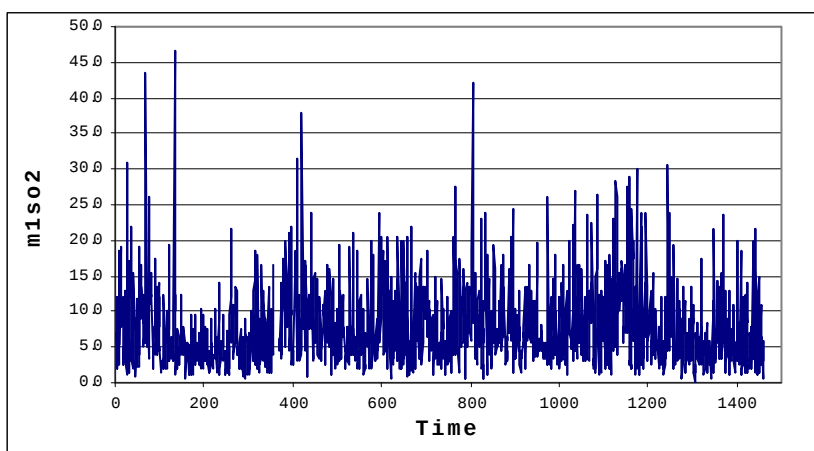


Figure A1.12 Time series: 24-hour PM₁₀ (network average), Brisbane, January 1998 – December 2001

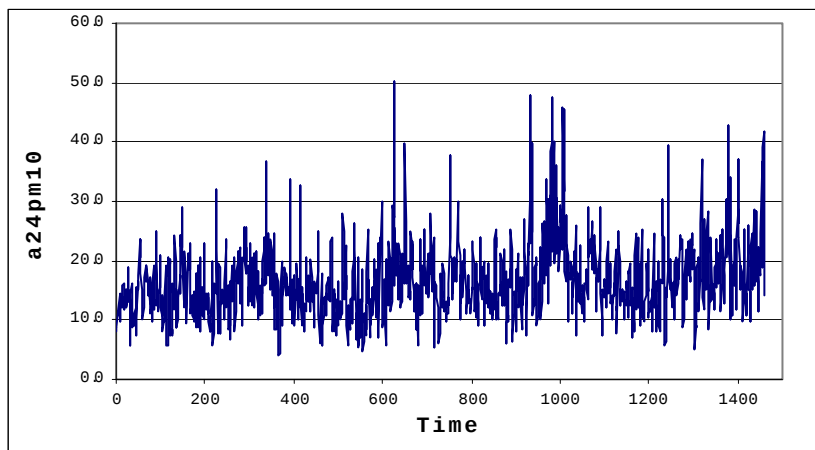


Figure A1.13 Time series: 1-hour PM₁₀ (network average), Brisbane, January 1998 – December 2001

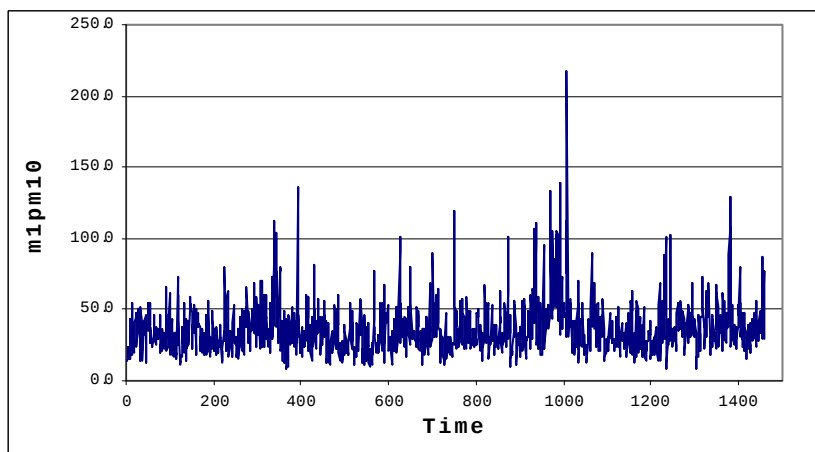


Figure A1.14 Time series: 24-hour PM_{2.5} (network average), Brisbane, January 1998 – December 2001

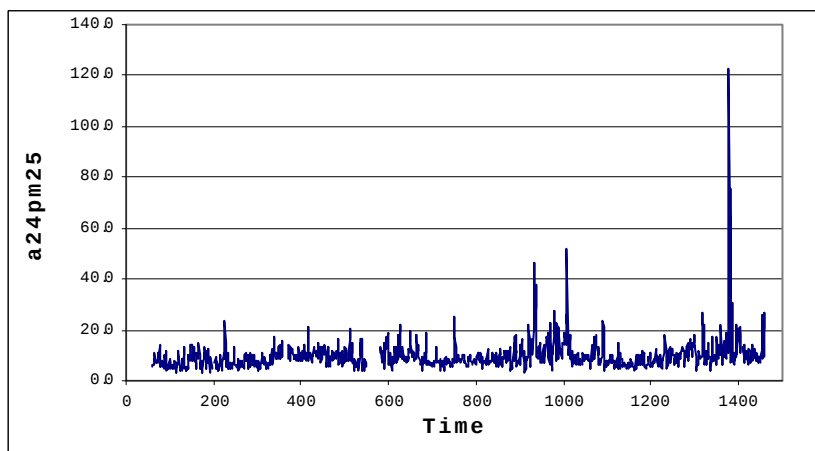


Figure A1.15 Time series: 1-hour PM_{2.5} (network average), Brisbane, January 1998 – December 2001

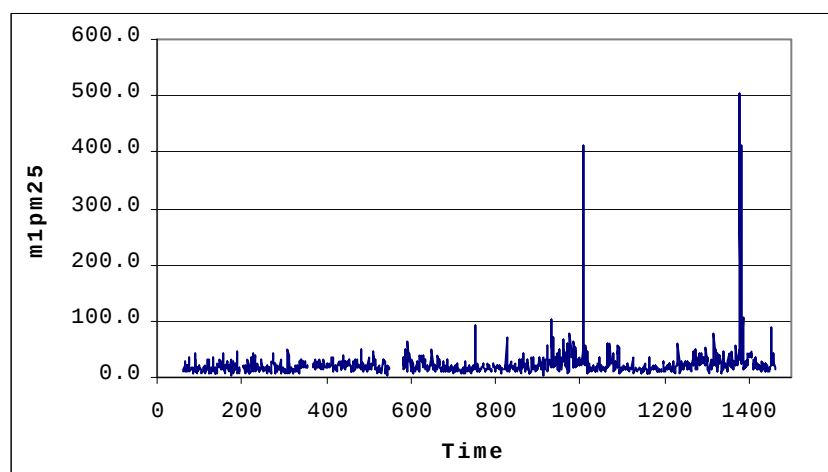
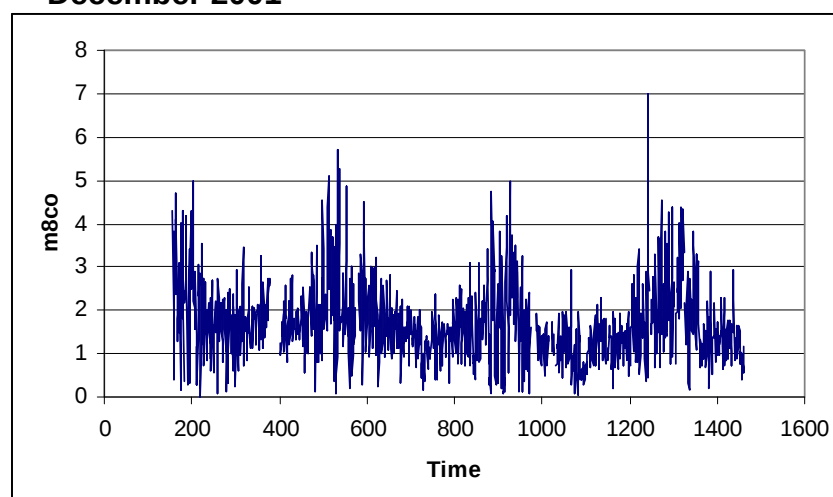


Figure A1.16 Time series: 8-hour CO (network average), Brisbane, January 1998 – December 2001



A2: Meteorology

Table A2.1 Meteorology variables, Brisbane statistical division, January 1998 – December 2001

	Mean	SD	Min	Max
Temperature - Average (°C)	19.99	4.01	9.51	30.44
Temperature - Min (°C)	15.25	4.82	2.45	27.00
Temperature - Max (°C)	25.09	3.62	13.85	38.35
Apparent Temperature - Average (°C)	20.76	5.79	6.94	35.57
Apparent Temperature - Min (°C)	15.60	6.65	-0.20	32.28
Apparent Temperature - Max (°C)	25.78	5.23	12.40	45.53
Pressure - Average (hPa)	1015.65	5.27	1000.85	1031.18
Pressure - Min (hPa)	1013.50	5.57	998.25	1030.00
Pressure - Max (hPa)	1017.79	5.12	1002.40	1032.75
Dew Point - Average (°C)	14.28	5.00	-2.45	24.42
Dew Point - Min (°C)	11.67	5.85	-9.55	22.45
Dew Point - Max (°C)	16.63	4.47	-0.20	28.85
Relative Humidity - Average (%)	72.36	9.98	29.34	96.33
Relative Humidity - Min (%)	49.08	13.14	7.50	90.00
Relative Humidity - Max (%)	92.15	6.90	53.50	100.00
Daily Rainfall	2.60	8.47	0.00	128.90

A3: Hospital Admissions

Table A3.1 Daily hospital *respiratory* admissions, Brisbane statistical division, January 1998 – December 2001

Whole Year

Health Outcome	Age Group	Mean	SD	Min	Max
Total Respiratory	All Ages	38.71	13.24	12	101
	0	3.42	2.53	0	15
	1-4	6.79	3.35	0	19
	5-14	3.43	2.38	0	15
	15-64	12.19	5.16	1	37
	65-74	4.92	2.78	0	18
	75+	7.97	3.93	0	27
Asthma	All Ages	9.96	5.26	0	38
	0	0.11	0.35	0	3
	1-4	2.65	2.03	0	12
	5-14	2.13	1.91	0	12
	15-64	4.02	2.74	0	18
	65-74	0.50	0.78	0	4
	75+	0.56	0.80	0	5
COPD	All Ages	7.26	3.71	0	23
	0	0.00	0.07	0	1
	1-4	0.01	0.10	0	1
	5-14	0.01	0.12	0	2
	15-64	1.73	1.46	0	8
	65-74	2.49	1.82	0	11
	75+	3.00	2.05	0	13
Pneumonia + Acute Bronchitis	All Ages	11.05	5.55	1	39
	0	2.22	2.07	0	12
	1-4	1.55	1.43	0	8
	5-14	0.41	0.67	0	4
	15-64	2.77	1.95	0	10
	65-74	1.21	1.20	0	7
	75+	2.89	2.09	0	15
Influenza	All Ages	0.31	0.75	0	6
	0	0.07	0.27	0	3
	1-4	0.08	0.34	0	3
	5-14	0.03	0.20	0	3
	15-64	0.10	0.34	0	3
	65-74	0.02	0.14	0	1
	75+	0.02	0.13	0	1

Figure A3.6 Time series: Hospital admissions for respiratory disease, 65+ years, Brisbane, January 1998 – December 2001

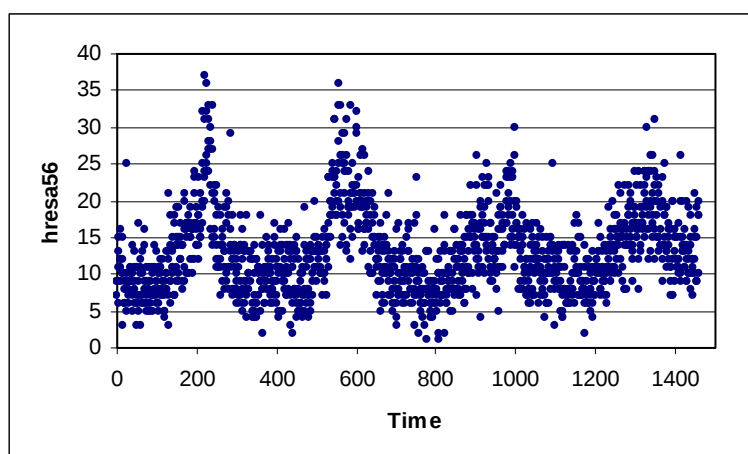
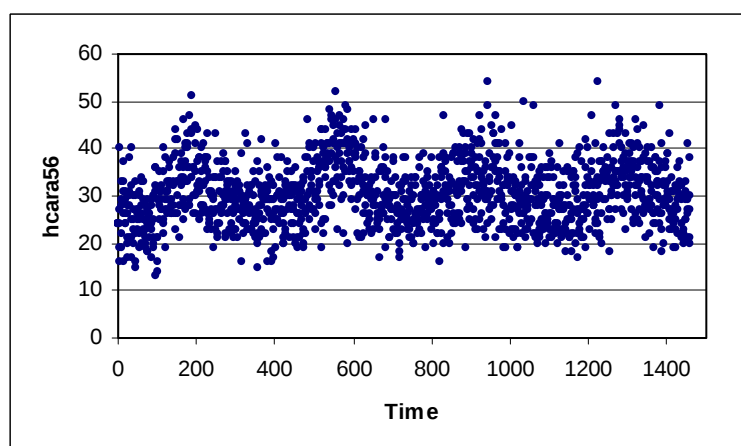


Table A3.2 Daily hospital *cardiovascular* admissions, Brisbane statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Cardiovascular	All Ages	45.61	8.41	21	75
	0	0.04	0.21	0	2
	1-4	0.04	0.19	0	2
	5-14	0.08	0.29	0	3
	15-64	15.12	4.35	3	31
	65-74	10.76	3.53	1	25
	75+	19.58	5.33	6	40
Cardiac	All Ages	35.13	7.12	15	61
	0	0.03	0.18	0	2
	1-4	0.02	0.15	0	1
	5-14	0.06	0.25	0	2
	15-64	12.16	3.77	2	28
	65-74	8.44	3.04	1	22
	75+	14.41	4.54	3	34
IHD	All Ages	19.70	4.64	7	37
	0	0.00	0.00	0	0
	1-4	0.00	0.00	0	0
	5-14	0.00	0.00	0	0
	15-64	7.41	2.85	0	18
	65-74	5.03	2.27	0	16
	75+	7.27	2.80	0	19
Stroke	All Ages	6.75	2.67	0	16
	0	0.00	0.05	0	1
	1-4	0.00	0.00	0	0
	5-14	0.01	0.09	0	2
	15-64	1.48	1.27	0	9
	65-74	1.53	1.26	0	6
	75+	3.74	1.93	0	11
Arrhythmia	All Ages	5.68	2.50	0	17
	0	0.03	0.17	0	2
	1-4	0.02	0.13	0	1
	5-14	0.03	0.18	0	2
	15-64	2.16	1.51	0	9
	65-74	1.40	1.19	0	6
	75+	2.04	1.46	0	8
Cardiac Failure	All Ages	5.95	3.06	0	19
	0	0.00	0.05	0	1
	1-4	0.00	0.00	0	0
	5-14	0.00	0.03	0	1
	15-64	0.77	0.90	0	5
	65-74	1.24	1.14	0	7
	75+	3.94	2.41	0	14
Myocardial Infarction	All Ages	6.19	2.55	0	16
	0-64	2.23	1.54	0	8
	65-74	1.46	1.21	0	7
	75+	2.50	1.64	0	9

Figure A3.41 Time series: Hospital admissions for cardiovascular disease, 65+ years, Brisbane, January 1998 – December 2001

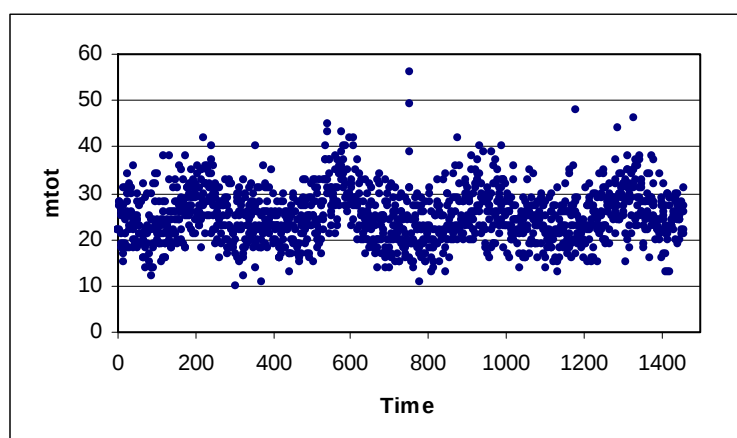


A4: Mortality

Table A4.1 Daily mortality, Brisbane statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total All Cause	All Ages	25.03	5.76	10	56
	0-14	0.41	0.66	0	5
	15-64	4.32	2.21	0	14
	65-74	4.84	2.25	0	15
	75+	15.47	4.62	3	41
Total Respiratory	All Ages	2.13	1.55	0	11
	0-14	0.01	0.12	0	1
	15-64	0.22	0.47	0	3
	65-74	0.45	0.67	0	4
	75+	1.44	1.23	0	9
Total Cardiovascular	All Ages	11.04	3.80	2	38
	0-14	0.02	0.12	0	1
	15-64	1.18	1.09	0	6
	65-74	1.70	1.33	0	7
	75+	8.14	3.30	1	33

Figure A4.1 Time series: Daily all cause mortality, all ages, Brisbane, January 1998 – December 2001



Appendix 1 continued

Appendix 1: Canberra Data Summary

EPHC

Air Pollution, Morbidity and Mortality Study

Canberra

Descriptive Statistics

A1	Pollutants
A2	Meteorology
A3	Morbidity
A4	Mortality

A1: Pollutants

Note: Only one site for Canberra pollutant data – Monash.

Table A1.1 Mean daily pollutant concentrations (network average), Canberra statistical division, January 1998 – December 2001

Whole Study Period					
	N	Mean	SD	Min	Max
O₃ (ppb)					
8 hour	1197	19.53	7.99	0.00	57.70
4 hour	1197	22.06	8.31	0.00	62.81
1 hour	1197	23.65	8.97	0.00	75.29
NO₂ (ppb)					
24 hour	1275	7.04	3.64	0.00	22.50
1 hour	1275	17.87	8.03	0.00	53.65
bsp (10⁻⁴m⁻¹)					
24 hour	1087	0.29	0.37	0.00	2.06
1 hour	1087	0.80	1.12	0.00	8.58
PM₁₀ (µg/m³)					
24 hour	212	18.84	14.34	1.80	70.56
CO (ppm)					
24 hour	1302	0.50	0.62	0.00	3.57
8 hour	1302	0.86	1.02	0.00	5.83
1 hour	1302	1.53	1.52	0.00	7.18

Table A1.2 Network average correlation coefficients for Canberra statistical division, January 1998 – December 2001*

	4 hr O ₃	1 hr O ₃	24 hr NO ₂	1 hr NO ₂	24 hr bsp	1 hr bsp	24 hr PM ₁₀	24 hr CO	8 hr CO	1 hr CO
8 hr O ₃	0.97	0.94	-0.05 ^{ns}	0.17	-0.15	-0.17	-0.19 ^a	-0.32	-0.30	-0.26
4 hr O ₃		0.97	0.04 ^{ns}	0.23	-0.05 ^{ns}	-0.09 ^b	-0.08 ^{ns}	-0.22	-0.20	-0.16
1 hr O ₃			0.05 ^{ns}	0.24	-0.05 ^{ns}	-0.09 ^b	-0.07 ^{ns}	-0.20	-0.18	-0.15
24 hr NO ₂				0.83	0.41	0.40	0.59	0.58	0.55	0.60
1 hr NO ₂					0.35	0.35	0.52	0.44	0.43	0.50
24 hr bsp						0.92	0.71	0.74	0.71	0.68
1 hr bsp							0.68	0.71	0.72	0.73
24hr PM ₁₀								0.78	0.76	0.76
24 hr CO									0.97	0.92
8 hr CO										0.95

* all coefficients significant at p=0.0001 unless indicated

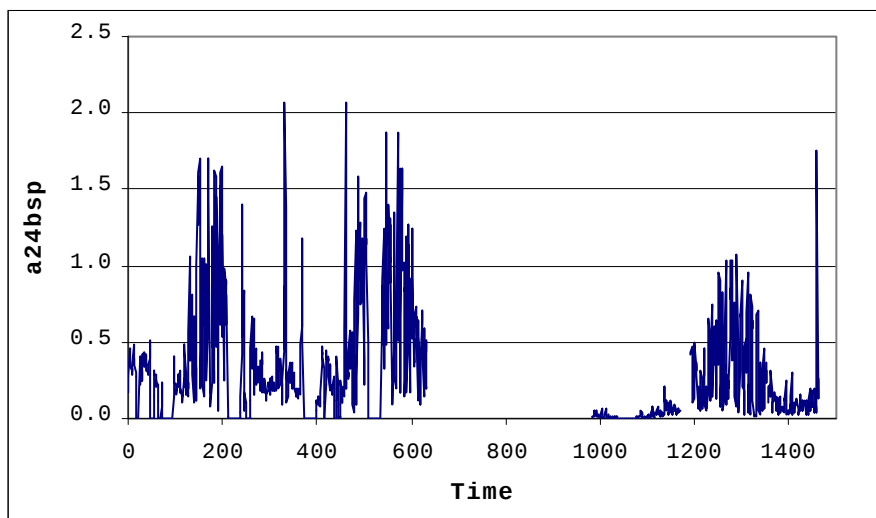
^a significant at p<0.05

^b significant at p<0.01

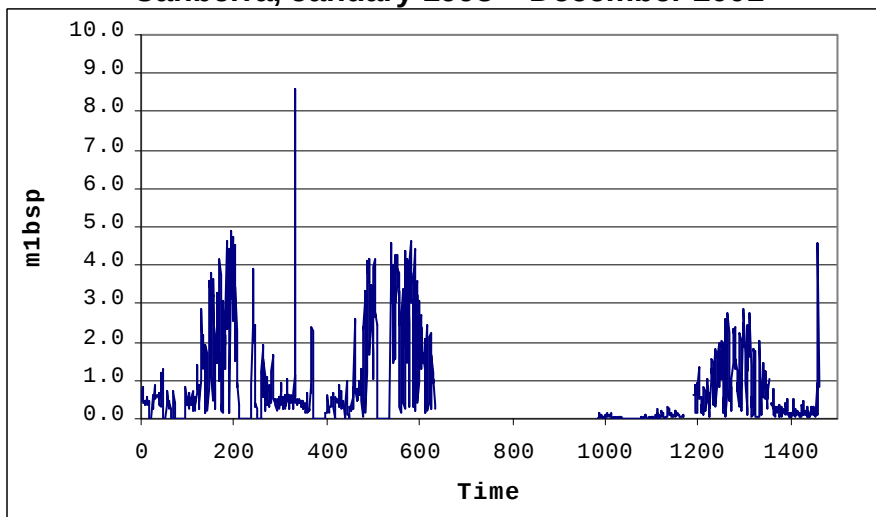
^c significant at p<0.001

^{ns} not significant

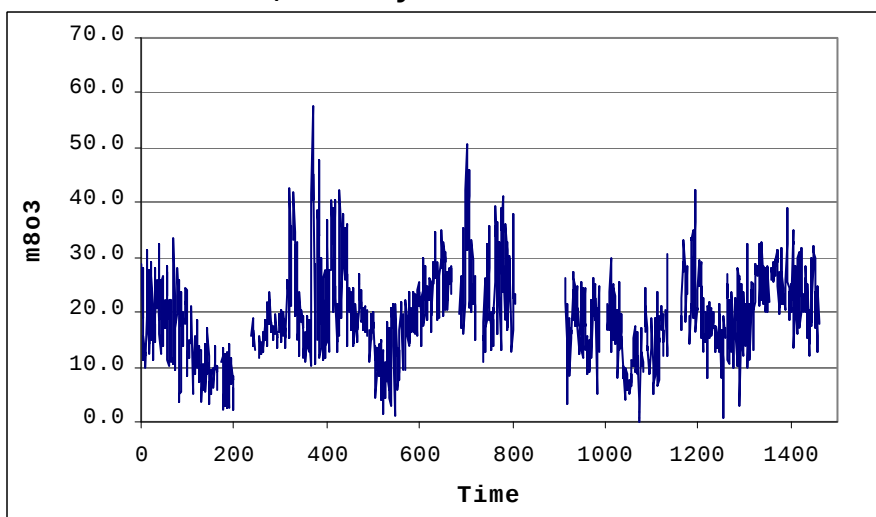
**Figure A1.1 Time series: 24-hour bsp (network average),
Canberra, January 1998 – December 2001**



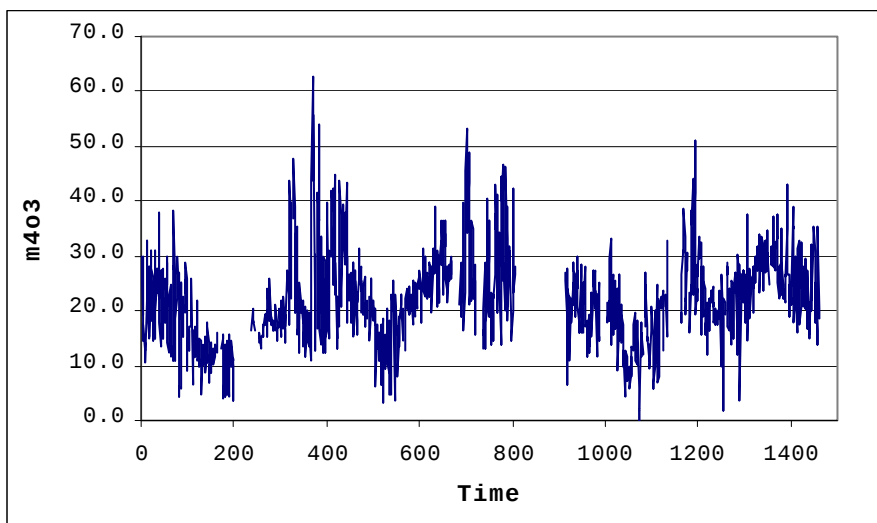
**Figure A1.2 Time series: 1-hour bsp (network average),
Canberra, January 1998 – December 2001**



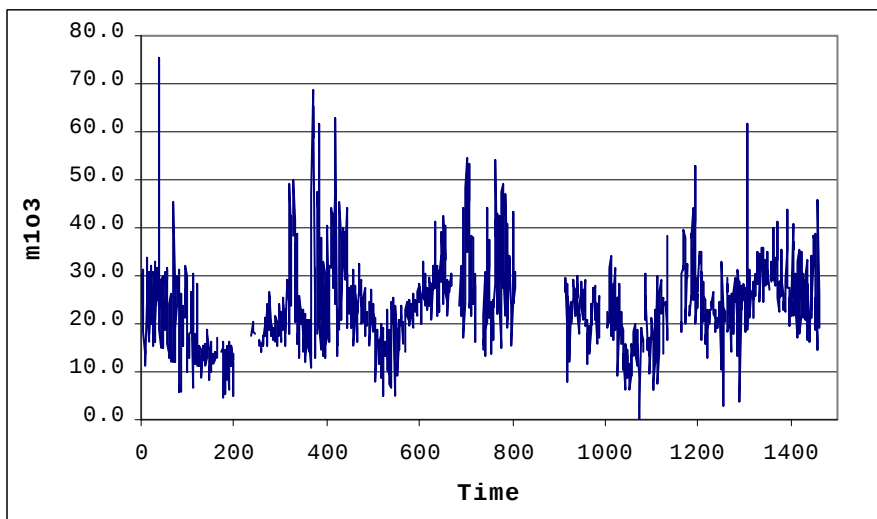
**Figure A1.3 Time series: 8-hour ozone (network average),
Canberra, January 1998 – December 2001**



**Figure A1.4 Time series: 4-hour ozone (network average),
Canberra, January 1998 – December 2001**



**Figure A1.5 Time series: 1-hour ozone (network average),
Canberra, January 1998 – December 2001**



**Figure A1.6 Time series: 24-hour nitrogen dioxide (network average),
Canberra, January 1998 – December 2001**

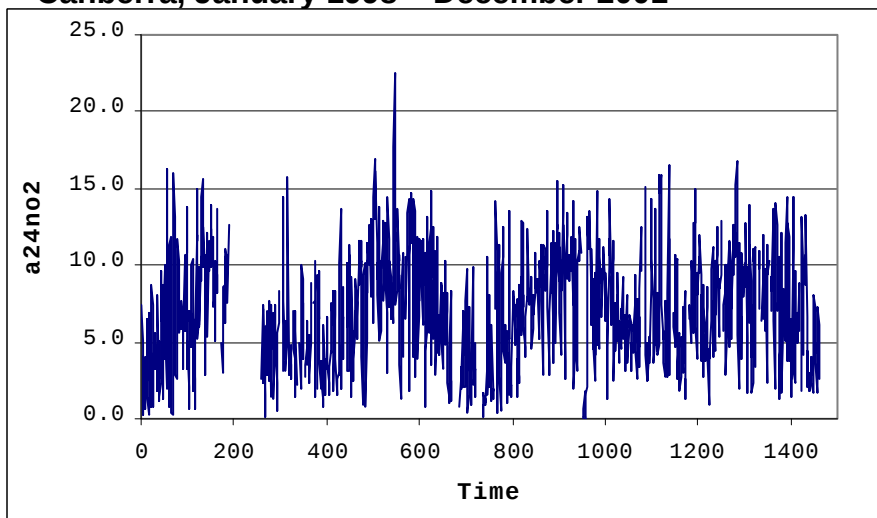


Figure A1.7 Time series: 1-hour nitrogen dioxide (network average), Canberra, January 1998 – December 2001

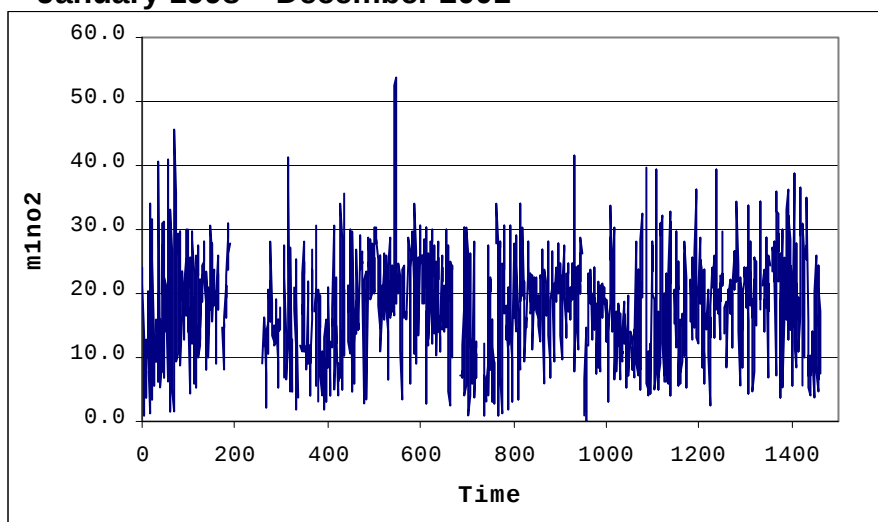


Figure A1.8 Time series: 24-hour carbon monoxide (network average), Canberra, January 1998 – December 2001

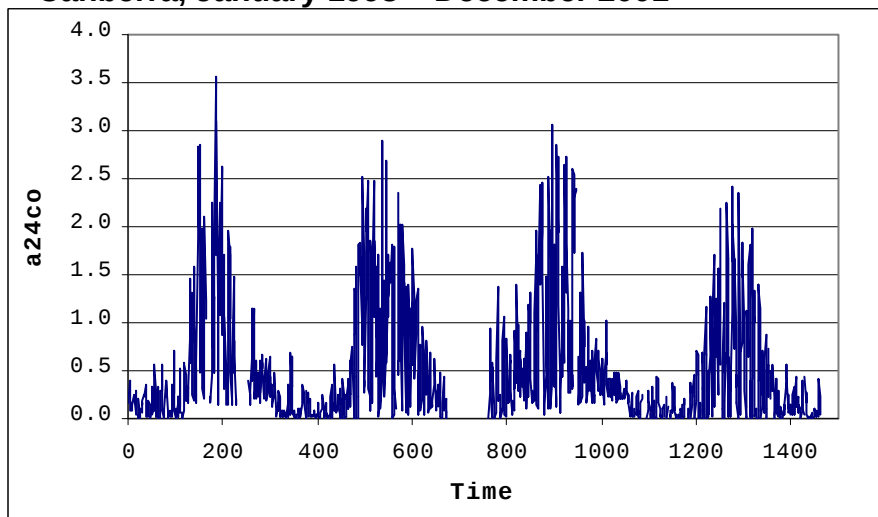


Figure A1.9 Time series: 8-hour carbon monoxide (network average), Canberra, January 1998 – December 2001

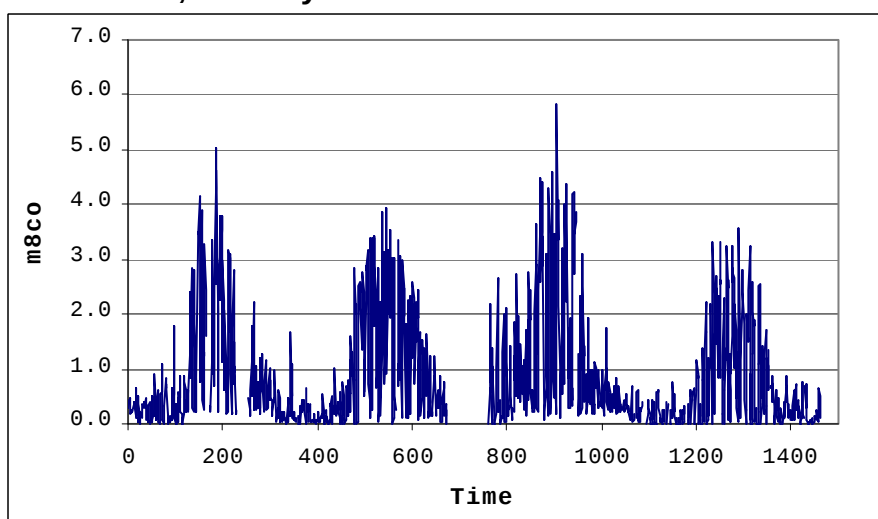


Figure A1.12 Time series: 1-hour carbon monoxide (network average), Canberra, January 1998 – December 2001

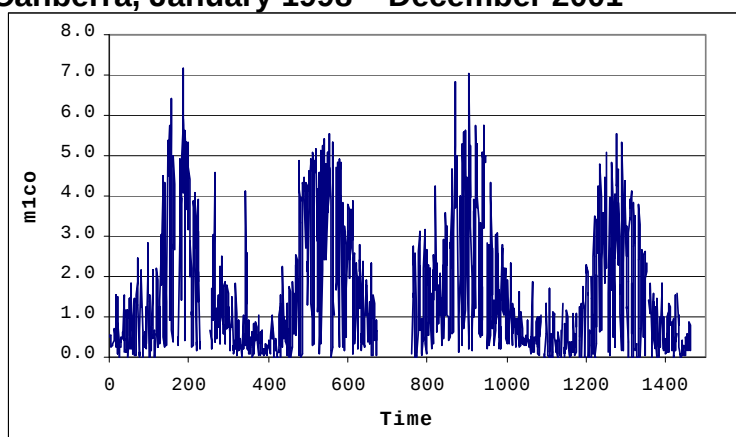
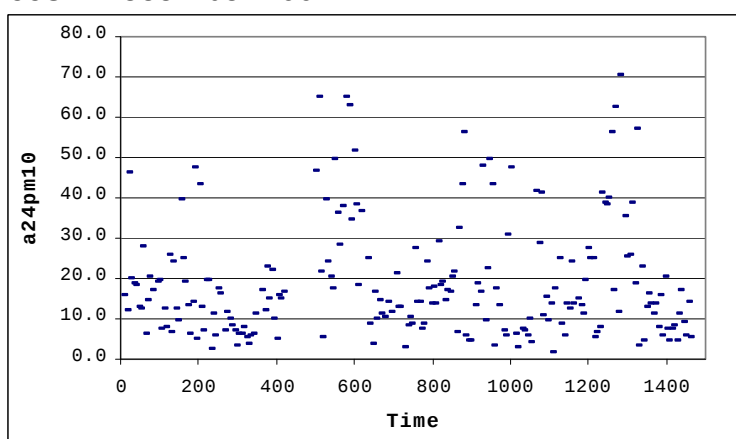


Figure A1.13 Time series: 24-hour PM₁₀ (network average), Canberra, January 1998 – December 2001



A2: Meteorology

Table A2.1 Meteorology variables, Canberra statistical division, January 1998 – December 2001

		N	Mean	SD	Min	Max
Temperature (°C)	- Av.	1283	13.74	5.73	0.99	27.97
	- Min	1283	7.52	5.81	-6.80	21.10
	- Max	1283	20.24	6.77	4.70	39.55
Apparent Temperature (°C)	- Av.	1226	12.44	6.54	-1.48	28.91
	- Min	1226	6.00	6.67	-8.47	24.38
	- Max	1226	18.78	7.13	3.22	38.31
Dewpoint Temperature (°C)	- Av.	1226	7.45	4.42	-4.49	19.28
	- Min	1226	4.20	4.87	-11.10	17.95
	- Max	1226	10.25	4.39	-1.70	21.50
Pressure (hPa)	- Av.	1375	1018.05	6.80	997.31	1038.96
	- Min	1375	1015.33	7.10	992.00	1036.80
	- Max	1375	1020.94	6.50	999.10	1041.10
Relative Humidity (%)	- Av.	1368	69.88	11.68	24.08	97.04
	- Min	1368	43.09	15.88	6.00	94.13
	- Max	1368	91.94	7.44	47.04	98.00
Daily Rainfall (mm)	- Total	1385	1.82	5.76	0.00	79.80

A3: Hospital Admissions

Table A3.1 Daily hospital *respiratory* admissions, Canberra statistical division, January 1998 – December 2001

Whole Year

Health Outcome	Age Group	Mean	SD	Min	Max
Total Respiratory	All Ages	8.65	4.32	0	27
	0	0.64	0.94	0	7
	1-4	1.53	1.37	0	7
	5-14	1.20	1.30	0	10
	15-64	3.12	2.22	0	15
	65-74	0.85	0.98	0	7
	75+	1.31	1.25	0	7
Asthma	All Ages	1.34	1.27	0	8
	0	0.05	0.22	0	2
	1-4	0.43	0.68	0	4
	5-14	0.32	0.59	0	5
	15-64	0.39	0.65	0	4
	65-74	0.08	0.30	0	2
	75+	0.07	0.25	0	2
COPD	All Ages	1.09	1.12	0	6
	0	0.00	0.04	0	1
	1-4	0.01	0.09	0	1
	5-14	0.01	0.09	0	1
	15-64	0.22	0.48	0	3
	65-74	0.38	0.63	0	4
	75+	0.47	0.69	0	4
Pneumonia + Acute Bronchitis	All Ages	2.22	1.83	0	12
	0	0.41	0.79	0	6
	1-4	0.40	0.71	0	5
	5-14	0.15	0.39	0	3
	15-64	0.54	0.75	0	4
	65-74	0.20	0.47	0	3
	75+	0.52	0.77	0	5
Influenza	All Ages	0.02	0.13	0	2
	0	0.00	0.03	0	1
	1-4	0.00	0.03	0	1
	5-14	0.00	0.00	0	0
	15-64	0.01	0.09	0	1
	65-74	0.00	0.05	0	1
	75+	0.00	0.05	0	1

Figure A3.1 Time series: Hospital admissions for respiratory disease, all ages, Canberra, January 1998 – December 2001

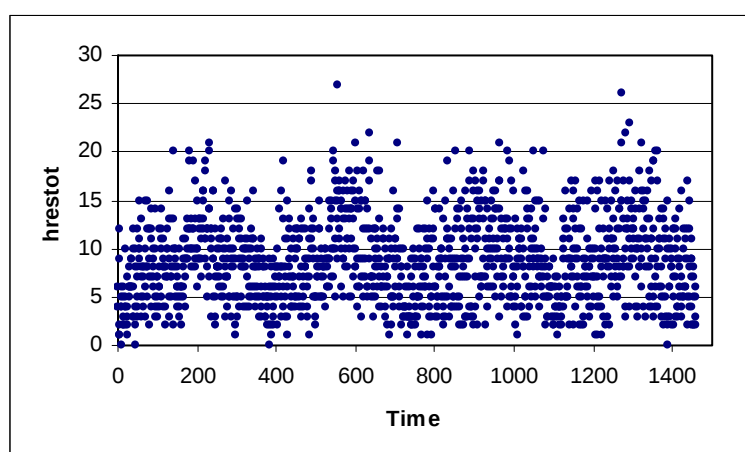
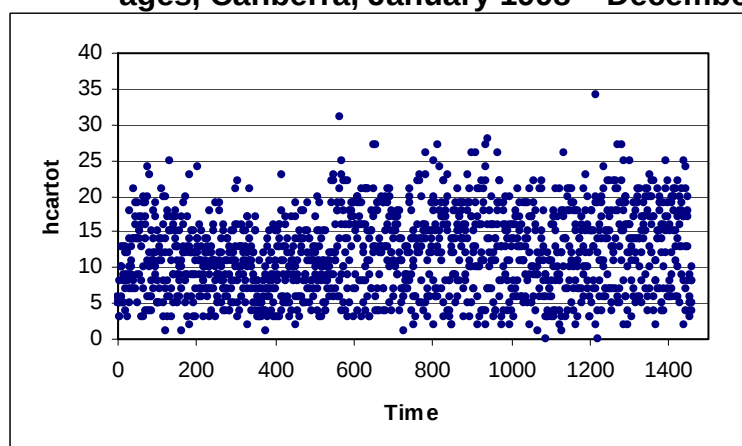


Table A3.2 Daily hospital *cardiovascular* admissions, Canberra statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Cardiovascular	All Ages	11.82	5.66	0	34
	0	0.02	0.14	0	2
	1-4	0.01	0.11	0	1
	5-14	0.05	0.21	0	2
	15-64	5.50	3.38	0	21
	65-74	2.84	1.96	0	11
	75+	3.40	2.08	0	12
Cardiac	All Ages	7.72	3.80	0	20
	0	0.02	0.13	0	2
	1-4	0.01	0.10	0	1
	5-14	0.02	0.13	0	1
	15-64	3.28	2.12	0	13
	65-74	2.09	1.65	0	10
	75+	2.31	1.63	0	9
IHD	All Ages	3.37	2.04	0	13
	0	0.00	0.00	0	0
	1-4	0.00	0.00	0	0
	5-14	0.00	0.00	0	0
	15-64	1.48	1.31	0	8
	65-74	0.95	1.00	0	5
	75+	0.94	1.00	0	5
Stroke	All Ages	1.12	1.12	0	7
	0	0.00	0.00	0	0
	1-4	0.00	0.04	0	1
	5-14	0.01	0.07	0	1
	15-64	0.31	0.59	0	3
	65-74	0.26	0.51	0	4
	75+	0.54	0.74	0	4
Arrhythmia	All Ages	1.41	1.26	0	6
	0	0.01	0.11	0	2
	1-4	0.00	0.04	0	1
	5-14	0.01	0.10	0	1
	15-64	0.61	0.82	0	6
	65-74	0.37	0.62	0	4
	75+	0.39	0.65	0	4
Cardiac Failure	All Ages	0.86	0.95	0	5
	0	0.00	0.03	0	1
	1-4	0.00	0.00	0	0
	5-14	0.00	0.05	0	1
	15-64	0.13	0.36	0	2
	65-74	0.20	0.43	0	3
	75+	0.53	0.75	0	4
Myocardial Infarction	All Ages	0.79	0.90	0	6
	0	0.00	0.00	0	0
	1-4	0.00	0.00	0	0
	5-14	0.00	0.00	0	0
	15-64	0.36	0.60	0	3
	65-74	0.18	0.44	0	3
	75+	0.24	0.48	0	3

Figure A3.30 Time series: Hospital admissions for cardiovascular disease, all ages, Canberra, January 1998 – December 2001

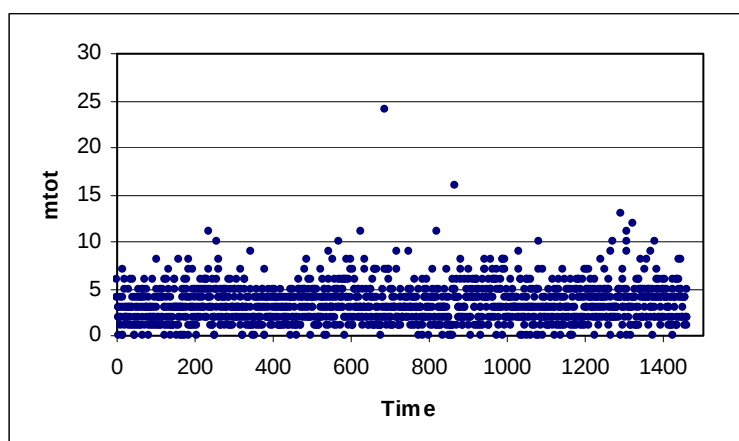


A4: Mortality

Table A4.1 Daily mortality, Canberra statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total All Cause	All Ages	3.33	2.02	0	24
	0-14	0.07	0.26	0	2
	15-64	0.73	0.86	0	6
	65-74	0.65	0.82	0	4
	75+	1.88	1.48	0	16
Total Respiratory	All Ages	0.26	0.52	0	4
	0-14	0.00	0.03	0	1
	15-64	0.03	0.18	0	2
	65-74	0.06	0.26	0	2
	75+	0.17	0.41	0	3
Total Cardiovascular	All Ages	1.34	1.20	0	10
	0-14	0.00	0.05	0	1
	15-64	0.19	0.44	0	2
	65-74	0.19	0.44	0	3
	75+	0.95	1.00	0	8

Figure A4.1 Time series: Daily all cause mortality, all ages, Canberra, January 1998 – December 2001



Appendix 1 continued
**Appendix 1: Christchurch Data
Summary**

EPHC

Air Pollution, Morbidity and Mortality Study

Christchurch

Descriptive Statistics

A1	Pollutants
A2	Meteorology
A3	Morbidity
A4	Mortality

A1: Pollutants

**Table A1.12 Mean daily pollutant concentrations (network average),
Christchurch statistical division, January 1998 – December 2001**

	N	Mean	SD	Min	Max
NO₂ (ppb)					
24 hour	1328	7.14	3.90	0.21	24.49
1 hour	1328	15.67	7.71	1.22	54.59
CO (ppm)					
24 hour	1461	0.54	0.75	0.00	5.39
8 hour	1461	0.97	1.38	0.00	9.67
1 hour	1461	1.96	2.57	0.00	16.98
PM₁₀ (µg/m³)					
24 hour	1065	20.63	17.72	1.27	156.29
1 hour	1065	64.90	77.55	7.40	504.95
SO₂ (ppb)					
24 hour	1461	2.76	1.86	0.01	11.85
1 hour	1461	10.12	7.25	0.11	42.14

**Table A1.13 Network average correlation coefficients,
Christchurch statistical division, January 1998 – December 2001***

	1 hr NO ₂	24 hr CO	8 hr CO	1 hr CO	24hrPM ₁₀	1hr PM ₁₀	24hr SO ₂	1 hr SO ₂
24 hr NO ₂	0.88	0.72	0.69	0.71	0.57	0.57	0.26	0.20
1 hr NO ₂		0.64	0.63	0.65	0.53	0.52	0.31	0.28
24 hr CO			0.96	0.94	0.92	0.87	0.32	0.23
8 hr CO				0.96	0.88	0.88	0.30	0.21
1 hr CO					0.85	0.89	0.30	0.23
24 hr PM ₁₀						0.90	0.34	0.25
1 hr PM ₁₀							0.27	0.19
24 hr SO ₂								0.84

* all coefficients significant at p=0.0001 unless indicated

^a significant at p<0.05

^b significant at p<0.01

^c significant at p<0.001

^{ns} not significant

**Figure A1.6 Time series: 24-hour nitrogen dioxide (network average),
Christchurch, January 1998 – December 2001**

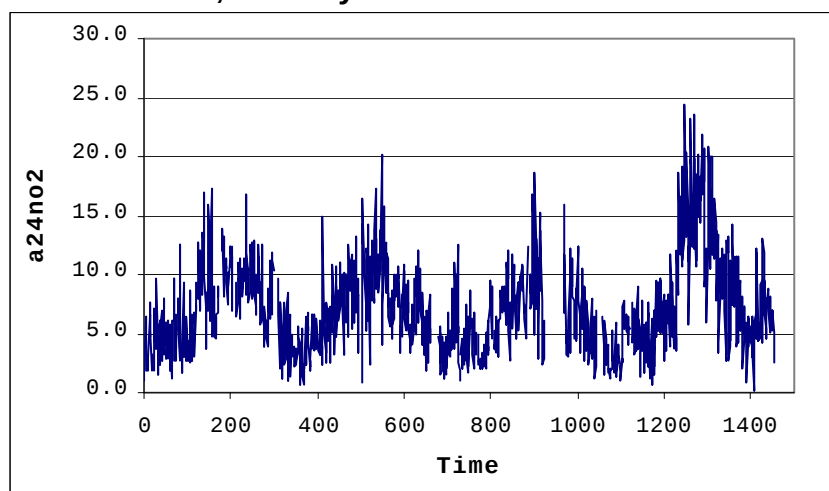


Figure A1.7 Time series: 1-hour nitrogen dioxide (network average), Christchurch, January 1998 – December 2001

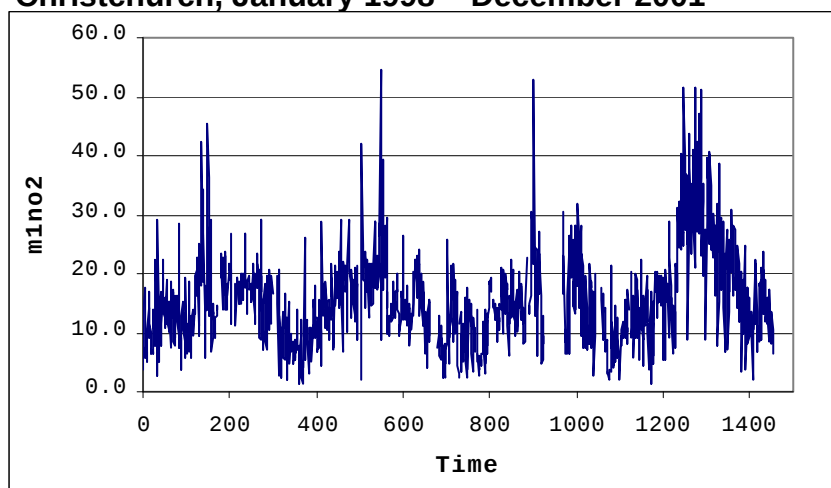


Figure A1.8 Time series: 24-hour carbon monoxide (network average), Christchurch, January 1998 – December 2001

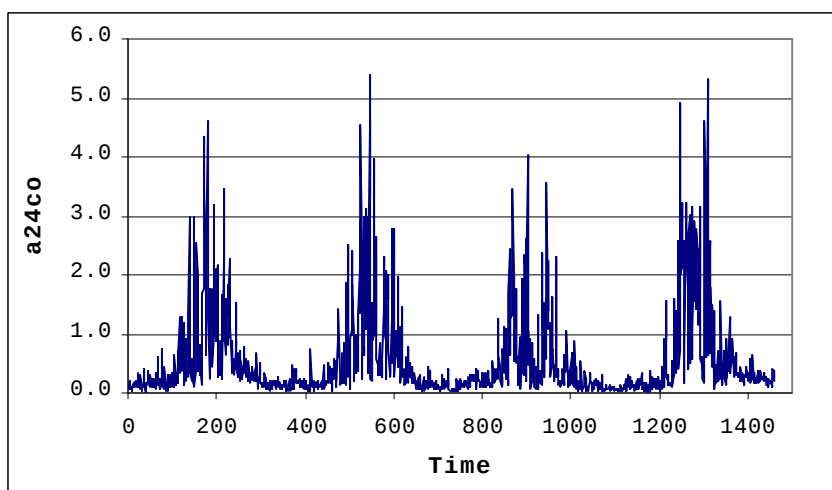


Figure A1.9 Time series: 8-hour carbon monoxide (network average), Christchurch, January 1998 – December 2001

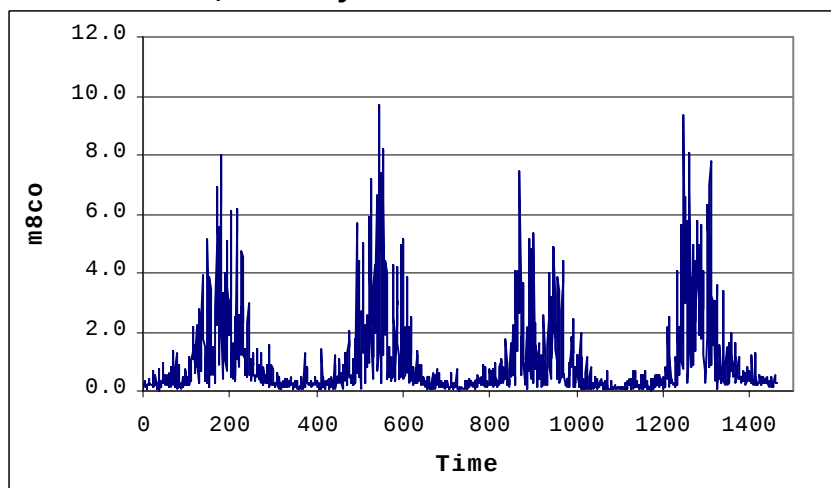


Figure A1.12 Time series: 1-hour carbon monoxide (network average), Christchurch, January 1998 – December 2001

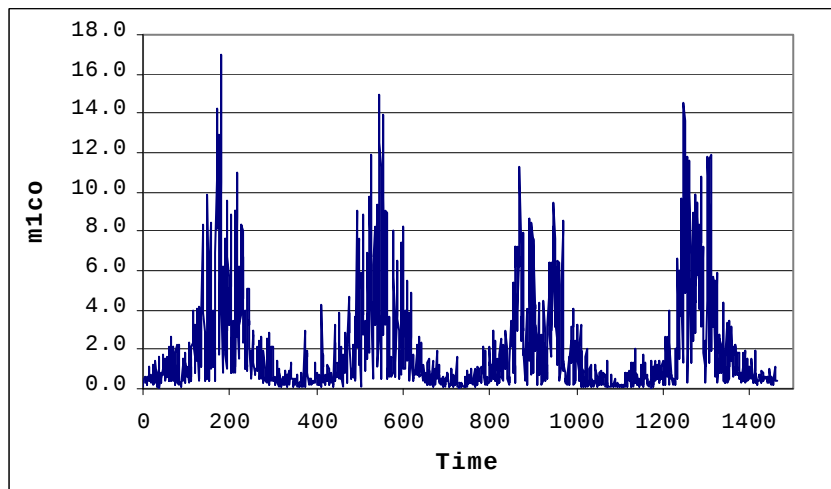


Figure A1.13 Time series: 24-hour PM₁₀ (network average), Christchurch, January 1998 – December 2001

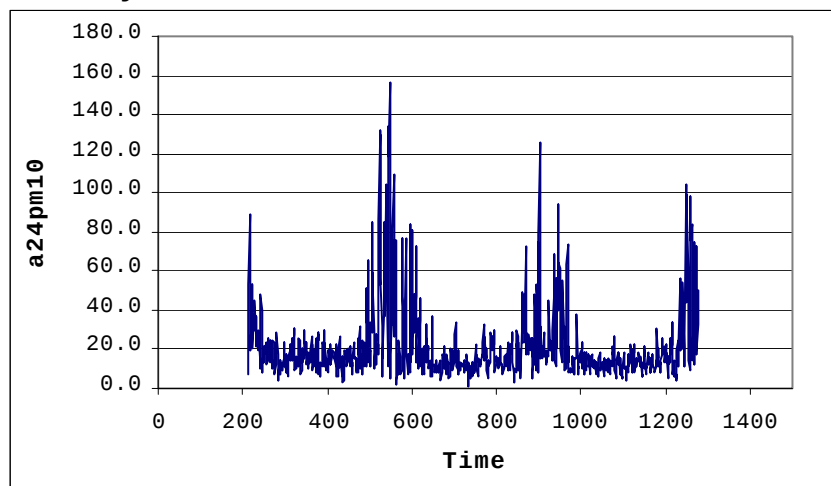


Figure A1.14 Time series: 1-hour PM₁₀ (network average), Christchurch, January 1998 – December 2001

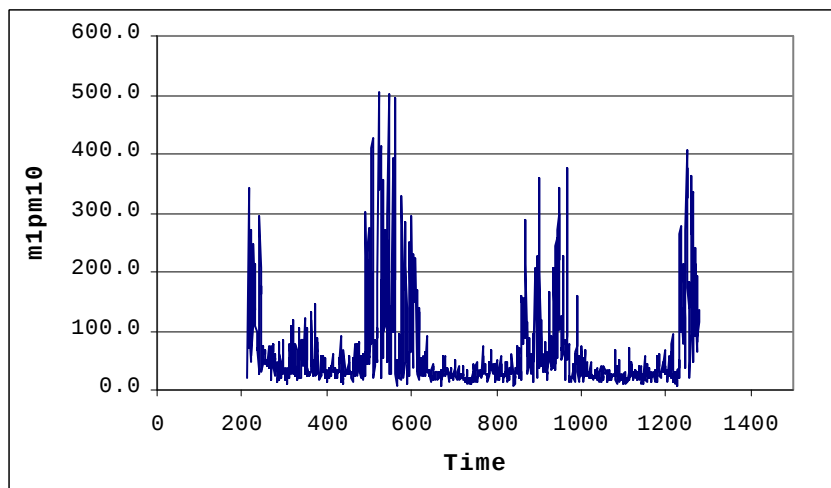


Figure A1.15 Time series: 24-hour SO₂ (network average), Christchurch, January 1998 – December 2001

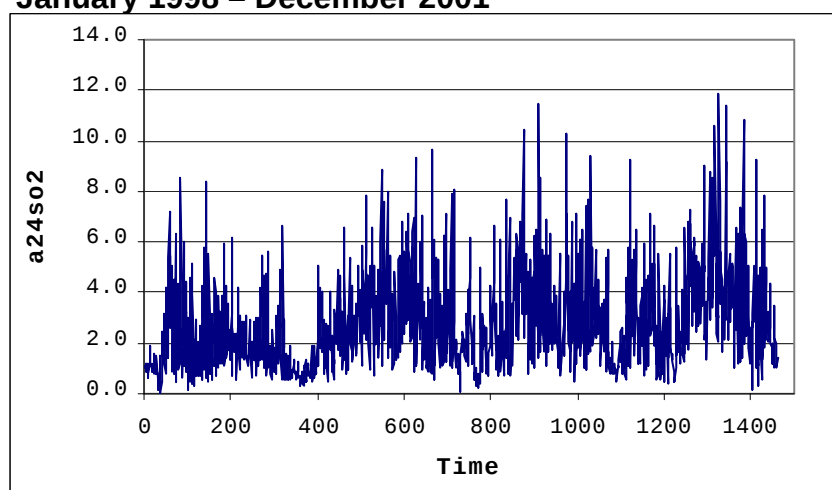
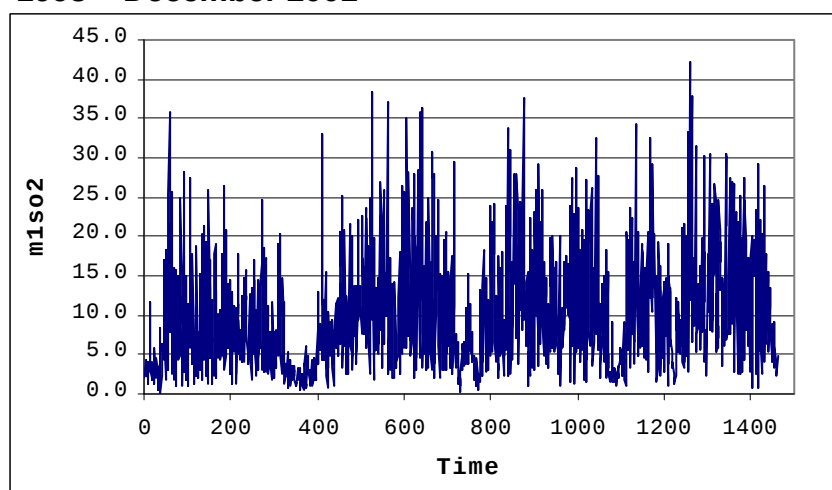


Figure A1.15 Time series: 1-hour SO₂ (network average), Christchurch, January 1998 – December 2001



A2: Meteorology

Table A2.1 Meteorology variables, Christchurch statistical division, January 1998 – December 2001

		N	Mean	SD	Min	Max
Temperature (°C)	- Av.	1461	11.56	4.74	0.04	27.15
	- Min	1461	6.57	5.05	-6.00	23.00
	- Max	1461	16.79	5.53	4.60	36.00
Apparent Temperature (°C)	- Av.	1461	9.86	5.38	-2.40	26.10
	- Min	1461	4.58	5.66	-7.78	22.20
	- Max	1461	15.17	5.94	2.10	33.15
Dewpoint Temperature (°C)	- Av.	1461	6.86	3.97	-4.12	16.54
	- Min	1461	3.62	4.67	-8.50	15.10
	- Max	1461	9.67	3.66	-0.10	22.50
Pressure (hPa)	- Av.	1461	1013.88	9.65	981.84	1035.08
	- Min	1461	1010.19	10.47	976.70	1034.00
	- Max	1461	1017.83	8.91	987.50	1036.90
Relative Humidity (%)	- Av.	1461	75.92	11.75	31.04	99.04
	- Min	1461	53.95	17.60	8.00	98.60
	- Max	1461	92.33	6.60	43.00	100.00
Daily Rainfall (mm)	- Total	1461	1.56	4.62	0.00	54.80

A3: Hospital Admissions

Table A3.1 Daily hospital *respiratory* admissions, Christchurch statistical division, January 1998 – December 2001
Whole Year

Health Outcome	Age Group	Mean	SD	Min	Max
Total Respiratory	All Ages	11.42	5.82	0	36
	0	1.48	1.60	0	9
	1-4	2.50	1.91	0	11
	5-14	0.98	1.08	0	7
	15-64	3.07	2.09	0	20
	65-74	1.31	1.27	0	10
	75+	2.07	1.71	0	10
Asthma	All Ages	2.08	1.61	0	12
	0	0.06	0.24	0	2
	1-4	0.73	0.89	0	6
	5-14	0.40	0.65	0	4
	15-64	0.77	0.95	0	7
	65-74	0.06	0.24	0	2
	75+	0.06	0.24	0	2
COPD	All Ages	2.38	1.86	0	12
	0	0.00	0.04	0	1
	1-4	0.01	0.07	0	1
	5-14	0.01	0.12	0	1
	15-64	0.72	0.90	0	7
	65-74	0.73	0.93	0	8
	75+	0.91	1.03	0	6
Pneumonia + Acute Bronchitis	All Ages	3.22	2.66	0	15
	0	0.86	1.28	0	9
	1-4	0.50	0.78	0	5
	5-14	0.15	0.39	0	2
	15-64	0.64	0.82	0	5
	65-74	0.32	0.57	0	3
	75+	0.75	0.94	0	7
Influenza	All Ages	0.28	0.82	0	9
	0	0.04	0.23	0	2
	1-4	0.08	0.38	0	7
	5-14	0.07	0.31	0	3
	15-64	0.07	0.30	0	4
	65-74	0.01	0.10	0	1
	75+	0.01	0.12	0	2

Figure A3.1 Time series: Hospital admissions for respiratory disease, all ages, Christchurch, January 1998 – December 2001

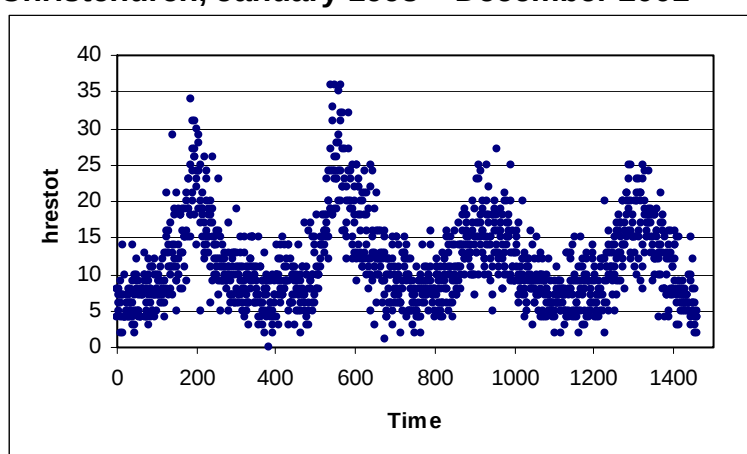
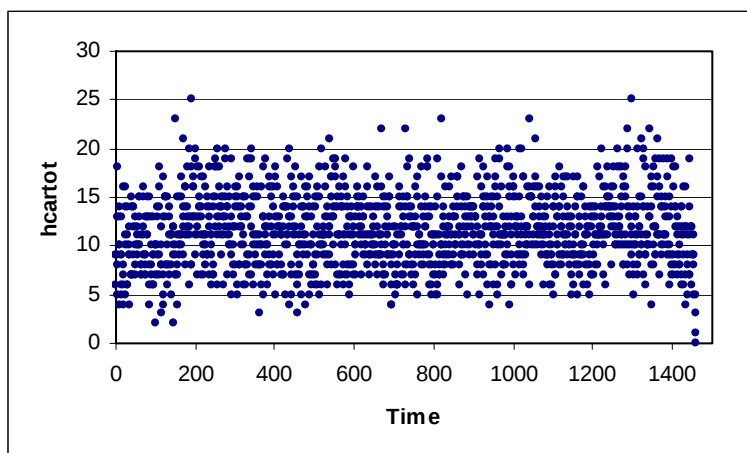


Table A3.2 Daily hospital *cardiovascular* admissions, Christchurch statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Cardiovascular	All Ages	11.51	3.68	0	25
	0	0.01	0.12	0	2
	1-4	0.01	0.12	0	1
	5-14	0.03	0.17	0	2
	15-64	3.23	1.84	0	10
	65-74	2.96	1.78	0	11
	75+	5.25	2.40	0	14
Cardiac	All Ages	8.01	3.03	0	20
	0	0.01	0.11	0	2
	1-4	0.01	0.10	0	1
	5-14	0.02	0.15	0	2
	15-64	2.31	1.56	0	9
	65-74	2.10	1.47	0	8
	75+	3.56	1.95	0	11
IHD	All Ages	4.66	2.25	0	13
	0	0.00	0.00	0	0
	1-4	0.00	0.00	0	0
	5-14	0.00	0.00	0	0
	15-64	1.42	1.22	0	6
	65-74	1.27	1.14	0	6
	75+	1.97	1.45	0	9
Stroke	All Ages	2.33	1.53	0	10
	0	0.00	0.03	0	1
	1-4	0.00	0.04	0	1
	5-14	0.00	0.04	0	1
	15-64	0.57	0.77	0	4
	65-74	0.58	0.75	0	5
	75+	1.17	1.11	0	6
Arrhythmia	All Ages	1.28	1.15	0	7
	0	0.00	0.06	0	1
	1-4	0.00	0.07	0	1
	5-14	0.01	0.09	0	1
	15-64	0.41	0.67	0	4
	65-74	0.35	0.58	0	3
	75+	0.50	0.73	0	4
Cardiac Failure	All Ages	1.28	1.24	0	7
	0	0.00	0.08	0	2
	1-4	0.00	0.03	0	1
	5-14	0.00	0.00	0	0
	15-64	0.13	0.37	0	3
	65-74	0.29	0.57	0	4
	75+	0.85	0.97	0	6
Myocardial Infarction	All Ages	2.05	1.46	0	9
	0	0.00	0.00	0	0
	1-4	0.00	0.00	0	0
	5-14	0.00	0.00	0	0
	15-64	0.58	0.75	0	4
	65-74	0.48	0.70	0	5
	75+	0.98	1.00	0	5

Figure A3.36 Time series: Hospital admissions for cardiovascular disease, all ages, Christchurch, January 1998 – December 2001

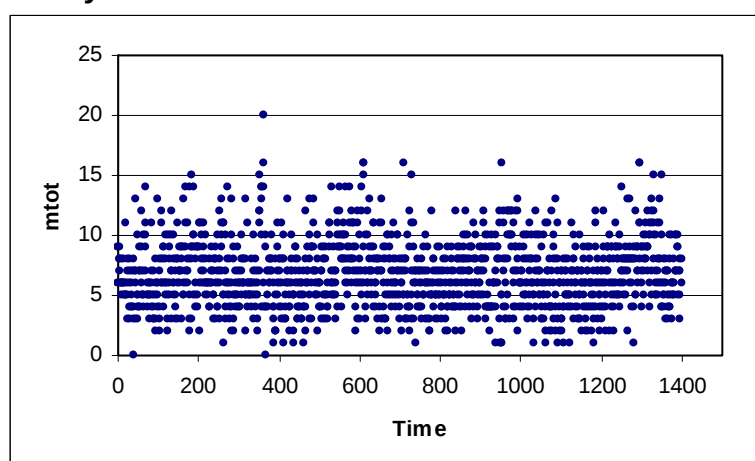


A4: Mortality

Table A4.1 Daily mortality, Christchurch statistical division, January 1998 – December 2001

Health Outcome	Age Group	N	Mean	SD	Min	Max
Total All Cause	All Ages	1400	6.73	2.81	0	20
	0-14	1400	0.06	0.25	0	2
	15-64	1400	0.98	0.97	0	5
	65-74	1400	1.28	1.18	0	6
	75+	1400	4.42	2.29	0	14
Total Respiratory	All Ages	1400	0.59	0.80	0	4
	0-14	1400	0.00	0.04	0	1
	15-64	1400	0.05	0.22	0	2
	65-74	1400	0.11	0.35	0	2
	75+	1400	0.42	0.67	0	3
Total Cardiovascular	All Ages	1400	3.06	1.80	0	14
	0-14	1400	0.00	0.00	0	0
	15-64	1400	0.28	0.53	0	4
	65-74	1400	0.48	0.69	0	4
	75+	1400	2.30	1.59	0	12

Figure A4.1 Time series: Daily all cause mortality, all ages, Christchurch, January 1998 – December 2001



Appendix 1 continued

Appendix 1: Melbourne Data Summary

EPHC

Air Pollution, Morbidity and Mortality Study

Melbourne

Descriptive Statistics

A1	Pollutants
A2	Meteorology
A3	Morbidity
A4	Mortality

A1: Pollutants

Table A1.23 Mean daily pollutant concentrations (network average), Melbourne statistical division, January 1998 – December 2001

	N	Mean	SD	Min	Max
O₃ (ppb)					
8 hour	1454	19.03	8.90	0.77	63.04
4 hour	1454	21.81	9.91	1.26	73.06
1 hour	1454	23.84	10.89	1.73	85.38
NO₂ (ppb)					
24 hour	1455	11.69	5.04	2.02	29.52
1 hour	1455	23.19	8.68	4.41	62.46
CO (ppm)					
8 hour	1448	0.96	0.89	0.06	7.97
1 hour	1448	1.39	1.17	0.08	10.31
bsp (10⁻⁴m⁻¹)					
24 hour	1456	0.27	0.26	0.03	3.60
1 hour	1456	0.59	0.57	0.07	8.66
PM₁₀ (µg/m³)					
24 hour	1457	16.60	6.70	3.05	71.11
1 hour	1457	33.38	16.81	7.38	182.59
PM_{2.5} (µg/m³)					
24 hour	1450	8.89	4.13	2.84	43.34
1 hour	1450	17.64	10.35	5.21	141.65

Table A1.24 Network average correlation coefficients, Melbourne statistical division, January 1998 – December 2001*

	4 hr O ₃	1 hr O ₃	24 hr NO ₂	1 hr NO ₂	8 hr CO	1 hr CO	24 hr bsp
8 hr O ₃	0.98	0.96	-0.15	0.12	-0.36	-0.33	-0.13
4 hr O ₃		0.99	-0.05 ^{ns}	0.20	-0.28	-0.25	-0.07 ^a
1 hr O ₃			0.00 ^{ns}	0.24	-0.24	-0.22	-0.02 ^{ns}
24 hr NO ₂				0.91	0.68	0.74	0.63
1 hr NO ₂					0.57	0.65	0.56
8 hr CO						0.85	0.58
1 hr CO							0.58
24 hr bsp							
1 hr bsp							
24 hr PM ₁₀							
1 hr PM ₁₀							
24 hr PM _{2.5}							

	1 hr bsp	24hr PM ₁₀	1 hr PM ₁₀	24hr PM _{2.5}	1 hr PM _{2.5}
8 hr O ₃	-0.13	0.27	0.26	-0.02 ^{ns}	-0.06 ^a
4 hr O ₃	-0.07 ^b	0.31	0.30	0.05 ^{ns}	0.00 ^{ns}
1 hr O ₃	-0.03 ^{ns}	0.33	0.32	0.09 ^c	0.03 ^{ns}
24 hr NO ₂	0.62	0.38	0.34	0.68	0.61
1 hr NO ₂	0.56	0.46	0.43	0.65	0.59
8 hr CO	0.62	0.27	0.27	0.61	0.63
1 hr CO	0.62	0.34	0.35	0.66	0.69
24 hr bsp	0.94	0.60	0.50	0.89	0.80
1 hr bsp		0.54	0.52	0.84	0.87
24 hr PM ₁₀			0.86	0.77	0.63
1 hr PM ₁₀				0.65	0.67
24 hr PM _{2.5}					0.89

* all coefficients significant at p=0.0001 unless indicated

^a significant at p<0.05

^b significant at p<0.01

^c significant at p<0.001

^{ns} not significant

Figure A1.1 Time series: 24-hour bsp (network average), Melbourne, January 1998 – December 2001

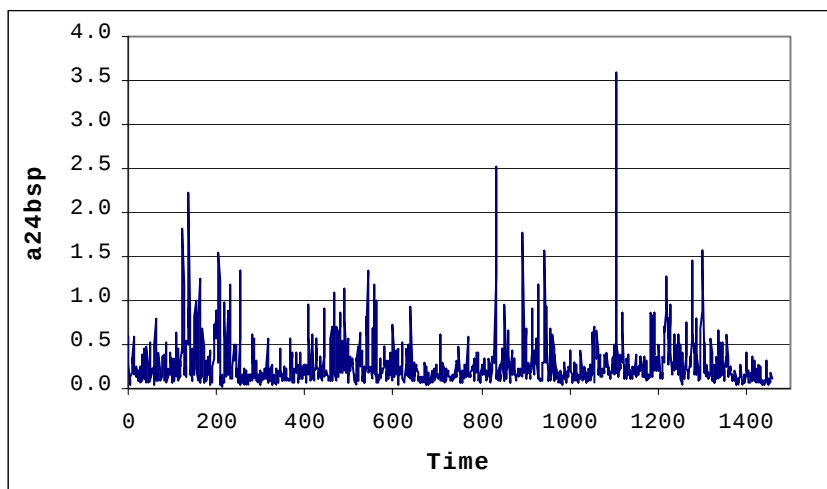


Figure A1.2 Time series: 1-hour bsp (network average), Melbourne, January 1998 – December 2001

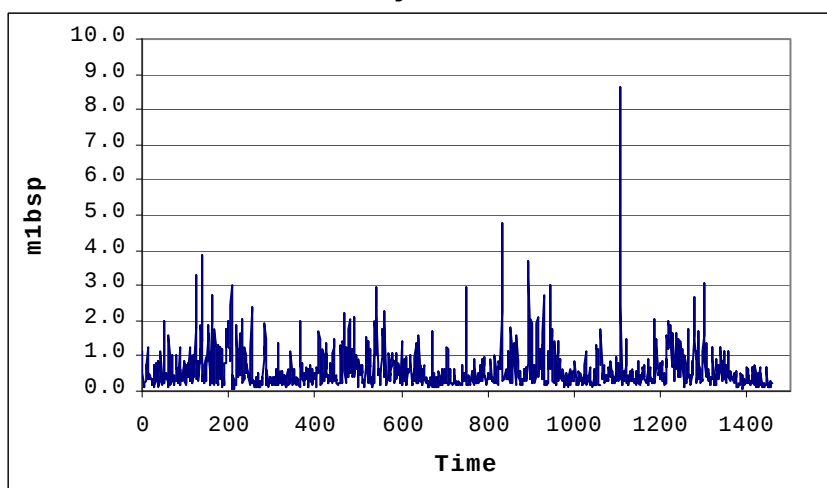
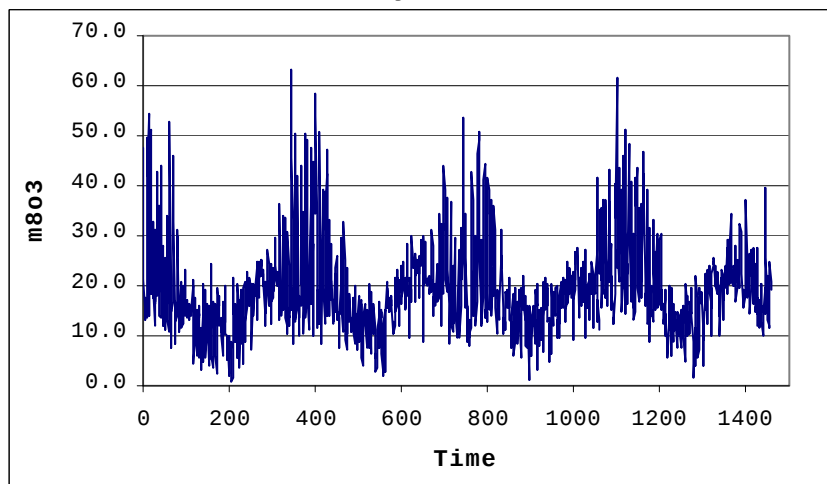
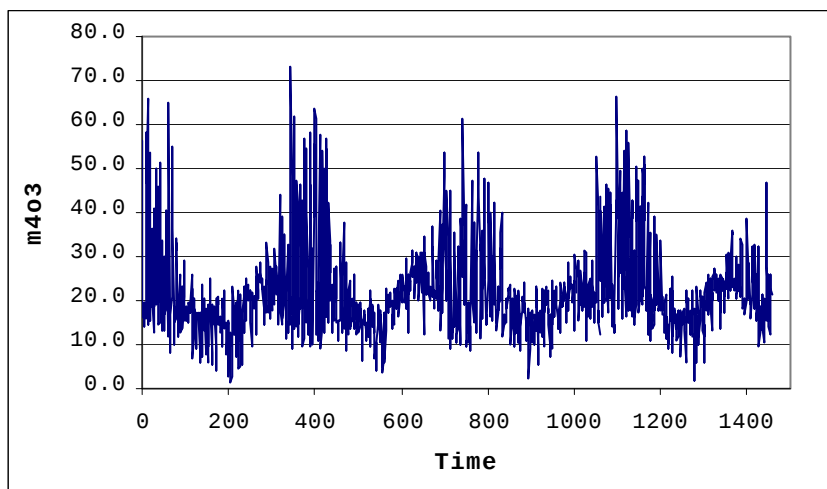


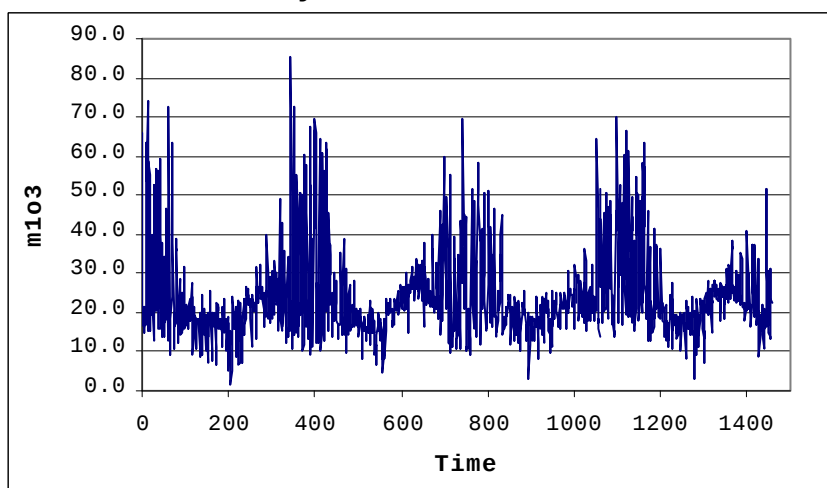
Figure A1.3 Time series: 8-hour ozone (network average), Melbourne, January 1998 – December 2001



**Figure A1.4 Time series: 4-hour ozone (network average),
Melbourne, January 1998 – December 2001**



**Figure A1.5 Time series: 1-hour ozone (network average),
Melbourne, January 1998 – December 2001**



**Figure A1.6 Time series: 24-hour nitrogen dioxide (network average),
Melbourne, January 1998 – December 2001**

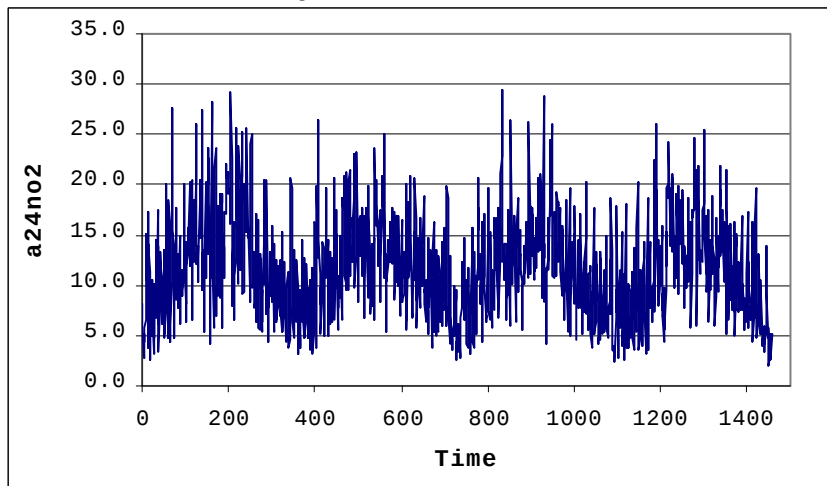


Figure A1.7 Time series: 1-hour nitrogen dioxide (network average), Melbourne, January 1998 – December 2001

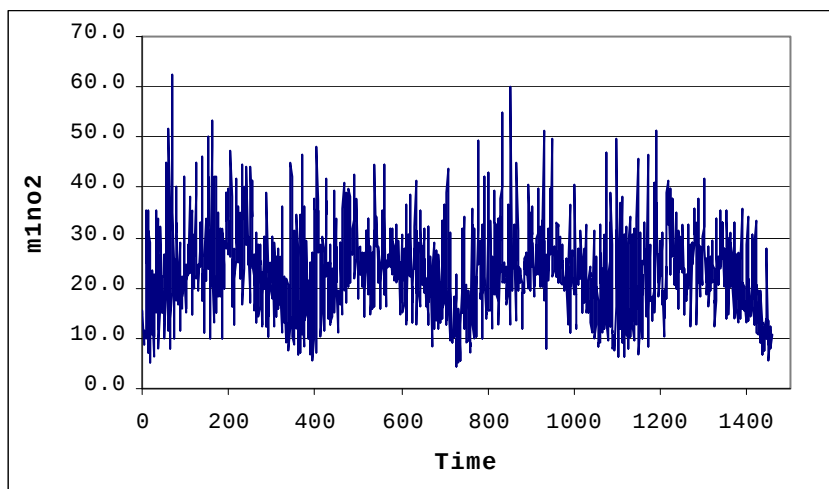


Figure A1.8 Time series: 8-hour carbon monoxide (network average), Melbourne, January 1998 – December 2001

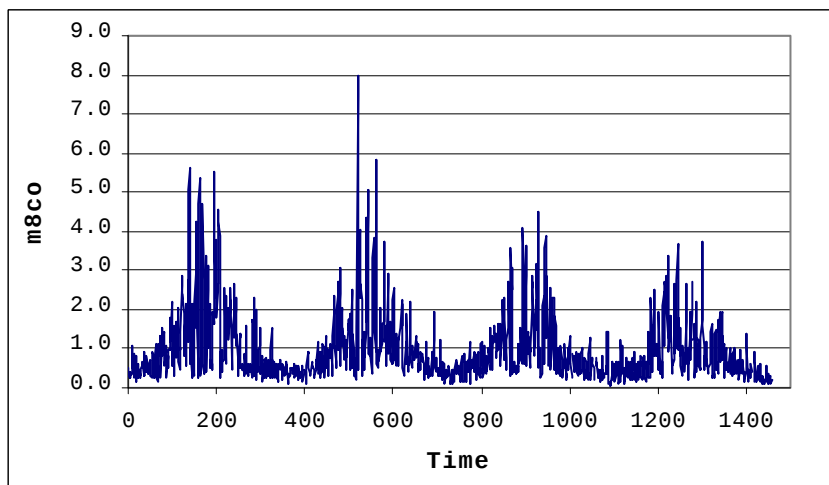


Figure A1.9 Time series: 1-hour carbon monoxide (network average), Melbourne, January 1998 – December 2001

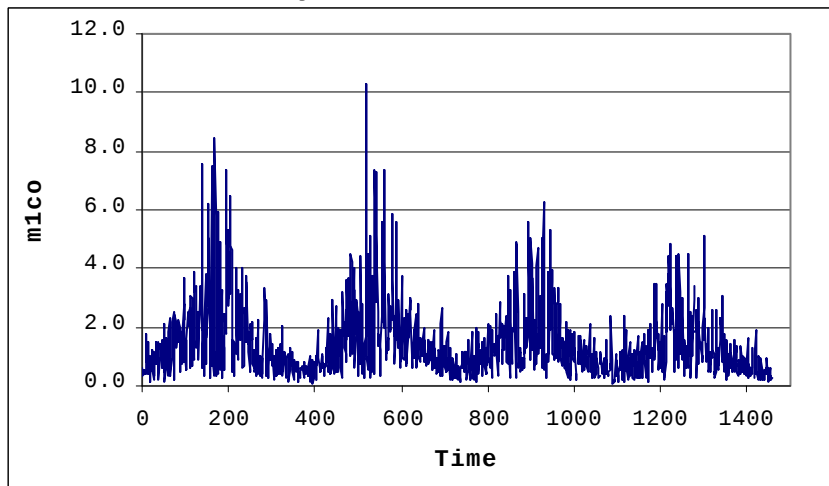


Figure A1.10 Time series: 24-hour PM₁₀ (network average), Melbourne, January 1998 – December 2001

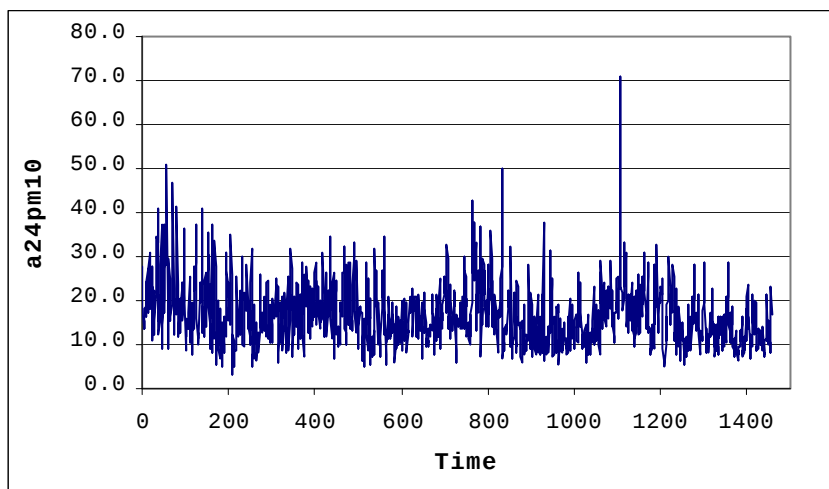


Figure A1.11 Time series: 1-hour PM₁₀ (network average), Melbourne, January 1998 – December 2001

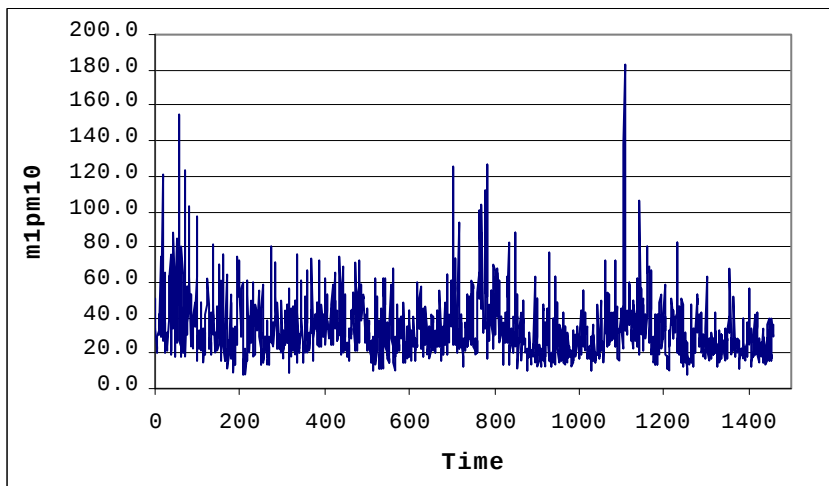


Figure A1.12 Time series: 24-hour PM_{2.5} (network average), Melbourne, January 1998 – December 2001

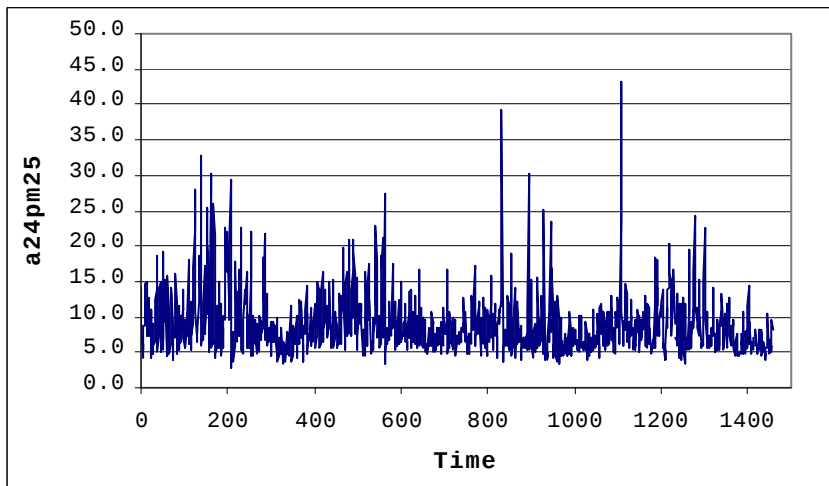
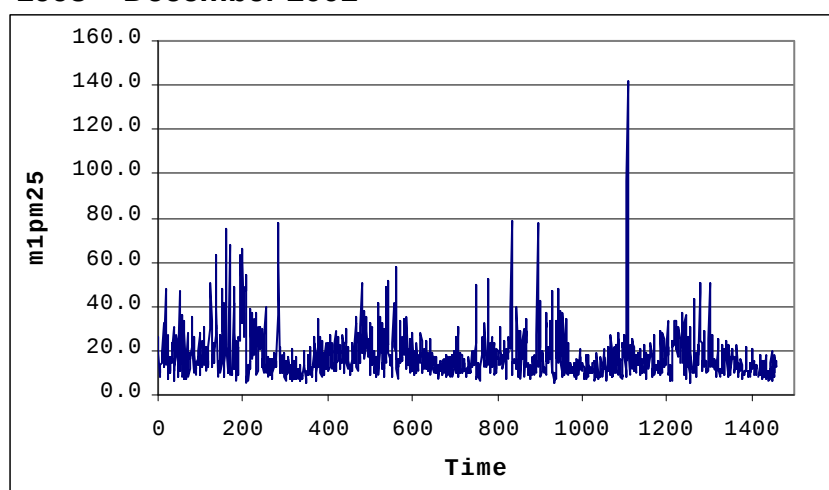


Figure A1.13 Time series: 1-hour PM_{2.5} (network average), Melbourne, January 1998 – December 2001



A2: Meteorology

Table A2.1 Meteorology variables, Melbourne statistical division, January 1998 – December 2001

		N	Mean	SD	Min	Max
Temperature (°C)	- Av.	1455	15.34	4.65	5.85	31.75
	- Min	1455	10.65	4.08	0.57	22.93
	- Max	1455	20.28	6.06	8.09	41.43
Apparent Temperature (°C)	- Av.	1455	14.10	5.45	3.26	32.39
	- Min	1455	8.88	4.70	-2.08	24.66
	- Max	1455	19.42	6.97	5.72	42.63
Dewpoint Temperature (°C)	- Av.	1461	9.35	3.26	1.58	21.12
	- Min	1461	7.14	3.26	-0.68	20.22
	- Max	1461	10.64	3.46	3.10	21.16
Pressure (hPa)	- Av.	1461	1017.26	7.10	988.95	1039.10
	- Min	1461	1014.65	7.70	987.30	1038.35
	- Max	1461	1019.89	6.69	990.30	1040.30
Relative Humidity (%)	- Av.	1455	68.69	11.55	25.07	95.49
	- Min	N/A	N/A	N/A	N/A	N/A
	- Max	N/A	N/A	N/A	N/A	N/A
Daily Rainfall (mm)	- Total	1461	1.99	4.92	0.00	43.07

A3: Hospital Admissions

Table A3.1 Daily hospital *respiratory* admissions, Melbourne statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Respiratory	All Ages	69.52	17.52	26	131
	0	4.62	3.62	0	21
	1-4	10.41	4.67	0	31
	5-14	5.36	3.19	0	24
	15-64	21.58	6.39	4	48
	65-74	10.40	4.07	2	31
	75+	17.15	6.16	2	39
Asthma	All Ages	15.84	5.98	1	50
	0	0.19	0.45	0	3
	1-4	4.49	2.71	0	19
	5-14	3.05	2.46	0	23
	15-64	6.25	3.05	0	21
	65-74	0.90	0.97	0	5
	75+	0.95	1.01	0	6
COPD	All Ages	14.19	5.64	1	34
	0	0.01	0.12	0	1
	1-4	0.17	0.46	0	4
	5-14	0.32	0.60	0	4
	15-64	3.15	2.01	0	17
	65-74	4.61	2.57	0	14
	75+	5.92	3.04	0	19
Pneumonia + Acute Bronchitis	All Ages	22.16	8.36	4	53
	0	2.97	3.17	0	19
	1-4	2.14	1.91	0	11
	5-14	0.77	0.93	0	6
	15-64	5.63	2.61	0	18
	65-74	3.32	1.95	0	14
	75+	7.33	3.30	0	21
Influenza	All Ages	0.53	1.00	0	7
	0	0.06	0.28	0	2
	1-4	0.08	0.32	0	3
	5-14	0.04	0.20	0	2
	15-64	0.29	0.62	0	5
	65-74	0.03	0.17	0	1
	75+	0.04	0.20	0	2

Figure A3.1 Time series: Hospital admissions for respiratory disease, all ages, Melbourne, January 1998 – December 2001

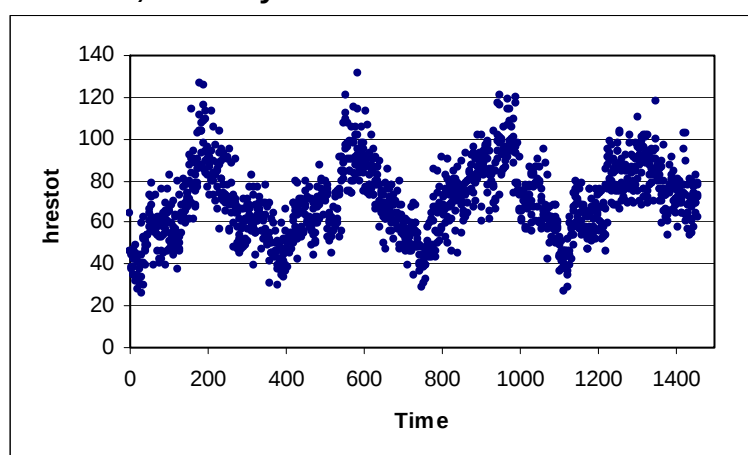
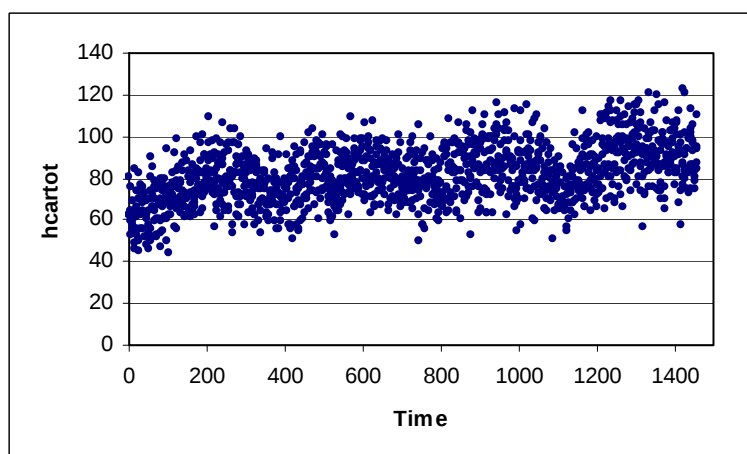


Table A3.2 Daily hospital *cardiovascular* admissions, Melbourne statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Cardiovascular	All Ages	81.31	13.36	44	123
	0	0.15	0.40	0	3
	1-4	0.12	0.35	0	2
	5-14	0.28	0.53	0	4
	15-64	25.93	5.86	8	46
	65-74	20.13	4.82	7	37
	75+	34.70	8.12	12	63
Cardiac	All Ages	57.51	10.37	29	97
	0	0.13	0.37	0	3
	1-4	0.03	0.18	0	2
	5-14	0.06	0.24	0	2
	15-64	18.47	4.64	3	36
	65-74	14.69	4.03	3	30
	75+	24.11	6.45	6	48
IHD	All Ages	29.84	6.10	15	51
	0	0	0	0	0
	1-4	0	0	0	0
	5-14	0	0	0	0
	15-64	10.78	3.34	2	21
	65-74	7.93	2.83	0	20
	75+	11.12	3.72	2	26
Stroke	All Ages	14.78	4.61	2	35
	0	0	0.06	0	1
	1-4	0.01	0.08	0	1
	5-14	0.02	0.12	0	1
	15-64	3.57	1.91	0	10
	65-74	3.60	1.96	0	14
	75+	7.59	3.21	0	25
Arrhythmia	All Ages	9.66	3.69	0	26
	0	0.02	0.15	0	1
	1-4	0.01	0.12	0	1
	5-14	0.03	0.18	0	1
	15-64	3.49	2.06	0	13
	65-74	2.54	1.62	0	9
	75+	3.55	2.07	0	13
Cardiac Failure	All Ages	12.55	4.34	3	29
	0	0.01	0.10	0	1
	1-4	0.01	0.09	0	1
	5-14	0	0.05	0	1
	15-64	1.57	1.28	0	9
	65-74	3.12	1.83	0	11
	75+	7.83	3.33	1	22
Myocardial Infarction	All Ages	10.38	3.52	2	24
	0	0	0	0	0
	1-4	0	0	0	0
	5-14	0	0	0	0
	15-64	3.88	2.00	0	12
	65-74	2.58	1.67	0	10
	75+	3.92	2.20	0	13

Figure A3.22 Time series: Hospital admissions for cardiovascular disease, all ages, Melbourne, January 1998 – December 2001

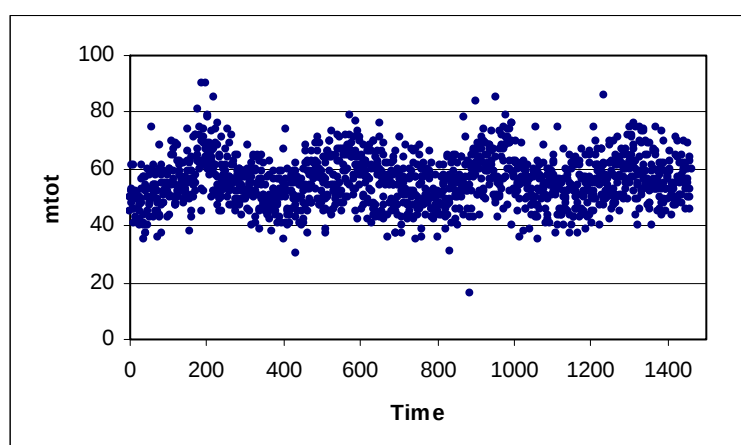


A4: Mortality

Table A4.1 Daily mortality, Melbourne statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total All Cause	All Ages	55.45	8.70	16	90
	0-14	0.70	0.84	0	4
	15-64	8.90	3.03	1	20
	65-74	10.83	3.31	2	23
	75+	35.02	6.93	12	62
Total Respiratory	All Ages	4.59	2.31	0	14
	0-14	0.02	0.13	0	1
	15-64	0.36	0.60	0	3
	65-74	0.87	0.91	0	5
	75+	3.34	1.97	0	13
Total Cardiovascular	All Ages	22.27	5.31	9	41
	0-14	0.02	0.16	0	1
	15-64	2.17	1.48	0	10
	65-74	3.52	1.89	0	10
	75+	16.56	4.50	4	34

Figure A4.1 Time series: Daily all cause mortality, all ages, Melbourne, January 1998 – December 2001



Appendix 1 continued
Appendix 1: Perth Data Summary

EPHC

Air Pollution, Morbidity and Mortality Study

Perth

Descriptive Statistics

A1	Pollutants
A2	Meteorology
A3	Morbidity
A4	Mortality

A1: Pollutants

Table A1.18 Mean daily pollutant concentrations (network average), Perth statistical division, January 1998 – December 2001

Whole Study Period					
	N	Mean	SD	Min	Max
O₃ (ppb)					
8 hour	1461	28.54	6.56	8.00	63.94
4 hour	1461	31.31	7.70	10.58	72.75
1 hour	1461	33.61	9.39	13.00	85.00
NO₂ (ppb)					
24 hour	1461	9.01	3.13	1.95	23.34
1 hour	1461	21.34	6.85	4.40	48.00
bsp (10⁻⁴m⁻¹)					
24 hour	1461	0.24	0.14	0.06	1.57
1 hour	1461	0.62	0.55	0.11	8.40
PM₁₀ (µg/m³)					
24 hour	1360	16.53	6.00	4.42	68.89
1 hour	1360	33.64	18.70	7.67	327.38
PM_{2.5} (µg/m³)					
24 hour	1461	8.14	3.08	1.68	29.30
1 hour	1461	18.92	11.64	4.93	178.54
CO (ppm)					
8 hour	1461	1.00	0.53	0.08	3.96
1 hour	1461	1.58	0.87	0.13	6.00

Table A1.19 Network average correlation coefficients, Perth statistical division, January 1998 – December 2001*

	4 hr O ₃	1 hr O ₃	24 hr NO ₂	1 hr NO ₂	24 hr bsp	1 hr bsp	24 hr PM ₁₀
8 hr O ₃	0.98	0.94	0.18	0.37	0.02 ^{ns}	-0.06 ^a	0.32
4 hr O ₃		0.98	0.25	0.44	0.09 ^c	-0.01 ^{ns}	0.37
1 hr O ₃			0.24	0.43	0.10 ^c	-0.01 ^{ns}	0.39
24 hr NO ₂				0.87	0.50	0.42	0.21
1 hr NO ₂					0.36	0.32	0.27
24 hr bsp						0.83	0.53
1 hr bsp							0.33
24 hr PM ₁₀							
1 hr PM ₁₀							
24 hr PM _{2.5}							
1 hr PM _{2.5}							
8 hr CO							

	1 hr PM ₁₀	24hr PM _{2.5}	1 hr PM _{2.5}	8 hr CO	1hr CO
8 hr O ₃	0.12	0.25	0.07 ^b	0.02 ^{ns}	-0.02 ^{ns}
4 hr O ₃	0.16	0.34	0.12	0.08 ^b	0.04 ^{ns}
1 hr O ₃	0.17	0.36	0.14	0.07 ^b	0.03 ^{ns}
24 hr NO ₂	0.30	0.51	0.44	0.73	0.76
1 hr NO ₂	0.31	0.49	0.41	0.59	0.64
24 hr bsp	0.58	0.81	0.71	0.59	0.58
1 hr bsp	0.60	0.62	0.82	0.48	0.50
24 hr PM ₁₀	0.70	0.78	0.46	0.30	0.25
1 hr PM ₁₀		0.65	0.71	0.40	0.41
24 hr PM _{2.5}			0.75	0.54	0.50
1 hr PM _{2.5}				0.48	0.49
8 hr CO					0.95

* all coefficients significant at p=0.0001 unless indicated

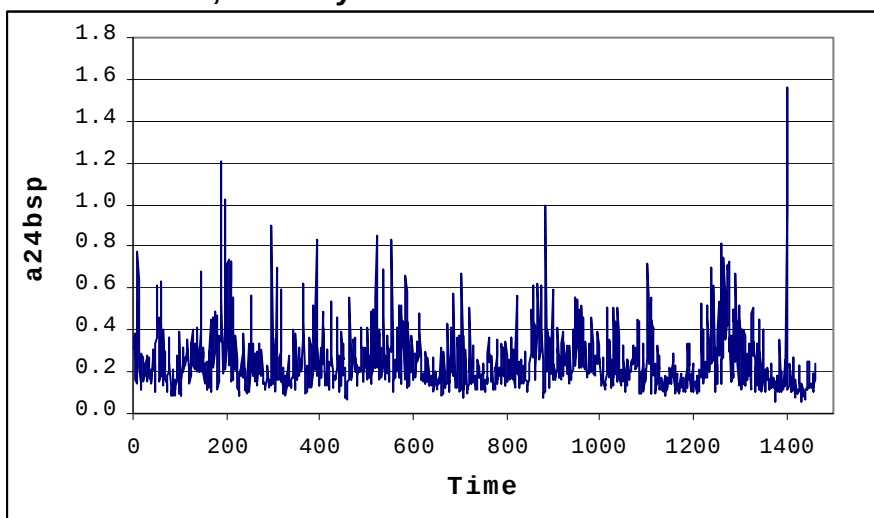
^a significant at p<0.05

^b significant at p<0.01

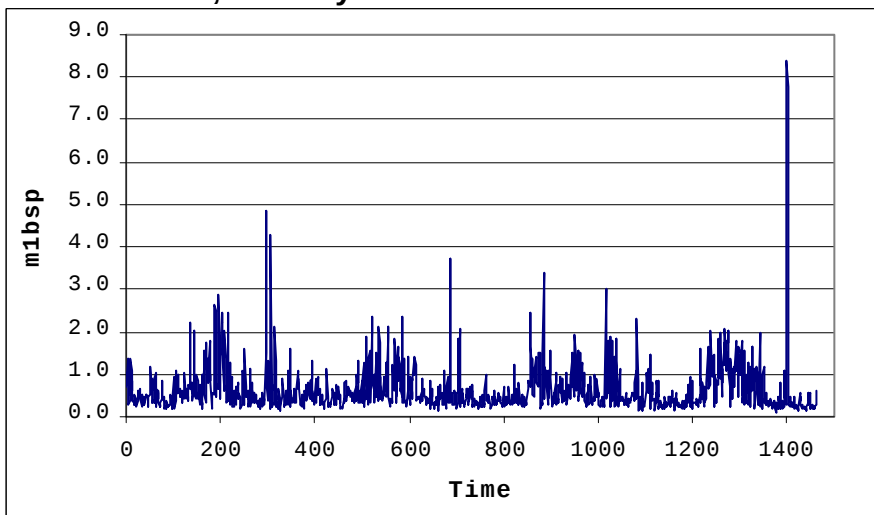
^c significant at p<0.001

^{ns} not significant

**Figure A1.1 Time series: 24-hour bsp (network average),
Perth, January 1998 – December 2001**



**Figure A1.2 Time series: 1-hour bsp (network average),
Perth, January 1998 – December 2001**



**Figure A1.3 Time series: 8-hour ozone (network average),
Perth, January 1998 – December 2001**

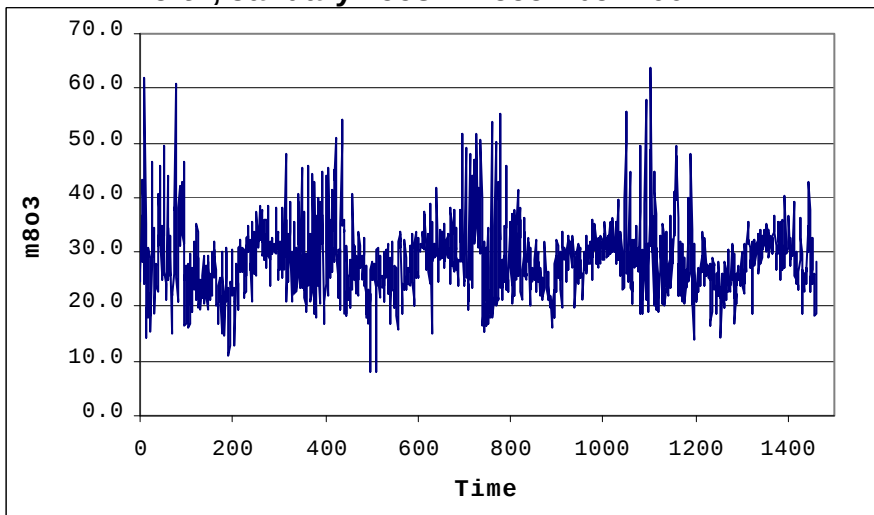


Figure A1.4 Time series: 4-hour ozone (network average), Perth, January 1998 – December 2001

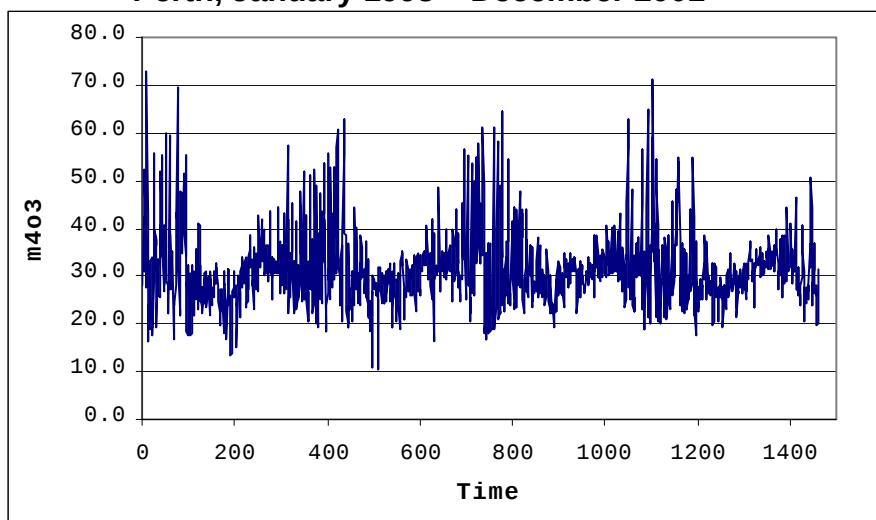


Figure A1.5 Time series: 1-hour ozone (network average), Perth, January 1998 – December 2001

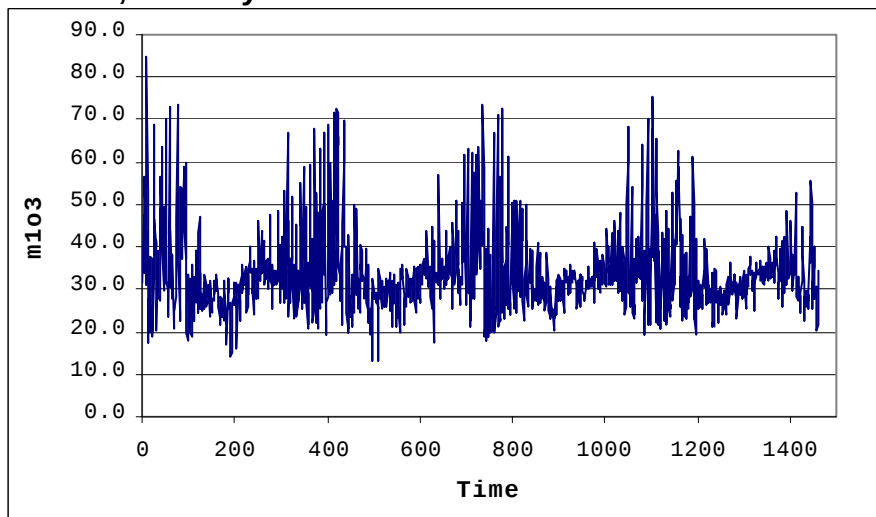


Figure A1.6 Time series: 24-hour nitrogen dioxide (network average), Perth, January 1998 – December 2001

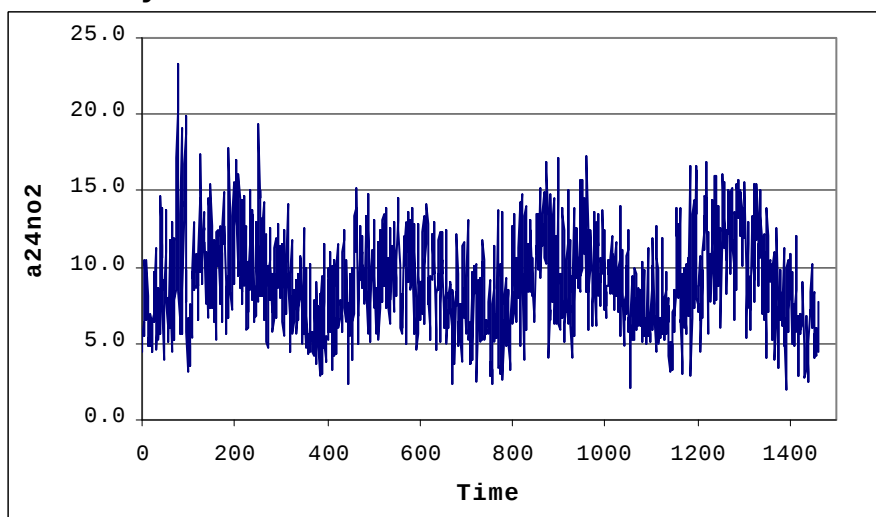


Figure A1.7 Time series: 1-hour nitrogen dioxide (network average), Perth, January 1998 – December 2001

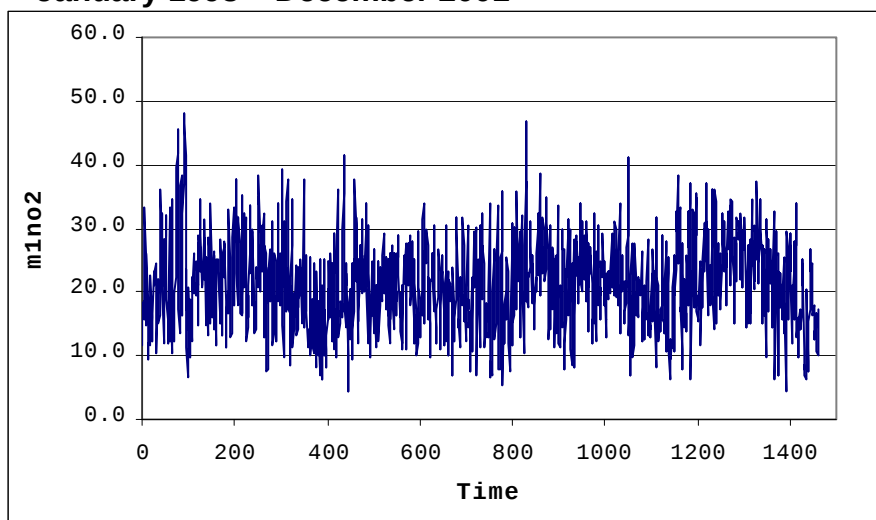


Figure A1.8 Time series: 8-hour carbon monoxide (network average), Perth, January 1998 – December 2001

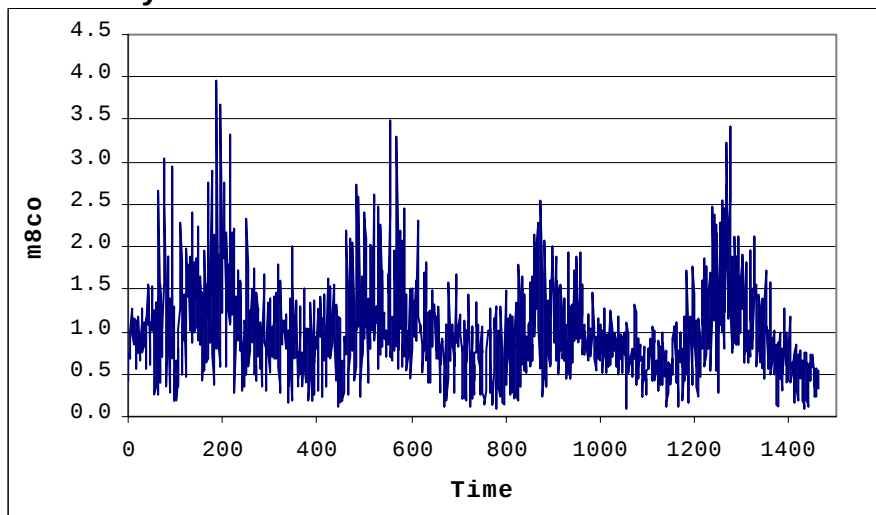


Figure A1.9 Time series: 1-hour carbon monoxide (network average), Perth, January 1998 – December 2001

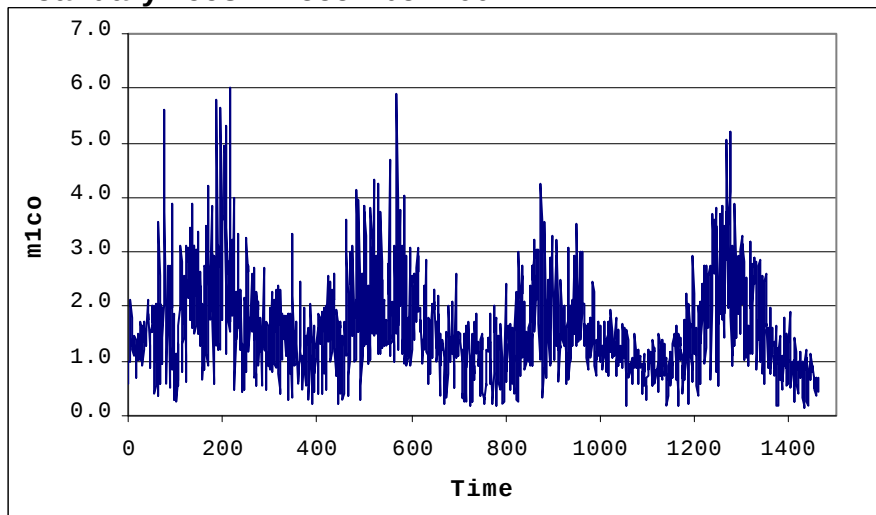


Figure A1.12 Time series: 24-hour PM₁₀ (network average), Perth, January 1998 – December 2001

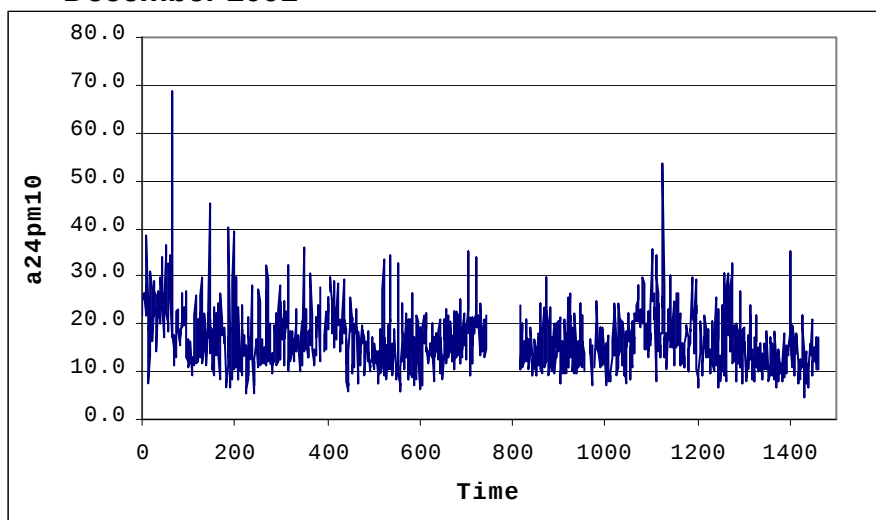


Figure A1.13 Time series: 1-hour PM₁₀ (network average), Perth, January 1998 – December 2001

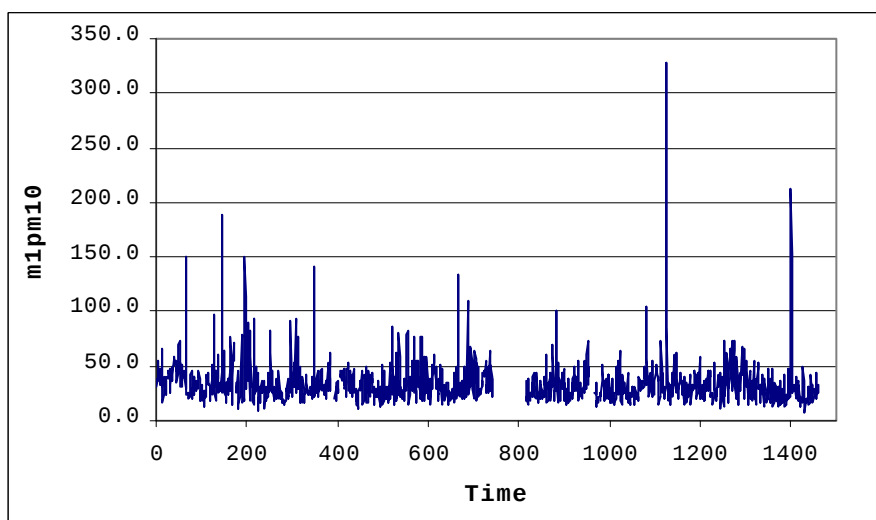


Figure A1.14 Time series: 24-hour PM_{2.5} (network average), Perth, January 1998 – December 2001

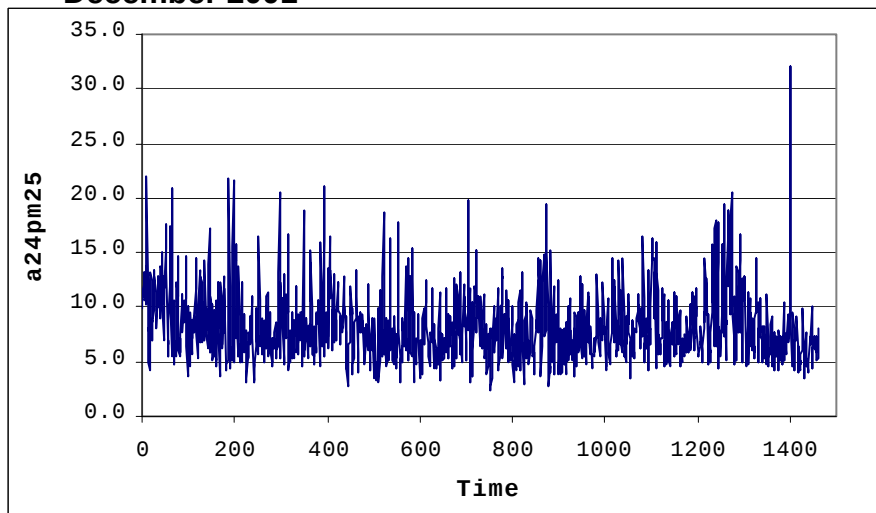
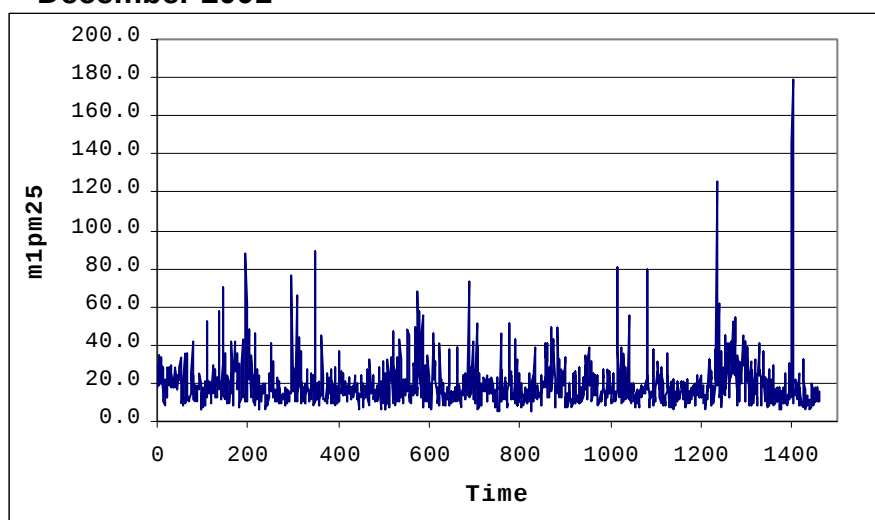


Figure A1.15 Time series: 1-hour PM_{2.5} (network average), Perth, January 1998 – December 2001



A2: Meteorology

Table A2.1 Meteorology variables, Perth statistical division, January 1998 – December 2001

	Mean	SD	Min	Max
Average Temp (°C)	18.16	4.62	8.20	32.31
Minimum Temp (°C)	13.10	4.56	1.35	25.60
Maximum Temp (°C)	23.68	5.58	12.35	41.40
Average Apparent Temp (°C)	17.60	5.46	5.77	32.25
Minimum Apparent Temp (°C)	12.13	5.52	-1.29	28.80
Maximum Apparent Temp (°C)	23.09	6.10	9.76	40.82
Average Dewpoint Temp (°C)	11.27	3.51	0.42	22.61
Minimum Dewpoint Temp (°C)	8.07	3.76	-3.00	19.60
Maximum Dewpoint Temp (°C)	14.43	3.59	3.15	25.05
Average Pressure (hPa)	1016.46	5.73	1000.44	1033.73
Minimum Pressure (hPa)	1014.01	5.98	996.30	1032.10
Maximum pressure (hPa)	1019.03	5.60	1002.80	1035.40
Average Relative Humidity (%)	67.84	13.15	28.03	98.52
Minimum Relative Humidity (%)	44.53	14.05	8.50	97.00
Maximum Relative Humidity (%)	88.82	10.63	49.00	100.00
Total Daily Rainfall (mm)	2.08	6.32	0.00	104.00

A3: Hospital Admissions

Table A3.1 Daily hospital *respiratory* admissions, Perth statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Respiratory	All Ages	32.92	12.62	9	80
	0	3.20	2.96	0	21
	1-4	6.33	3.42	0	18
	5-14	3.02	2.04	0	13
	15-64	8.48	3.70	1	24
	65-74	4.34	2.38	0	14
	75+	7.55	3.96	0	22
Asthma	All Ages	7.54	3.95	0	22
	0	0.15	0.40	0	3
	1-4	2.50	1.81	0	11
	5-14	1.72	1.55	0	9
	15-64	2.33	1.84	0	13
	65-74	0.41	0.68	0	5
	75+	0.42	0.68	0	4
COPD	All Ages	6.54	3.62	0	20
	0	0.00	0.05	0	1
	1-4	0.01	0.11	0	2
	5-14	0.01	0.10	0	1
	15-64	1.18	1.20	0	7
	65-74	2.18	1.68	0	9
	75+	3.16	2.19	0	13
Pneumonia + Acute Bronchitis	All Ages	8.89	5.51	0	33
	0	2.05	2.58	0	19
	1-4	1.21	1.38	0	9
	5-14	0.43	0.69	0	4
	15-64	1.98	1.59	0	10
	65-74	0.91	0.97	0	7
	75+	2.31	1.78	0	10
Influenza	All Ages	0.42	0.90	0	6
	0	0.09	0.32	0	3
	1-4	0.14	0.45	0	4
	5-14	0.06	0.28	0	4
	15-64	0.07	0.27	0	2
	65-74	0.02	0.13	0	1
	75+	0.04	0.20	0	2

Figure A3.1 Time series: Hospital admissions for respiratory disease, all ages, Perth, January 1998 – December 2001

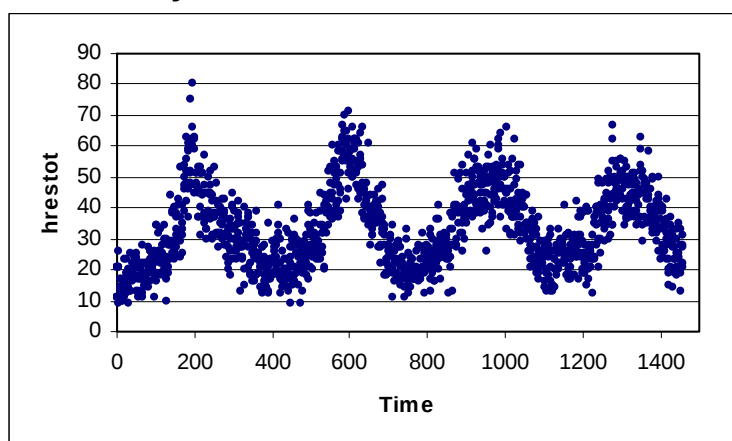
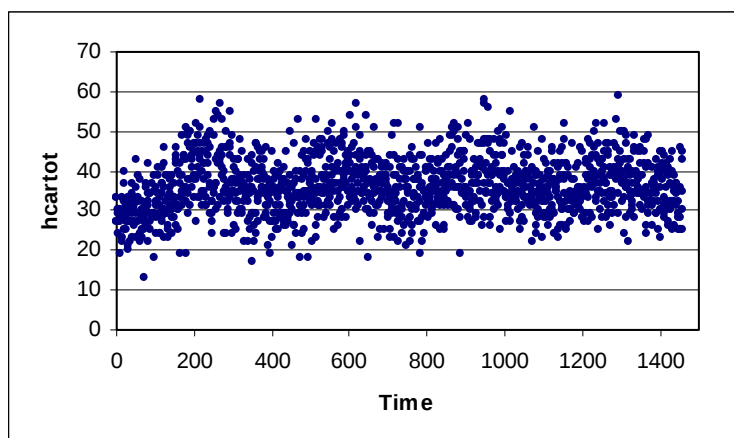


Table A3.2 Daily hospital *cardiovascular* admissions, Perth statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Cardiovascular	All Ages	35.97	7.14	13	59
	0	0.06	0.24	0	2
	1-4	0.04	0.21	0	2
	5-14	0.08	0.27	0	2
	15-64	10.54	3.38	1	23
	65-74	8.42	3.05	1	20
	75+	16.83	4.93	2	40
Cardiac	All Ages	26.41	5.91	8	47
	0	0.04	0.20	0	2
	1-4	0.02	0.14	0	2
	5-14	0.04	0.20	0	1
	15-64	8.01	2.96	0	19
	65-74	6.41	2.65	0	16
	75+	11.89	4.01	1	26
IHD	All Ages	13.51	3.78	3	26
	0	0.00	0.00	0	0
	1-4	0.00	0.00	0	0
	5-14	0.00	0.00	0	0
	15-64	4.57	2.18	0	12
	65-74	3.55	1.92	0	12
	75+	5.39	2.38	0	16
Stroke	All Ages	5.83	2.38	0	16
	0	0.01	0.09	0	1
	1-4	0.00	0.07	0	1
	5-14	0.01	0.12	0	1
	15-64	1.28	1.12	0	7
	65-74	1.30	1.18	0	7
	75+	3.23	1.84	0	11
Arrhythmia	All Ages	4.46	2.16	0	12
	0	0.03	0.17	0	2
	1-4	0.01	0.11	0	2
	5-14	0.02	0.13	0	1
	15-64	1.49	1.25	0	8
	65-74	1.12	1.06	0	6
	75+	1.79	1.33	0	7
Cardiac Failure	All Ages	5.60	2.86	0	17
	0	0.00	0.06	0	1
	1-4	0.00	0.04	0	1
	5-14	0.00	0.04	0	1
	15-64	0.67	0.83	0	5
	65-74	1.15	1.11	0	6
	75+	3.77	2.28	0	13
Myocardial Infarction	All Ages	5.02	2.36	0	15
	0-64	1.81	1.39	0	7
	65-74	1.21	1.12	0	6
	75+	2.00	1.47	0	8

Figure A3.36 Time series: Hospital admissions for cardiovascular disease, all ages, Perth, January 1998 – December 2001

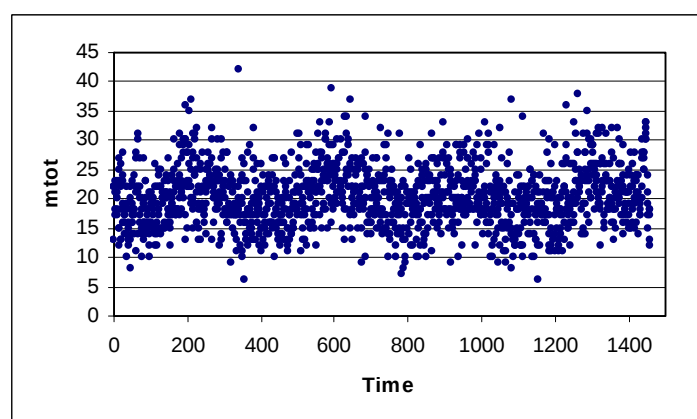


A4: Mortality

Table A4.1 Daily mortality, Perth statistical division, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total All Cause	All Ages	20.26	5.21	6	42
	0-14	0.26	0.50	0	4
	15-64	3.45	1.92	0	12
	65-74	3.94	2.08	0	12
	75+	12.62	3.94	2	29
Total Respiratory	All Ages	8.08	3.19	1	21
	0-14	0.01	0.07	0	1
	15-64	0.83	0.92	0	5
	65-74	1.27	1.16	0	7
	75+	5.98	2.65	0	19
Total Cardiovascular	All Ages	1.58	1.29	0	7
	0-14	0.01	0.11	0	1
	15-64	0.14	0.37	0	2
	65-74	0.32	0.57	0	3
	75+	1.11	1.09	0	6

Figure A4.1 Time series: Daily all cause mortality, all ages, Perth, January 1998 – December 2001



Appendix 1 continued

Appendix 1: Sydney Data Summary

EPHC

Air Pollution, Morbidity and Mortality Study

Sydney

Descriptive Statistics

A1	Pollutants
A2	Meteorology
A3	Morbidity
A4	Mortality

A1: Pollutants

Table A1.18 Mean daily pollutant concentrations (network average), Sydney Study Region, January 1998 – December 2001

Whole Study Period					
	N	Mean	SD	Min	Max
O₃ (ppb)					
8 hour	1461	24.85	10.88	1.42	86.76
4 hour	1461	28.90	12.43	2.17	105.05
1 hour	1461	31.72	14.44	3.15	126.68
NO₂ (ppb)					
24 hour	1461	11.46	4.08	2.48	24.51
1 hour	1461	22.62	7.01	5.22	51.43
bsp (10⁻⁴m⁻¹)					
24 hour	1461	0.25	0.22	0.04	3.44
1 hour	1461	0.56	0.59	0.09	9.99
PM₁₀ (µg/m³)					
24 hour	1461	16.62	7.00	3.74	104.65
1 hour	1461	34.73	20.74	9.32	493.13
PM_{2.5} (µg/m³)					
24 hour	1458	9.42	5.09	2.39	82.11
1 hour	1458	19.88	16.84	5.00	400.35
CO (ppm)					
8 hour	1461	0.76	0.62	0.02	4.51
1 hour	1461	1.39	0.97	0.03	6.21
SO₂ (ppb)					
24 hour	1461	0.92	0.54	0.03	3.88
1 hour	1461	3.66	2.23	0.13	20.24

Table A1.19 Network average correlation coefficients, Sydney Study Region, January 1998 – December 2001*

	4 hr O ₃	1 hr O ₃	24 hr NO ₂	1 hr NO ₂	24 hr bsp	1 hr bsp	24 hr PM ₁₀
8 hr O ₃	0.99	0.97	-0.08 ^b	0.15	0.18	0.17	0.45
4 hr O ₃		0.99	0.00 ^{ns}	0.21	0.24	0.22	0.50
1 hr O ₃			0.02 ^{ns}	0.21	0.28	0.26	0.52
24 hr NO ₂				0.91	0.39	0.34	0.29
1 hr NO ₂					0.36	0.33	0.35
24 hr bsp						0.96	0.76
1 hr bsp							0.69
24 hr PM ₁₀							
1 hr PM ₁₀							
24 hr PM _{2.5}							
1 hr PM _{2.5}							
8 hr CO							
1 hr CO							
24 hr SO ₂							

	1 hr PM ₁₀	24hr PM _{2.5}	1 hr PM _{2.5}	8 hr CO	1hr CO	24 hr SO ₂	1 hr SO ₂
8 hr O ₃	0.40	0.30	0.26	-0.33	-0.32	0.16	0.25
4 hr O ₃	0.45	0.35	0.31	-0.25	-0.24	0.22	0.30
1 hr O ₃	0.49	0.38	0.34	-0.21	-0.21	0.25	0.32
24 hr NO ₂	0.24	0.45	0.28	0.70	0.72	0.58	0.47
1 hr NO ₂	0.32	0.47	0.31	0.58	0.62	0.54	0.46
24 hr bsp	0.76	0.93	0.84	0.40	0.39	0.29	0.25
1 hr bsp	0.79	0.89	0.90	0.37	0.38	0.24	0.20
24 hr PM ₁₀	0.87	0.86	0.73	0.22	0.21	0.31	0.29
1 hr PM ₁₀		0.84	0.89	0.24	0.25	0.24	0.21
24 hr PM _{2.5}			0.89	0.40	0.40	0.35	0.38
1 hr PM _{2.5}				0.31	0.33	0.21	0.18
8 hr CO					0.96	0.41	0.24
8 hr CO						0.41	0.25
24 hr SO ₂							0.82

* all coefficients significant at p=0.0001 unless indicated

^a significant at p<0.05

^b significant at p<0.01

^c significant at p<0.001

^{ns} not significant

Figure A1.1 Time series: 24-hour bsp (network average), Sydney, January 1998 – December 2001

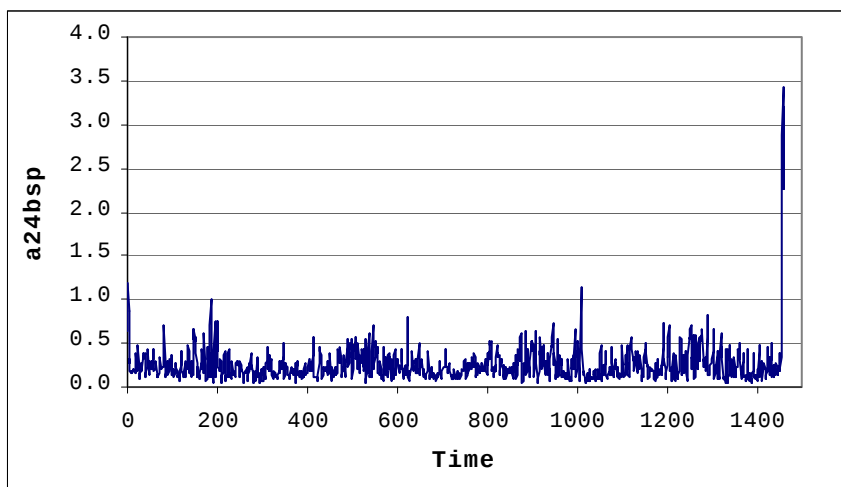


Figure A1.2 Time series: 1-hour bsp (network average), Sydney, January 1998 – December 2001

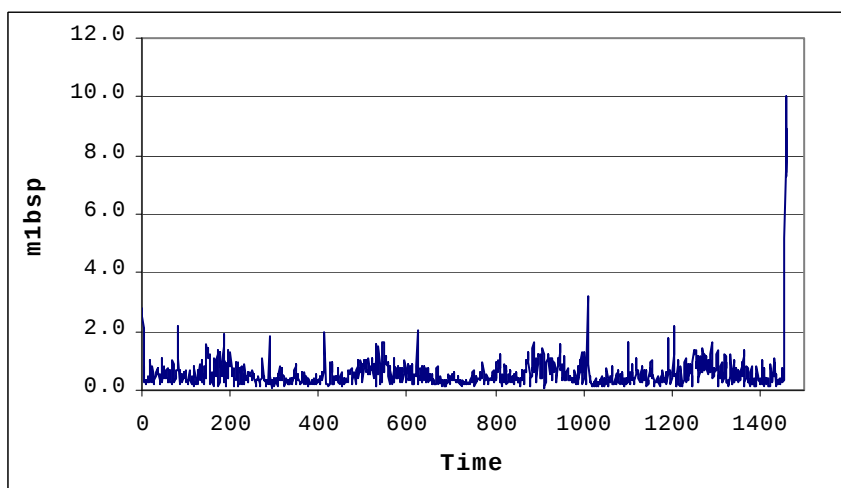
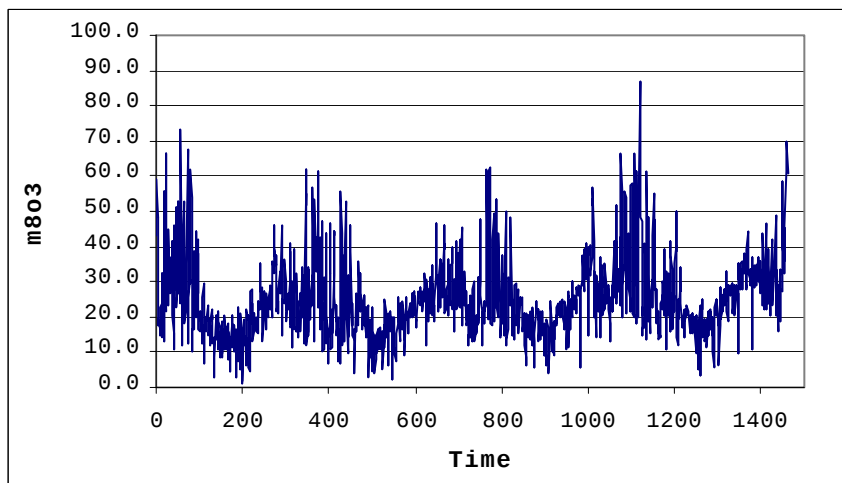
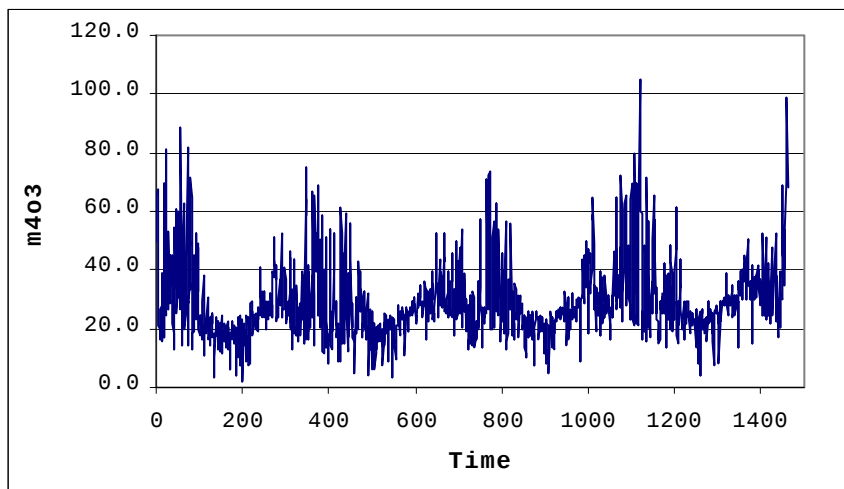


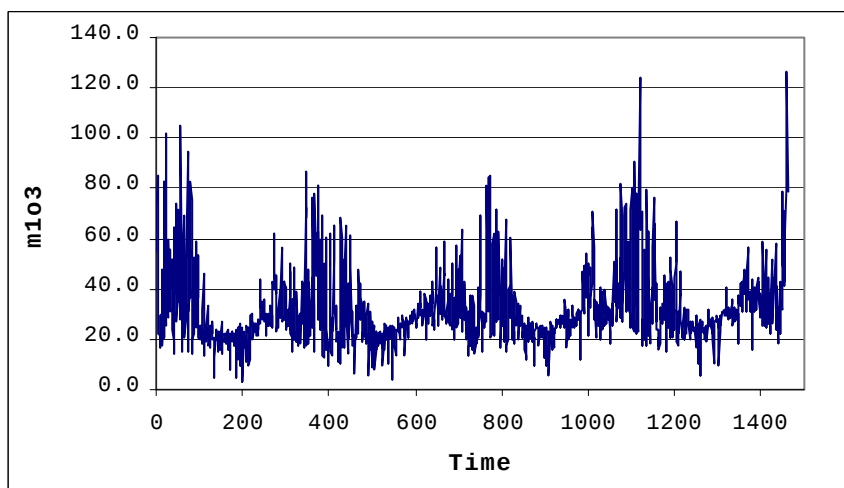
Figure A1.3 Time series: 8-hour ozone (network average), Sydney, January 1998 – December 2001



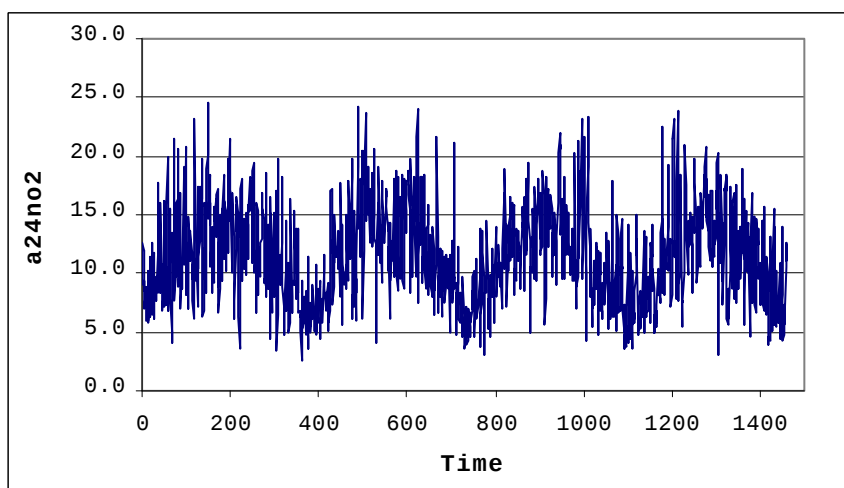
**Figure A1.4 Time series: 4-hour ozone (network average),
Sydney, January 1998 – December 2001**



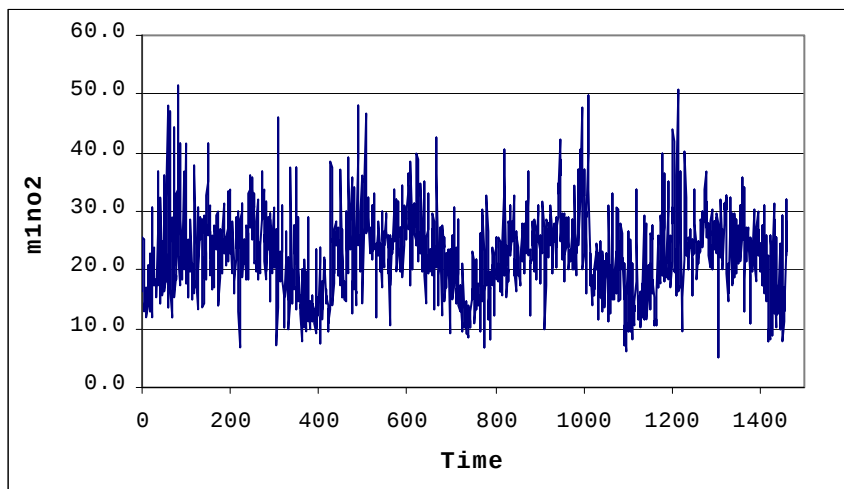
**Figure A1.5 Time series: 1-hour ozone (network average),
Sydney, January 1998 – December 2001**



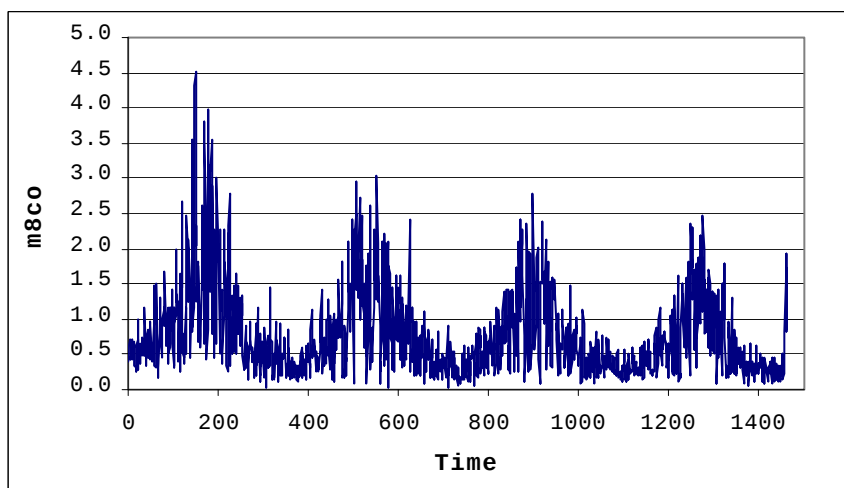
**Figure A1.6 Time series: 24-hour nitrogen dioxide (network average),
Sydney, January 1998 – December 2001**



**Figure A1.7 Time series: 1-hour nitrogen dioxide (network average),
Sydney, January 1998 – December 2001**



**Figure A1.8 Time series: 8-hour carbon monoxide (network average),
Sydney, January 1998 – December 2001**



**Figure A1.9 Time series: 1-hour carbon monoxide (network average),
Sydney, January 1998 – December 2001**

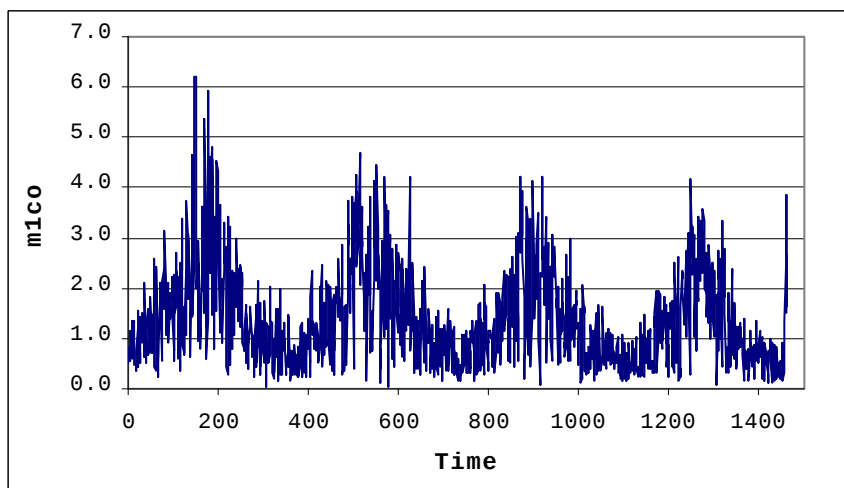


Figure A1.12 Time series: 24-hour PM₁₀ (network average), Sydney, January 1998 – December 2001

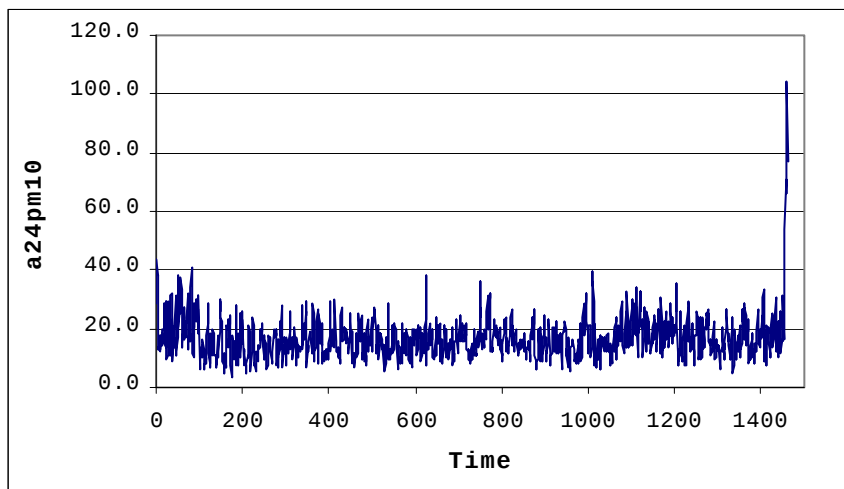


Figure A1.13 Time series: 1-hour PM₁₀ (network average), Sydney, January 1998 – December 2001

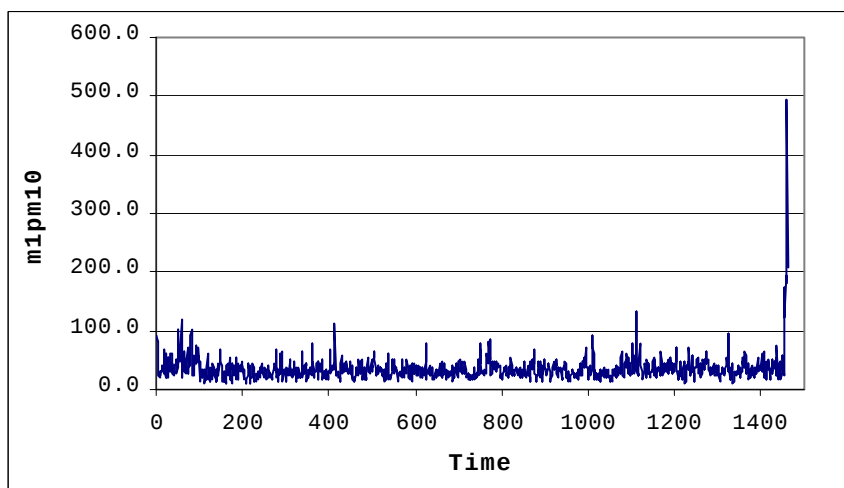


Figure A1.14 Time series: 24-hour PM_{2.5} (network average), Sydney, January 1998 – December 2001

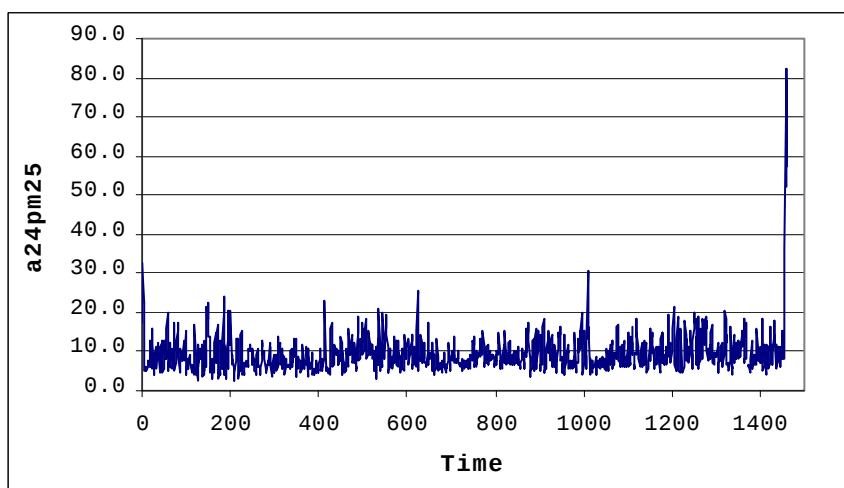


Figure A1.15 Time series: 1-hour PM_{2.5} (network average), Sydney, January 1998 – December 2001

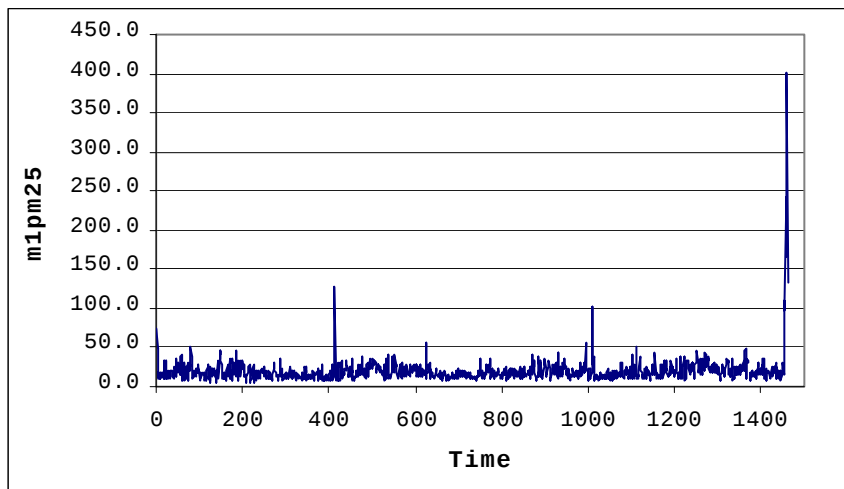


Figure A1.16 Time series: 24-hour SO₂ (network average), Sydney, January 1998 – December 2001

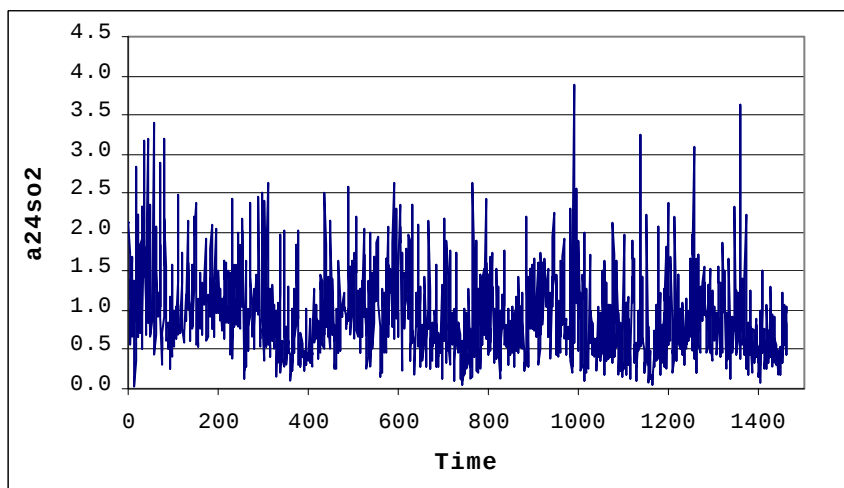
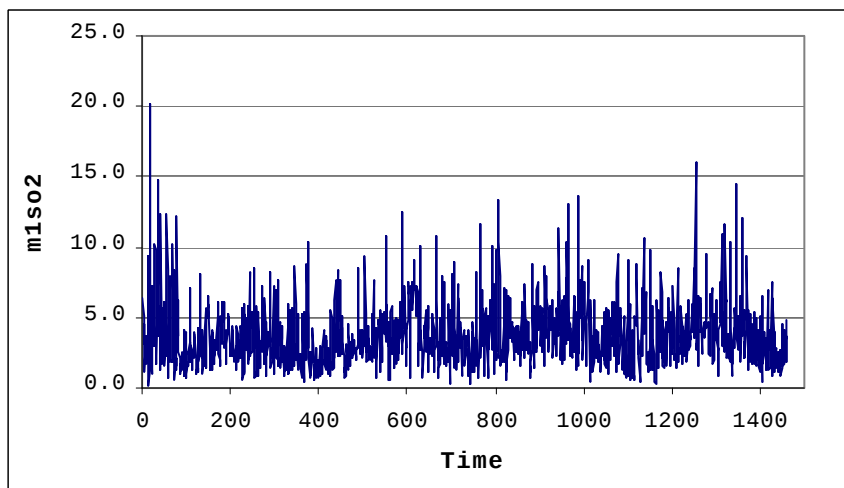


Figure A1.17 Time series: 1-hour SO₂ (network average), Sydney, January 1998 – December 2001



A2: Meteorology

Table A2.1 Meteorology variables, Sydney Study Region, January 1998 – December 2001

	N	Mean	SD	Min	Max
Av Temp (°C)	1461	17.75	4.47	8.47	30.11
Min Temp (°C)	1461	13.84	4.76	3.25	23.70
Max Temp (°C)	1461	21.94	4.83	12.20	38.10
Av Apparent Temp (°C)	1461	17.54	5.96	5.96	31.68
Min Apparent Temp (°C)	1461	13.42	6.38	0.58	28.15
Max Apparent Temp (°C)	1461	21.58	5.93	9.58	40.15
Av Dewpoint Temp (°C)	1461	11.72	4.99	-2.11	22.52
Min Dewpoint Temp (°C)	1461	9.32	5.56	-10.15	21.40
Max Dewpoint Temp (°C)	1461	13.98	4.64	0.35	23.45
Av Pressure (hPa)	1461	1016.57	6.75	996.31	1036.77
Min Pressure (hPa)	1461	1014.09	7.23	991.95	1035.45
Max pressure (hPa)	1461	1019.12	6.41	1000.40	1038.50
Av Relative Humidity (%)	1461	70.59	11.42	26.31	97.13
Min Relative Humidity (%)	1461	51.14	15.43	6.50	95.50
Max Relative Humidity (%)	1461	87.99	8.32	38.50	100.00
Total Daily Rainfall (mm)	1461	2.71	8.61	0	137.10

A3: Hospital Admissions

Table A3.1 Daily hospital *respiratory* admissions, Sydney Study Region, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Respiratory	All Ages	93.00	26.17	39	188
	0	8.56	5.71	0	38
	1-4	18.05	7.20	1	53
	5-14	8.48	4.65	0	34
	15-64	25.67	7.53	8	59
	65-74	12.16	4.91	1	35
	75+	20.08	8.25	4	57
Asthma	All Ages	23.49	9.88	4	78
	0	0.45	0.71	0	6
	1-4	7.50	4.71	0	41
	5-14	4.95	3.83	0	33
	15-64	8.20	3.88	0	29
	65-74	1.19	1.18	0	8
	75+	1.19	1.19	0	8
COPD	All Ages	17.71	7.25	2	45
	0	0	0.06	0	1
	1-4	0.02	0.12	0	1
	5-14	0.01	0.10	0	1
	15-64	4.09	2.44	0	18
	65-74	6.06	3.12	0	22
	75+	7.52	3.90	0	22
Pneumonia + Acute Bronchitis	All Ages	26.98	12.56	5	78
	0	5.76	4.97	0	32
	1-4	4.08	3.09	0	20
	5-14	1.35	1.30	0	10
	15-64	5.62	2.91	0	18
	65-74	3.04	1.96	0	12
	75+	7.13	3.78	0	22
Influenza	All Ages	0.70	1.18	0	9
	0	0.20	0.49	0	3
	1-4	0.17	0.51	0	4
	5-14	0.05	0.22	0	2
	15-64	0.22	0.53	0	5
	65-74	0.03	0.18	0	2
	75+	0.03	0.19	0	2

Figure A3.1 Time series: Hospital admissions for respiratory disease, all ages, Sydney, January 1998 – December 2001

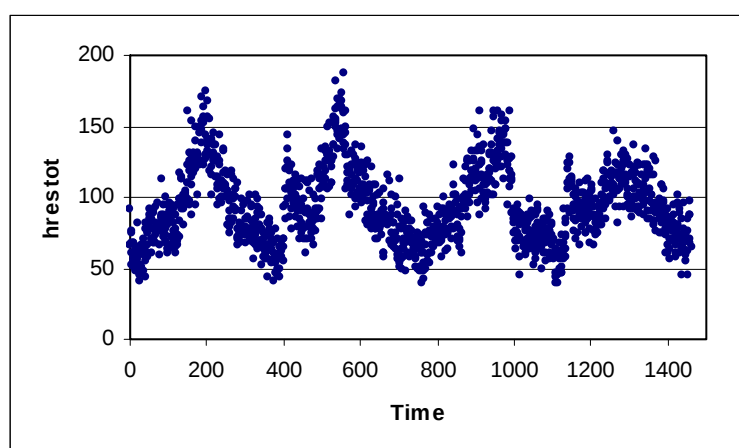
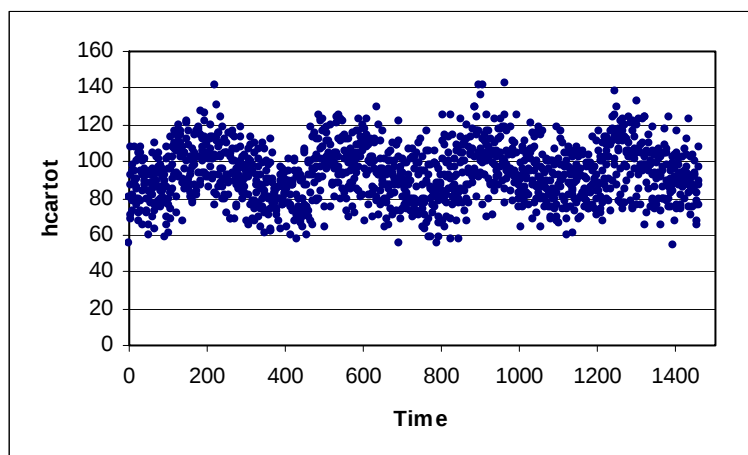


Table A3.2 Daily hospital *cardiovascular* admissions, Sydney Study Region, January 1998 – December 2001

Health Outcome	Age Group	Mean	SD	Min	Max
Total Cardiovascular	All Ages	93.21	15.14	54	143
	0	0.10	0.31	0	3
	1-4	0.14	0.37	0	2
	5-14	0.20	0.46	0	3
	15-64	30.85	6.57	12	54
	65-74	22.28	5.59	5	42
	75+	39.64	8.87	13	71
Cardiac	All Ages	68.18	12.00	37	104
	0	0.07	0.27	0	2
	1-4	0.05	0.23	0	2
	5-14	0.13	0.37	0	3
	15-64	23.51	5.49	9	45
	65-74	16.56	4.67	3	34
	75+	27.85	7.05	10	51
IHD	All Ages	32.16	6.38	15	56
	0	0	0	0	0
	1-4	0	0	0	0
	5-14	0	0.03	0	1
	15-64	12.47	3.78	1	26
	65-74	8.26	3.03	0	21
	75+	11.42	3.63	2	25
Stroke	All Ages	16.38	4.46	4	34
	0	0.01	0.08	0	1
	1-4	0.01	0.10	0	1
	5-14	0.03	0.17	0	2
	15-64	3.97	2.09	0	11
	65-74	3.93	2.05	0	12
	75+	8.43	3.20	0	20
Arrhythmia	All Ages	12.60	3.91	3	27
	0	0.03	0.17	0	1
	1-4	0.03	0.18	0	1
	5-14	0.05	0.23	0	2
	15-64	4.78	2.26	0	15
	65-74	3.13	1.78	0	10
	75+	4.57	2.30	0	16
Cardiac Failure	All Ages	13.49	5.19	2	38
	0	0.03	0.16	0	2
	1-4	0	0.06	0	1
	5-14	0.01	0.09	0	1
	15-64	1.68	1.37	0	8
	65-74	3.10	1.95	0	12
	75+	8.67	3.90	0	27
Myocardial Infarction	All Ages	11.23	3.60	2	24
	0	0	0	0	0
	1-4	0	0	0	0
	5-14	0	0.03	0	1
	15-64	4.45	2.16	0	11
	65-74	2.67	1.66	0	10
	75+	4.11	2.14	0	13

Figure A3.36 Time series: Hospital admissions for cardiovascular disease, all ages, Sydney, January 1998 – December 2001



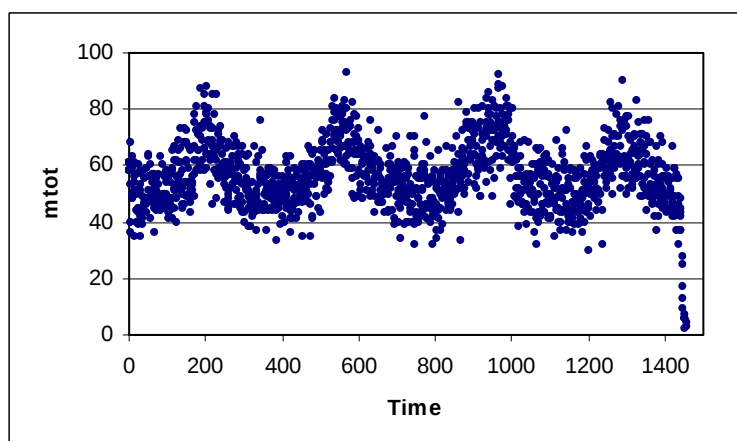
A4: Mortality

Table A4.1 Daily mortality, Sydney Study Region, January 1998 – October 2001 *

Health Outcome	Age Group	Mean	SD	Min	Max
Total All Cause	All Ages	56.78	10.57	30	93
	0-14	0.83	0.94	0	6
	15-64	9.65	3.14	2	19
	65-74	10.71	3.47	0	27
	75+	35.59	8.43	15	65
Total Respiratory	All Ages	5.19	2.89	0	18
	0-14	0.03	0.17	0	1
	15-64	0.44	0.68	0	6
	65-74	1.01	1.05	0	6
	75+	3.71	2.37	0	15
Total Cardiovascular	All Ages	24.66	6.28	8	49
	0-14	0.03	0.16	0	1
	15-64	2.52	1.60	0	9
	65-74	3.81	2.01	0	14
	75+	18.30	5.41	6	40

* Dates - 1 Jan 1998 – 31 Oct 2001 (1400 Observations)

Figure A4.1 Time series: Daily all cause mortality, all ages, Sydney, January 1998 – December 2001



Appendix 2: Diurnal Plots for air pollutants

Given below are the diurnal (daily) patterns of the pollutants in each city.

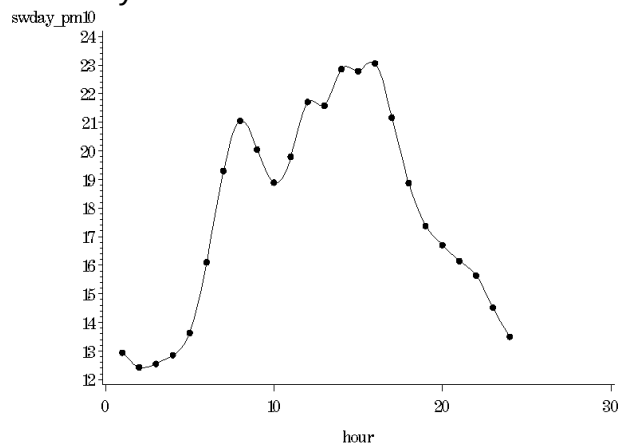
Summer/winter and weekday/weekend patterns are shown.

Note: Plots for Melbourne are unavailable, hourly data was not supplied.

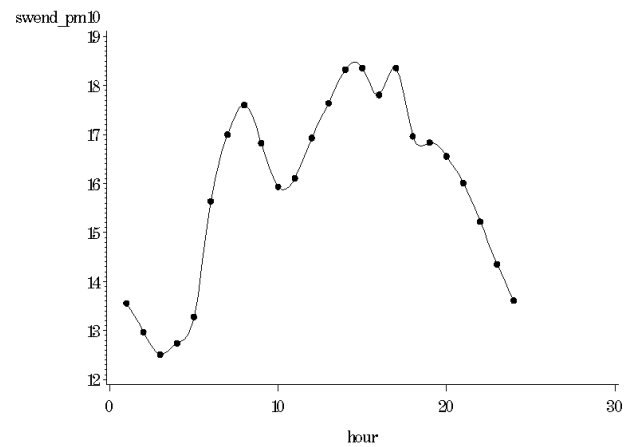
PM₁₀

Brisbane

Summer
Weekday

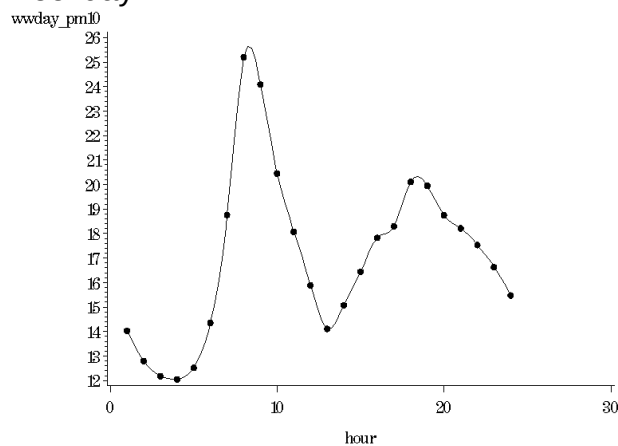


Weekend

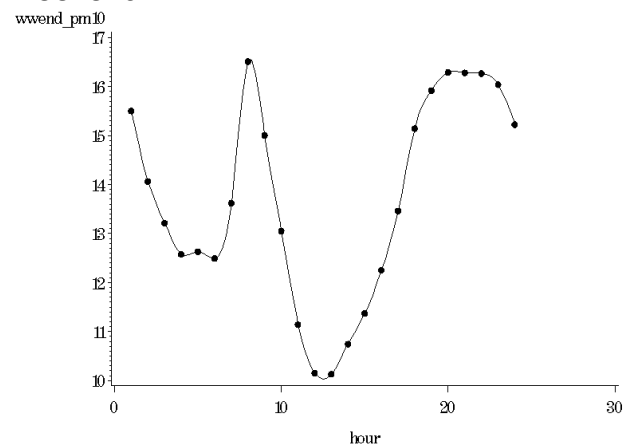


Winter

Weekday



Weekend

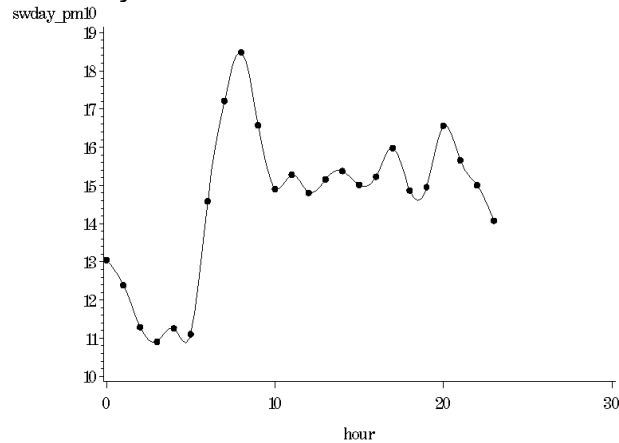


PM₁₀

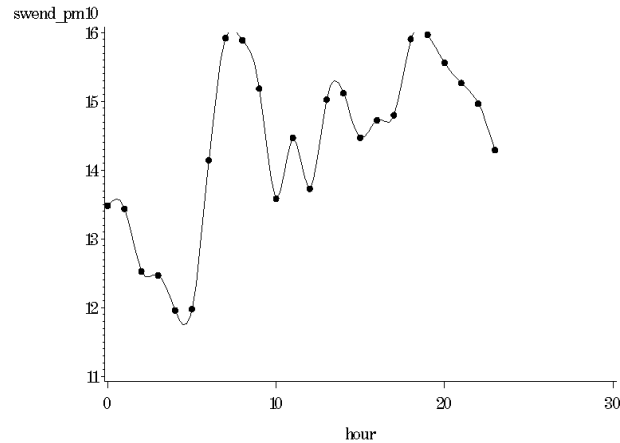
Christchurch

Summer

Weekday

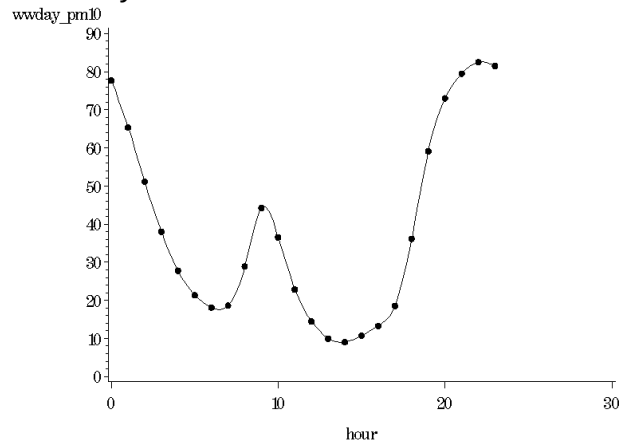


Weekend

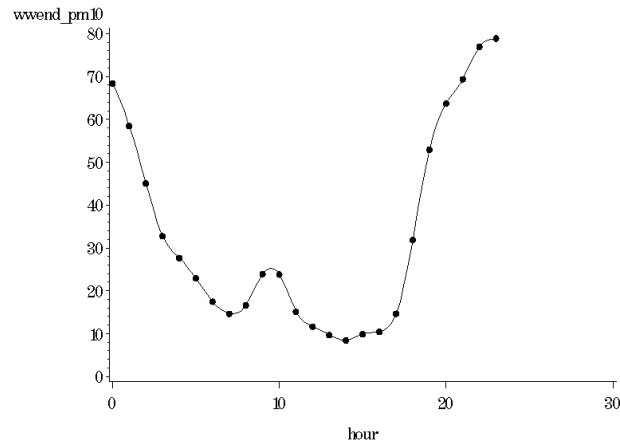


Winter

Weekday

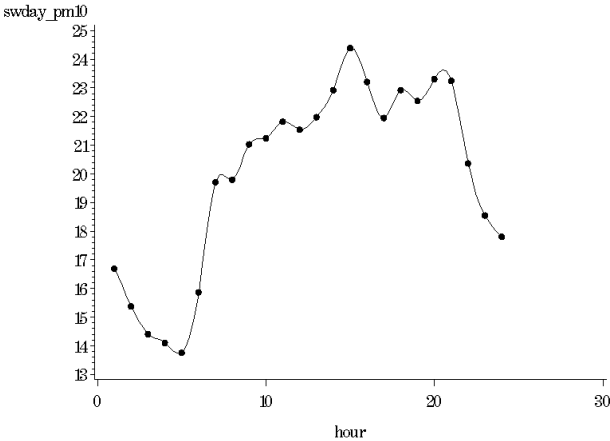


Weekend

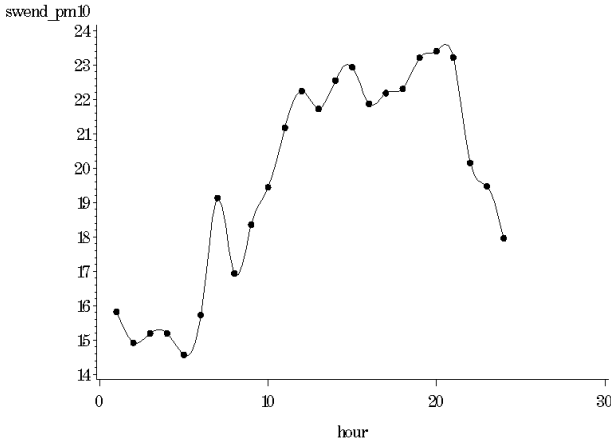


PM₁₀

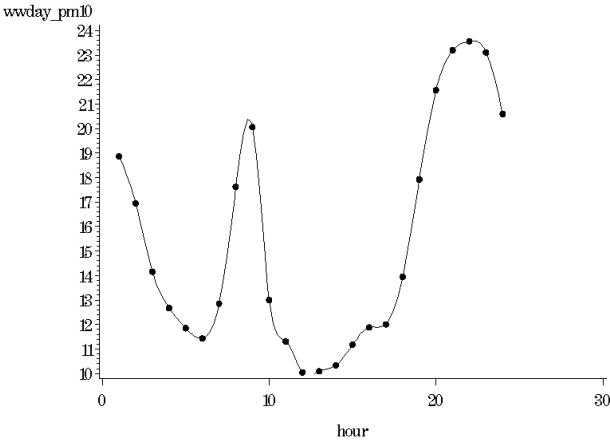
Perth
Summer
Weekday



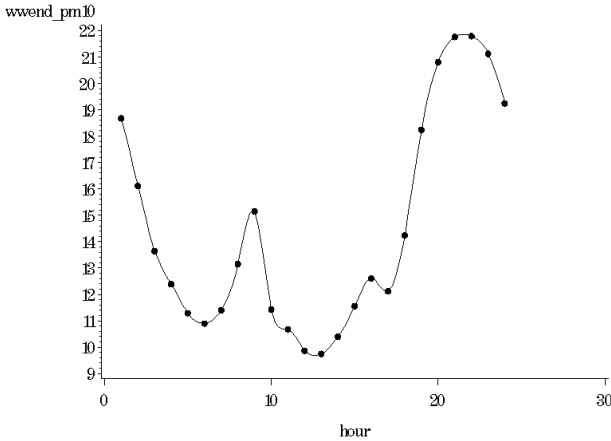
Weekend



Winter
Weekday

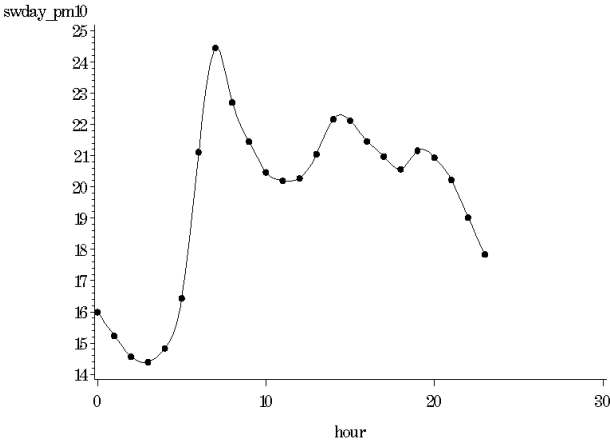


Weekend

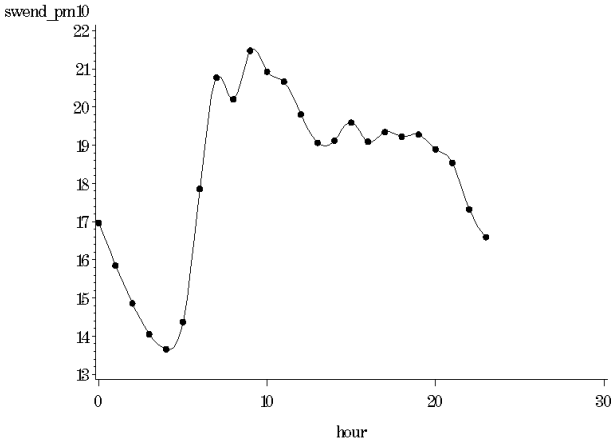


PM₁₀

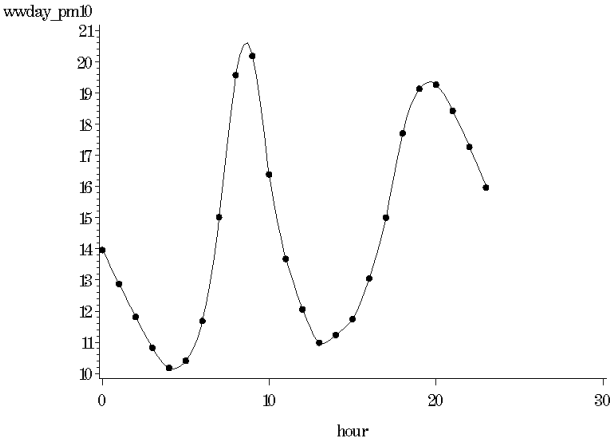
Sydney
Summer
Weekday



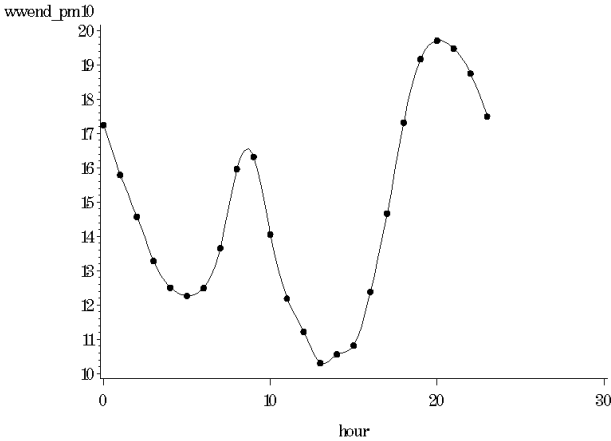
Weekend



Winter
Weekday



Weekend

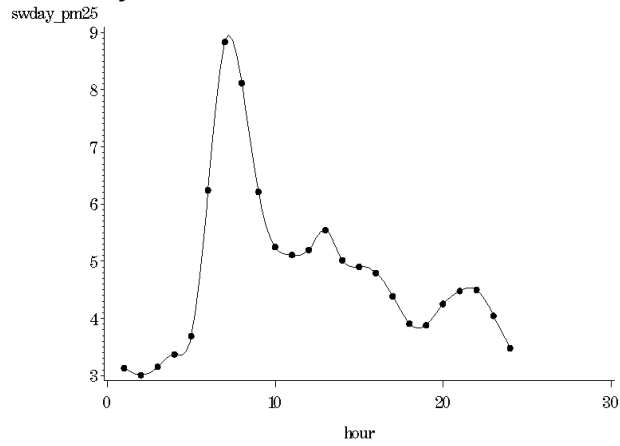


PM_{2.5}

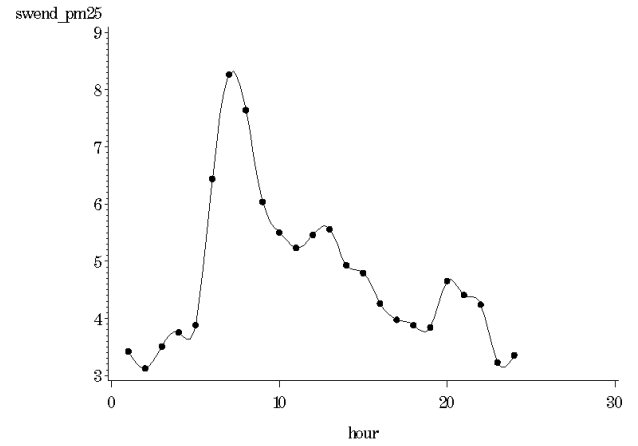
Brisbane

Summer

Weekday

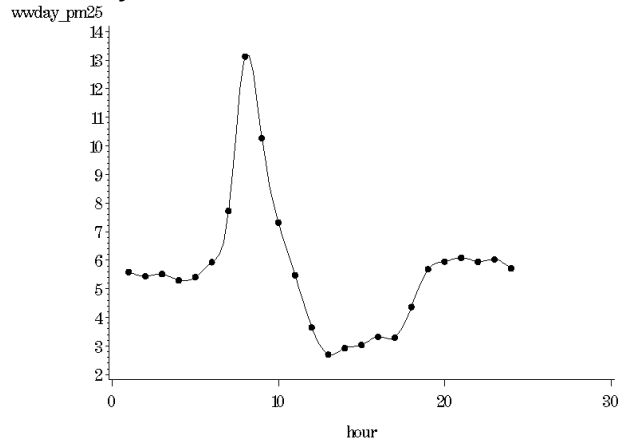


Weekend

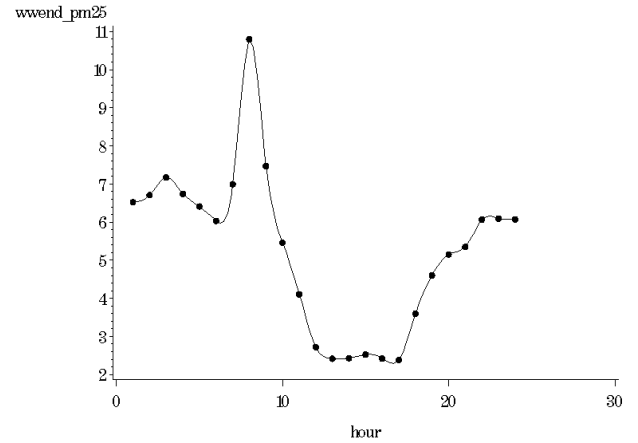


Winter

Weekday

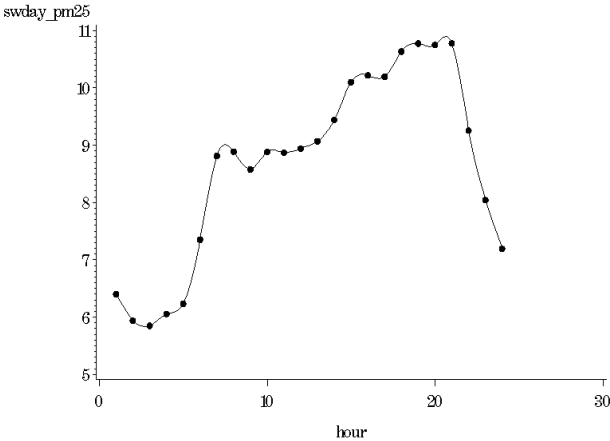


Weekend

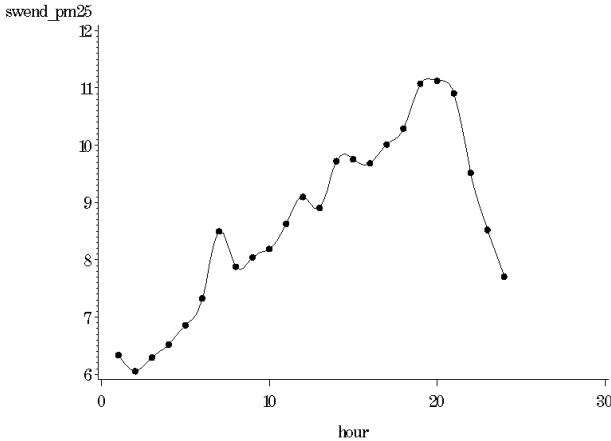


PM_{2.5}

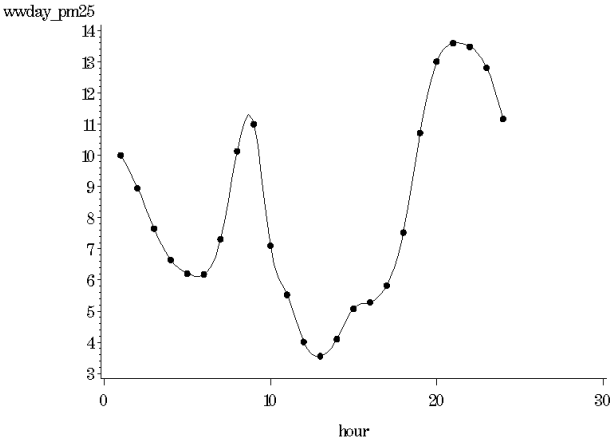
Perth
Summer
Weekday



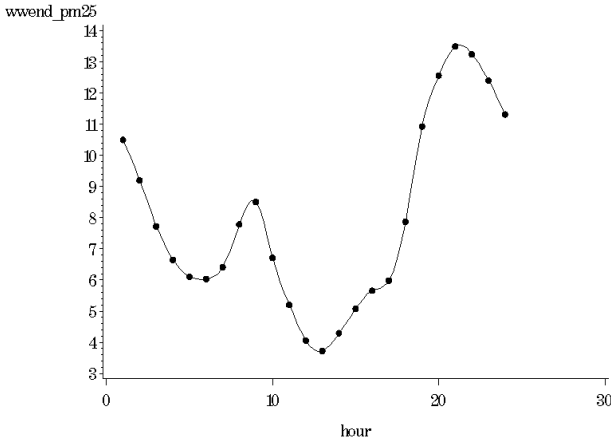
Weekend



Winter
Weekday

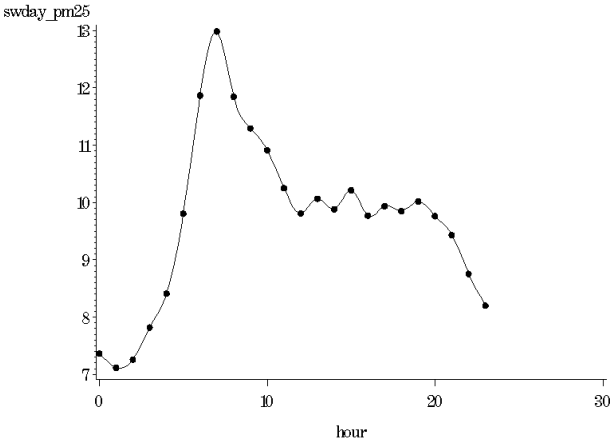


Weekend

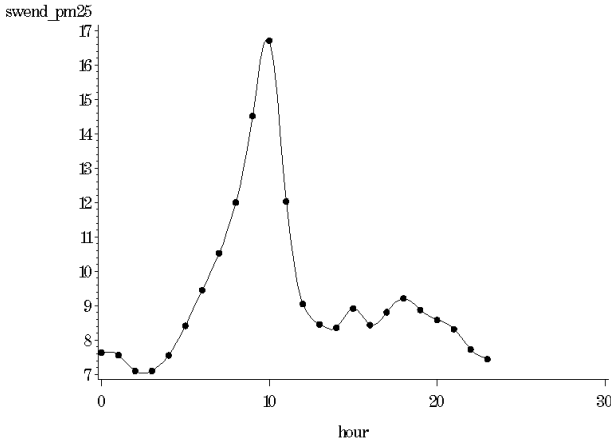


PM_{2.5}

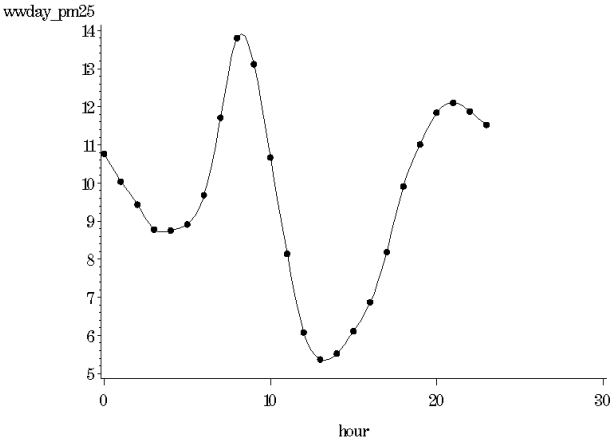
Sydney
Summer
Weekday



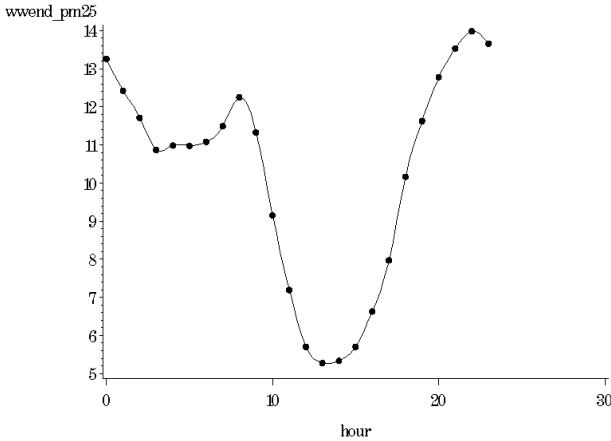
Weekend



Winter
Weekday

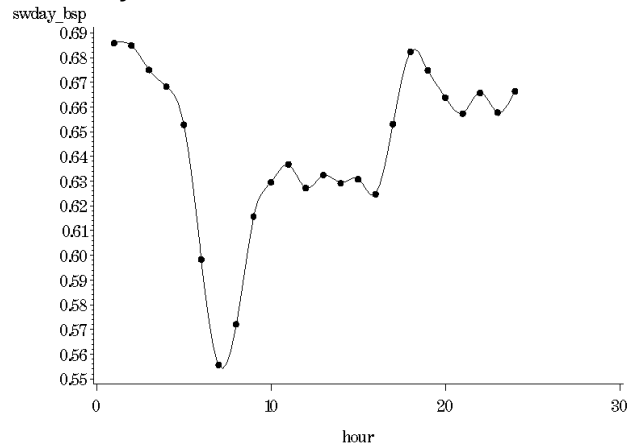


Weekend

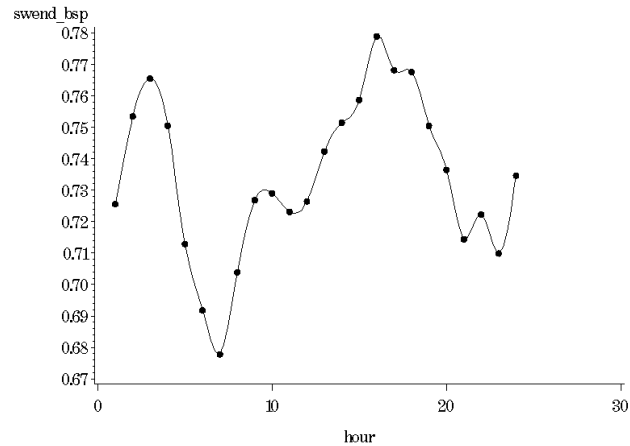


Bsp

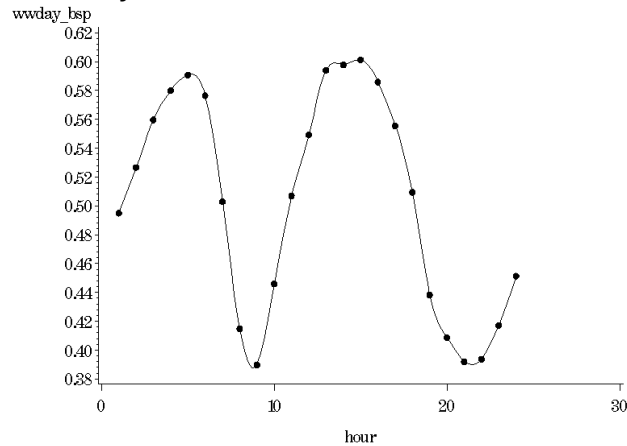
Auckland
Summer
Weekday



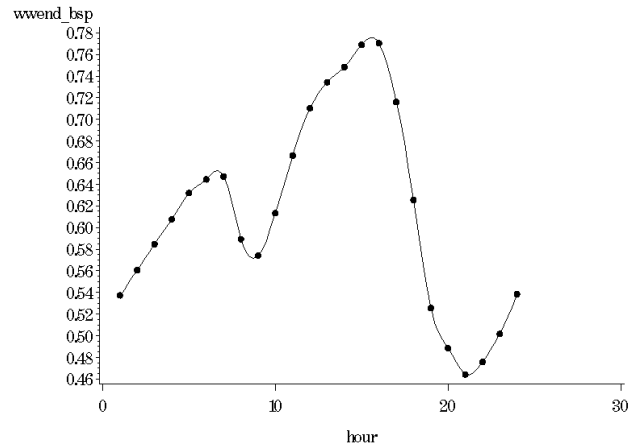
Weekend



Winter
Weekday

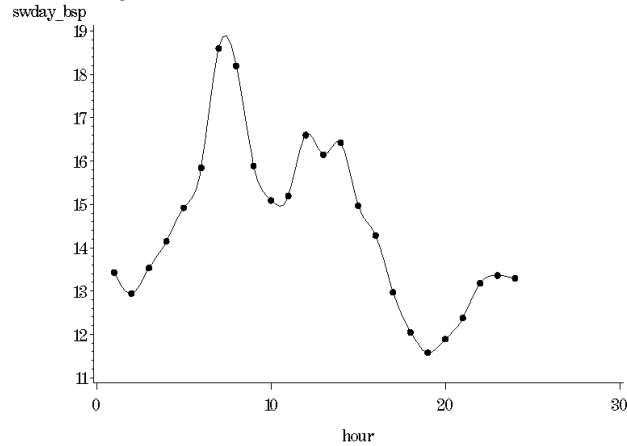


Weekend

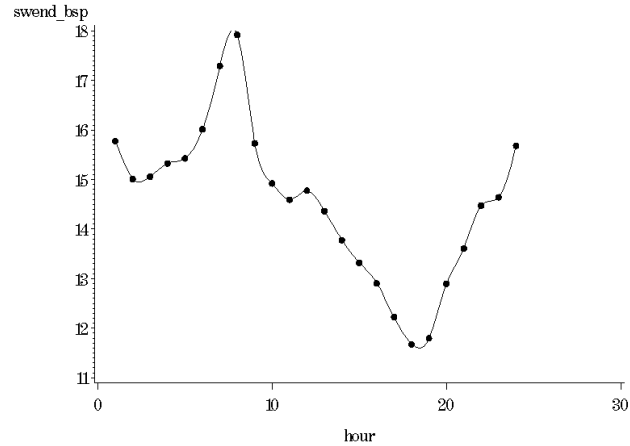


bsp

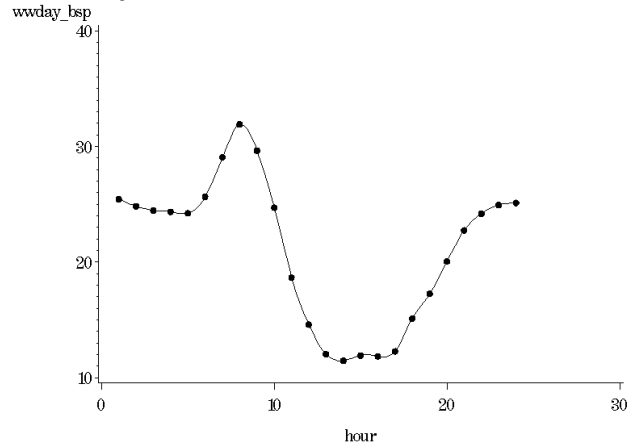
Brisbane
Summer
Weekday



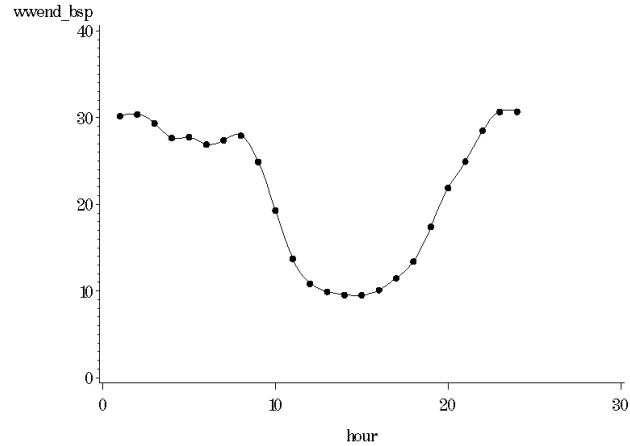
Weekend



Winter
Weekday

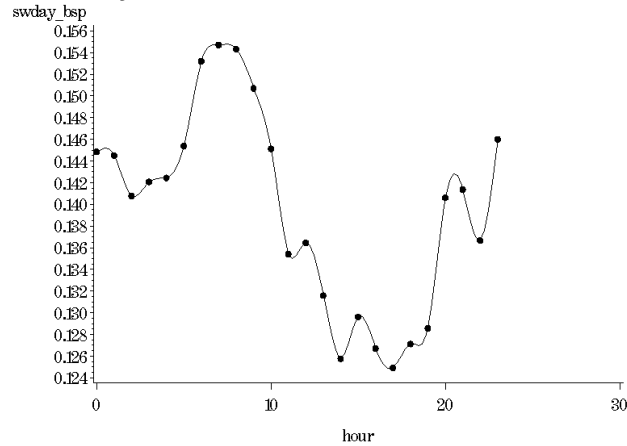


Weekend

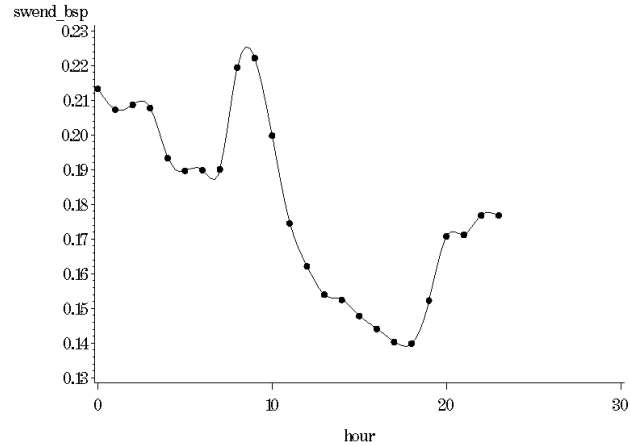


bsp

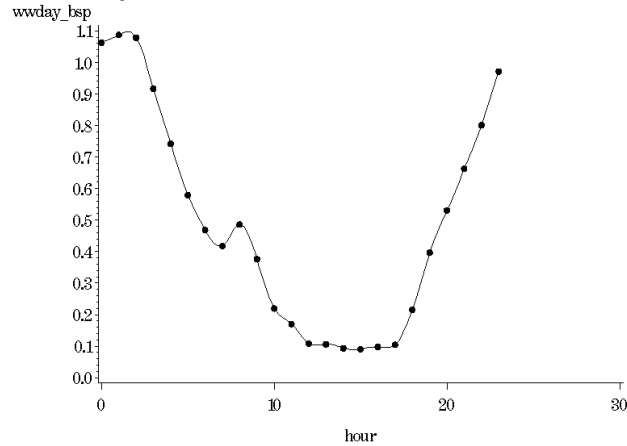
Canberra
Summer
Weekday



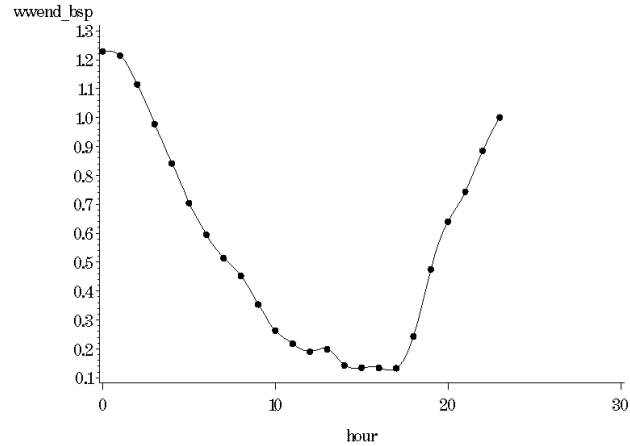
Weekend



Winter
Weekday

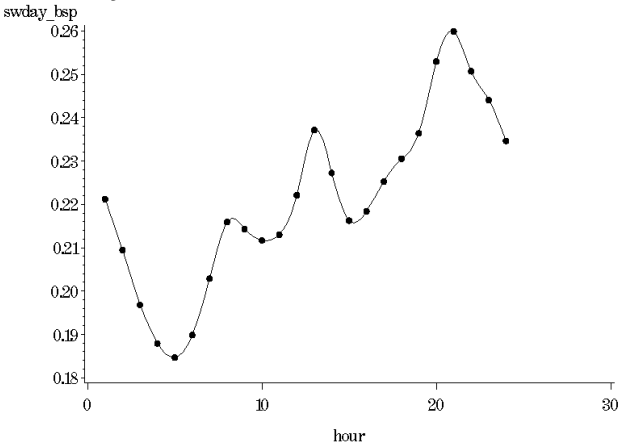


Weekend

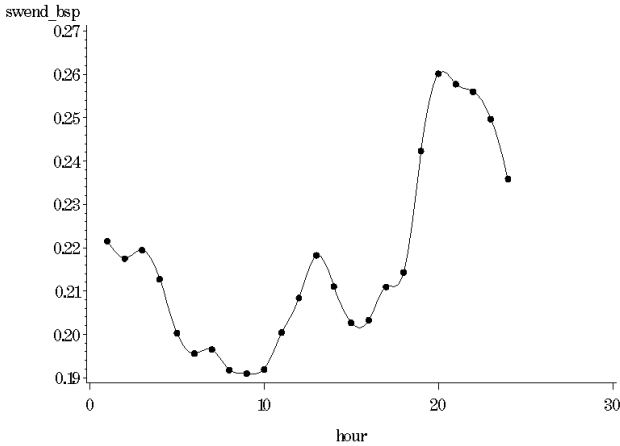


bsp

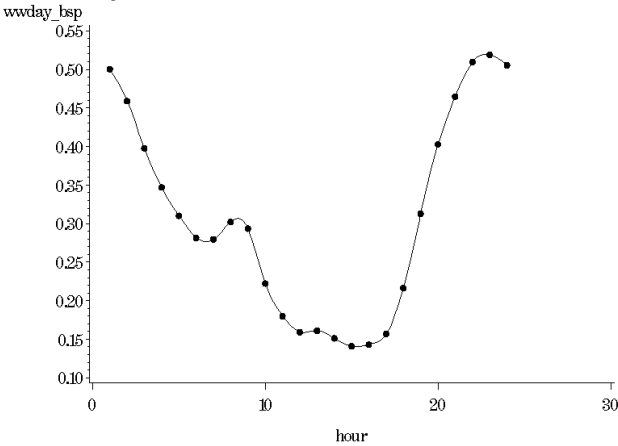
Perth
Summer
Weekday



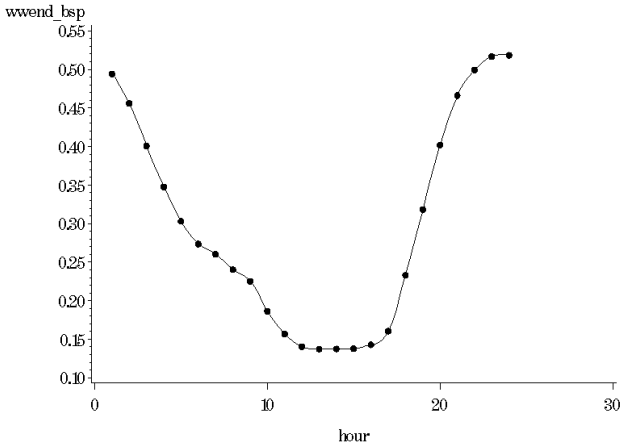
Weekend



Winter
Weekday

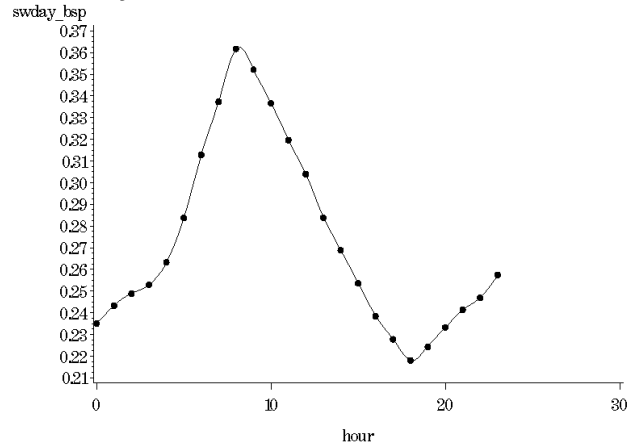


Weekend

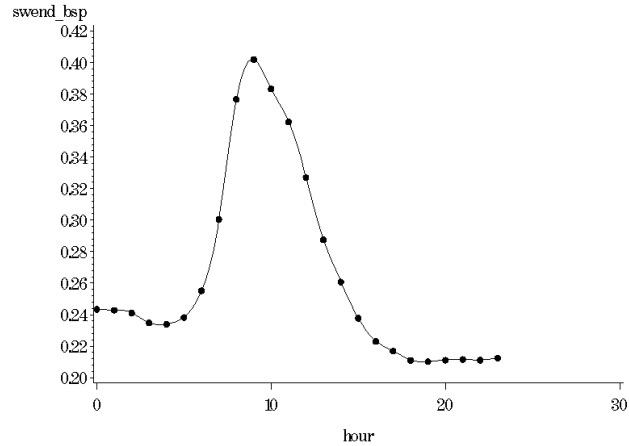


bsp

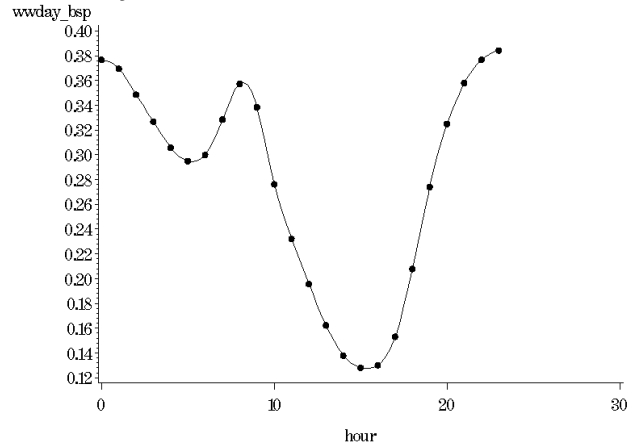
Sydney
Summer
Weekday



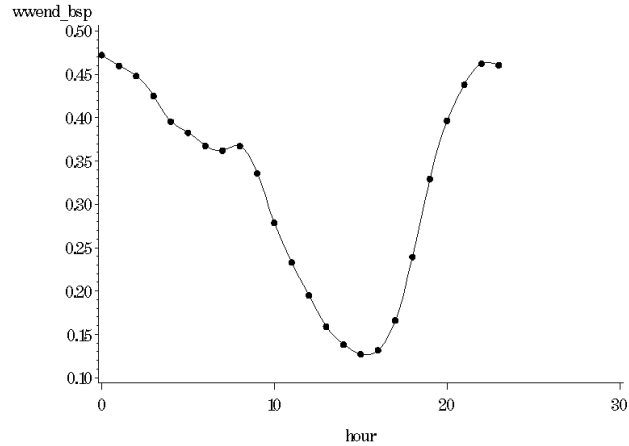
Weekend



Winter
Weekday

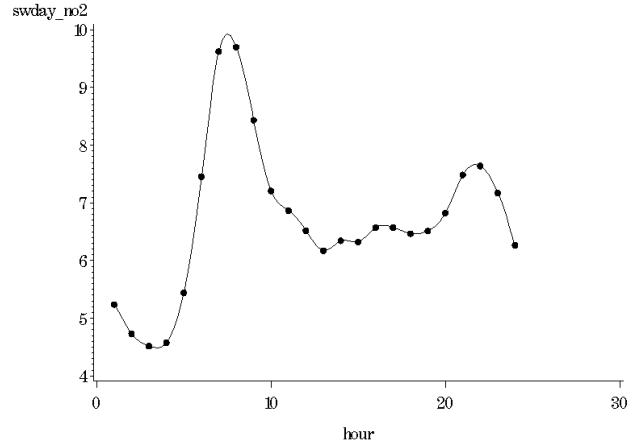


Weekend

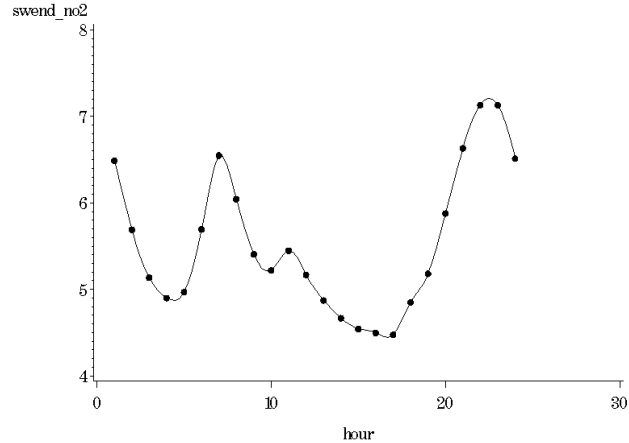


NO₂

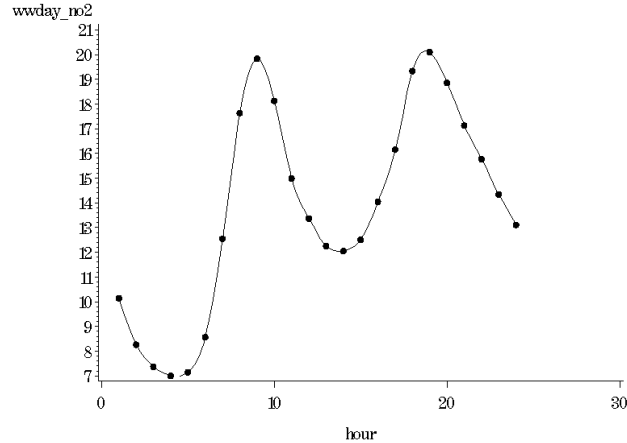
Auckland
Summer
Weekday



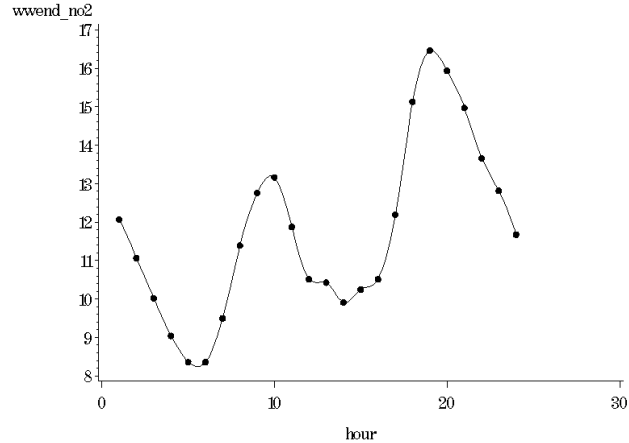
Weekend



Winter
Weekday

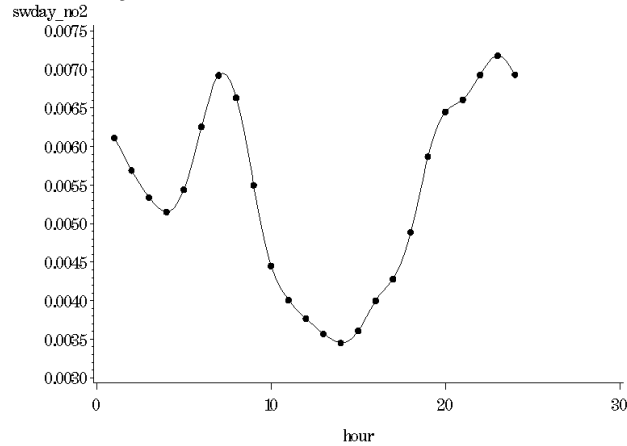


Weekend

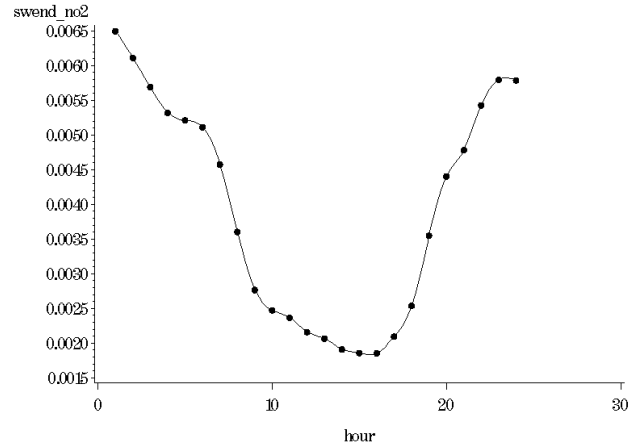


NO₂

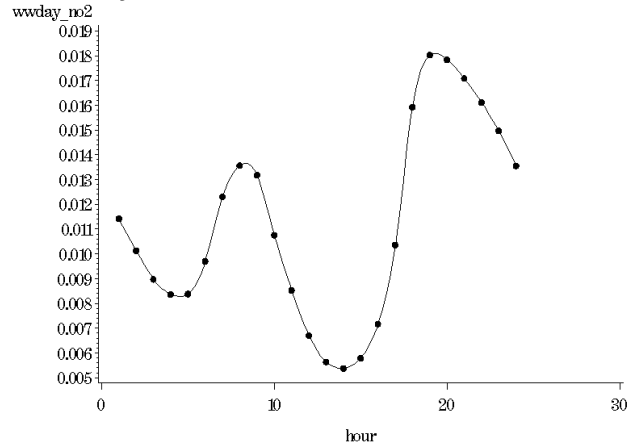
Brisbane
Summer
Weekday



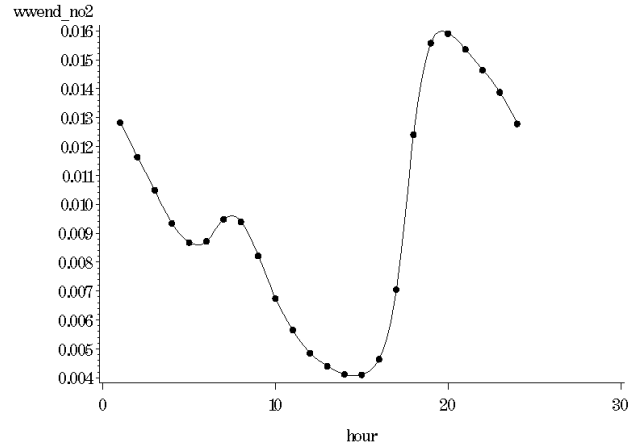
Weekend



Winter
Weekday



Weekend

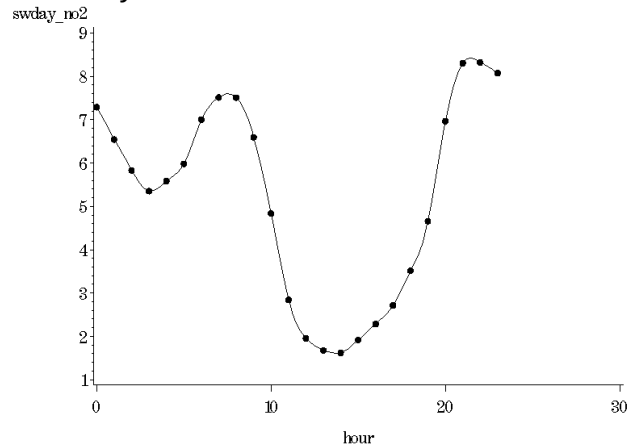


NO₂

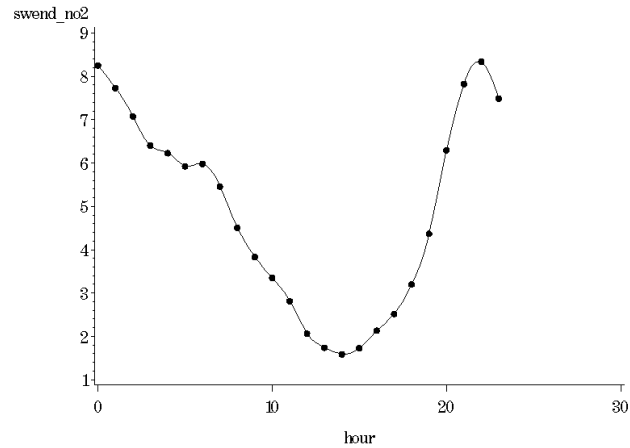
Canberra

Summer

Weekday

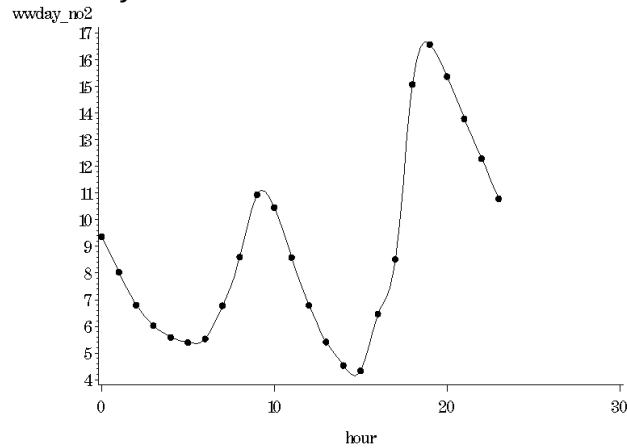


Weekend

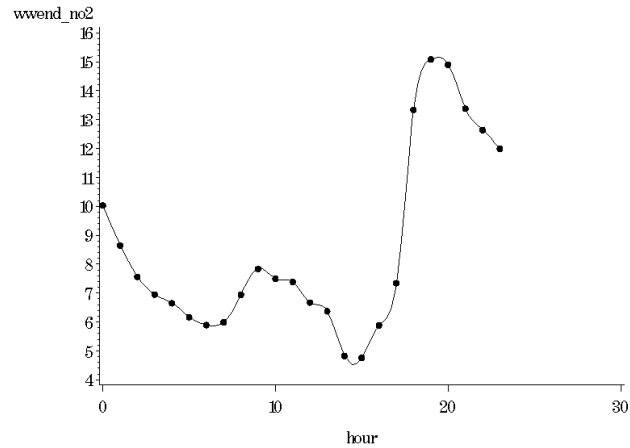


Winter

Weekday



Weekend

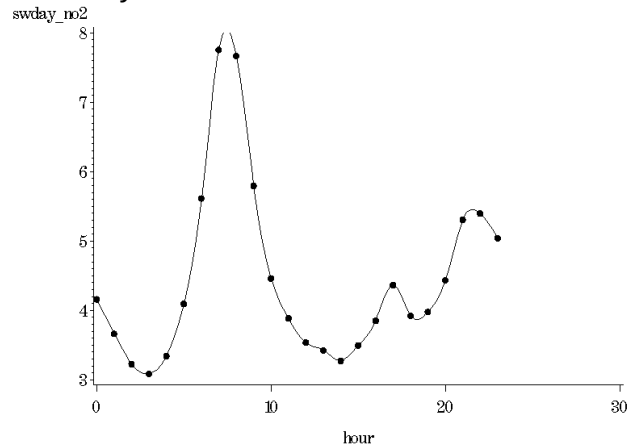


NO₂

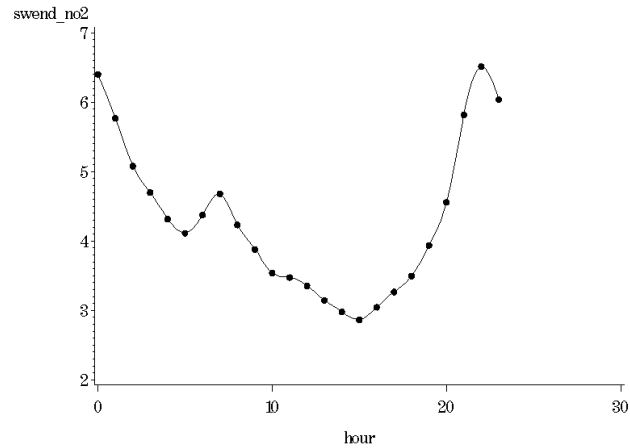
Christchurch

Summer

Weekday

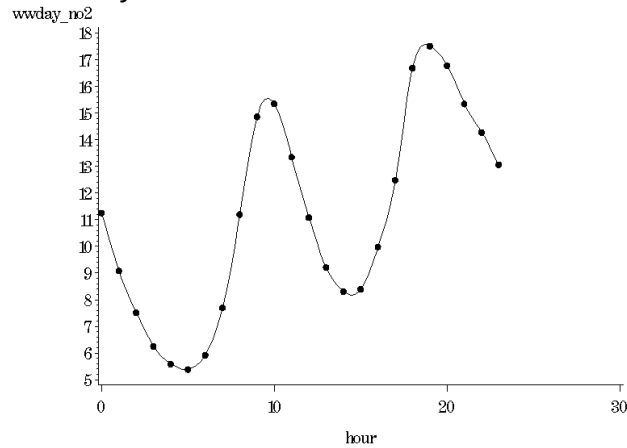


Weekend

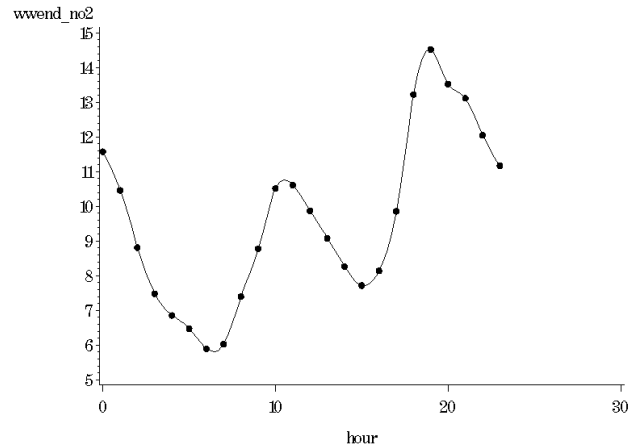


Winter

Weekday

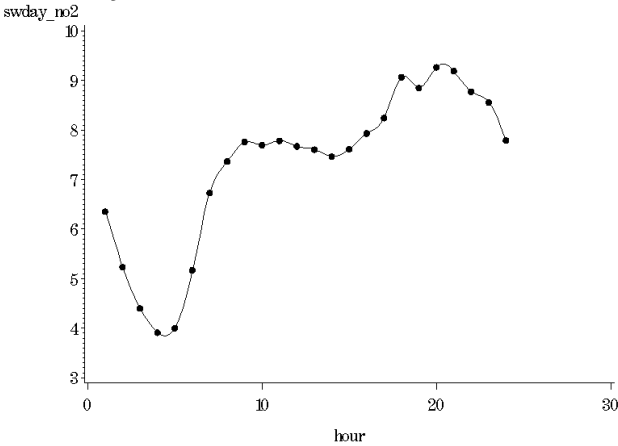


Weekend

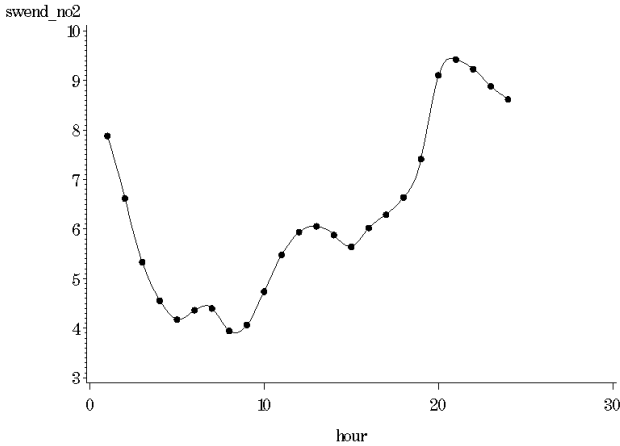


NO₂

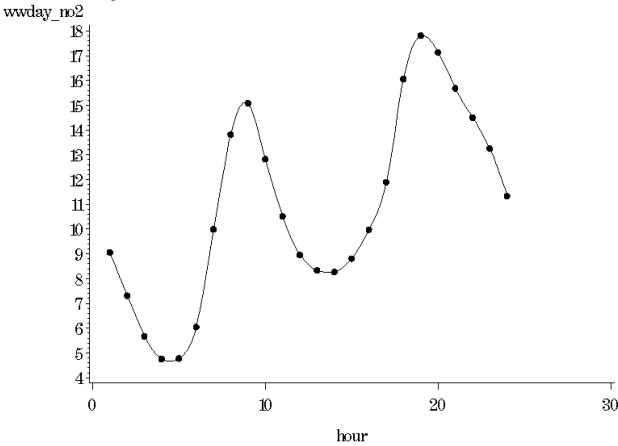
Perth
Summer
Weekday



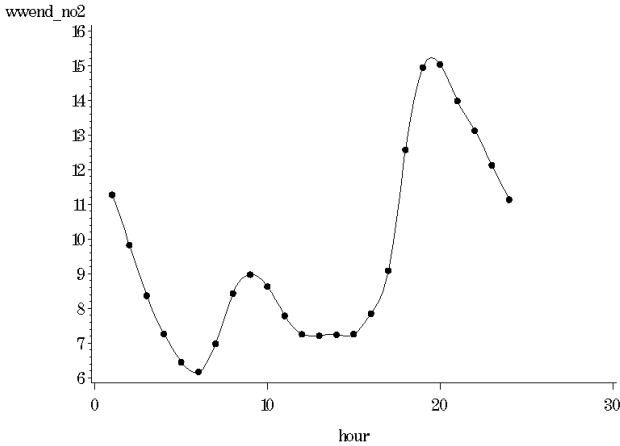
Weekend



Winter
Weekday

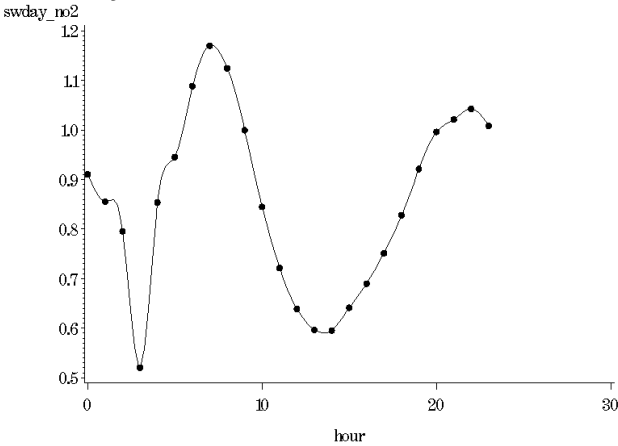


Weekend

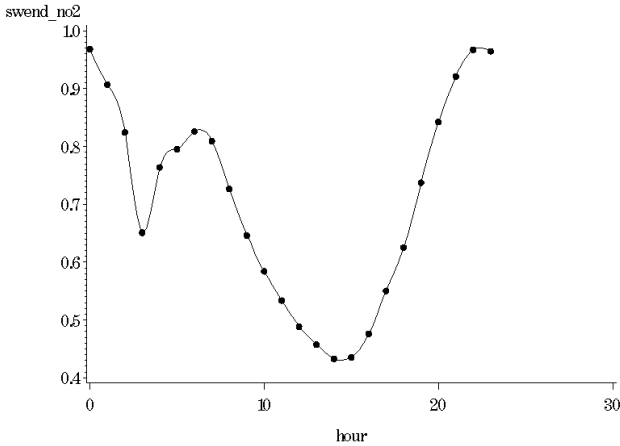


NO₂

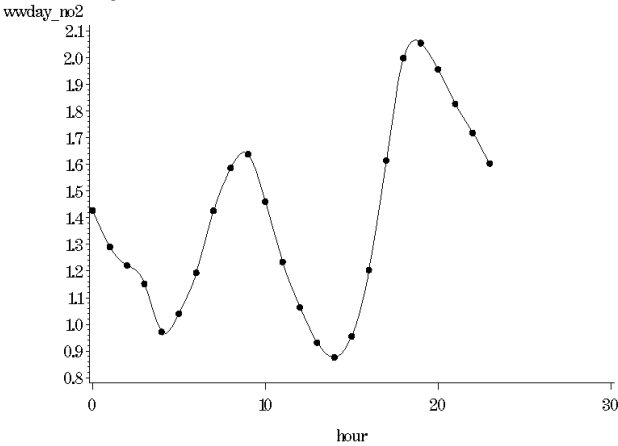
Sydney
Summer
Weekday



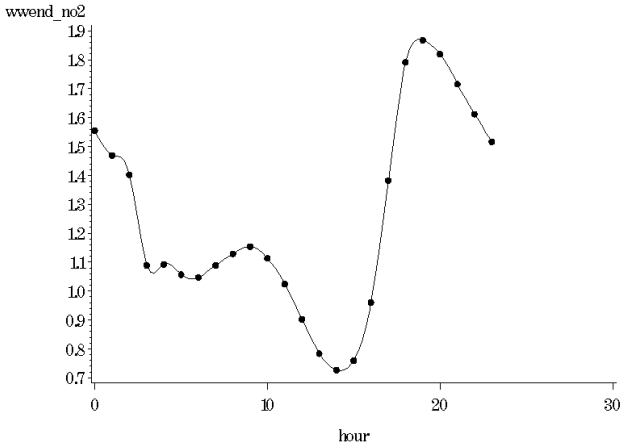
Weekend



Winter
Weekday

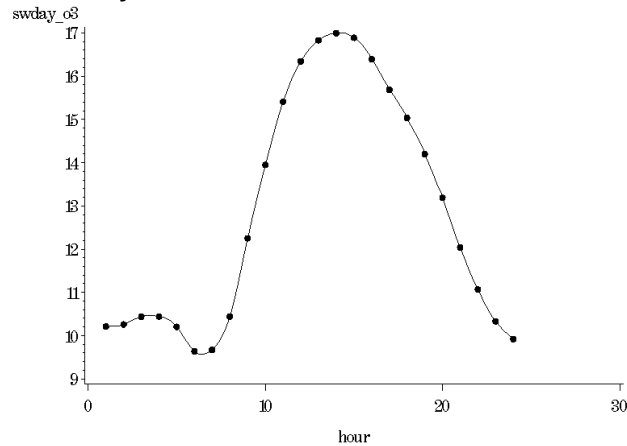


Weekend

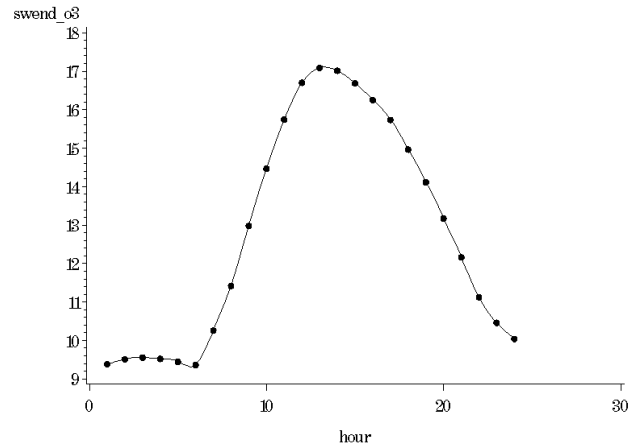


O₃

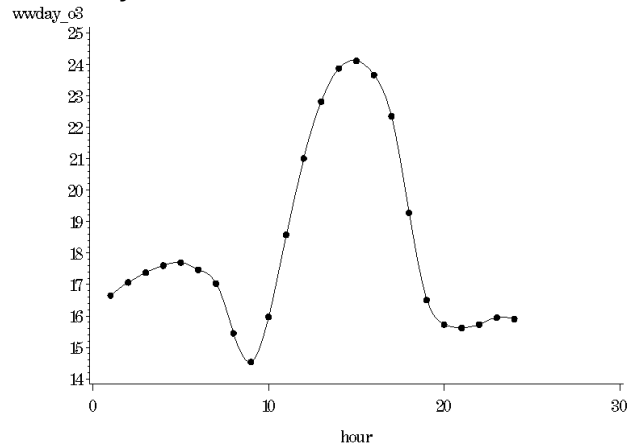
Auckland
Summer
Weekday



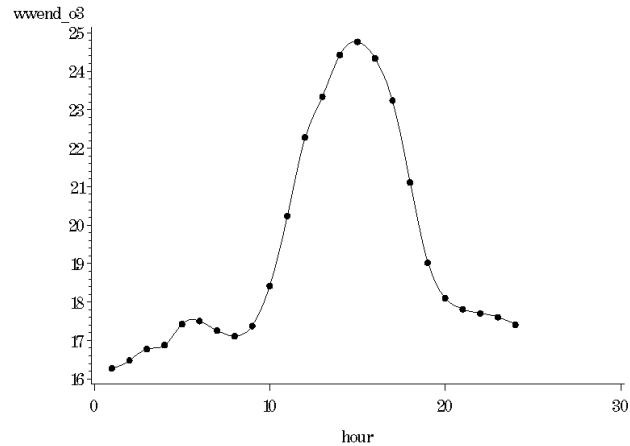
Weekend



Winter
Weekday

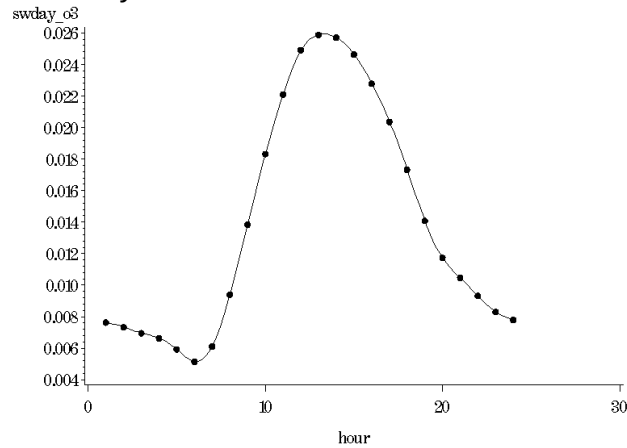


Weekend

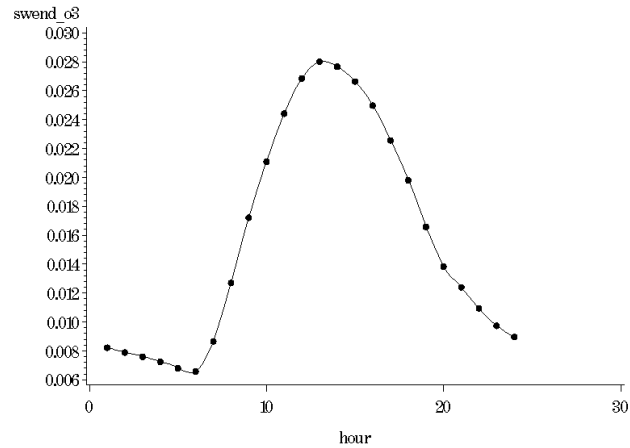


O₃

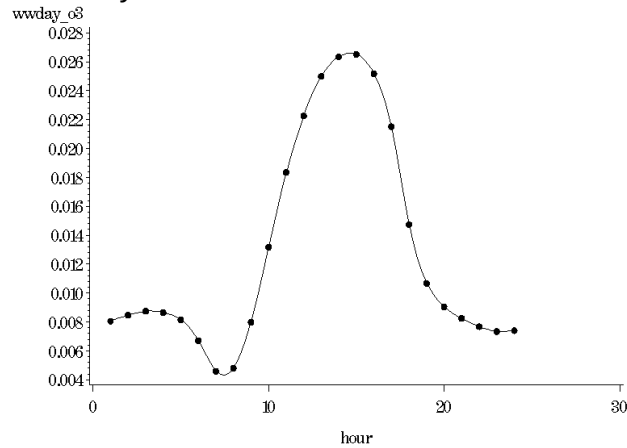
Brisbane
Summer
Weekday



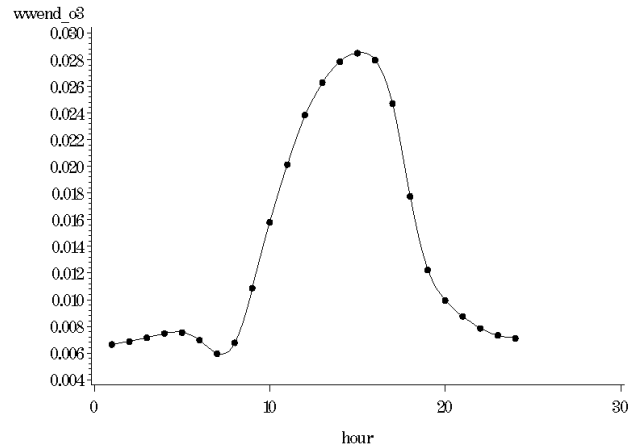
Weekend



Winter
Weekday

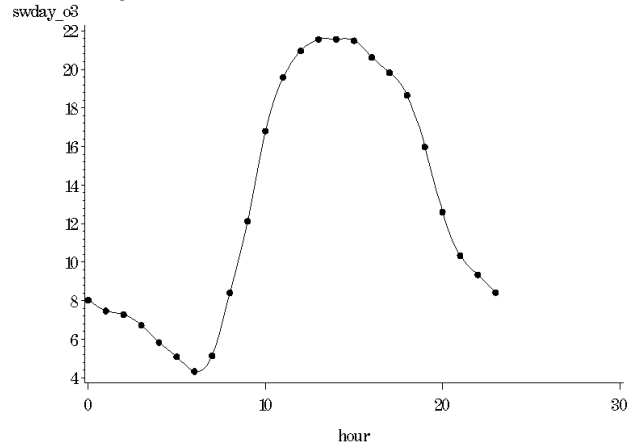


Weekend

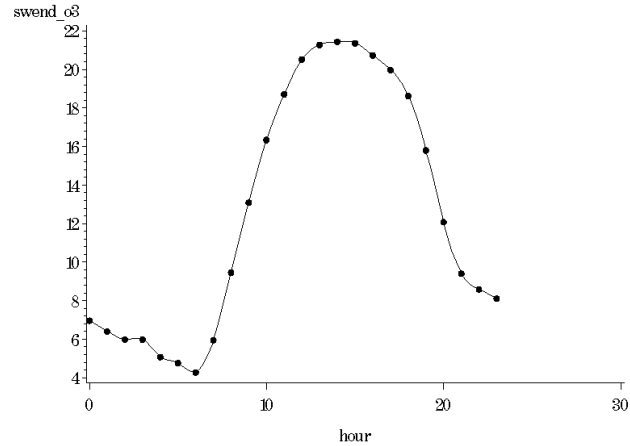


O₃

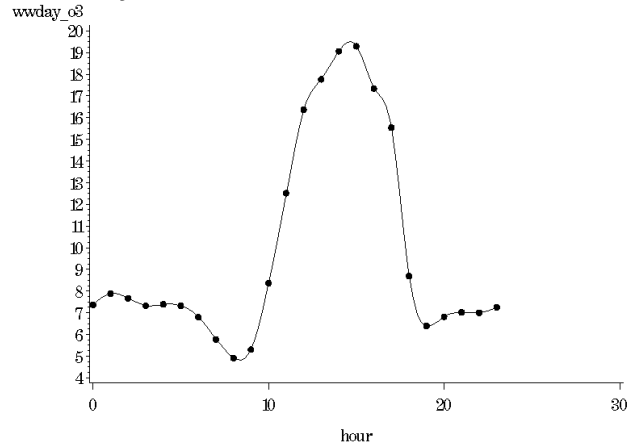
Canberra
Summer
Weekday



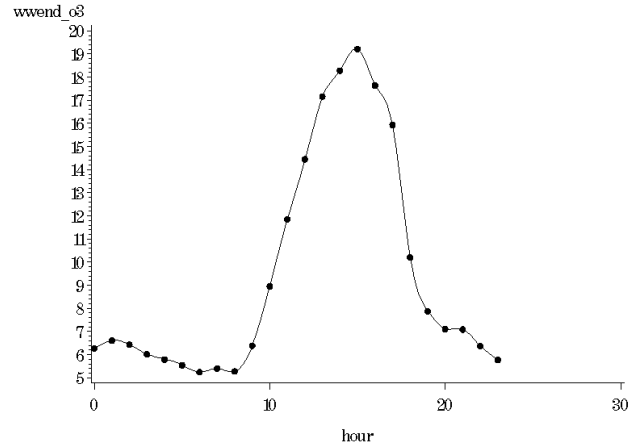
Weekend



Winter
Weekday

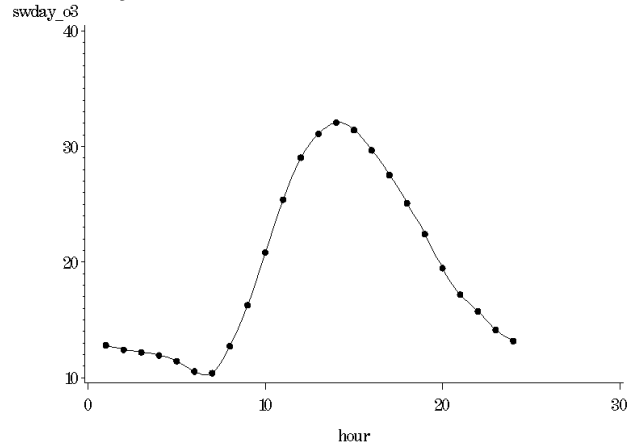


Weekend

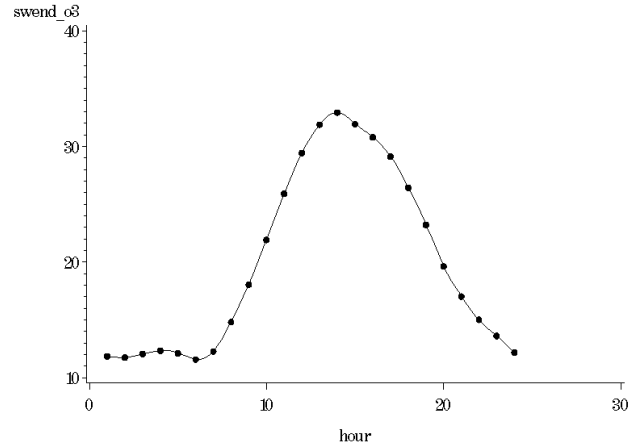


O₃

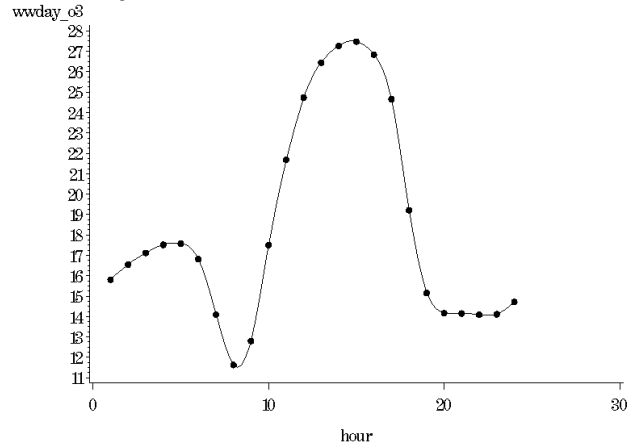
Perth
Summer
Weekday



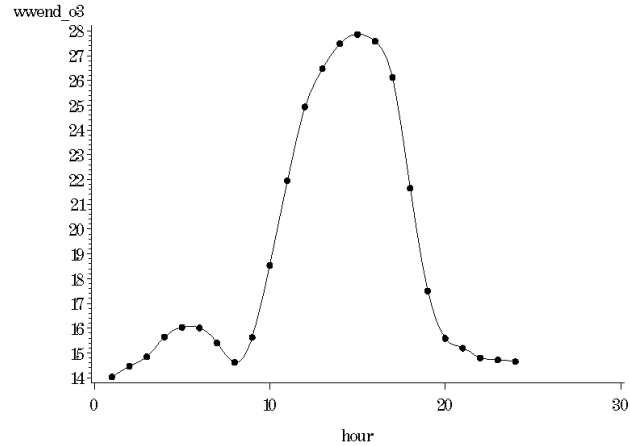
Weekend



Winter
Weekday

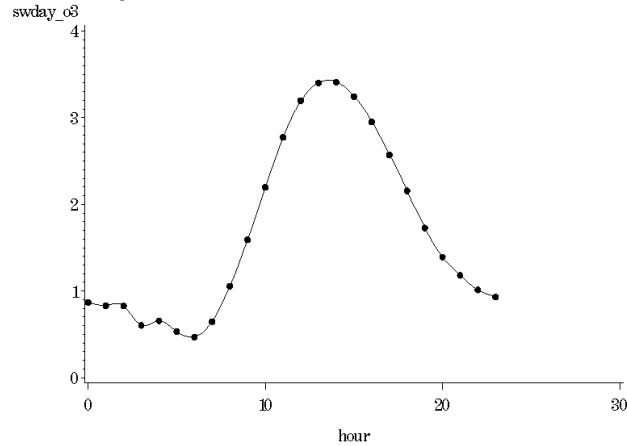


Weekend

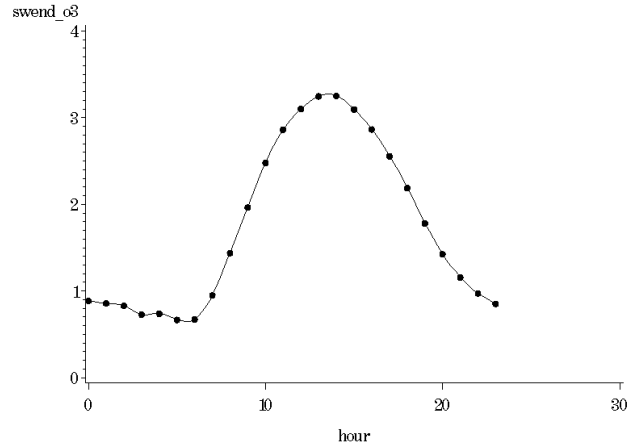


O₃

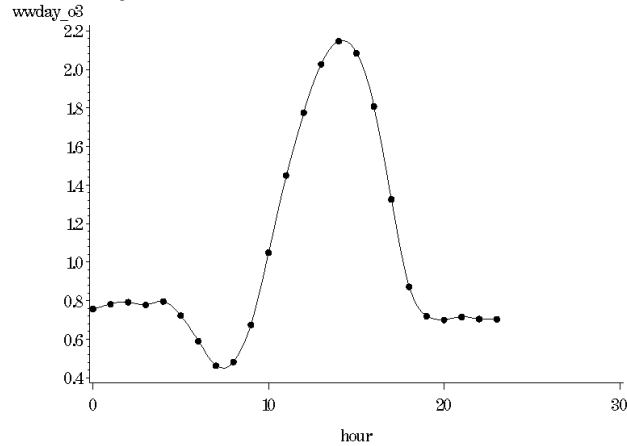
Sydney
Summer
Weekday



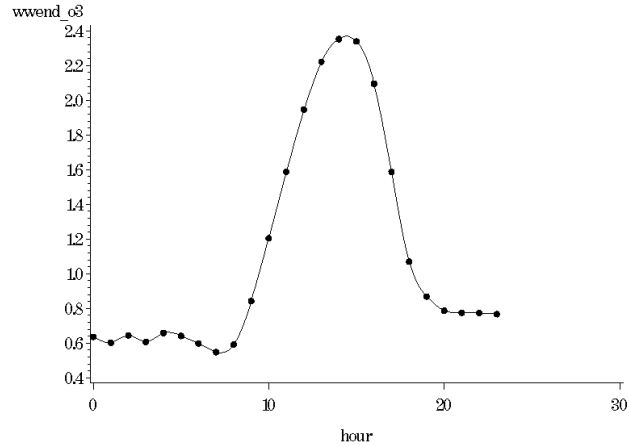
Weekend



Winter
Weekday

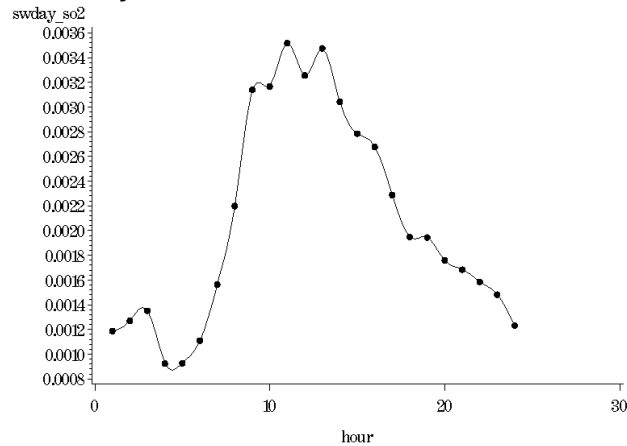


Weekend

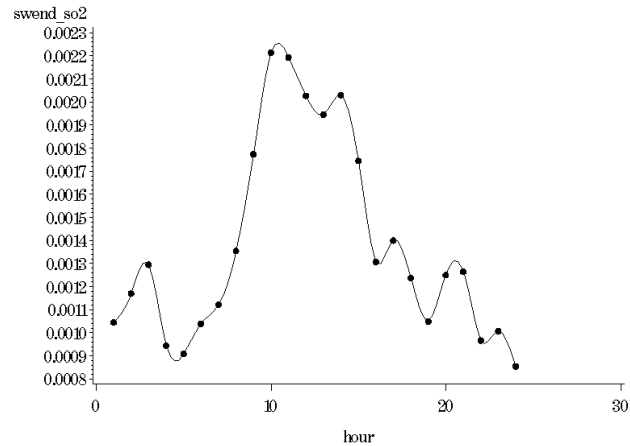


SO₂

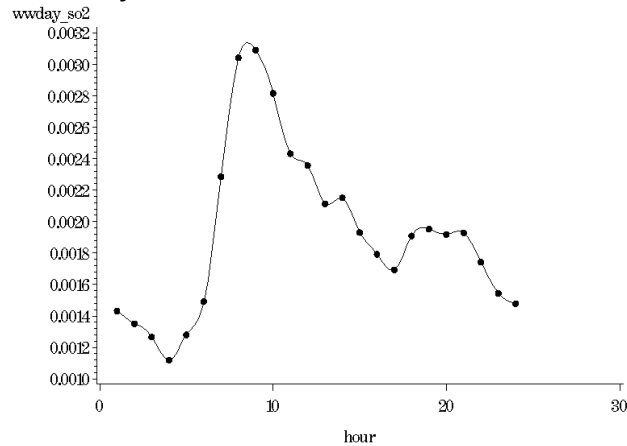
Brisbane
Summer
Weekday



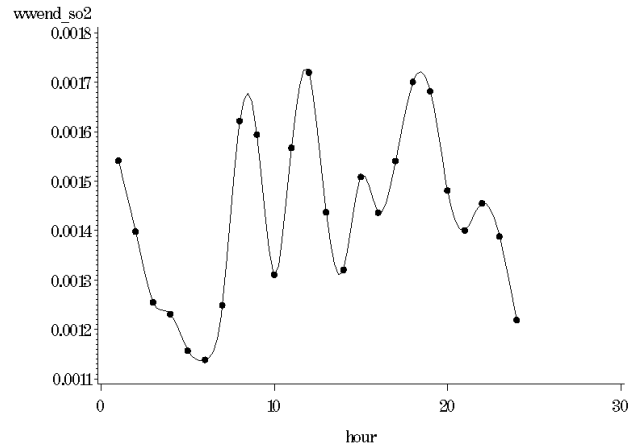
Weekend



Winter
Weekday



Weekend

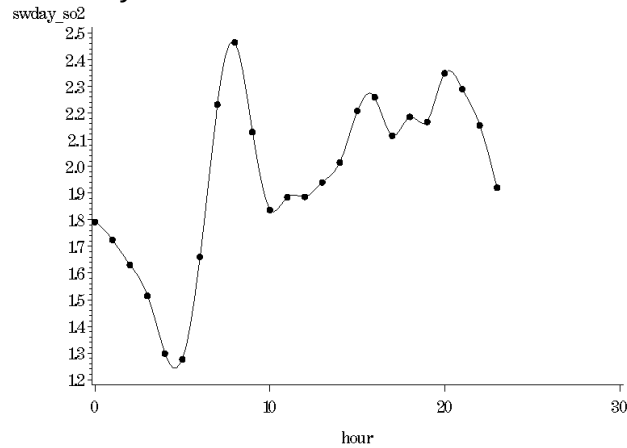


SO₂

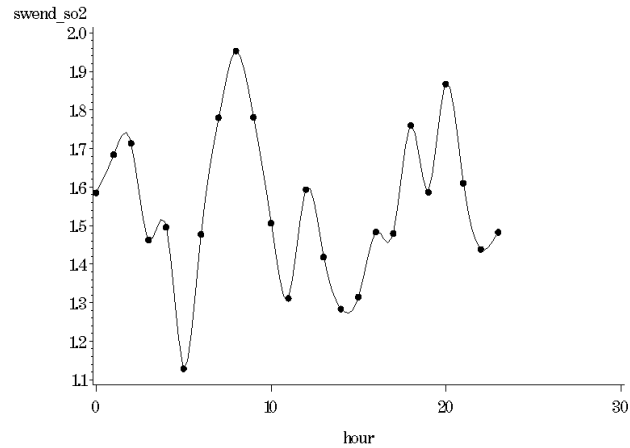
Christchurch

Summer

Weekday

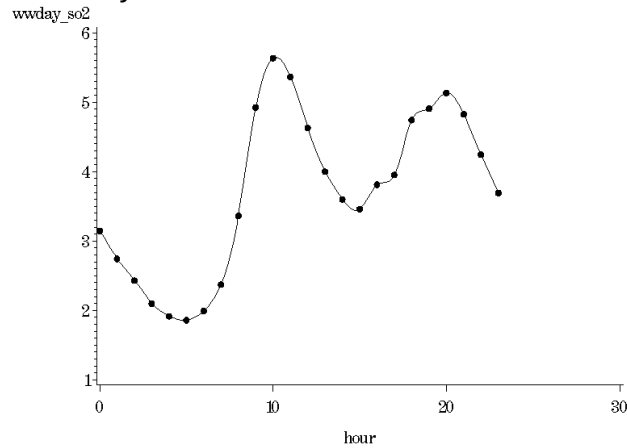


Weekend

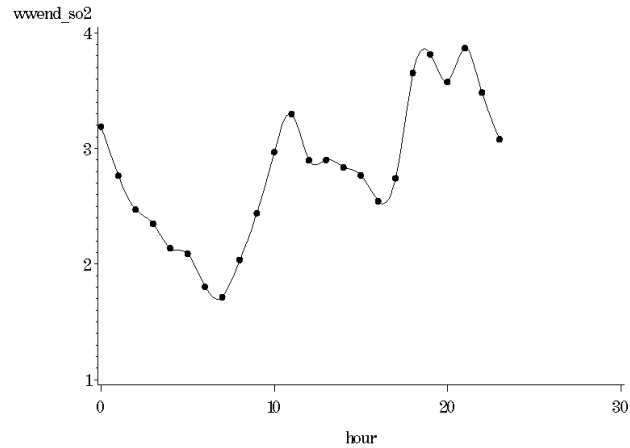


Winter

Weekday

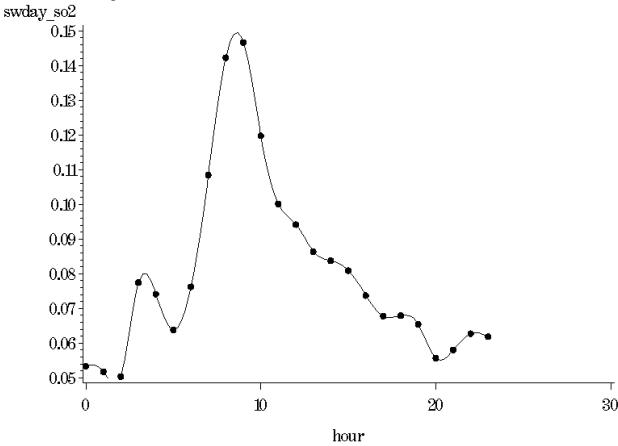


Weekend

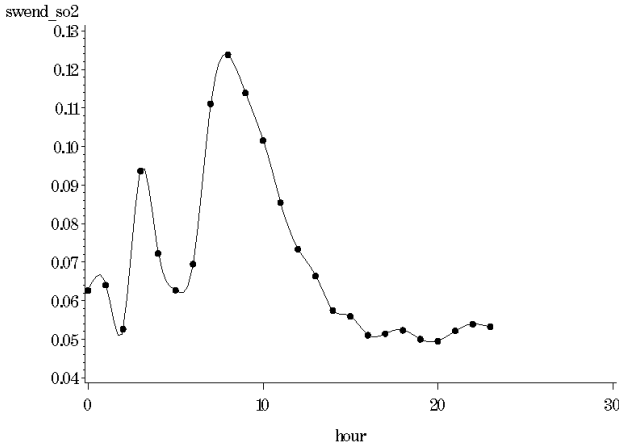


SO₂

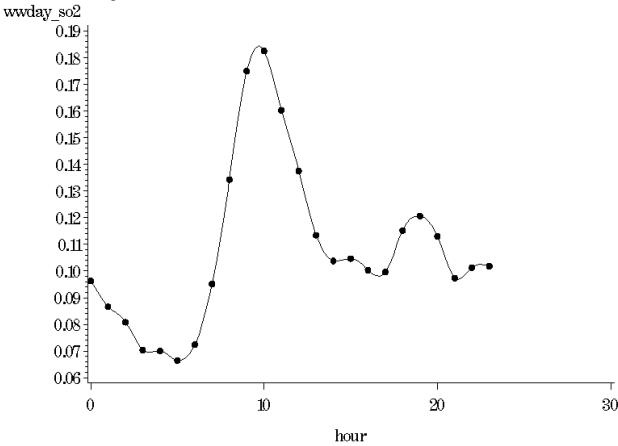
Sydney
Summer
Weekday



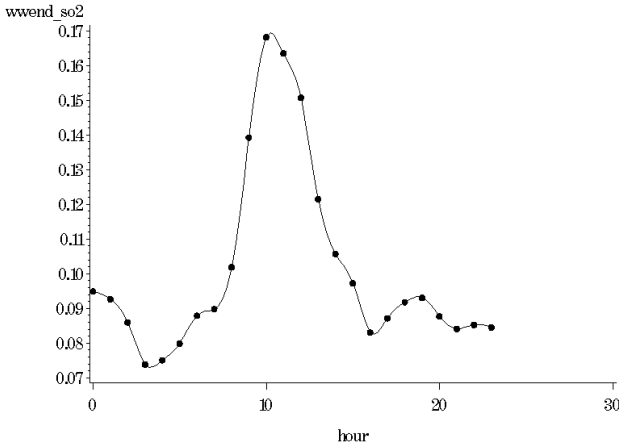
Weekend



Winter
Weekday

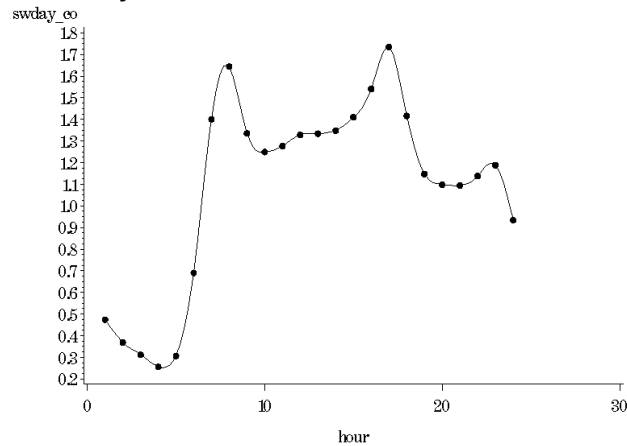


Weekend

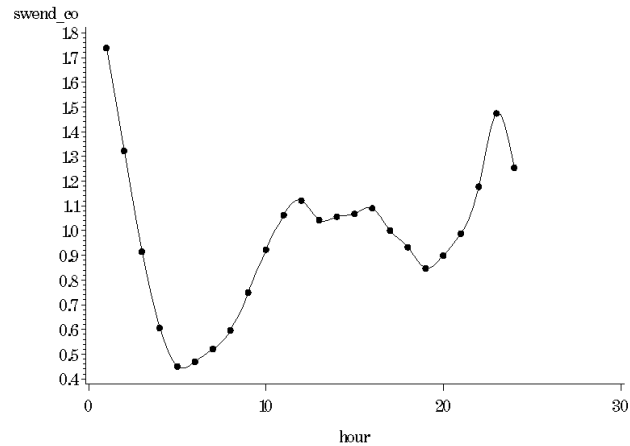


CO

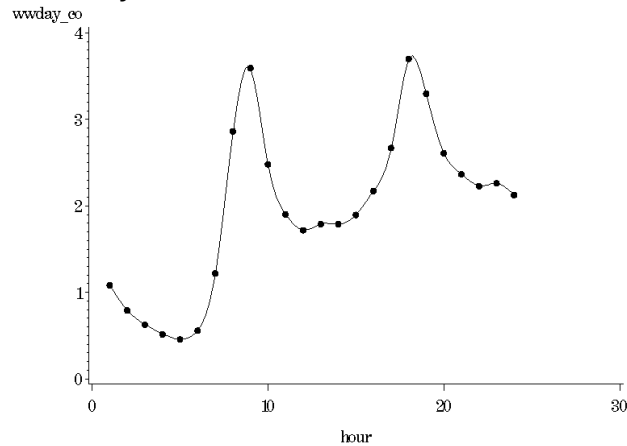
Auckland
Summer
Weekday



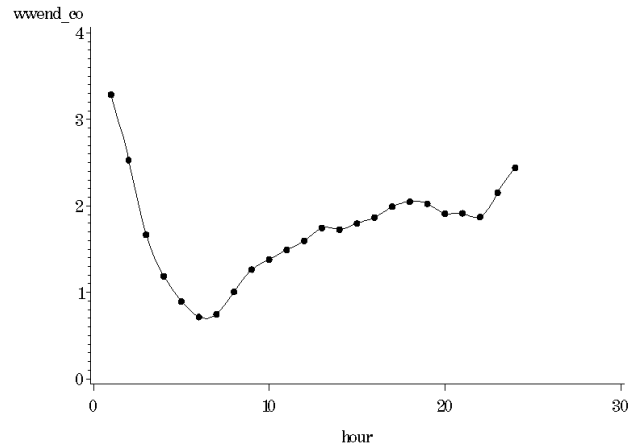
Weekend



Winter
Weekday

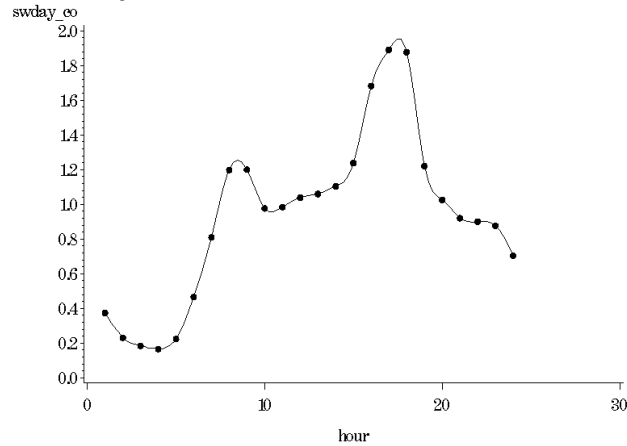


Weekend

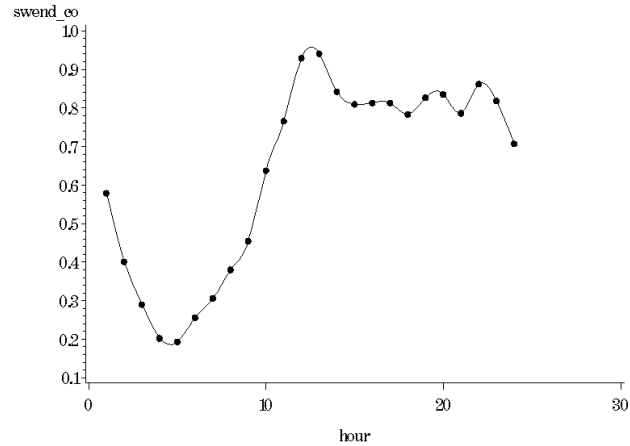


CO

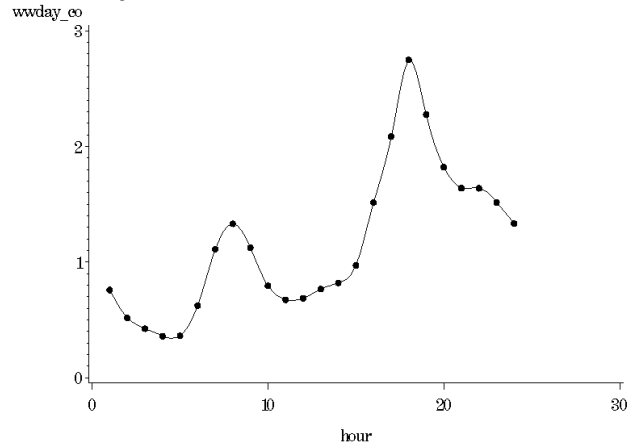
Brisbane
Summer
Weekday



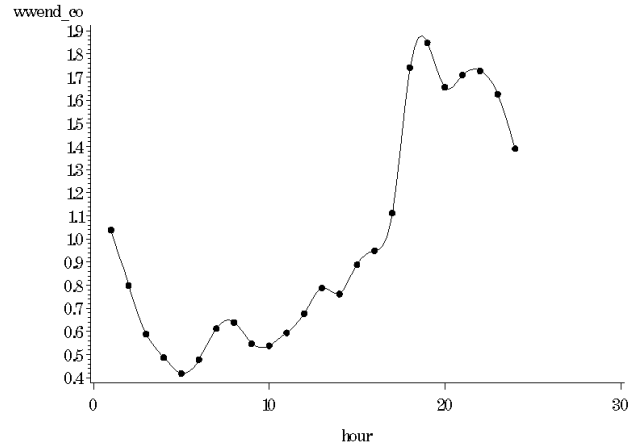
Weekend



Winter
Weekday

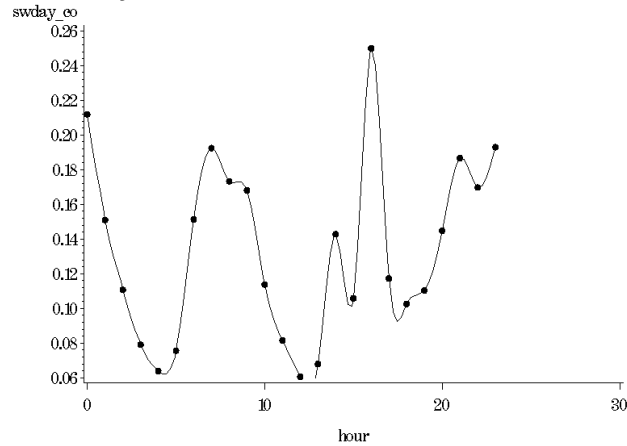


Weekend

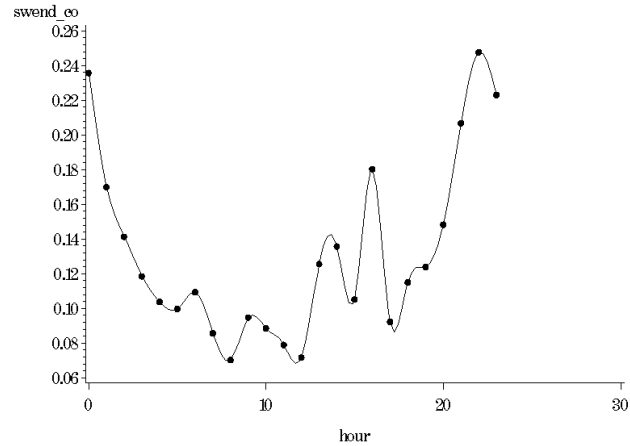


CO

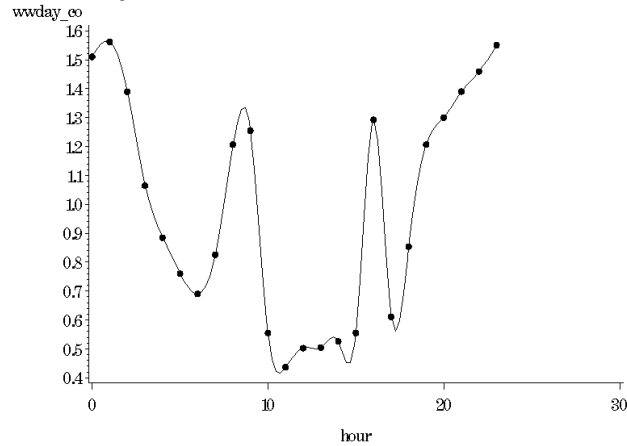
Canberra
Summer
Weekday



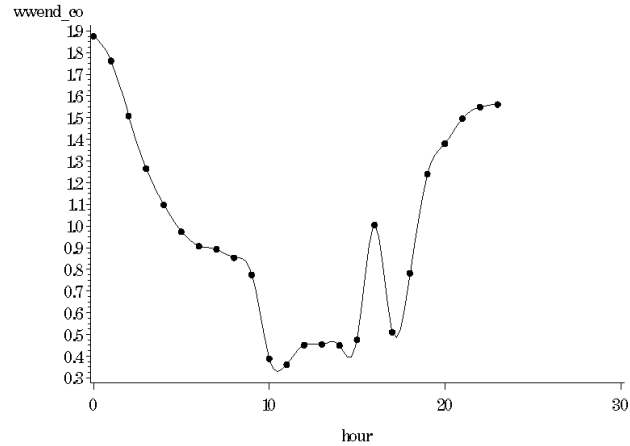
Weekend



Winter
Weekday



Weekend

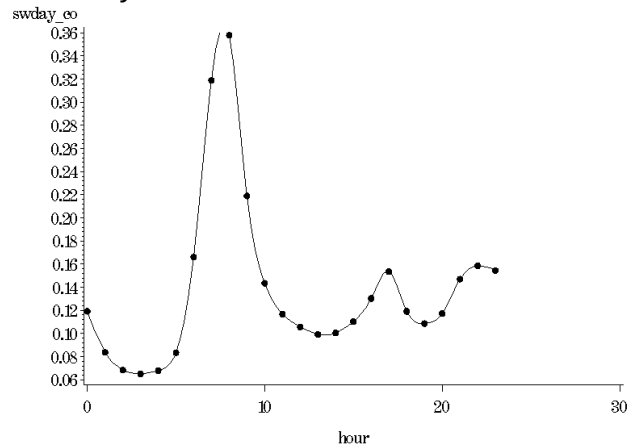


CO

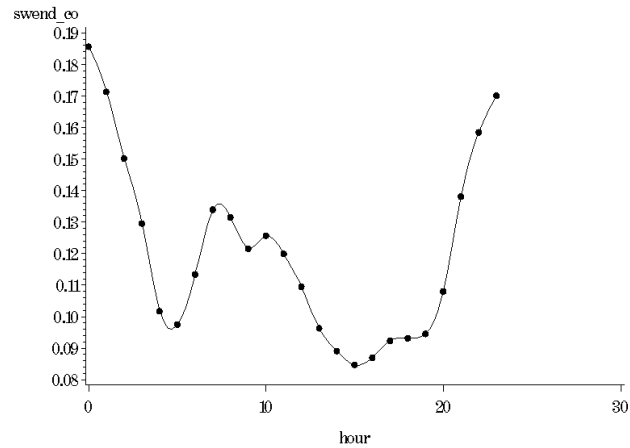
Christchurch

Summer

Weekday

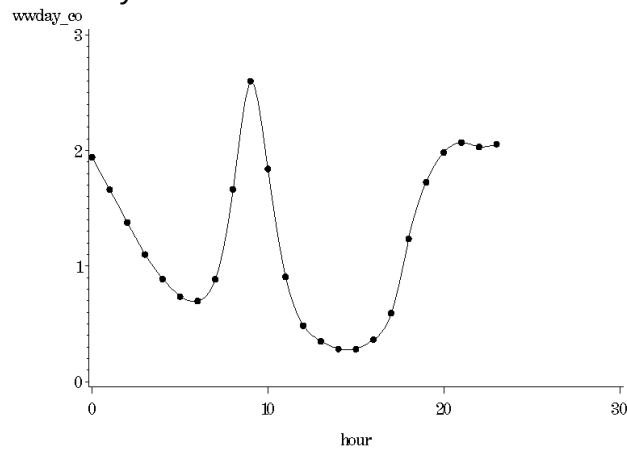


Weekend

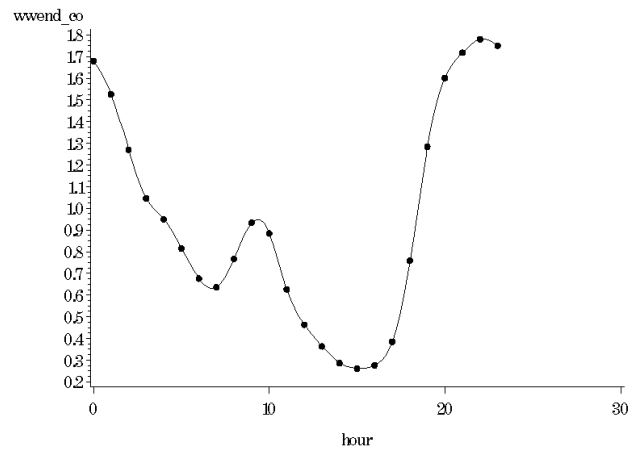


Winter

Weekday

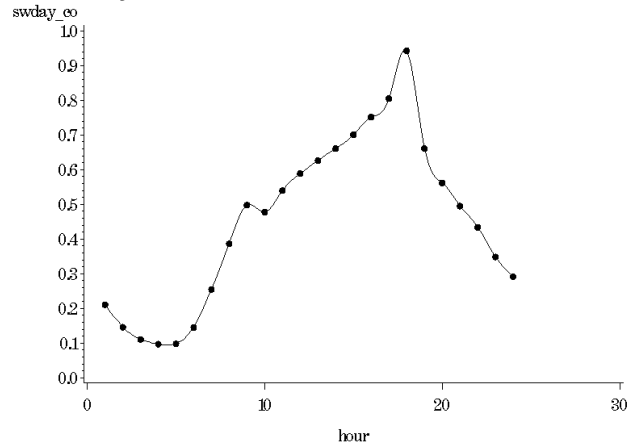


Weekend

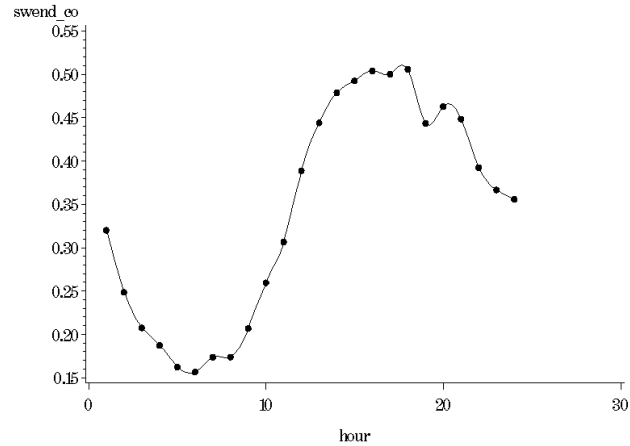


CO

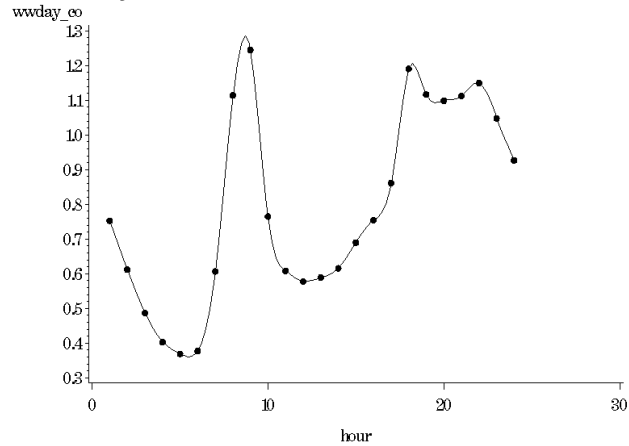
Perth
Summer
Weekday



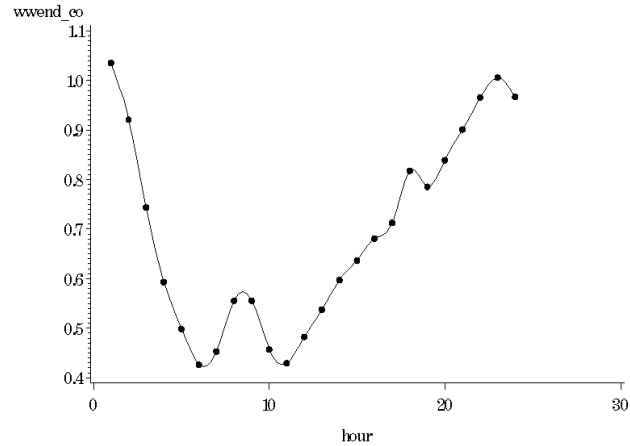
Weekend



Winter
Weekday

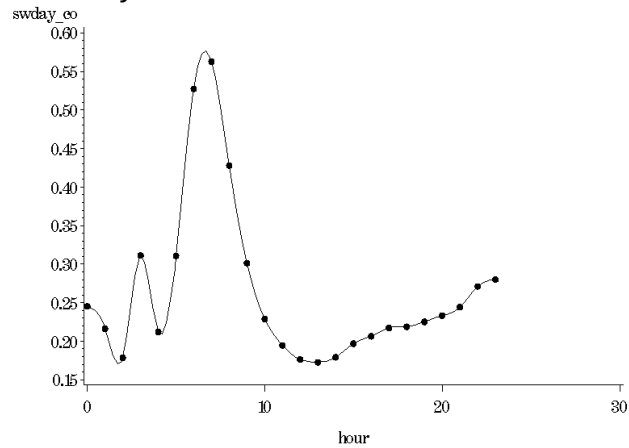


Weekend

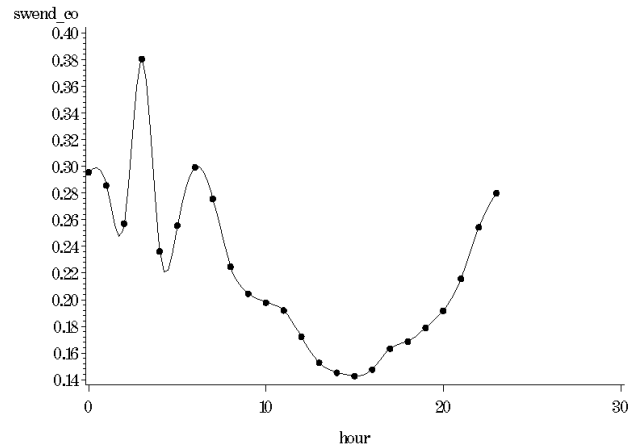


CO

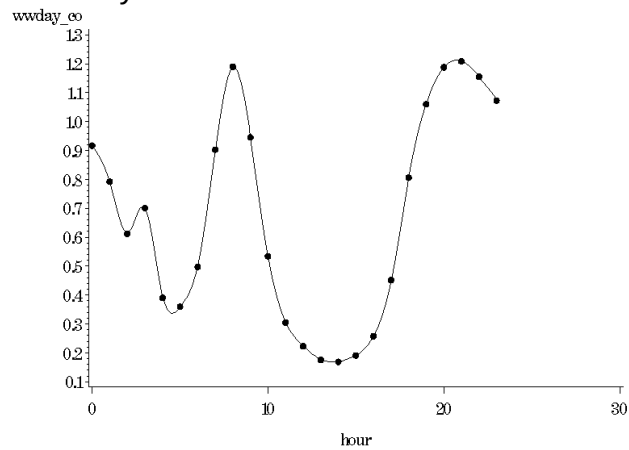
Sydney
Summer
Weekday



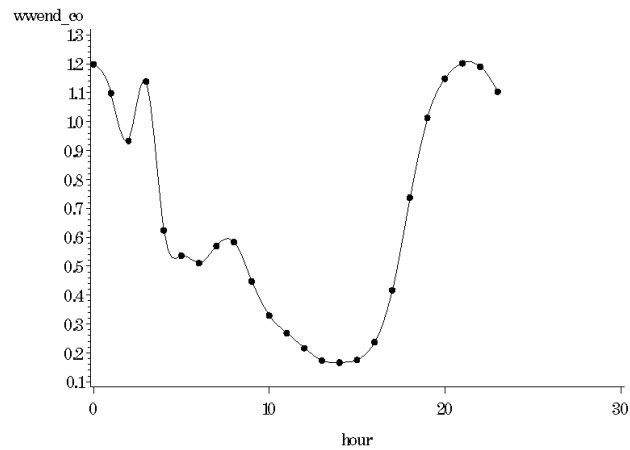
Weekend



Winter
Weekday



Weekend



Appendix 3: Case-crossover results

Appendix A3.1: Case-crossover meta-analyses

Every model controlled for average temperature, average temperature difference (current minus previous day), average humidity, average pressure, extremes of hot and cold (coldest and warmest 1% of days), day of the week and public holiday (yes/no). Models of admission variables also included an indicator variable for the day after a public holiday. Models in Canberra included an indicator for the 15th of the month. Pollutants effects are the average over lagged days 0 and 1.

Nine analyses from Canberra were excluded because they were based on less than 60 days of data.

A random effects meta-analysis was used to combine the effects across cities (using R function `met_uni_R`). We used a test of heterogeneity to find differences across cities and used the related I-squared which is interpretable as the proportion of total variation in the relative risks that is due to heterogeneity between cities (Higgins and Thompson, 2002).

All results are shown to a one-unit increase, although the tabulated meta-analysis results are shown to both a one-unit increase and a one-IQR increase (using the mean IQR across cities, see Table CM.0).

Table CM.0: Inter-quartile ranges of pollutants by city

Pollutant	City							Mean [*]
	Auckland	Brisbane	Canberra	Christchurch	Melbourne	Perth	Sydney	
24-hour average bsp	-	0.11	0.37	-	0.18	0.13	0.16	0.19
24-hour average PM ₁₀	-	6.51	-	10.29	7.58	6.38	6.82	7.53
24-hour average PM _{2.5}	-	4.04	-	-	3.79	3.17	4.14	3.78
24-hour average NO ₂	5.92	4.58	5.16	4.77	6.26	4.05	5.26	5.14
1-hour maximum NO ₂	9.62	8.86	9.81	8.20	9.81	8.40	8.17	8.98
24-hour average SO ₂	2.78	1.27	-	2.16	-	-	0.58	1.70
1-hour maximum SO ₂	-	5.76	-	8.22	-	-	2.24	5.40
8-hour average O ₃ (max)	7.45	9.18	9.52	-	8.87	6.84	11.13	8.83
4-hour maximum O ₃ (max)	7.77	10.02	9.71	-	8.94	6.81	11.58	9.14
1-hour maximum O ₃	7.77	11.36	9.97	-	9.20	7.85	12.80	9.83
8-hour average CO (max)	1.36	0.84	1.02	0.85	0.76	0.55	0.64	0.86

^{*} Mean of IQRs across cities

Meta-analysis of case-crossover results

Updated analyses including admissions results from Canberra. All tables are split in two because of the number of pollutants.

Table CM.1 Cardiac admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	2.8	0.1	5.6	0.0	-0.4	0.4	0.7	-0.1	1.5
Brisbane	0.1	-0.1	0.3	0.1	-0.1	0.4	0.1	-0.2	0.4	0.6	-2.2	3.6	0.3	-0.1	0.7	0.7	-0.1	1.5
Canberra	-	-	-	-	-	-	-	-	-	1.9	-3.2	7.2	0.4	-0.1	0.9	0.7	-0.4	1.9
Christchurch	-	-	-	-	-	-	-	-	-	0.0	-4.1	4.4	0.0	-0.9	0.9	-0.1	-1.9	1.8
Melbourne	-0.2	-0.4	0.0	-0.2	-0.4	0.0	-0.2	-0.5	0.1	0.7	-1.4	2.7	0.0	-0.2	0.2	0.3	-0.1	0.7
Perth	-0.0	-0.3	0.3	-0.1	-0.4	0.3	-0.2	-0.6	0.2	3.7	-2.1	9.8	0.1	-0.2	0.5	0.4	-0.5	1.3
Sydney	-0.1	-0.2	0.1	-0.1	-0.2	0.1	-0.1	-0.3	0.0	5.1	2.1	8.1	0.1	-0.1	0.4	0.4	-0.0	0.8
Meta-analysis	-0.1	-0.2	0.0	-0.1	-0.2	0.0	-0.1	-0.2	0.0	2.0	0.6	3.3	0.1	-0.0	0.2	0.4	0.2	0.7
Meta-analysis IQR	-0.6	-1.6	0.5	-0.7	-1.7	0.4	-1.0	-2.1	0.2	1.7	0.5	2.9	1.1	-0.0	2.2	2.2	0.9	3.4
I-squared	9.1	-	-	7.0	-	-	0.0	-	-	24.7	-	-	0.0	-	-	0.0	-	-
(Continued)																		
	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.0	-1.1	1.0	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	-0.1	-0.5	0.3	-0.8	-2.8	1.2	13.9	-1.4	31.6	0.2	-0.2	0.6	0.2	-0.1	0.6	-	-	-
Canberra	-	-	-	-	-	-	-0.2	-13.4	15.0	-	-	-	-	-	-	-	-	-
Christchurch	0.7	-0.0	1.5	2.4	-0.6	5.5	-	-	-	-	-	-	-0.0	-0.3	0.3	-	-	-
Melbourne	-	-	-	-	-	-	3.7	-2.5	10.2	0.0	-0.4	0.4	-0.1	-0.4	0.1	-	-	-
Perth	-	-	-	-	-	-	17.6	-2.2	41.2	0.4	-0.4	1.2	0.1	-0.3	0.6	-	-	-
Sydney	0.2	-0.5	0.8	1.0	-1.9	4.0	5.9	-3.8	16.5	0.2	-0.2	0.5	0.1	-0.2	0.3	-	-	-
Meta-analysis	0.2	-0.3	0.6	0.2	-0.8	1.1	5.5	0.9	10.3	0.2	-0.1	0.4	0.0	-0.1	0.2	-	-	-
Meta-analysis IQR	0.9	-1.6	3.4	0.3	-1.4	2.0	1.0	0.2	1.8	0.6	-0.2	1.4	0.3	-0.8	1.3	-	-	-
I-squared	47.6	-	-	15.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-	-	-	-

Table CM.2 Cardiac admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	2.8	0.6	5.1	0.3	-0.0	0.7	0.3	-0.4	0.9
Brisbane	0.1	-0.1	0.2	0.1	-0.1	0.3	0.1	-0.1	0.4	1.2	-0.8	3.2	0.3	-0.0	0.6	0.7	0.2	1.3
Canberra	-	-	-	-	-	-	-	-	-	0.5	-3.8	4.9	0.1	-0.3	0.5	0.1	-0.9	1.1
Christchurch	-	-	-	-	-	-	-	-	-	1.8	-0.9	4.5	-0.2	-0.8	0.3	-0.9	-2.1	0.3
Melbourne	-0.1	-0.2	0.1	-0.1	-0.3	0.1	-0.2	-0.4	-0.0	3.2	1.8	4.6	0.4	0.2	0.5	0.8	0.5	1.0
Perth	0.1	-0.1	0.3	0.1	-0.1	0.4	0.1	-0.2	0.4	5.8	2.0	9.8	0.3	0.0	0.5	1.0	0.4	1.6
Sydney	-0.0	-0.1	0.1	-0.0	-0.1	0.1	-0.1	-0.2	0.1	7.4	5.2	9.5	0.5	0.3	0.7	0.9	0.6	1.2
Meta-analysis	0.0	-0.1	0.1	0.0	-0.1	0.1	-0.0	-0.2	0.1	3.3	1.5	5.1	0.3	0.2	0.4	0.6	0.4	0.9
Meta-analysis IQR	0.1	-0.6	0.8	0.1	-0.8	1.0	-0.2	-1.5	1.1	2.8	1.3	4.4	3.0	1.9	4.0	3.4	1.9	4.9
I-squared	0.0	-	-	26.6	-	-	53.7	-	-	73.5	-	-	34.0	-	-	54.1	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.3	-0.6	1.1	-	-	-	-	-	-	-	-	-
Brisbane	0.1	-0.2	0.4	0.4	-1.0	1.9	2.9	-7.2	14.1	0.2	-0.1	0.5	0.1	-0.2	0.3
Canberra	-	-	-	-	-	-	3.9	-8.3	17.7	-	-	-	-	-	-
Christchurch	0.3	-0.2	0.7	1.9	-0.0	3.8	-	-	-	-	-	-	-0.0	-0.2	0.2
Melbourne	-	-	-	-	-	-	9.6	5.2	14.2	0.6	0.4	0.9	0.1	-0.1	0.3
Perth	-	-	-	-	-	-	20.5	6.9	35.9	0.8	0.3	1.3	0.4	0.1	0.7
Sydney	1.0	0.5	1.5	4.4	2.2	6.6	12.3	4.9	20.2	0.5	0.2	0.8	0.2	0.0	0.4
Meta-analysis	0.4	-0.1	0.9	1.6	-0.2	3.3	9.8	5.2	14.7	0.5	0.3	0.7	0.1	0.0	0.3
Meta-analysis IQR	2.3	-0.5	5.1	2.7	-0.3	5.7	1.7	0.9	2.5	1.9	1.0	2.7	1.1	0.2	2.0
I-squared	79.7	-	-	77.2	-	-	20.0	-	-	55.0	-	-	32.9	-	-

Table CM.3 IHD admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	3.8	-0.0	7.7	-0.2	-0.8	0.4	0.3	-0.9	1.4
Brisbane	0.2	-0.1	0.4	0.2	-0.1	0.5	0.2	-0.2	0.6	2.7	-1.1	6.7	0.2	-0.4	0.7	0.4	-0.7	1.4
Canberra	-	-	-	-	-	-	-	-	-	1.9	-5.5	9.8	0.0	-0.7	0.8	-0.3	-2.0	1.4
Christchurch	-	-	-	-	-	-	-	-	-	-5.4	-10.6	0.2	-0.3	-1.4	0.9	-1.1	-3.4	1.3
Melbourne	-0.4	-0.7	-0.1	-0.4	-0.7	-0.1	-0.4	-0.7	-0.0	0.4	-2.2	3.1	-0.1	-0.4	0.2	0.0	-0.5	0.5
Perth	-0.0	-0.4	0.3	-0.1	-0.6	0.4	-0.2	-0.8	0.3	2.3	-5.2	10.4	-0.0	-0.5	0.5	-0.2	-1.3	1.0
Sydney	-0.2	-0.3	0.0	-0.2	-0.4	0.0	-0.3	-0.5	-0.0	6.2	2.0	10.5	0.0	-0.3	0.4	0.4	-0.2	1.0
Meta-analysis	-0.1	-0.3	0.1	-0.1	-0.4	0.1	-0.2	-0.4	0.1	1.9	-0.7	4.5	-0.0	-0.2	0.1	0.1	-0.2	0.5
Meta-analysis IQR	-1.2	-3.5	1.1	-1.4	-3.5	0.8	-1.7	-3.8	0.5	1.6	-0.6	3.9	-0.3	-1.8	1.2	0.7	-1.0	2.4
I-squared	67.2	-	-	59.0	-	-	43.8	-	-	53.5	-	-	0.0	-	-	0.0	-	-
(Continued)																		
	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	0.7	-0.8	2.2	-	-	-	-	-	-	-	-	-			
Brisbane	-0.0	-0.5	0.5	-0.6	-3.1	2.0	17.4	-2.4	41.3	0.1	-0.4	0.6	0.3	-0.2	0.7			
Canberra	-	-	-	-	-	-	9.7	-9.8	33.4	-	-	-	-	-	-			
Christchurch	0.7	-0.3	1.6	2.2	-1.5	6.2	-	-	-	-	-	-	-0.3	-0.8	0.1			
Melbourne	-	-	-	-	-	-	3.0	-4.9	11.6	-0.1	-0.6	0.4	-0.2	-0.6	0.1			
Perth	-	-	-	-	-	-	-0.2	-22.0	27.6	-0.1	-1.2	1.0	-0.0	-0.6	0.6			
Sydney	0.0	-0.9	0.9	0.4	-3.6	4.5	8.7	-4.7	24.0	0.2	-0.3	0.7	0.1	-0.2	0.4			
Meta-analysis	0.1	-0.3	0.5	0.5	-0.6	1.7	5.9	-0.2	12.4	0.1	-0.2	0.3	-0.0	-0.2	0.2			
Meta-analysis IQR	0.6	-1.6	2.9	0.9	-1.1	2.9	1.1	-0.0	2.2	0.2	-0.9	1.3	-0.3	-1.8	1.3			
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	19.9	-	-			

Table CM.4 IHD admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	2.6	-0.5	5.8	0.2	-0.3	0.7	-0.1	-1.0	0.8
Brisbane	0.0	-0.2	0.2	0.0	-0.2	0.3	0.0	-0.3	0.3	1.2	-1.5	4.1	0.2	-0.2	0.6	0.3	-0.5	1.1
Canberra	-	-	-	-	-	-	-	-	-	-1.6	-7.9	5.0	-0.0	-0.7	0.7	-0.2	-1.8	1.3
Christchurch	-	-	-	-	-	-	-	-	-	0.9	-2.6	4.6	-0.2	-0.9	0.6	-0.5	-2.1	1.0
Melbourne	-0.1	-0.3	0.1	-0.1	-0.3	0.1	-0.1	-0.4	0.1	2.7	0.7	4.7	0.3	0.1	0.5	0.5	0.1	0.9
Perth	0.2	-0.1	0.5	0.3	-0.1	0.6	0.3	-0.1	0.8	6.0	0.5	11.8	0.4	0.0	0.7	1.2	0.4	2.1
Sydney	-0.0	-0.2	0.1	-0.1	-0.2	0.1	-0.1	-0.3	0.1	6.1	2.9	9.5	0.4	0.1	0.6	0.6	0.1	1.1
Meta-analysis	-0.0	-0.1	0.1	-0.0	-0.1	0.1	-0.0	-0.2	0.1	2.7	1.1	4.4	0.3	0.2	0.4	0.5	0.2	0.8
Meta-analysis IQR	-0.0	-1.1	1.1	-0.0	-1.2	1.2	-0.2	-1.6	1.3	2.3	0.9	3.8	2.5	1.4	3.7	2.5	1.0	4.1
I-squared	12.8	-	-	18.9	-	-	27.2	-	-	35.9	-	-	0.0	-	-	19.7	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.0	-1.2	1.2	-	-	-	-	-	-	-	-	-
Brisbane	0.3	-0.1	0.7	1.5	-0.5	3.6	4.5	-9.6	20.8	0.2	-0.2	0.6	0.0	-0.3	0.4
Canberra	-	-	-	-	-	-	-6.1	-22.0	13.2	-	-	-	-	-	-
Christchurch	0.6	-0.0	1.2	3.5	1.0	6.1	-	-	-	-	-	-	-0.1	-0.4	0.2
Melbourne	-	-	-	-	-	-	7.6	1.5	14.2	0.5	0.1	0.9	0.0	-0.2	0.3
Perth	-	-	-	-	-	-	27.1	7.1	50.8	1.0	0.2	1.7	0.4	-0.0	0.8
Sydney	0.9	0.1	1.6	3.3	0.0	6.6	12.2	1.3	24.3	0.4	-0.0	0.8	0.2	-0.1	0.4
Meta-analysis	0.5	0.1	0.8	1.7	0.0	3.4	8.8	0.5	17.9	0.4	0.2	0.6	0.1	-0.1	0.2
Meta-analysis IQR	2.6	0.7	4.5	2.9	0.1	5.8	1.6	0.1	3.1	1.6	0.7	2.4	0.4	-0.7	1.5
I-squared	12.6	-	-	65.3	-	-	36.8	-	-	3.6	-	-	10.3	-	-

Table CM.5 Stroke admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-2.4	-8.4	3.9	-0.2	-1.2	0.8	-0.5	-2.4	1.4
Brisbane	0.1	-0.5	0.7	0.1	-0.7	0.8	-0.1	-1.0	0.8	1.4	-6.6	10.1	1.1	-0.0	2.3	2.8	0.4	5.2
Canberra	-	-	-	-	-	-	-	-	-	17.3	-0.3	38.0	1.5	-0.2	3.2	5.2	1.2	9.4
Christchurch	-	-	-	-	-	-	-	-	-	0.7	-8.0	10.4	0.9	-0.9	2.7	1.9	-2.0	5.8
Melbourne	-0.0	-0.5	0.5	-0.1	-0.6	0.5	0.0	-0.6	0.7	0.1	-4.7	5.2	0.1	-0.4	0.6	0.2	-0.8	1.2
Perth	-0.6	-1.3	0.2	-0.8	-1.7	0.1	-0.9	-1.9	0.2	-8.2	-20.6	6.1	-0.3	-1.2	0.6	-1.2	-3.4	1.1
Sydney	-0.3	-0.6	0.1	-0.3	-0.7	0.1	-0.4	-0.8	0.1	0.9	-5.9	8.4	-0.2	-0.8	0.4	-0.3	-1.3	0.8
Meta-analysis	-0.2	-0.4	0.0	-0.2	-0.5	0.0	-0.3	-0.6	0.1	0.1	-2.8	3.0	0.1	-0.3	0.5	0.7	-0.7	2.1
Meta-analysis IQR	-2.0	-4.4	0.4	-2.1	-4.6	0.4	-2.4	-5.2	0.5	0.1	-2.4	2.6	1.2	-2.4	4.8	3.7	-3.7	11.6
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	28.7	-	-	57.9	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.9	-1.6	3.4	-	-	-	-	-	-	-	-	-
Brisbane	0.7	-0.5	1.9	3.5	-2.4	9.6	22.7	-19.3	86.3	0.6	-0.4	1.6	0.7	-0.4	1.7
Canberra	-	-	-	-	-	-	28.2	-16.3	96.4	-	-	-	-	-	-
Christchurch	0.2	-1.3	1.8	-0.1	-6.1	6.2	-	-	-	-	-	-	-0.1	-0.9	0.6
Melbourne	-	-	-	-	-	-	3.8	-10.3	20.1	-0.2	-1.2	0.8	-0.3	-0.9	0.4
Perth	-	-	-	-	-	-	8.2	-32.4	73.4	-0.3	-2.3	1.8	-0.1	-1.2	1.1
Sydney	-0.3	-1.9	1.4	-3.3	-10.0	3.9	-22.6	-39.2	-1.6	-0.8	-1.7	0.1	-0.5	-1.1	0.1
Meta-analysis	0.3	-0.5	1.1	0.7	-1.3	2.8	1.4	-14.7	20.5	-0.2	-0.8	0.5	-0.2	-0.5	0.2
Meta-analysis IQR	1.8	-2.5	6.3	1.2	-2.2	4.8	0.2	-2.9	3.5	-0.6	-3.1	1.9	-1.4	-3.9	1.1
I-squared	0.0	-	-	0.0	-	-	42.3	-	-	27.6	-	-	0.0	-	-

Table CM.6 Stroke admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	1.0	-3.1	5.3	0.7	0.1	1.3	1.4	0.1	2.6
Brisbane	-0.0	-0.3	0.3	0.0	-0.4	0.4	0.0	-0.4	0.5	0.9	-3.3	5.3	0.1	-0.5	0.7	0.4	-0.8	1.6
Canberra	-	-	-	-	-	-	-	-	-	1.5	-8.4	12.6	0.5	-0.5	1.5	1.5	-0.8	3.9
Christchurch	-	-	-	-	-	-	-	-	-	-2.1	-6.9	2.8	0.2	-0.8	1.2	1.0	-1.1	3.2
Melbourne	-0.2	-0.5	0.1	-0.2	-0.6	0.1	-0.4	-0.7	0.0	-0.7	-3.4	2.2	-0.1	-0.4	0.2	0.1	-0.5	0.6
Perth	0.1	-0.3	0.5	0.1	-0.4	0.6	-0.0	-0.6	0.6	4.0	-3.5	12.1	0.5	-0.0	1.0	1.0	-0.2	2.2
Sydney	-0.1	-0.2	0.1	-0.1	-0.3	0.1	-0.1	-0.4	0.1	1.0	-2.9	5.0	-0.0	-0.4	0.3	-0.1	-0.7	0.5
Meta-analysis	-0.1	-0.2	0.1	-0.1	-0.2	0.1	-0.1	-0.3	0.0	0.2	-1.4	1.9	0.2	-0.1	0.4	0.4	-0.1	0.8
Meta-analysis IQR	-0.6	-2.0	0.7	-0.8	-2.2	0.6	-1.3	-2.9	0.3	0.2	-1.2	1.6	1.5	-0.6	3.7	1.8	-0.3	4.0
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	35.1	-	-	21.3	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.8	-2.4	0.8	-	-	-	-	-	-	-	-	-
Brisbane	-0.1	-0.8	0.5	-0.7	-3.6	2.4	-16.6	-33.2	4.1	-0.3	-0.9	0.3	-0.2	-0.8	0.3
Canberra	-	-	-	-	-	-	-2.8	-27.3	30.0	-	-	-	-	-	-
Christchurch	0.5	-0.3	1.4	-0.6	-3.9	2.8	-	-	-	-	-	-	0.2	-0.2	0.5
Melbourne	-	-	-	-	-	-	-1.9	-9.6	6.6	-0.1	-0.7	0.4	-0.1	-0.5	0.3
Perth	-	-	-	-	-	-	11.0	-13.2	42.0	0.6	-0.4	1.7	-0.1	-0.7	0.5
Sydney	0.5	-0.4	1.5	1.5	-2.5	5.7	2.4	-10.3	16.8	-0.3	-0.8	0.3	-0.4	-0.8	-0.1
Meta-analysis	0.2	-0.3	0.7	-0.6	-1.8	0.7	-1.5	-7.5	4.9	-0.2	-0.5	0.2	-0.2	-0.4	0.1
Meta-analysis IQR	1.1	-1.4	3.6	-0.9	-3.0	1.2	-0.3	-1.4	0.9	-0.6	-1.7	0.6	-1.2	-2.8	0.5
I-squared	4.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-	22.3	-	-

Table CM.7 Arrhythmia admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	2.5	-3.1	8.4	0.4	-0.4	1.2	1.9	0.3	3.6
Brisbane	0.2	-0.3	0.7	0.3	-0.3	0.9	0.4	-0.3	1.1	-1.0	-7.4	5.8	1.1	0.1	2.1	2.1	0.2	4.1
Canberra	-	-	-	-	-	-	-	-	-	-4.9	-15.8	7.4	0.1	-1.1	1.2	0.7	-2.0	3.4
Christchurch	-	-	-	-	-	-	-	-	-	10.9	1.2	21.7	1.1	-1.0	3.2	1.5	-2.9	6.1
Melbourne	0.1	-0.4	0.6	0.1	-0.5	0.6	0.0	-0.6	0.6	2.4	-2.3	7.4	0.4	-0.1	0.9	1.0	0.0	1.9
Perth	-0.6	-1.3	0.1	-0.7	-1.5	0.1	-0.9	-1.9	0.1	4.6	-8.5	19.6	0.3	-0.6	1.2	0.8	-1.3	2.9
Sydney	0.0	-0.2	0.3	0.1	-0.3	0.4	0.1	-0.3	0.5	5.9	-0.6	12.7	0.2	-0.3	0.7	0.4	-0.5	1.4
Meta-analysis	0.0	-0.2	0.3	0.0	-0.3	0.3	0.0	-0.4	0.4	2.9	0.1	5.7	0.4	0.1	0.7	1.0	0.4	1.5
Meta-analysis IQR	0.4	-2.2	3.0	0.4	-2.4	3.3	0.1	-3.1	3.5	2.5	0.1	4.9	3.5	1.0	6.2	5.1	2.2	8.1
I-squared	20.4	-	-	26.8	-	-	30.3	-	-	5.6	-	-	0.0	-	-	0.0	-	-
(Continued)																		
	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.9	-3.0	1.3	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	-0.4	-1.4	0.6	-2.9	-7.4	1.9	1.2	-28.5	43.3	0.4	-0.4	1.3	0.1	-0.7	0.9	-	-	-
Canberra	-	-	-	-	-	-	-1.0	-30.3	40.6	-	-	-	-	-	-	-	-	-
Christchurch	1.7	-0.0	3.5	5.4	-1.8	13.1	-	-	-	-	-	-	0.7	0.0	1.4	-	-	-
Melbourne	-	-	-	-	-	-	3.0	-10.4	18.5	0.3	-0.6	1.2	-0.1	-0.7	0.5	-	-	-
Perth	-	-	-	-	-	-	29.4	-15.4	97.9	0.8	-1.1	2.7	0.2	-0.8	1.3	-	-	-
Sydney	0.1	-1.4	1.6	0.3	-6.0	7.0	5.7	-14.1	30.0	0.2	-0.6	1.0	0.2	-0.3	0.8	-	-	-
Meta-analysis	0.3	-0.9	1.5	-0.4	-3.0	2.2	4.5	-5.6	15.7	0.3	-0.1	0.8	0.2	-0.1	0.5	-	-	-
Meta-analysis IQR	1.6	-4.9	8.6	-0.8	-5.1	3.8	0.8	-1.1	2.7	1.3	-0.5	3.2	1.8	-0.6	4.2	-	-	-
I-squared	55.5	-	-	19.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-	-	-	-

Table CM.8 Arrhythmia admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	3.9	-1.1	9.2	0.7	-0.0	1.4	1.0	-0.5	2.5
Brisbane	-0.0	-0.4	0.4	0.1	-0.4	0.5	0.2	-0.4	0.8	-4.5	-9.4	0.7	0.1	-0.6	0.9	0.7	-0.8	2.2
Canberra	-	-	-	-	-	-	-	-	-	3.7	-6.7	15.3	-0.2	-1.2	0.9	-0.1	-2.4	2.3
Christchurch	-	-	-	-	-	-	-	-	-	0.8	-6.1	8.2	0.1	-1.4	1.6	-1.0	-4.0	2.1
Melbourne	0.1	-0.3	0.5	0.1	-0.4	0.5	-0.0	-0.5	0.5	0.4	-3.1	4.0	0.2	-0.2	0.5	0.3	-0.4	1.0
Perth	-0.2	-0.7	0.3	-0.2	-0.8	0.4	-0.2	-0.9	0.5	-4.4	-13.1	5.1	-0.4	-1.0	0.2	-1.1	-2.6	0.4
Sydney	-0.1	-0.3	0.2	-0.1	-0.3	0.2	-0.1	-0.4	0.3	0.4	-4.5	5.6	-0.1	-0.5	0.3	-0.2	-0.9	0.6
Meta-analysis	-0.0	-0.2	0.1	-0.0	-0.2	0.2	-0.0	-0.3	0.2	0.1	-2.1	2.4	0.0	-0.2	0.3	0.1	-0.3	0.5
Meta-analysis IQR	-0.4	-2.2	1.3	-0.3	-2.1	1.5	-0.3	-2.3	1.8	0.1	-1.8	2.1	0.4	-1.7	2.5	0.4	-1.8	2.6
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	10.8	-	-	8.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.9	-1.0	2.8	-	-	-	-	-	-	-	-	-
Brisbane	-0.2	-0.9	0.6	0.6	-3.1	4.5	-0.2	-23.6	30.5	-0.2	-0.9	0.5	-0.0	-0.7	0.6
Canberra	-	-	-	-	-	-	8.3	-19.7	46.1	-	-	-	-	-	-
Christchurch	0.4	-0.8	1.7	1.0	-3.7	6.0	-	-	-	-	-	-	-0.2	-0.8	0.4
Melbourne	-	-	-	-	-	-	-1.9	-11.8	9.2	-0.0	-0.7	0.7	-0.2	-0.7	0.2
Perth	-	-	-	-	-	-	-3.4	-29.2	31.7	-0.1	-1.4	1.3	0.4	-0.4	1.1
Sydney	0.3	-0.9	1.5	0.2	-4.8	5.5	-8.3	-22.5	8.7	-0.2	-0.9	0.4	-0.1	-0.5	0.4
Meta-analysis	0.1	-0.5	0.7	0.8	-0.8	2.3	-2.6	-10.0	5.5	-0.2	-0.5	0.2	-0.1	-0.3	0.2
Meta-analysis IQR	0.4	-2.7	3.6	1.3	-1.3	4.0	-0.5	-1.9	1.0	-0.6	-2.0	0.9	-0.7	-2.5	1.2
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Table CM.9 Cardiac failure admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	6.1	-2.7	15.7	0.1	-1.3	1.4	0.5	-2.1	3.1
Brisbane	-1.2	-2.1	-0.3	-1.4	-2.4	-0.3	-1.6	-2.9	-0.3	0.9	-9.0	11.9	0.4	-1.1	2.0	0.6	-2.4	3.7
Canberra	-	-	-	-	-	-	-	-	-	6.7	-18.8	40.2	-0.2	-2.7	2.4	-1.2	-6.9	4.9
Christchurch	-	-	-	-	-	-	-	-	-	1.3	-14.7	20.2	2.2	-1.7	6.2	1.3	-6.4	9.7
Melbourne	0.1	-0.6	0.8	0.0	-0.8	0.8	0.0	-0.9	1.0	3.4	-3.3	10.5	0.4	-0.3	1.2	1.2	-0.2	2.6
Perth	-0.7	-1.7	0.4	-1.0	-2.3	0.3	-1.4	-2.9	0.1	2.0	-16.0	24.0	0.1	-1.2	1.4	-0.1	-3.1	3.0
Sydney	0.1	-0.5	0.6	0.1	-0.5	0.7	-0.0	-0.7	0.7	12.4	1.6	24.4	0.6	-0.3	1.5	1.1	-0.5	2.7
Meta-analysis	-0.3	-0.9	0.2	-0.4	-1.1	0.2	-0.6	-1.3	0.2	4.9	0.7	9.1	0.4	-0.1	0.8	0.9	0.0	1.8
Meta-analysis IQR	-3.5	-9.1	2.5	-4.0	-9.8	2.1	-5.0	-11.5	1.9	4.2	0.6	7.8	3.6	-0.5	7.8	4.6	0.1	9.3
I-squared	58.6	-	-	57.5	-	-	57.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.5	-3.6	2.6	-	-	-	-	-	-	-	-	-
Brisbane	-0.0	-1.7	1.7	0.5	-7.2	8.9	5.5	-38.2	80.1	-0.4	-2.0	1.2	-0.7	-2.1	0.7
Canberra	-	-	-	-	-	-	29.2	-35.2	157.7	-	-	-	-	-	-
Christchurch	1.6	-1.5	4.8	5.5	-7.3	20.2	-	-	-	-	-	-	-0.2	-1.5	1.1
Melbourne	-	-	-	-	-	-	15.1	-6.7	42.0	1.0	-0.3	2.4	0.7	-0.2	1.6
Perth	-	-	-	-	-	-	110.9	15.7	284.4	1.1	-1.6	4.0	0.3	-1.3	1.8
Sydney	-0.1	-2.6	2.5	-0.8	-11.1	10.7	41.9	0.1	101.2	1.2	-0.1	2.6	0.5	-0.4	1.4
Meta-analysis	0.3	-1.0	1.6	-0.2	-2.9	2.6	26.8	6.1	51.6	0.8	-0.0	1.6	0.3	-0.2	0.8
Meta-analysis IQR	1.4	-5.5	8.7	-0.3	-4.8	4.5	4.4	1.1	7.9	3.0	-0.1	6.1	2.1	-1.7	6.1
I-squared	0.0	-	-	0.0	-	-	9.3	-	-	0.0	-	-	0.0	-	-

Table CM.10 Cardiac failure admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	4.0	-0.8	9.0	0.1	-0.6	0.9	-0.1	-1.5	1.3
Brisbane	0.4	0.0	0.7	0.5	0.1	0.9	0.5	0.0	1.1	4.9	0.9	9.1	0.6	0.1	1.2	1.7	0.6	2.9
Canberra	-	-	-	-	-	-	-	-	-	14.2	2.9	26.8	1.3	0.2	2.4	2.8	0.3	5.3
Christchurch	-	-	-	-	-	-	-	-	-	3.8	-1.9	9.8	-0.4	-1.7	0.8	-1.6	-4.1	1.0
Melbourne	-0.1	-0.4	0.2	-0.2	-0.5	0.1	-0.4	-0.7	-0.0	5.2	2.7	7.9	0.7	0.4	0.9	1.5	0.9	2.0
Perth	0.1	-0.3	0.5	0.1	-0.4	0.6	-0.0	-0.6	0.5	8.2	0.8	16.0	0.6	0.1	1.1	1.6	0.4	2.8
Sydney	0.2	-0.0	0.4	0.2	-0.1	0.4	0.1	-0.2	0.4	13.3	9.1	17.6	1.1	0.8	1.4	2.1	1.5	2.7
Meta-analysis	0.1	-0.1	0.3	0.1	-0.1	0.4	0.0	-0.3	0.4	7.0	4.1	10.0	0.7	0.4	1.0	1.3	0.4	2.2
Meta-analysis IQR	1.3	-0.6	3.3	1.1	-1.3	3.5	0.3	-2.8	3.5	6.0	3.5	8.5	6.3	3.7	9.0	6.9	2.2	11.8
I-squared	38.7	-	-	55.7	-	-	67.7	-	-	61.6	-	-	50.0	-	-	61.3	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.5	-1.3	2.2	-	-	-	-	-	-	0.5	0.2	0.9
Brisbane	-0.1	-0.8	0.5	-2.1	-5.1	1.0	2.0	-16.8	25.1	0.4	-0.2	0.9	0.1	-0.4	0.7
Canberra	-	-	-	-	-	-	36.8	2.1	83.2	-	-	-	-	-	-
Christchurch	-1.2	-2.2	-0.1	0.5	-1.3	2.2	-	-	-	-	-	-	0.2	-0.3	0.6
Melbourne	-	-	-	-	-	-	20.8	12.0	30.2	1.3	0.8	1.8	0.5	0.2	0.9
Perth	-	-	-	-	-	-	18.5	-5.9	49.1	0.8	-0.2	1.8	0.3	-0.2	0.9
Sydney	2.0	1.1	3.0	10.6	6.1	15.2	29.4	13.7	47.3	1.1	0.6	1.7	0.6	0.2	0.9
Meta-analysis	0.2	-1.6	2.1	2.1	-3.0	7.4	21.2	13.1	29.9	0.9	0.5	1.4	0.4	0.3	0.6
Meta-analysis IQR	1.3	-8.3	11.9	3.5	-5.1	12.9	3.6	2.3	4.9	3.6	1.8	5.4	3.4	2.1	4.7
I-squared	90.6	-	-	87.0	-	-	9.6	-	-	58.6	-	-	0.0	-	-

Table CM.11 Myocardial infarction admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-0.3	-6.5	6.4	-0.4	-1.4	0.7	0.0	-1.9	2.0
Brisbane	0.4	-0.1	0.9	0.4	-0.1	1.0	0.6	-0.1	1.3	3.7	-3.0	10.9	0.1	-0.9	1.0	-0.2	-2.1	1.7
Canberra	-	-	-	-	-	-	-	-	-	-3.9	-17.9	12.6	-0.4	-1.9	1.2	-0.9	-4.4	2.8
Christchurch	-	-	-	-	-	-	-	-	-	-3.7	-11.4	4.7	0.6	-1.1	2.4	0.7	-2.8	4.5
Melbourne	-0.1	-0.5	0.4	0.0	-0.5	0.5	0.1	-0.5	0.7	3.1	-1.2	7.7	0.0	-0.4	0.5	0.1	-0.8	0.9
Perth	-0.4	-1.1	0.2	-0.5	-1.3	0.2	-0.7	-1.6	0.2	-3.3	-14.4	9.2	-0.2	-1.0	0.6	0.0	-1.9	1.9
Sydney	0.2	-0.1	0.5	0.2	-0.2	0.5	0.1	-0.3	0.5	7.6	0.8	15.0	0.5	0.0	1.1	1.1	0.1	2.1
Meta-analysis	0.1	-0.2	0.3	0.1	-0.2	0.4	0.1	-0.3	0.5	2.0	-0.8	5.0	0.1	-0.2	0.4	0.3	-0.2	0.9
Meta-analysis IQR	0.8	-1.8	3.6	0.9	-1.9	3.7	0.8	-2.5	4.3	1.8	-0.7	4.3	1.2	-1.4	3.8	1.7	-1.1	4.7
I-squared	28.3	-	-	27.1	-	-	33.3	-	-	9.2	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.4	-2.0	2.8	-	-	-	-	-	-	-	-	-
Brisbane	-0.1	-1.0	0.9	-1.5	-6.0	3.3	19.5	-14.0	66.2	-0.1	-1.0	0.8	-0.1	-0.9	0.7
Canberra	-	-	-	-	-	-	2.6	-31.6	53.7	-	-	-	-	-	-
Christchurch	1.3	-0.2	2.7	4.4	-1.5	10.6	-	-	-	-	-	-	-0.5	-1.2	0.2
Melbourne	-	-	-	-	-	-	6.2	-7.0	21.2	0.1	-0.8	1.0	-0.1	-0.7	0.5
Perth	-	-	-	-	-	-	20.4	-17.9	76.8	0.8	-0.9	2.6	0.3	-0.6	1.3
Sydney	1.8	0.2	3.4	10.0	2.8	17.6	17.0	-5.9	45.5	0.8	-0.1	1.6	0.3	-0.2	0.9
Meta-analysis	0.9	-0.3	2.0	2.6	-1.9	7.4	10.3	-0.2	21.8	0.3	-0.2	0.8	-0.0	-0.3	0.3
Meta-analysis IQR	4.8	-1.5	11.4	4.5	-3.2	12.8	1.8	-0.0	3.7	1.2	-0.6	3.1	-0.1	-2.5	2.3
I-squared	59.3	-	-	65.4	-	-	0.0	-	-	0.0	-	-	4.9	-	-

Table CM.12 Myocardial infarction admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-0.6	-5.6	4.7	-0.1	-0.9	0.8	-0.5	-2.0	1.1
Brisbane	-0.0	-0.4	0.4	-0.0	-0.5	0.4	-0.0	-0.6	0.5	2.6	-2.1	7.5	-0.1	-0.8	0.6	-0.1	-1.4	1.3
Canberra	-	-	-	-	-	-	-	-	-	10.0	-4.1	26.2	0.9	-0.6	2.3	1.8	-1.5	5.2
Christchurch	-	-	-	-	-	-	-	-	-	0.0	-5.1	5.4	0.0	-1.0	1.1	0.9	-1.4	3.2
Melbourne	-0.2	-0.5	0.2	-0.2	-0.6	0.2	-0.3	-0.7	0.2	4.1	0.6	7.6	0.5	0.1	0.8	0.8	0.1	1.5
Perth	1.0	0.5	1.5	1.2	0.6	1.8	1.3	0.6	2.1	7.8	-1.3	17.7	0.9	0.3	1.5	2.4	1.0	3.9
Sydney	0.1	-0.1	0.4	0.1	-0.1	0.4	0.1	-0.2	0.5	7.3	1.9	13.0	0.6	0.2	1.1	1.0	0.2	1.8
Meta-analysis	0.2	-0.2	0.6	0.2	-0.3	0.8	0.3	-0.4	0.9	3.3	0.9	5.8	0.4	0.2	0.7	0.8	0.2	1.5
Meta-analysis IQR	2.2	-1.9	6.4	2.3	-3.1	8.0	2.3	-3.6	8.6	2.9	0.8	4.9	4.1	1.7	6.5	4.4	1.0	8.0
I-squared	80.6	-	-	81.0	-	-	79.2	-	-	21.3	-	-	19.7	-	-	38.2	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-2.1	-4.1	-0.1	-	-	-	-	-	-	-	-	-
Brisbane	0.4	-0.3	1.1	0.9	-2.6	4.5	-0.1	-22.4	28.6	0.6	-0.0	1.2	0.2	-0.4	0.8
Canberra	-	-	-	-	-	-	21.6	-17.7	79.6	-	-	-	-	-	-
Christchurch	0.3	-0.6	1.2	3.0	-0.8	6.8	-	-	-	-	-	-	-0.3	-0.7	0.2
Melbourne	-	-	-	-	-	-	8.5	-1.8	20.0	0.7	0.0	1.4	0.2	-0.3	0.6
Perth	-	-	-	-	-	-	41.5	6.7	87.6	1.8	0.5	3.0	0.4	-0.3	1.2
Sydney	1.0	-0.2	2.3	5.5	-0.0	11.4	16.9	-1.5	38.9	0.5	-0.1	1.2	0.3	-0.2	0.7
Meta-analysis	0.5	-0.1	1.0	1.2	-1.9	4.4	12.4	3.4	22.1	0.7	0.3	1.1	0.1	-0.1	0.3
Meta-analysis IQR	2.6	-0.3	5.5	2.0	-3.2	7.5	2.2	0.6	3.7	2.7	1.3	4.2	0.8	-1.0	2.6
I-squared	0.0	-	-	72.3	-	-	5.0	-	-	0.0	-	-	7.8	-	-

Table CM.13 Cardiovascular admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	1.8	-0.5	4.2	-0.1	-0.5	0.2	0.3	-0.4	1.0
Brisbane	0.1	-0.1	0.3	0.1	-0.1	0.3	0.1	-0.2	0.3	0.1	-2.4	2.8	0.3	-0.0	0.7	0.7	0.0	1.5
Canberra	-	-	-	-	-	-	-	-	-	1.9	-2.1	6.0	0.4	-0.0	0.8	0.8	-0.1	1.7
Christchurch	-	-	-	-	-	-	-	-	-	-0.2	-3.7	3.5	0.2	-0.6	0.9	0.1	-1.5	1.6
Melbourne	-0.1	-0.2	0.1	-0.1	-0.3	0.1	-0.0	-0.3	0.2	0.6	-1.1	2.3	0.1	-0.1	0.3	0.2	-0.1	0.6
Perth	-0.0	-0.3	0.2	-0.1	-0.4	0.2	-0.1	-0.5	0.2	1.7	-3.3	6.9	0.1	-0.2	0.4	0.2	-0.6	1.0
Sydney	-0.1	-0.2	0.0	-0.1	-0.2	0.0	-0.1	-0.3	0.0	4.0	1.4	6.6	0.1	-0.1	0.3	0.3	-0.1	0.7
Meta-analysis	-0.0	-0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.2	0.0	1.3	0.3	2.4	0.1	0.0	0.2	0.3	0.1	0.5
Meta-analysis IQR	-0.4	-1.3	0.4	-0.5	-1.3	0.4	-0.6	-1.6	0.4	1.2	0.3	2.1	1.1	0.1	2.1	1.7	0.6	2.8
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	6.6	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.2	-0.7	1.1	-	-	-	-	-	-	-	-	-
Brisbane	-0.1	-0.5	0.3	-0.9	-2.7	0.9	12.8	-0.9	28.4	0.2	-0.1	0.5	0.2	-0.1	0.6
Canberra	-	-	-	-	-	-	3.6	-7.2	15.6	-	-	-	-	-	-
Christchurch	0.6	-0.0	1.2	1.9	-0.7	4.5	-	-	-	-	-	-	-0.1	-0.4	0.2
Melbourne	-	-	-	-	-	-	1.9	-3.3	7.3	-0.0	-0.4	0.3	-0.2	-0.4	0.1
Perth	-	-	-	-	-	-	9.8	-6.6	29.1	0.2	-0.5	0.9	0.0	-0.4	0.4
Sydney	0.1	-0.4	0.7	0.6	-1.9	3.2	-0.2	-8.2	8.5	-0.0	-0.4	0.3	-0.1	-0.3	0.1
Meta-analysis	0.2	-0.2	0.5	0.2	-0.6	1.0	3.0	-0.9	6.9	0.1	-0.1	0.2	-0.0	-0.2	0.1
Meta-analysis IQR	0.8	-1.2	2.9	0.3	-1.1	1.6	0.5	-0.2	1.2	0.2	-0.5	0.9	-0.3	-1.3	0.7
I-squared	43.9	-	-	7.3	-	-	0.0	-	-	0.0	-	-	12.6	-	-

Table CM.14 Cardiovascular admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	2.4	0.5	4.3	0.4	0.1	0.7	0.5	-0.1	1.0
Brisbane	0.1	-0.1	0.2	0.1	-0.1	0.3	0.1	-0.1	0.3	1.4	-0.3	3.2	0.3	0.0	0.5	0.7	0.2	1.2
Canberra	-	-	-	-	-	-	-	-	-	0.5	-3.1	4.2	0.1	-0.2	0.5	0.2	-0.6	1.1
Christchurch	-	-	-	-	-	-	-	-	-	0.3	-2.0	2.5	-0.2	-0.6	0.3	-0.5	-1.4	0.5
Melbourne	-0.1	-0.2	0.1	-0.1	-0.2	0.0	-0.2	-0.3	-0.0	2.3	1.1	3.5	0.2	0.1	0.4	0.5	0.3	0.8
Perth	0.2	-0.0	0.3	0.2	-0.0	0.4	0.1	-0.1	0.4	5.2	2.0	8.6	0.3	0.1	0.5	0.9	0.4	1.4
Sydney	-0.0	-0.1	0.1	-0.0	-0.1	0.1	-0.1	-0.2	0.1	5.5	3.7	7.3	0.3	0.2	0.5	0.6	0.4	0.9
Meta-analysis	0.0	-0.1	0.1	0.0	-0.1	0.1	-0.0	-0.1	0.1	2.5	1.0	4.0	0.3	0.2	0.4	0.6	0.4	0.8
Meta-analysis IQR	0.2	-0.6	1.0	0.1	-0.8	1.1	-0.1	-1.3	1.1	2.2	0.9	3.4	2.6	1.8	3.3	3.0	2.1	3.9
I-squared	38.7	-	-	52.4	-	-	63.3	-	-	69.5	-	-	3.5	-	-	18.4	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.2	-0.6	0.9	-	-	-	-	-	-	-	-	-
Brisbane	0.0	-0.3	0.3	0.4	-0.9	1.7	0.2	-8.4	9.7	0.1	-0.1	0.4	-0.0	-0.2	0.2
Canberra	-	-	-	-	-	-	1.8	-8.3	13.1	-	-	-	-	-	-
Christchurch	0.3	-0.1	0.7	1.0	-0.5	2.6	-	-	-	-	-	-	-0.0	-0.2	0.1
Melbourne	-	-	-	-	-	-	6.5	2.9	10.3	0.4	0.2	0.7	0.1	-0.1	0.2
Perth	-	-	-	-	-	-	15.5	4.2	28.0	0.7	0.2	1.2	0.3	0.0	0.5
Sydney	0.9	0.5	1.3	3.8	2.0	5.7	7.7	1.6	14.2	0.3	0.1	0.5	0.0	-0.1	0.2
Meta-analysis	0.4	-0.1	0.9	1.2	-0.3	2.8	6.4	2.5	10.4	0.3	0.1	0.5	0.0	-0.0	0.1
Meta-analysis IQR	2.1	-0.6	4.9	2.1	-0.6	4.8	1.1	0.5	1.8	1.3	0.6	2.0	0.4	-0.3	1.0
I-squared	84.4	-	-	78.1	-	-	19.3	-	-	51.9	-	-	5.9	-	-

Table CM.15 Asthma admissions 1-4 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-2.3	-8.2	4.0	-0.6	-1.4	0.3	-1.4	-3.2	0.4
Brisbane	0.6	0.1	1.0	0.7	0.1	1.2	0.8	0.1	1.4	5.3	-0.7	11.6	0.7	-0.1	1.6	1.9	0.2	3.6
Canberra	-	-	-	-	-	-	-	-	-	-6.4	-18.0	6.9	-0.3	-1.7	1.1	-1.0	-4.2	2.3
Christchurch	-	-	-	-	-	-	-	-	-	10.4	3.2	18.2	1.5	-0.1	3.0	1.5	-1.8	4.8
Melbourne	-0.1	-0.5	0.3	-0.2	-0.7	0.3	-0.4	-0.9	0.2	0.7	-3.3	5.0	0.2	-0.2	0.6	0.6	-0.2	1.4
Perth	0.5	-0.1	1.1	0.5	-0.2	1.2	0.5	-0.3	1.3	0.8	-8.7	11.3	0.5	-0.2	1.2	1.3	-0.3	2.9
Sydney	0.2	-0.0	0.4	0.2	-0.1	0.4	0.2	-0.1	0.5	-2.3	-7.0	2.8	0.3	-0.1	0.7	0.3	-0.5	1.0
Meta-analysis	0.3	-0.0	0.5	0.2	-0.1	0.6	0.2	-0.2	0.6	1.3	-2.3	5.1	0.3	-0.0	0.6	0.5	-0.3	1.2
Meta-analysis IQR	2.6	-0.1	5.4	2.3	-0.6	5.3	1.9	-1.7	5.7	1.1	-2.0	4.4	2.5	-0.2	5.2	2.6	-1.3	6.6
I-squared	47.4	-	-	50.2	-	-	58.6	-	-	52.2	-	-	23.5	-	-	36.2	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.0	-2.4	2.4	-	-	-	-	-	-	-	-	-
Brisbane	0.4	-0.5	1.2	3.3	-0.8	7.5	4.2	-25.4	45.7	0.4	-0.5	1.2	0.6	-0.1	1.4
Canberra	-	-	-	-	-	-	-8.4	-37.0	33.3	-	-	-	-	-	-
Christchurch	2.1	0.8	3.4	6.7	1.2	12.5	-	-	-	-	-	-	0.7	0.2	1.3
Melbourne	-	-	-	-	-	-	18.0	4.3	33.5	0.5	-0.3	1.3	0.2	-0.3	0.8
Perth	-	-	-	-	-	-	14.2	-18.0	59.1	0.8	-0.6	2.3	0.5	-0.3	1.3
Sydney	-0.5	-1.7	0.7	-0.9	-5.9	4.4	-2.7	-18.4	16.1	-0.1	-0.8	0.6	-0.2	-0.7	0.2
Meta-analysis	0.6	-0.8	2.1	1.9	-1.2	5.1	9.2	-0.4	19.7	0.3	-0.2	0.7	0.3	-0.0	0.7
Meta-analysis IQR	3.4	-4.3	11.6	3.3	-2.0	8.8	1.6	-0.1	3.3	1.0	-0.6	2.6	2.5	-0.4	5.4
I-squared	75.5	-	-	53.5	-	-	3.5	-	-	0.0	-	-	50.3	-	-

Table CM.16 Asthma admissions 5-14 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	11.7	3.1	20.9	0.8	-0.3	1.9	3.6	1.3	6.0
Brisbane	-0.0	-0.6	0.5	-0.0	-0.6	0.6	0.1	-0.7	0.8	-3.6	-9.4	2.6	-0.5	-1.4	0.5	-0.7	-2.5	1.1
Canberra	-	-	-	-	-	-	-	-	-	-0.9	-17.0	18.4	-0.3	-2.0	1.4	1.8	-2.2	5.9
Christchurch	-	-	-	-	-	-	-	-	-	-1.0	-10.3	9.3	-0.6	-2.6	1.5	2.4	-2.0	7.0
Melbourne	-1.3	-1.9	-0.8	-1.4	-2.0	-0.8	-1.6	-2.2	-0.9	0.4	-4.4	5.4	-0.0	-0.5	0.5	0.4	-0.6	1.4
Perth	0.4	-0.3	1.1	0.5	-0.4	1.3	0.7	-0.3	1.7	6.9	-5.1	20.5	0.4	-0.4	1.2	0.2	-1.8	2.1
Sydney	0.5	0.2	0.8	0.6	0.3	0.9	0.7	0.3	1.1	2.2	-3.8	8.6	1.2	0.7	1.7	2.1	1.1	3.0
Meta-analysis	-0.1	-0.9	0.7	-0.1	-1.0	0.8	-0.0	-1.1	1.0	1.8	-1.9	5.6	0.3	-0.2	0.8	1.1	0.0	2.2
Meta-analysis IQR	-1.1	-9.3	7.8	-0.9	-8.6	7.4	-0.4	-9.4	9.5	1.6	-1.6	4.8	2.6	-2.2	7.6	6.0	0.2	12.1
I-squared	92.1	-	-	91.4	-	-	90.9	-	-	36.2	-	-	64.2	-	-	61.9	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.8	-2.2	3.9	-	-	-	-	-	-	-	-	-
Brisbane	-0.4	-1.4	0.6	-3.9	-8.1	0.5	-21.3	-45.7	14.1	-0.6	-1.6	0.5	0.1	-0.8	1.0
Canberra	-	-	-	-	-	-	-31.9	-58.9	13.1	-	-	-	-	-	-
Christchurch	-0.0	-1.8	1.8	0.2	-6.8	7.7	-	-	-	-	-	-	0.1	-0.7	0.9
Melbourne	-	-	-	-	-	-	3.9	-11.3	21.6	-0.4	-1.4	0.6	-0.4	-1.1	0.2
Perth	-	-	-	-	-	-	14.1	-23.6	70.3	1.0	-0.8	2.8	0.7	-0.3	1.6
Sydney	2.3	0.8	3.9	10.8	3.9	18.0	22.1	-1.9	52.0	1.2	0.3	2.0	0.7	0.2	1.3
Meta-analysis	0.6	-1.1	2.3	1.6	-4.1	7.6	0.5	-17.1	21.8	0.3	-0.7	1.2	0.2	-0.2	0.7
Meta-analysis IQR	3.3	-5.6	13.0	2.7	-6.9	13.2	0.1	-3.4	3.7	1.0	-2.5	4.7	1.7	-1.7	5.3
I-squared	77.5	-	-	76.5	-	-	43.7	-	-	67.4	-	-	47.6	-	-

Table CM.17 Asthma admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	1.9	-2.9	6.9	-0.3	-1.1	0.4	-0.9	-2.4	0.5
Brisbane	0.4	0.0	0.8	0.5	0.1	1.0	0.7	0.1	1.3	-0.2	-4.4	4.3	0.2	-0.5	0.8	0.2	-1.0	1.5
Canberra	-	-	-	-	-	-	-	-	-	-4.0	-16.2	10.0	2.4	0.9	4.0	3.4	-0.2	7.0
Christchurch	-	-	-	-	-	-	-	-	-	-0.5	-6.7	6.2	0.1	-1.4	1.5	0.7	-2.3	3.8
Melbourne	-0.4	-0.8	-0.0	-0.5	-0.9	-0.0	-0.6	-1.0	-0.1	3.0	-0.3	6.5	0.5	0.1	0.8	0.9	0.2	1.6
Perth	0.6	-0.0	1.2	0.7	-0.0	1.5	0.7	-0.2	1.6	-6.5	-15.5	3.3	0.3	-0.4	1.0	0.5	-1.2	2.2
Sydney	0.0	-0.2	0.3	0.0	-0.2	0.3	0.1	-0.2	0.5	-1.0	-5.3	3.5	0.1	-0.3	0.5	0.3	-0.4	1.0
Meta-analysis	0.1	-0.2	0.5	0.2	-0.3	0.6	0.2	-0.3	0.7	0.7	-1.2	2.6	0.3	-0.1	0.7	0.4	-0.1	1.0
Meta-analysis IQR	1.2	-2.5	5.0	1.4	-2.6	5.6	1.7	-2.9	6.4	0.6	-1.0	2.3	2.7	-1.2	6.8	2.2	-0.6	5.1
I-squared	75.2	-	-	77.4	-	-	77.3	-	-	0.0	-	-	51.2	-	-	28.3	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-1.3	-3.1	0.5	-	-	-	-	-	-	-	-	-
Brisbane	0.1	-0.7	0.8	1.0	-2.4	4.5	29.5	2.2	64.1	0.2	-0.5	0.9	0.2	-0.4	0.9
Canberra	-	-	-	-	-	-	18.9	-19.3	75.3	-	-	-	-	-	-
Christchurch	0.5	-0.7	1.8	2.2	-2.9	7.5	-	-	-	-	-	-	-0.2	-0.7	0.3
Melbourne	-	-	-	-	-	-	10.5	-0.3	22.4	0.9	0.2	1.5	0.5	0.1	1.0
Perth	-	-	-	-	-	-	1.4	-28.0	42.9	0.4	-1.1	2.0	-0.2	-1.0	0.7
Sydney	0.2	-1.0	1.4	2.1	-2.9	7.3	10.8	-5.6	30.0	0.6	-0.0	1.2	0.1	-0.3	0.5
Meta-analysis	0.2	-0.4	0.7	-0.1	-1.8	1.5	12.3	3.9	21.3	0.6	0.2	0.9	0.1	-0.1	0.4
Meta-analysis IQR	1.0	-2.0	4.1	-0.2	-3.0	2.6	2.1	0.7	3.6	2.2	0.7	3.6	1.1	-0.9	3.1
I-squared	0.0	-	-	15.2	-	-	0.0	-	-	0.0	-	-	19.0	-	-

Table CM.18 Asthma admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-4.9	-16.5	8.3	-0.1	-2.2	2.1	-0.9	-5.0	3.3
Brisbane	-0.1	-0.8	0.7	-0.2	-1.1	0.7	-0.3	-1.3	0.8	4.8	-4.0	14.4	0.4	-0.8	1.7	0.6	-2.0	3.1
Canberra	-	-	-	-	-	-	-	-	-	-4.1	-24.0	20.9	0.1	-2.2	2.5	-1.2	-6.4	4.3
Christchurch	-	-	-	-	-	-	-	-	-	0.9	-14.3	18.8	-0.0	-4.0	4.1	-1.2	-9.2	7.6
Melbourne	-0.0	-0.7	0.7	-0.1	-0.8	0.7	-0.1	-0.9	0.8	3.5	-2.5	9.8	0.3	-0.4	1.0	0.6	-0.7	1.8
Perth	-0.2	-1.2	0.7	-0.3	-1.4	0.9	-0.3	-1.7	1.0	-16.4	-29.3	-1.2	-0.3	-1.4	0.9	-1.5	-4.2	1.2
Sydney	-0.1	-0.5	0.4	-0.1	-0.6	0.4	-0.1	-0.7	0.4	-0.1	-7.8	8.2	-0.4	-1.1	0.3	-0.4	-1.7	1.0
Meta-analysis	-0.1	-0.4	0.2	-0.1	-0.5	0.2	-0.2	-0.6	0.3	0.1	-4.4	4.8	-0.0	-0.4	0.4	-0.0	-0.8	0.7
Meta-analysis IQR	-0.8	-3.9	2.4	-1.1	-4.4	2.3	-1.4	-5.1	2.4	0.1	-3.8	4.1	-0.2	-3.8	3.6	-0.2	-4.2	3.9
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	18.4	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	1.2	-4.0	6.8	-	-	-	-	-	-	-	-	-
Brisbane	0.7	-0.8	2.2	-0.6	-7.2	6.5	-31.3	-57.5	11.1	-0.9	-2.4	0.6	-1.2	-2.4	0.0
Canberra	-	-	-	-	-	-	-34.9	-65.6	23.2	-	-	-	-	-	-
Christchurch	1.6	-1.6	4.9	1.7	-10.4	15.5	-	-	-	-	-	-	1.0	-0.3	2.4
Melbourne	-	-	-	-	-	-	9.8	-9.2	32.8	0.7	-0.6	1.9	0.4	-0.4	1.2
Perth	-	-	-	-	-	-	-10.5	-48.9	56.9	-1.7	-4.1	0.8	-1.0	-2.3	0.3
Sydney	-0.2	-2.3	2.0	-2.7	-11.3	6.7	12.8	-15.8	51.0	0.2	-1.0	1.3	0.1	-0.7	0.8
Meta-analysis	0.6	-0.6	1.7	0.1	-3.5	3.9	-3.1	-21.0	18.7	-0.1	-1.0	0.7	-0.1	-0.9	0.7
Meta-analysis IQR	3.1	-3.0	9.6	0.2	-5.8	6.6	-0.6	-4.2	3.2	-0.5	-3.7	2.8	-0.8	-6.3	5.1
I-squared	0.0	-	-	0.0	-	-	30.3	-	-	31.2	-	-	55.2	-	-

Table CM.19 COPD admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-4.2	-9.9	1.9	0.4	-0.6	1.4	-0.5	-2.3	1.3
Brisbane	0.7	0.1	1.3	0.9	0.2	1.6	1.2	0.4	2.1	-0.9	-7.6	6.3	0.1	-1.0	1.1	-0.3	-2.3	1.7
Canberra	-	-	-	-	-	-	-	-	-	-4.4	-21.3	16.2	-0.7	-2.6	1.3	-1.4	-5.6	3.0
Christchurch	-	-	-	-	-	-	-	-	-	-2.2	-9.0	5.1	-0.9	-2.4	0.7	-1.4	-4.6	1.9
Melbourne	-0.4	-0.9	0.2	-0.4	-1.0	0.2	-0.6	-1.3	0.1	2.0	-2.7	6.9	-0.1	-0.6	0.4	0.2	-0.7	1.2
Perth	-0.1	-0.9	0.8	-0.1	-1.2	0.9	-0.3	-1.5	0.9	5.0	-9.6	21.9	0.4	-0.6	1.4	0.9	-1.4	3.3
Sydney	0.2	-0.1	0.6	0.2	-0.2	0.6	0.2	-0.2	0.7	0.7	-5.8	7.8	0.3	-0.3	0.8	0.9	-0.1	2.0
Meta-analysis	0.1	-0.3	0.5	0.2	-0.3	0.7	0.2	-0.6	0.9	-0.4	-3.1	2.3	0.1	-0.2	0.4	0.3	-0.3	0.9
Meta-analysis IQR	1.3	-2.8	5.7	1.4	-3.2	6.3	1.4	-5.4	8.7	-0.4	-2.6	1.9	0.7	-2.1	3.5	1.4	-1.6	4.6
I-squared	59.5	-	-	64.2	-	-	74.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	1.0	-1.2	3.2	-	-	-	-	-	-	-	-	-
Brisbane	-0.6	-1.7	0.6	-2.9	-8.1	2.7	19.4	-15.1	68.1	-0.0	-1.0	0.9	0.2	-0.6	1.1
Canberra	-	-	-	-	-	-	-37.0	-64.4	11.6	-	-	-	-	-	-
Christchurch	0.8	-0.5	2.1	1.5	-3.6	6.8	-	-	-	-	-	-	0.1	-0.5	0.6
Melbourne	-	-	-	-	-	-	10.1	-5.1	27.6	0.3	-0.7	1.3	-0.0	-0.7	0.6
Perth	-	-	-	-	-	-	50.3	-5.6	139.3	2.2	0.1	4.4	0.6	-0.6	1.8
Sydney	2.4	0.8	4.1	7.7	0.4	15.6	26.1	1.1	57.3	1.0	0.1	1.9	0.3	-0.3	0.9
Meta-analysis	0.8	-0.9	2.5	1.3	-2.3	5.0	14.0	-8.6	42.2	0.6	-0.1	1.3	0.2	-0.2	0.5
Meta-analysis IQR	4.4	-4.6	14.2	2.2	-3.8	8.7	2.4	-1.6	6.7	2.3	-0.4	5.1	1.2	-1.1	3.6
I-squared	77.3	-	-	41.8	-	-	39.1	-	-	40.8	-	-	0.0	-	-

Table CM.20 COPD admissions 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	2.8	-1.4	7.2	-0.2	-0.9	0.5	-0.6	-1.9	0.7
Brisbane	0.6	0.3	0.9	0.7	0.3	1.1	0.9	0.4	1.4	0.7	-3.2	4.7	0.7	0.2	1.3	1.3	0.1	2.4
Canberra	-	-	-	-	-	-	-	-	-	-7.0	-15.8	2.6	-0.5	-1.6	0.5	-1.9	-4.2	0.4
Christchurch	-	-	-	-	-	-	-	-	-	-1.8	-6.2	2.9	0.5	-0.5	1.5	1.8	-0.3	3.9
Melbourne	-0.1	-0.4	0.2	-0.1	-0.4	0.2	-0.2	-0.6	0.2	2.0	-0.6	4.6	0.3	-0.0	0.6	0.4	-0.1	0.9
Perth	-0.3	-0.7	0.1	-0.4	-0.9	0.1	-0.5	-1.0	0.1	-2.9	-9.5	4.1	-0.2	-0.7	0.3	-0.2	-1.3	1.0
Sydney	0.1	-0.1	0.3	0.1	-0.2	0.3	0.0	-0.2	0.3	3.1	-0.6	6.9	0.3	-0.0	0.6	0.7	0.1	1.2
Meta-analysis	0.1	-0.2	0.4	0.1	-0.3	0.4	0.1	-0.5	0.6	0.9	-1.1	2.9	0.2	-0.1	0.4	0.3	-0.4	1.0
Meta-analysis IQR	0.8	-2.3	4.0	0.8	-2.5	4.2	0.8	-4.1	5.9	0.8	-0.9	2.5	1.6	-0.6	3.9	1.6	-2.0	5.4
I-squared	78.3	-	-	79.0	-	-	81.9	-	-	22.4	-	-	40.6	-	-	49.4	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.1	-1.5	1.7	-	-	-	-	-	-	-	-	-
Brisbane	0.6	-0.0	1.2	2.8	-0.3	6.0	30.8	8.7	57.4	0.5	-0.0	0.9	0.3	-0.2	0.8
Canberra	-	-	-	-	-	-	-9.3	-31.1	19.4	-	-	-	-	-	-
Christchurch	0.5	-0.3	1.4	2.3	-1.1	5.8	-	-	-	-	-	-	-0.2	-0.5	0.2
Melbourne	-	-	-	-	-	-	5.9	-2.2	14.6	0.4	-0.2	0.9	-0.0	-0.4	0.3
Perth	-	-	-	-	-	-	8.1	-13.5	35.2	0.2	-0.8	1.2	-0.3	-0.8	0.3
Sydney	0.5	-0.4	1.4	0.7	-3.1	4.7	9.2	-3.4	23.3	0.5	0.0	1.0	0.3	-0.1	0.6
Meta-analysis	0.5	0.1	1.0	0.9	-0.4	2.2	9.2	-0.4	19.7	0.4	0.2	0.7	0.0	-0.2	0.3
Meta-analysis IQR	2.9	0.5	5.4	1.5	-0.6	3.7	1.6	-0.1	3.4	1.6	0.6	2.7	0.3	-1.2	1.9
I-squared	0.0	-	-	4.5	-	-	32.3	-	-	0.0	-	-	24.3	-	-

Table CM.21 Pneumonia + Acute Bronchitis 0 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-2.6	-6.3	1.3	-0.6	-1.4	0.1	-1.4	-2.6	-0.2
Brisbane	-0.0	-0.6	0.6	-0.0	-0.7	0.7	-0.0	-0.9	0.8	-1.7	-6.7	3.7	-0.1	-1.0	0.7	-0.1	-1.7	1.6
Canberra	-	-	-	-	-	-	-	-	-	5.6	-6.7	19.6	0.5	-1.1	2.1	1.7	-1.8	5.4
Christchurch	-	-	-	-	-	-	-	-	-	3.0	-2.3	8.7	1.2	-0.1	2.5	2.3	-0.4	5.1
Melbourne	0.2	-0.4	0.9	0.2	-0.6	0.9	-0.0	-0.8	0.8	4.0	-0.4	8.6	1.0	0.4	1.6	1.5	0.5	2.5
Perth	-0.6	-1.5	0.2	-0.8	-1.8	0.1	-1.3	-2.3	-0.2	-9.5	-18.4	0.4	-0.2	-1.0	0.6	-0.0	-1.9	1.9
Sydney	0.0	-0.3	0.4	0.0	-0.4	0.4	-0.1	-0.5	0.4	5.1	0.4	10.0	0.7	0.2	1.2	1.3	0.5	2.2
Meta-analysis	-0.0	-0.3	0.2	-0.1	-0.3	0.2	-0.2	-0.7	0.2	0.8	-2.6	4.4	0.3	-0.2	0.8	0.6	-0.4	1.6
Meta-analysis IQR	-0.2	-2.9	2.5	-0.5	-3.2	2.3	-2.0	-5.8	2.0	0.7	-2.3	3.8	2.8	-1.8	7.7	3.2	-1.8	8.4
I-squared	0.0	-	-	0.0	-	-	34.1	-	-	58.3	-	-	66.8	-	-	68.1	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-1.7	-3.1	-0.3	-	-	-	-	-	-	-	-	-
Brisbane	0.5	-0.5	1.6	0.6	-3.9	5.4	13.9	-15.2	53.0	0.1	-0.8	0.9	-0.0	-0.8	0.8
Canberra	-	-	-	-	-	-	10.6	-20.3	53.7	-	-	-	-	-	-
Christchurch	1.1	-0.1	2.2	4.1	-0.5	8.9	-	-	-	-	-	-	0.2	-0.2	0.6
Melbourne	-	-	-	-	-	-	13.9	-0.9	30.9	1.0	0.1	1.9	0.5	-0.2	1.2
Perth	-	-	-	-	-	-	2.6	-27.8	45.9	0.2	-1.4	1.8	0.1	-0.8	1.0
Sydney	0.2	-1.3	1.6	1.0	-4.9	7.3	10.8	-7.3	32.3	0.4	-0.2	1.1	0.2	-0.3	0.7
Meta-analysis	0.6	-0.0	1.3	0.2	-2.2	2.7	11.9	1.8	23.0	0.4	0.0	0.9	0.2	-0.1	0.5
Meta-analysis IQR	3.5	-0.3	7.3	0.3	-3.8	4.6	2.1	0.3	3.9	1.7	0.0	3.4	1.5	-0.5	3.5
I-squared	0.0	-	-	54.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Table CM.22 Pneumonia + acute bronchitis 1-4 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-1.7	-6.8	3.6	0.7	-0.3	1.6	0.5	-1.2	2.2
Brisbane	0.2	-0.4	0.9	0.3	-0.4	1.1	0.3	-0.7	1.2	2.7	-4.2	10.1	0.6	-0.4	1.7	2.1	0.1	4.2
Canberra	-	-	-	-	-	-	-	-	-	-10.8	-22.0	2.0	-2.0	-3.5	-0.4	-2.6	-5.9	0.8
Christchurch	-	-	-	-	-	-	-	-	-	2.2	-4.9	10.0	1.6	-0.1	3.3	4.1	0.4	7.9
Melbourne	-0.3	-1.0	0.5	-0.3	-1.1	0.5	-0.3	-1.2	0.6	1.7	-3.6	7.3	0.1	-0.5	0.8	0.5	-0.7	1.7
Perth	-0.4	-1.3	0.6	-0.6	-1.7	0.5	-0.8	-2.1	0.5	-0.4	-13.4	14.6	1.1	0.1	2.1	1.7	-0.6	4.1
Sydney	0.3	-0.1	0.6	0.3	-0.1	0.7	0.3	-0.2	0.8	3.9	-1.9	10.1	0.7	0.1	1.3	0.7	-0.4	1.7
Meta-analysis	0.1	-0.2	0.4	0.1	-0.3	0.5	0.1	-0.4	0.5	1.0	-1.6	3.6	0.4	-0.3	1.2	0.9	-0.2	2.0
Meta-analysis IQR	1.3	-1.7	4.3	0.9	-2.7	4.5	0.7	-3.1	4.6	0.8	-1.4	3.1	4.1	-2.4	11.0	4.8	-1.0	11.0
I-squared	0.0	-	-	20.3	-	-	15.0	-	-	0.0	-	-	57.1	-	-	36.7	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.6	-2.5	1.4	-	-	-	-	-	-	-	-	-
Brisbane	1.5	0.3	2.7	4.5	-1.2	10.6	10.5	-23.4	59.2	0.2	-0.8	1.1	-0.1	-1.0	0.8
Canberra	-	-	-	-	-	-	-19.8	-43.4	13.7	-	-	-	-	-	-
Christchurch	0.6	-1.0	2.1	-0.2	-6.1	6.1	-	-	-	-	-	-	0.1	-0.5	0.6
Melbourne	-	-	-	-	-	-	10.0	-7.6	31.0	0.3	-0.9	1.5	0.2	-0.7	1.0
Perth	-	-	-	-	-	-	4.9	-34.5	67.9	0.2	-1.9	2.3	-0.3	-1.5	0.9
Sydney	1.5	-0.1	3.3	7.7	0.4	15.6	41.7	14.8	75.0	1.3	0.4	2.1	0.9	0.3	1.5
Meta-analysis	1.2	0.4	2.1	1.9	-1.6	5.6	11.3	-7.0	33.3	0.6	0.0	1.2	0.2	-0.2	0.7
Meta-analysis IQR	6.9	2.3	11.7	3.3	-2.7	9.8	2.0	-1.3	5.4	2.4	0.1	4.7	1.8	-1.4	5.1
I-squared	0.0	-	-	55.7	-	-	51.9	-	-	16.3	-	-	36.0	-	-

Table CM.23 Pneumonia + acute bronchitis 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	0.1	-4.6	4.9	-0.3	-1.1	0.5	-0.5	-1.9	0.9
Brisbane	0.5	0.1	1.0	0.6	0.1	1.2	0.8	0.1	1.4	-1.1	-6.4	4.5	-0.1	-0.9	0.7	-0.3	-1.8	1.3
Canberra	-	-	-	-	-	-	-	-	-	-15.8	-26.0	-4.4	-0.0	-1.3	1.3	-0.6	-3.4	2.3
Christchurch	-	-	-	-	-	-	-	-	-	0.3	-6.8	8.0	1.0	-0.6	2.7	1.9	-1.5	5.5
Melbourne	-0.2	-0.6	0.2	-0.2	-0.7	0.2	-0.3	-0.8	0.2	-0.7	-4.2	2.9	-0.0	-0.4	0.4	0.2	-0.6	0.9
Perth	0.8	0.2	1.5	0.9	0.1	1.7	0.9	-0.0	1.8	-2.8	-13.5	9.2	0.7	-0.1	1.5	0.7	-1.2	2.5
Sydney	-0.2	-0.5	0.1	-0.3	-0.6	0.1	-0.4	-0.8	-0.0	5.6	-0.0	11.5	0.1	-0.3	0.6	0.7	-0.2	1.5
Meta-analysis	0.2	-0.3	0.6	0.2	-0.3	0.7	0.2	-0.4	0.8	-0.8	-4.8	3.3	0.1	-0.2	0.3	0.2	-0.2	0.7
Meta-analysis IQR	1.9	-2.7	6.7	1.7	-2.9	6.6	1.4	-3.8	7.0	-0.7	-4.2	2.9	0.7	-1.5	2.9	1.3	-1.1	3.7
I-squared	79.2	-	-	78.2	-	-	78.3	-	-	47.0	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	1.1	-0.6	2.8	-	-	-	-	-	-	-	-	-
Brisbane	0.1	-0.8	1.0	0.4	-3.9	4.8	0.3	-24.2	32.7	-0.4	-1.2	0.4	-0.6	-1.3	0.1
Canberra	-	-	-	-	-	-	-14.7	-38.5	18.2	-	-	-	-	-	-
Christchurch	-0.1	-1.4	1.3	-2.3	-7.5	3.2	-	-	-	-	-	-	0.6	0.0	1.2
Melbourne	-	-	-	-	-	-	-0.3	-10.9	11.7	-0.1	-0.8	0.7	-0.3	-0.7	0.2
Perth	-	-	-	-	-	-	48.2	3.8	111.5	1.6	-0.0	3.3	0.5	-0.4	1.4
Sydney	-0.4	-1.8	1.0	2.5	-3.4	8.8	24.6	3.1	50.6	0.4	-0.3	1.2	0.3	-0.2	0.8
Meta-analysis	-0.1	-0.7	0.6	0.9	-0.6	2.4	8.5	-8.3	28.5	0.2	-0.4	0.8	0.1	-0.3	0.5
Meta-analysis IQR	-0.3	-3.8	3.3	1.5	-1.0	4.0	1.5	-1.6	4.7	0.7	-1.5	3.1	0.7	-2.4	4.0
I-squared	0.0	-	-	0.0	-	-	56.3	-	-	47.0	-	-	59.0	-	-

Table CM.24 Pneumonia + acute bronchitis 65+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-3.4	-7.5	0.9	-0.0	-0.8	0.7	-0.2	-1.5	1.2
Brisbane	0.2	-0.2	0.6	0.2	-0.2	0.7	0.2	-0.3	0.8	0.0	-4.4	4.6	0.6	-0.1	1.2	1.0	-0.3	2.3
Canberra	-	-	-	-	-	-	-	-	-	-8.9	-18.0	1.4	-1.6	-2.7	-0.6	-3.8	-6.1	-1.4
Christchurch	-	-	-	-	-	-	-	-	-	2.2	-3.4	8.1	-0.1	-1.3	1.2	1.6	-1.1	4.3
Melbourne	0.0	-0.3	0.3	0.0	-0.3	0.3	-0.0	-0.4	0.4	0.9	-1.6	3.5	0.0	-0.3	0.3	0.1	-0.4	0.7
Perth	-0.1	-0.6	0.5	0.0	-0.6	0.7	0.2	-0.5	1.0	-4.2	-12.3	4.7	-0.1	-0.7	0.5	-0.3	-1.8	1.1
Sydney	-0.1	-0.3	0.2	-0.1	-0.3	0.2	-0.1	-0.4	0.2	5.6	1.4	10.0	0.3	-0.0	0.7	0.9	0.2	1.5
Meta-analysis	-0.0	-0.2	0.1	-0.0	-0.2	0.2	-0.0	-0.2	0.2	-0.1	-3.1	3.1	-0.0	-0.4	0.4	0.0	-1.1	1.2
Meta-analysis IQR	-0.1	-1.6	1.5	-0.0	-1.6	1.6	-0.1	-1.9	1.8	-0.1	-2.7	2.6	-0.2	-3.8	3.6	0.1	-5.6	6.1
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	56.0	-	-	58.1	-	-	66.4	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.0	-1.7	1.7	-	-	-	-	-	-	-	-	-
Brisbane	0.4	-0.3	1.2	-0.5	-4.0	3.1	11.6	-10.8	39.5	0.7	0.1	1.3	0.3	-0.3	0.9
Canberra	-	-	-	-	-	-	8.1	-17.9	42.4	-	-	-	-	-	-
Christchurch	0.3	-0.8	1.4	0.9	-3.3	5.3	-	-	-	-	-	-	0.2	-0.3	0.6
Melbourne	-	-	-	-	-	-	1.7	-6.2	10.2	0.2	-0.4	0.7	0.2	-0.2	0.5
Perth	-	-	-	-	-	-	11.4	-16.5	48.8	0.3	-1.0	1.6	-0.2	-1.0	0.5
Sydney	1.2	0.1	2.2	6.3	1.7	11.1	10.9	-3.5	27.6	0.7	0.2	1.3	0.5	0.1	0.9
Meta-analysis	0.6	0.1	1.1	1.3	-1.5	4.1	5.1	-1.4	12.0	0.5	0.2	0.8	0.2	0.0	0.4
Meta-analysis IQR	3.2	0.3	6.1	2.2	-2.5	7.1	0.9	-0.3	2.1	2.0	0.8	3.2	1.8	0.3	3.4
I-squared	0.0	-	-	55.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Table CM.25 Respiratory admissions 0 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-1.8	-5.2	1.7	-0.8	-1.4	-0.1	-1.3	-2.4	-0.2
Brisbane	-0.1	-0.6	0.3	-0.2	-0.7	0.4	-0.2	-0.9	0.5	-0.0	-4.4	4.6	0.3	-0.4	1.0	0.8	-0.6	2.1
Canberra	-	-	-	-	-	-	-	-	-	-2.5	-12.0	8.1	-0.1	-1.3	1.2	-0.1	-2.8	2.6
Christchurch	-	-	-	-	-	-	-	-	-	1.5	-2.8	6.0	0.7	-0.4	1.7	1.9	-0.3	4.0
Melbourne	0.3	-0.2	0.8	0.3	-0.3	0.8	0.2	-0.4	0.8	2.6	-0.9	6.3	0.7	0.2	1.1	1.0	0.2	1.7
Perth	-0.4	-1.0	0.2	-0.5	-1.2	0.2	-0.7	-1.5	0.1	-4.3	-12.0	4.1	-0.0	-0.6	0.6	0.5	-0.9	2.0
Sydney	0.1	-0.2	0.3	0.0	-0.2	0.3	-0.0	-0.4	0.3	5.9	1.8	10.1	0.7	0.3	1.1	1.4	0.7	2.1
Meta-analysis	0.0	-0.2	0.2	-0.0	-0.2	0.2	-0.1	-0.4	0.2	1.0	-1.3	3.4	0.2	-0.2	0.7	0.6	-0.2	1.4
Meta-analysis IQR	0.1	-1.9	2.2	-0.1	-2.1	2.1	-0.9	-3.4	1.7	0.9	-1.1	2.9	2.2	-1.6	6.1	3.1	-1.0	7.3
I-squared	3.5	-	-	3.4	-	-	15.5	-	-	45.6	-	-	69.0	-	-	67.9	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-2.0	-3.2	-0.7	-	-	-	-	-	-	-	-	-
Brisbane	0.5	-0.3	1.3	0.2	-3.5	4.1	30.1	2.4	65.4	0.4	-0.3	1.0	0.1	-0.5	0.7
Canberra	-	-	-	-	-	-	17.0	-10.4	52.8	-	-	-	-	-	-
Christchurch	0.7	-0.2	1.6	3.0	-0.5	6.7	-	-	-	-	-	-	0.1	-0.3	0.4
Melbourne	-	-	-	-	-	-	9.6	-2.2	22.8	0.8	0.0	1.5	0.3	-0.2	0.9
Perth	-	-	-	-	-	-	5.4	-20.9	40.4	0.4	-0.9	1.7	0.1	-0.6	0.8
Sydney	0.6	-0.5	1.8	3.3	-1.6	8.5	19.5	3.1	38.4	0.8	0.2	1.3	0.4	0.0	0.8
Meta-analysis	0.6	0.1	1.1	0.5	-2.0	3.1	14.6	6.0	23.8	0.6	0.3	1.0	0.2	-0.0	0.4
Meta-analysis IQR	3.2	0.3	6.3	0.9	-3.4	5.4	2.5	1.1	4.0	2.4	1.0	3.8	1.5	-0.1	3.2
I-squared	0.0	-	-	71.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Table CM.26 Respiratory admissions 1-4 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-0.5	-3.9	2.9	-0.2	-0.7	0.4	-0.7	-1.7	0.3
Brisbane	0.3	0.0	0.6	0.4	0.1	0.8	0.6	0.2	1.0	2.0	-1.5	5.7	0.7	0.2	1.2	1.6	0.6	2.6
Canberra	-	-	-	-	-	-	-	-	-	-2.1	-8.6	4.9	-0.3	-1.1	0.4	-1.1	-2.7	0.7
Christchurch	-	-	-	-	-	-	-	-	-	0.6	-2.9	4.3	0.2	-0.6	1.0	0.2	-1.5	1.9
Melbourne	-0.1	-0.4	0.2	-0.1	-0.4	0.3	-0.1	-0.5	0.2	1.8	-0.8	4.4	0.2	-0.0	0.5	0.7	0.2	1.2
Perth	0.2	-0.1	0.6	0.2	-0.3	0.6	0.2	-0.4	0.7	0.6	-5.4	7.0	0.5	0.0	0.9	1.0	0.0	2.0
Sydney	0.2	0.1	0.4	0.2	0.0	0.4	0.2	0.0	0.5	2.4	-0.6	5.6	0.5	0.3	0.8	0.6	0.1	1.1
Meta-analysis	0.2	0.0	0.3	0.2	0.0	0.4	0.2	-0.0	0.5	1.2	-0.1	2.6	0.3	0.1	0.5	0.5	-0.1	1.1
Meta-analysis IQR	1.9	0.5	3.4	1.8	0.2	3.5	1.9	-0.4	4.2	1.0	-0.1	2.2	2.8	0.7	4.9	2.4	-0.8	5.7
I-squared	18.2	-	-	33.6	-	-	53.3	-	-	0.0	-	-	46.9	-	-	57.7	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.6	-1.9	0.6	-	-	-	-	-	-	-	-	-
Brisbane	0.4	-0.1	1.0	1.4	-1.2	4.1	7.5	-10.9	29.7	0.1	-0.4	0.6	0.4	-0.1	0.9
Canberra	-	-	-	-	-	-	1.8	-15.3	22.3	-	-	-	-	-	-
Christchurch	0.8	0.1	1.5	2.2	-0.6	5.0	-	-	-	-	-	-	0.0	-0.2	0.3
Melbourne	-	-	-	-	-	-	13.8	5.1	23.3	0.6	0.1	1.1	0.3	-0.1	0.6
Perth	-	-	-	-	-	-	4.5	-15.3	28.9	0.3	-0.6	1.3	0.2	-0.3	0.7
Sydney	0.2	-0.6	1.0	1.2	-2.2	4.6	18.0	6.0	31.4	0.6	0.2	1.0	0.3	0.1	0.6
Meta-analysis	0.5	0.1	0.9	0.5	-0.8	1.8	12.5	6.5	19.0	0.4	0.2	0.7	0.2	0.1	0.4
Meta-analysis IQR	2.7	0.6	4.8	0.8	-1.4	3.1	2.2	1.2	3.2	1.7	0.7	2.7	1.7	0.5	2.9
I-squared	0.0	-	-	36.3	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Table CM.27 Respiratory admissions 5-14 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	6.7	1.1	12.6	1.3	0.5	2.1	3.2	1.6	4.8
_Brisbane	0.2	-0.2	0.6	0.2	-0.3	0.7	0.3	-0.3	0.9	-1.4	-6.2	3.6	0.1	-0.6	0.8	0.3	-1.1	1.7
Canberra	-	-	-	-	-	-	-	-	-	3.7	-4.8	12.9	1.0	0.2	1.9	1.9	-0.0	3.9
Christchurch	-	-	-	-	-	-	-	-	-	-4.3	-9.9	1.6	-0.1	-1.4	1.2	1.0	-1.7	3.7
Melbourne	-0.8	-1.2	-0.4	-0.9	-1.3	-0.4	-1.0	-1.5	-0.5	0.3	-3.3	4.0	0.3	-0.1	0.7	0.7	-0.1	1.4
Perth	0.3	-0.3	0.8	0.3	-0.3	1.0	0.5	-0.3	1.2	0.2	-8.6	9.8	0.1	-0.5	0.7	-0.2	-1.7	1.3
Sydney	0.2	0.0	0.5	0.2	-0.0	0.5	0.3	-0.0	0.6	1.2	-3.4	5.9	0.8	0.4	1.2	1.4	0.7	2.1
Meta-analysis	-0.0	-0.5	0.4	-0.0	-0.5	0.5	0.0	-0.6	0.6	0.7	-1.8	3.3	0.5	0.2	0.9	1.1	0.3	1.9
Meta-analysis IQR	-0.3	-4.9	4.5	-0.3	-4.9	4.5	0.1	-5.2	5.7	0.6	-1.5	2.8	4.7	1.6	7.9	5.8	1.7	10.1
I-squared	85.8	-	-	84.3	-	-	84.7	-	-	29.2	-	-	52.0	-	-	54.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-1.4	-3.4	0.7	-	-	-	-	-	-	-	-	-
Brisbane	-0.4	-1.1	0.4	-2.7	-6.2	0.9	-4.3	-27.4	26.1	-0.1	-0.9	0.6	0.5	-0.1	1.2
Canberra	-	-	-	-	-	-	4.4	-16.5	30.6	-	-	-	-	-	-
Christchurch	-0.3	-1.4	0.9	-2.2	-6.5	2.4	-	-	-	-	-	-	0.1	-0.4	0.6
Melbourne	-	-	-	-	-	-	7.7	-4.2	20.9	0.2	-0.6	0.9	0.0	-0.5	0.5
Perth	-	-	-	-	-	-	2.4	-24.3	38.4	0.4	-0.9	1.8	0.3	-0.4	1.1
Sydney	1.9	0.7	3.0	6.2	1.1	11.5	12.6	-4.2	32.5	0.8	0.1	1.4	0.4	-0.0	0.8
Meta-analysis	0.4	-1.0	1.8	-0.3	-4.1	3.5	7.0	-1.3	15.9	0.3	-0.1	0.8	0.3	0.0	0.5
Meta-analysis IQR	2.0	-5.5	10.1	-0.6	-6.8	6.1	1.2	-0.2	2.7	1.3	-0.3	2.9	1.9	0.1	3.8
I-squared	81.3	-	-	67.6	-	-	0.0	-	-	13.2	-	-	0.0	-	-

Table CM.28 Respiratory admissions 15-64 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	1.2	-1.2	3.7	-0.1	-0.5	0.3	-0.7	-1.4	0.0
Brisbane	0.4	0.2	0.6	0.5	0.3	0.8	0.6	0.3	1.0	0.1	-2.5	2.7	0.2	-0.2	0.6	0.3	-0.4	1.1
Canberra	-	-	-	-	-	-	-	-	-	-4.7	-9.4	0.3	0.2	-0.3	0.8	0.3	-0.9	1.5
Christchurch	-	-	-	-	-	-	-	-	-	-1.7	-5.0	1.6	-0.1	-0.8	0.7	-0.5	-2.0	1.0
Melbourne	-0.3	-0.5	-0.0	-0.3	-0.5	-0.1	-0.3	-0.6	-0.1	-0.1	-1.9	1.7	0.2	-0.0	0.4	0.4	0.1	0.8
Perth	0.3	0.0	0.6	0.3	-0.1	0.7	0.2	-0.2	0.7	-0.9	-6.2	4.7	0.3	-0.1	0.7	0.4	-0.5	1.3
Sydney	-0.0	-0.1	0.1	-0.0	-0.2	0.1	0.0	-0.2	0.2	0.4	-2.2	3.1	0.1	-0.1	0.3	0.3	-0.1	0.7
Meta-analysis	0.1	-0.2	0.4	0.1	-0.2	0.4	0.1	-0.2	0.5	-0.1	-1.2	0.9	0.1	0.0	0.3	0.2	-0.1	0.5
Meta-analysis IQR	1.1	-1.7	3.9	1.1	-1.8	4.1	1.1	-2.1	4.4	-0.1	-1.0	0.8	1.3	0.3	2.4	1.0	-0.5	2.5
I-squared	87.1	-	-	87.2	-	-	86.6	-	-	0.0	-	-	0.0	-	-	28.6	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.1	-1.0	0.8	-	-	-	-	-	-	-	-	-
Brisbane	-0.1	-0.5	0.4	-0.2	-2.2	1.8	18.5	3.5	35.6	0.0	-0.4	0.4	0.2	-0.2	0.5
Canberra	-	-	-	-	-	-	-6.4	-19.0	8.1	-	-	-	-	-	-
Christchurch	0.5	-0.1	1.1	1.5	-1.0	4.1	-	-	-	-	-	-	0.2	-0.1	0.4
Melbourne	-	-	-	-	-	-	3.0	-2.6	9.0	0.2	-0.2	0.6	0.0	-0.2	0.3
Perth	-	-	-	-	-	-	21.2	1.5	44.8	0.9	0.1	1.7	0.2	-0.3	0.6
Sydney	0.3	-0.4	0.9	1.8	-1.0	4.7	12.4	2.8	22.9	0.4	0.1	0.8	0.1	-0.1	0.4
Meta-analysis	0.2	-0.2	0.5	0.1	-0.6	0.9	8.5	-0.5	18.3	0.3	0.0	0.6	0.1	-0.0	0.2
Meta-analysis IQR	1.0	-0.9	2.8	0.2	-1.0	1.5	1.5	-0.1	3.1	1.1	0.0	2.1	0.9	-0.1	1.9
I-squared	16.2	-	-	0.0	-	-	60.9	-	-	40.7	-	-	0.0	-	-

Table CM.29 Respiratory admissions 65 + yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-0.7	-3.3	2.0	-0.1	-0.5	0.3	-0.3	-1.1	0.5
Brisbane	0.4	0.2	0.6	0.5	0.2	0.7	0.6	0.3	0.9	-0.3	-2.8	2.3	0.4	0.0	0.8	0.6	-0.1	1.4
Canberra	-	-	-	-	-	-	-	-	-	-8.8	-14.3	-3.1	-0.9	-1.5	-0.3	-2.4	-3.8	-1.0
Christchurch	-	-	-	-	-	-	-	-	-	0.6	-2.6	3.8	0.3	-0.4	1.0	1.8	0.3	3.3
Melbourne	-0.1	-0.2	0.1	-0.1	-0.3	0.1	-0.1	-0.4	0.1	1.2	-0.4	2.8	0.1	-0.1	0.3	0.3	-0.1	0.6
Perth	-0.2	-0.5	0.1	-0.2	-0.5	0.1	-0.2	-0.5	0.2	-4.4	-8.7	0.2	-0.1	-0.4	0.2	-0.4	-1.2	0.3
Sydney	-0.0	-0.1	0.1	-0.0	-0.2	0.1	-0.1	-0.2	0.1	3.4	1.0	5.9	0.2	0.0	0.4	0.5	0.2	0.9
Meta-analysis	0.0	-0.2	0.2	0.0	-0.2	0.3	0.1	-0.2	0.3	-0.7	-3.5	2.1	0.1	-0.1	0.3	0.0	-0.8	0.9
Meta-analysis IQR	0.3	-1.7	2.4	0.4	-1.7	2.5	0.5	-2.0	3.0	-0.6	-3.0	1.8	0.5	-1.3	2.3	0.2	-4.0	4.7
I-squared	78.9	-	-	78.7	-	-	80.5	-	-	72.4	-	-	63.0	-	-	76.9	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.1	-0.9	1.1	-	-	-	-	-	-	-	-	-
Brisbane	0.5	0.0	0.9	0.6	-1.3	2.7	17.1	3.3	32.7	0.5	0.1	0.8	0.2	-0.1	0.5
Canberra	-	-	-	-	-	-	-9.5	-23.6	7.1	-	-	-	-	-	-
Christchurch	0.5	-0.1	1.1	1.6	-0.8	4.0	-	-	-	-	-	-	0.1	-0.2	0.3
Melbourne	-	-	-	-	-	-	5.5	0.4	10.8	0.3	0.0	0.7	0.1	-0.1	0.4
Perth	-	-	-	-	-	-	3.6	-10.8	20.4	-0.1	-0.7	0.6	-0.3	-0.7	0.1
Sydney	0.6	0.1	1.2	2.3	-0.2	4.9	10.9	2.5	20.0	0.6	0.2	0.9	0.3	0.1	0.6
Meta-analysis	0.5	0.2	0.8	0.7	-0.2	1.6	6.5	-0.8	14.4	0.4	0.2	0.6	0.1	-0.1	0.3
Meta-analysis IQR	2.8	1.1	4.4	1.1	-0.4	2.7	1.2	-0.2	2.5	1.6	0.9	2.3	0.8	-0.5	2.2
I-squared	0.0	-	-	14.3	-	-	43.6	-	-	0.0	-	-	57.0	-	-

Table CM.30 Cardiovascular mortality all ages

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	0.9	-2.1	3.9	-0.1	-0.5	0.4	-0.6	-1.5	0.3
Brisbane	0.2	-0.1	0.4	0.2	-0.1	0.4	0.2	-0.1	0.6	-1.3	-4.0	1.6	0.4	-0.0	0.8	0.5	-0.3	1.3
Canberra	-	-	-	-	-	-	-	-	-	3.2	-4.3	11.2	-0.0	-0.8	0.8	0.2	-1.6	2.1
Christchurch	-	-	-	-	-	-	-	-	-	-1.4	-4.9	2.3	-0.0	-0.8	0.7	-0.3	-1.8	1.3
Melbourne	0.2	-0.0	0.4	0.2	-0.0	0.4	0.2	-0.0	0.5	1.1	-0.7	2.9	0.1	-0.1	0.3	0.2	-0.2	0.5
Perth	0.1	-0.2	0.4	0.1	-0.3	0.5	0.1	-0.3	0.6	-2.2	-7.5	3.4	0.0	-0.3	0.4	-0.1	-1.0	0.7
Sydney	0.3	0.1	0.4	0.3	0.1	0.4	0.3	0.1	0.5	1.4	-1.3	4.2	0.2	0.0	0.5	0.4	-0.0	0.8
Meta-analysis	0.2	0.1	0.3	0.2	0.1	0.3	0.3	0.1	0.4	0.4	-0.7	1.5	0.2	0.0	0.3	0.2	-0.0	0.4
Meta-analysis IQR	2.1	1.1	3.1	2.1	1.1	3.1	2.4	1.2	3.6	0.4	-0.6	1.3	1.4	0.3	2.5	1.0	-0.2	2.2
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.2	-1.3	1.0	-	-	-	-	-	-	-	-	-
Brisbane	0.3	-0.1	0.8	1.8	-0.4	4.0	18.5	2.7	36.7	0.4	-0.0	0.8	0.4	0.0	0.7
Canberra	-	-	-	-	-	-	-10.6	-28.0	11.0	-	-	-	-	-	-
Christchurch	0.0	-0.6	0.6	-0.4	-2.9	2.1	-	-	-	-	-	-	-0.0	-0.3	0.3
Melbourne	-	-	-	-	-	-	5.7	0.1	11.7	0.4	0.1	0.8	0.2	-0.1	0.4
Perth	-	-	-	-	-	-	2.1	-15.3	23.0	0.0	-0.8	0.9	-0.0	-0.5	0.4
Sydney	1.1	0.4	1.8	3.8	0.8	6.8	6.8	-3.1	17.8	0.4	0.1	0.8	0.3	0.1	0.6
Meta-analysis	0.5	-0.1	1.0	1.0	-0.8	2.8	6.1	-0.4	13.1	0.4	0.2	0.6	0.2	0.0	0.3
Meta-analysis IQR	2.5	-0.5	5.6	1.7	-1.3	4.8	1.1	-0.1	2.3	1.5	0.7	2.3	1.4	0.2	2.6
I-squared	65.5	-	-	62.1	-	-	18.2	-	-	0.0	-	-	27.1	-	-

Table CM.31 Cardiovascular mortality 0-74 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	1.8	-3.7	7.7	0.2	-0.7	1.1	-0.7	-2.3	1.0
Brisbane	0.1	-0.4	0.5	0.0	-0.5	0.5	0.0	-0.6	0.7	-6.1	-11.2	-0.6	-0.2	-1.0	0.6	-1.0	-2.5	0.6
Canberra	-	-	-	-	-	-	-	-	-	-4.1	-17.1	11.0	-0.6	-2.1	0.9	-2.5	-5.7	0.9
Christchurch	-	-	-	-	-	-	-	-	-	0.5	-6.5	8.0	-0.4	-1.9	1.1	-0.0	-3.1	3.2
Melbourne	0.2	-0.2	0.6	0.2	-0.2	0.7	0.3	-0.2	0.8	2.0	-1.5	5.7	0.3	-0.1	0.7	0.3	-0.4	1.0
Perth	0.6	0.0	1.2	0.8	0.1	1.6	1.0	0.2	1.9	-2.6	-12.8	8.7	0.3	-0.4	1.0	0.2	-1.6	1.9
Sydney	0.0	-0.2	0.3	0.0	-0.3	0.3	0.0	-0.3	0.4	1.7	-3.6	7.3	0.0	-0.4	0.5	0.1	-0.7	1.0
Meta-analysis	0.1	-0.1	0.3	0.2	-0.1	0.5	0.2	-0.1	0.6	0.1	-2.3	2.6	0.1	-0.1	0.4	-0.0	-0.5	0.5
Meta-analysis IQR	1.5	-0.6	3.6	1.7	-0.9	4.4	2.2	-0.9	5.4	0.1	-2.0	2.2	1.0	-1.1	3.3	-0.0	-2.4	2.4
I-squared	15.2	-	-	36.5	-	-	41.3	-	-	17.8	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	1.0	-1.2	3.2	-	-	-	-	-	-	-	-	-
Brisbane	-0.0	-0.9	0.8	0.0	-4.0	4.3	8.8	-18.7	45.6	0.1	-0.7	0.8	-0.2	-0.9	0.5
Canberra	-	-	-	-	-	-	-15.4	-43.6	27.0	-	-	-	-	-	-
Christchurch	-1.1	-2.3	0.2	-3.8	-8.8	1.4	-	-	-	-	-	-	-0.2	-0.8	0.4
Melbourne	-	-	-	-	-	-	2.6	-8.1	14.6	0.3	-0.4	1.1	0.3	-0.2	0.8
Perth	-	-	-	-	-	-	2.0	-29.7	48.0	-0.3	-1.9	1.3	-0.4	-1.3	0.5
Sydney	0.7	-0.7	2.0	2.8	-2.9	8.7	9.2	-10.0	32.6	0.3	-0.4	1.1	0.3	-0.2	0.8
Meta-analysis	-0.1	-1.0	0.7	0.3	-1.8	2.4	3.5	-5.1	12.8	0.2	-0.2	0.6	0.1	-0.2	0.3
Meta-analysis IQR	-0.8	-5.2	3.9	0.5	-3.0	4.1	0.6	-1.0	2.2	0.8	-0.8	2.4	0.5	-1.5	2.5
I-squared	41.2	-	-	13.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Table CM.32 Cardiovascular mortality 75+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	0.4	-3.1	4.1	-0.1	-0.7	0.4	-0.6	-1.6	0.5
Brisbane	0.2	-0.1	0.5	0.2	-0.1	0.5	0.3	-0.1	0.7	0.5	-2.8	3.8	0.6	0.1	1.1	1.0	0.1	2.0
Canberra	-	-	-	-	-	-	-	-	-	6.0	-2.9	15.7	0.2	-0.7	1.2	1.3	-0.8	3.5
Christchurch	-	-	-	-	-	-	-	-	-	-2.0	-6.1	2.3	0.1	-0.8	1.0	-0.3	-2.1	1.5
Melbourne	0.1	-0.1	0.4	0.2	-0.1	0.4	0.2	-0.1	0.5	0.7	-1.3	2.8	0.1	-0.1	0.3	0.1	-0.3	0.6
Perth	-0.1	-0.5	0.3	-0.1	-0.6	0.3	-0.2	-0.7	0.3	-1.9	-8.0	4.6	-0.0	-0.5	0.4	-0.2	-1.2	0.8
Sydney	0.3	0.2	0.5	0.4	0.2	0.6	0.4	0.2	0.7	1.3	-1.8	4.5	0.3	0.0	0.6	0.5	0.0	1.0
Meta-analysis	0.2	0.0	0.3	0.2	0.0	0.4	0.3	0.0	0.5	0.5	-0.8	1.8	0.2	0.0	0.3	0.3	-0.1	0.6
Meta-analysis IQR	2.0	0.3	3.7	2.0	0.3	3.8	2.3	0.4	4.3	0.4	-0.7	1.6	1.6	0.1	3.1	1.4	-0.5	3.3
I-squared	48.3	-	-	48.3	-	-	44.6	-	-	0.0	-	-	14.3	-	-	28.3	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.6	-2.0	0.7	-	-	-	-	-	-	-	-	-
Brisbane	0.5	-0.1	1.0	2.4	-0.1	5.0	21.8	3.4	43.6	0.5	0.0	0.9	0.6	0.1	1.0
Canberra	-	-	-	-	-	-	-8.4	-29.2	18.3	-	-	-	-	-	-
Christchurch	0.4	-0.4	1.1	0.7	-2.2	3.6	-	-	-	-	-	-	0.0	-0.3	0.4
Melbourne	-	-	-	-	-	-	6.8	0.3	13.8	0.5	0.0	0.9	0.1	-0.2	0.4
Perth	-	-	-	-	-	-	2.4	-17.4	27.1	0.2	-0.8	1.1	0.1	-0.4	0.6
Sydney	1.3	0.5	2.1	4.1	0.7	7.7	6.1	-5.2	18.8	0.5	0.0	0.9	0.4	0.1	0.7
Meta-analysis	0.7	0.1	1.2	1.3	-0.7	3.3	7.1	1.9	12.6	0.5	0.2	0.7	0.2	0.0	0.4
Meta-analysis IQR	3.6	0.8	6.4	2.2	-1.2	5.7	1.3	0.3	2.2	1.7	0.8	2.7	1.8	0.4	3.2
I-squared	44.4	-	-	67.6	-	-	0.0	-	-	0.0	-	-	27.4	-	-

Table CM.33 Respiratory mortality all ages

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-4.1	-10.0	2.3	0.2	-0.9	1.2	-0.1	-2.1	1.8
Brisbane	0.3	-0.2	0.9	0.4	-0.3	1.0	0.5	-0.3	1.2	4.3	-2.0	11.0	1.4	0.5	2.4	2.2	0.3	4.0
Canberra	-	-	-	-	-	-	-	-	-	2.4	-13.9	21.9	-0.0	-1.8	1.8	0.7	-3.4	5.0
Christchurch	-	-	-	-	-	-	-	-	-	-1.6	-9.1	6.5	0.5	-1.2	2.3	0.7	-2.8	4.3
Melbourne	0.0	-0.4	0.5	0.0	-0.5	0.5	0.0	-0.5	0.6	4.8	0.8	8.9	0.3	-0.2	0.7	0.3	-0.5	1.1
Perth	0.1	-0.6	0.8	0.1	-0.7	0.9	0.0	-1.0	1.0	2.8	-8.8	15.9	0.4	-0.4	1.2	0.5	-1.4	2.4
Sydney	0.3	0.0	0.6	0.4	0.0	0.7	0.4	-0.0	0.8	-1.1	-6.7	4.7	0.3	-0.2	0.8	0.3	-0.6	1.2
Meta-analysis	0.2	0.0	0.4	0.2	-0.0	0.5	0.3	-0.0	0.6	1.4	-1.3	4.2	0.4	0.1	0.7	0.4	-0.1	1.0
Meta-analysis IQR	2.4	0.1	4.7	2.3	-0.0	4.7	2.5	-0.2	5.2	1.2	-1.2	3.6	3.5	0.9	6.0	2.3	-0.3	5.1
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	22.3	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.7	-1.7	3.2	-	-	-	-	-	-	-	-	-
Brisbane	2.1	1.1	3.2	9.0	3.9	14.5	46.2	8.8	96.3	0.9	0.1	1.7	1.1	0.3	1.9
Canberra	-	-	-	-	-	-	-12.8	-46.5	42.2	-	-	-	-	-	-
Christchurch	-1.2	-2.7	0.3	-5.1	-10.6	0.6	-	-	-	-	-	-	0.2	-0.4	0.8
Melbourne	-	-	-	-	-	-	4.2	-7.6	17.5	0.5	-0.3	1.3	0.1	-0.5	0.6
Perth	-	-	-	-	-	-	-13.1	-41.6	29.3	-0.9	-2.7	0.8	-1.4	-2.3	-0.4
Sydney	-0.8	-2.2	0.7	-3.3	-9.2	3.0	9.4	-11.3	34.9	0.4	-0.5	1.2	0.3	-0.3	0.8
Meta-analysis	0.1	-1.9	2.2	0.4	-5.4	6.6	8.0	-7.9	26.6	0.5	-0.0	1.0	0.1	-0.6	0.8
Meta-analysis IQR	0.7	-10.0	12.6	0.7	-9.0	11.4	1.4	-1.5	4.4	1.8	-0.1	3.8	0.8	-4.5	6.4
I-squared	88.9	-	-	81.1	-	-	36.0	-	-	20.5	-	-	74.0	-	-

Table CM.34 Respiratory mortality 0-74 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	1.9	-9.1	14.3	1.0	-1.0	3.0	0.6	-2.9	4.3
Brisbane	-0.1	-1.0	0.9	-0.1	-1.2	1.0	-0.1	-1.4	1.3	12.2	0.8	24.9	2.3	0.7	4.0	3.8	0.5	7.1
Canberra	-	-	-	-	-	-	-	-	-	7.1	-20.5	44.4	-0.7	-3.6	2.4	-0.3	-6.9	6.9
Christchurch	-	-	-	-	-	-	-	-	-	4.0	-9.8	20.0	1.4	-1.8	4.7	4.7	-2.2	12.0
Melbourne	-0.1	-0.9	0.8	-0.1	-1.0	0.8	-0.0	-1.1	1.0	3.7	-3.6	11.7	-0.0	-0.8	0.8	0.3	-1.2	1.8
Perth	-0.3	-1.6	1.0	-0.4	-1.9	1.2	-0.6	-2.4	1.2	3.0	-18.2	29.6	-0.3	-1.8	1.3	-0.3	-3.8	3.5
Sydney	0.3	-0.2	0.9	0.3	-0.3	1.0	0.3	-0.4	1.1	3.4	-7.3	15.3	-0.1	-1.0	0.9	-0.3	-2.0	1.4
Meta-analysis	0.1	-0.3	0.5	0.1	-0.4	0.6	0.1	-0.4	0.6	4.9	0.3	9.6	0.4	-0.3	1.0	0.5	-0.5	1.6
Meta-analysis IQR	1.1	-3.0	5.3	0.9	-3.3	5.3	0.8	-4.0	5.8	4.2	0.3	8.2	3.2	-2.8	9.6	2.7	-2.6	8.3
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	31.3	-	-	6.2	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.7	-3.5	5.1	-	-	-	-	-	-	-	-	-
Brisbane	2.4	0.6	4.2	15.9	6.6	26.0	35.5	-20.9	132.1	1.1	-0.3	2.6	1.4	-0.0	2.8
Canberra	-	-	-	-	-	-	-29.9	-69.5	61.3	-	-	-	-	-	-
Christchurch	-0.6	-3.3	2.2	-6.5	-16.4	4.6	-	-	-	-	-	-	0.7	-0.4	1.7
Melbourne	-	-	-	-	-	-	5.3	-16.1	32.3	0.4	-1.2	1.9	-0.1	-1.1	1.0
Perth	-	-	-	-	-	-	-11.1	-59.0	92.6	-1.0	-4.3	2.3	-2.1	-4.0	-0.2
Sydney	-0.9	-3.6	1.9	-11.0	-20.9	0.2	-5.4	-36.8	41.6	-0.2	-1.7	1.4	0.3	-0.7	1.3
Meta-analysis	0.5	-1.6	2.7	-0.2	-10.7	11.6	3.2	-13.5	23.1	0.4	-0.5	1.2	0.1	-0.9	1.2
Meta-analysis IQR	3.0	-8.2	15.5	-0.3	-17.5	20.4	0.6	-2.6	3.9	1.4	-1.8	4.7	1.1	-6.4	9.2
I-squared	63.3	-	-	81.8	-	-	0.0	-	-	0.0	-	-	57.9	-	-

Table CM.35 Respiratory mortality 75+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-6.5	-13.5	1.0	-0.1	-1.4	1.2	-0.4	-2.7	2.0
Brisbane	0.5	-0.1	1.2	0.5	-0.2	1.3	0.7	-0.2	1.7	0.5	-7.0	8.5	1.0	-0.1	2.2	1.4	-0.8	3.7
Canberra	-	-	-	-	-	-	-	-	-	-1.2	-20.3	22.4	0.2	-2.0	2.5	1.2	-3.9	6.6
Christchurch	-	-	-	-	-	-	-	-	-	-3.8	-12.5	5.8	0.2	-1.8	2.3	-0.6	-4.7	3.6
Melbourne	0.1	-0.5	0.6	0.1	-0.5	0.6	0.0	-0.6	0.7	5.2	0.5	10.0	0.4	-0.1	0.9	0.3	-0.6	1.3
Perth	0.3	-0.5	1.1	0.2	-0.7	1.2	0.2	-0.9	1.4	2.9	-10.7	18.4	0.7	-0.3	1.7	0.7	-1.5	3.0
Sydney	0.3	-0.0	0.7	0.4	-0.0	0.8	0.4	-0.1	0.9	-2.9	-9.3	3.9	0.4	-0.2	1.0	0.5	-0.6	1.6
Meta-analysis	0.3	0.0	0.5	0.3	0.0	0.6	0.3	0.0	0.7	-0.2	-3.6	3.3	0.4	0.1	0.8	0.4	-0.2	1.1
Meta-analysis IQR	2.9	0.3	5.7	2.9	0.1	5.7	3.2	0.0	6.4	-0.2	-3.1	2.8	4.0	1.0	7.0	2.3	-0.9	5.5
I-squared	0.0	-	-	0.0	-	-	0.0	-	-	34.8	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.7	-2.2	3.7	-	-	-	-	-	-	-	-	-
Brisbane	2.0	0.8	3.3	5.8	-0.3	12.3	52.0	6.8	116.2	0.9	-0.1	1.8	1.0	0.1	2.0
Canberra	-	-	-	-	-	-	-2.6	-46.6	77.7	-	-	-	-	-	-
Christchurch	-1.4	-3.2	0.3	-4.5	-10.9	2.3	-	-	-	-	-	-	0.0	-0.7	0.7
Melbourne	-	-	-	-	-	-	3.9	-9.8	19.6	0.5	-0.4	1.5	0.1	-0.5	0.7
Perth	-	-	-	-	-	-	-13.9	-45.9	37.1	-0.9	-2.9	1.2	-1.1	-2.2	0.1
Sydney	-0.7	-2.4	1.1	-0.0	-7.2	7.7	15.3	-9.7	47.4	0.6	-0.4	1.5	0.3	-0.4	0.9
Meta-analysis	0.0	-2.0	2.2	0.7	-3.0	4.6	10.4	-5.1	28.4	0.6	0.0	1.1	0.1	-0.4	0.6
Meta-analysis IQR	0.3	-10.5	12.3	1.2	-5.1	7.9	1.8	-0.9	4.7	2.1	0.1	4.2	0.9	-2.7	4.7
I-squared	84.1	-	-	39.2	-	-	22.8	-	-	0.0	-	-	49.6	-	-

Table CM.36 Total mortality all ages

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-0.8	-2.7	1.2	0.1	-0.2	0.4	-0.1	-0.7	0.5
Brisbane	0.3	0.1	0.4	0.3	0.1	0.5	0.4	0.1	0.6	1.0	-0.9	3.0	0.5	0.3	0.8	0.9	0.3	1.4
Canberra	-	-	-	-	-	-	-	-	-	0.4	-4.5	5.5	0.0	-0.5	0.5	-0.1	-1.3	1.1
Christchurch	-	-	-	-	-	-	-	-	-	1.0	-1.4	3.5	0.2	-0.3	0.7	-0.1	-1.1	1.0
Melbourne	0.0	-0.1	0.1	0.0	-0.1	0.1	0.0	-0.1	0.2	0.4	-0.7	1.6	0.0	-0.1	0.2	-0.0	-0.3	0.2
Perth	0.1	-0.1	0.3	0.1	-0.1	0.3	0.1	-0.2	0.4	0.2	-3.3	3.8	0.1	-0.1	0.4	0.2	-0.4	0.7
Sydney	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.1	0.3	1.8	-0.0	3.6	0.2	0.1	0.4	0.4	0.1	0.7
Meta-analysis	0.1	0.0	0.2	0.1	0.0	0.3	0.2	0.0	0.3	0.6	-0.1	1.3	0.2	0.0	0.3	0.2	-0.0	0.5
Meta-analysis IQR	1.4	0.3	2.4	1.4	0.2	2.5	1.5	0.3	2.6	0.5	-0.1	1.1	1.6	0.4	2.7	1.1	-0.2	2.4
I-squared	60.5	-	-	61.0	-	-	55.6	-	-	0.0	-	-	51.5	-	-	53.6	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.0	-0.8	0.7	-	-	-	-	-	-	-	-	-
Brisbane	0.5	0.3	0.8	2.7	1.3	4.1	16.2	5.5	27.9	0.4	0.1	0.6	0.6	0.3	0.8
Canberra	-	-	-	-	-	-	-8.7	-20.6	5.0	-	-	-	-	-	-
Christchurch	0.1	-0.3	0.6	0.4	-1.3	2.1	-	-	-	-	-	-	0.1	-0.1	0.3
Melbourne	-	-	-	-	-	-	0.8	-2.7	4.4	0.1	-0.2	0.3	-0.0	-0.2	0.1
Perth	-	-	-	-	-	-	-0.7	-11.7	11.6	-0.0	-0.5	0.5	-0.1	-0.4	0.2
Sydney	0.7	0.2	1.1	3.0	1.0	4.9	6.7	0.0	13.8	0.4	0.1	0.6	0.3	0.1	0.4
Meta-analysis	0.5	0.2	0.8	1.4	-0.1	2.9	3.3	-3.9	11.0	0.2	0.1	0.4	0.2	-0.0	0.4
Meta-analysis IQR	2.5	0.9	4.1	2.4	-0.2	5.0	0.6	-0.7	1.9	0.9	0.2	1.6	1.2	-0.3	2.8
I-squared	44.4	-	-	81.8	-	-	66.2	-	-	40.8	-	-	82.0	-	-

Table CM.37 Total mortality 0-74 yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-1.4	-4.4	1.7	0.2	-0.3	0.7	0.1	-0.9	1.0
Brisbane	0.3	0.0	0.5	0.3	0.1	0.6	0.4	0.0	0.7	0.6	-2.6	3.8	0.5	0.0	1.0	0.7	-0.2	1.6
Canberra	-	-	-	-	-	-	-	-	-	-1.0	-8.3	6.9	-0.4	-1.2	0.3	-1.4	-3.1	0.4
Christchurch	-	-	-	-	-	-	-	-	-	2.4	-1.8	6.7	0.1	-0.8	0.9	0.4	-1.4	2.2
Melbourne	0.1	-0.1	0.3	0.1	-0.2	0.3	0.1	-0.2	0.3	0.8	-1.1	2.7	0.1	-0.1	0.3	0.1	-0.3	0.5
Perth	0.3	-0.0	0.6	0.4	-0.0	0.7	0.4	-0.0	0.9	-2.4	-7.9	3.5	0.2	-0.2	0.6	0.3	-0.6	1.3
Sydney	0.0	-0.1	0.2	0.0	-0.1	0.2	0.0	-0.2	0.2	2.2	-0.9	5.3	0.2	-0.1	0.4	0.2	-0.3	0.7
Meta-analysis	0.1	0.0	0.3	0.2	-0.0	0.3	0.2	-0.0	0.4	0.6	-0.6	1.8	0.2	0.0	0.3	0.2	-0.1	0.4
Meta-analysis IQR	1.4	0.0	2.7	1.4	-0.1	2.9	1.5	-0.2	3.3	0.5	-0.5	1.6	1.4	0.2	2.6	0.8	-0.5	2.1
I-squared	35.3	-	-	42.9	-	-	46.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	0.7	-0.5	1.9	-	-	-	-	-	-	-	-	-
Brisbane	0.1	-0.4	0.6	1.1	-1.2	3.4	15.9	-1.4	36.2	0.4	-0.1	0.8	0.5	0.1	0.9
Canberra	-	-	-	-	-	-	-15.4	-31.6	4.6	-	-	-	-	-	-
Christchurch	-0.2	-1.0	0.5	0.1	-2.8	3.0	-	-	-	-	-	-	0.1	-0.2	0.5
Melbourne	-	-	-	-	-	-	-1.6	-7.2	4.4	-0.1	-0.4	0.3	-0.1	-0.3	0.2
Perth	-	-	-	-	-	-	-10.7	-26.5	8.6	-0.6	-1.4	0.3	-0.5	-0.9	0.0
Sydney	0.3	-0.4	1.0	1.7	-1.4	4.9	5.5	-5.2	17.4	0.3	-0.1	0.7	0.3	0.0	0.5
Meta-analysis	0.1	-0.3	0.4	0.8	-0.2	1.8	-0.4	-9.8	9.9	0.1	-0.2	0.4	0.1	-0.2	0.3
Meta-analysis IQR	0.4	-1.5	2.3	1.4	-0.3	3.0	-0.1	-1.9	1.7	0.4	-0.8	1.6	0.7	-1.2	2.6
I-squared	0.0	-	-	0.0	-	-	50.8	-	-	45.9	-	-	66.8	-	-

Table CM.38 Total mortality 75+ yrs

	1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-	-0.4	-2.9	2.2	-0.0	-0.4	0.4	-0.2	-1.0	0.5
Brisbane	0.3	0.1	0.4	0.3	0.1	0.5	0.3	0.1	0.6	1.4	-1.0	3.8	0.6	0.2	0.9	1.0	0.3	1.7
Canberra	-	-	-	-	-	-	-	-	-	1.4	-5.0	8.2	0.3	-0.3	1.0	0.8	-0.7	2.4
Christchurch	-	-	-	-	-	-	-	-	-	0.3	-2.7	3.4	0.2	-0.4	0.8	-0.3	-1.6	1.0
Melbourne	-0.0	-0.2	0.1	-0.0	-0.2	0.1	-0.0	-0.2	0.2	0.2	-1.3	1.6	0.0	-0.2	0.2	-0.1	-0.4	0.2
Perth	-0.0	-0.2	0.2	-0.0	-0.3	0.3	-0.1	-0.4	0.3	1.7	-2.7	6.3	0.1	-0.2	0.4	0.1	-0.6	0.8
Sydney	0.2	0.1	0.3	0.3	0.1	0.4	0.3	0.1	0.4	1.6	-0.7	3.9	0.3	0.1	0.5	0.5	0.1	0.8
Meta-analysis	0.1	-0.0	0.3	0.1	-0.0	0.3	0.1	-0.0	0.3	0.6	-0.3	1.5	0.2	0.0	0.3	0.2	-0.1	0.6
Meta-analysis IQR	1.2	-0.3	2.8	1.2	-0.4	2.9	1.3	-0.4	3.1	0.5	-0.3	1.3	1.6	0.2	3.0	1.2	-0.5	3.0
I-squared	71.8	-	-	70.8	-	-	66.9	-	-	0.0	-	-	46.5	-	-	57.5	-	-

(Continued)

	1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-0.5	-1.5	0.4	-	-	-	-	-	-	-	-	-
Brisbane	0.8	0.5	1.2	3.7	1.9	5.6	16.4	3.3	31.2	0.4	0.1	0.7	0.6	0.3	0.9
Canberra	-	-	-	-	-	-	-2.9	-19.4	16.8	-	-	-	-	-	-
Christchurch	0.3	-0.2	0.8	0.5	-1.6	2.7	-	-	-	-	-	-	0.1	-0.1	0.4
Melbourne	-	-	-	-	-	-	2.1	-2.3	6.7	0.1	-0.1	0.4	-0.0	-0.2	0.2
Perth	-	-	-	-	-	-	5.6	-8.8	22.2	0.3	-0.3	1.0	0.1	-0.3	0.4
Sydney	0.9	0.3	1.4	3.8	1.3	6.3	7.4	-1.0	16.5	0.4	0.1	0.7	0.3	0.1	0.5
Meta-analysis	0.7	0.4	1.0	1.7	-0.4	3.9	5.1	0.3	10.1	0.3	0.1	0.5	0.2	-0.0	0.4
Meta-analysis IQR	3.8	2.0	5.7	2.9	-0.7	6.8	0.9	0.1	1.8	1.2	0.5	1.8	1.5	-0.0	3.1
I-squared	32.9	-	-	86.7	-	-	24.0	-	-	0.0	-	-	69.9	-	-

Appendix A3.2: Case-crossover matching on other air pollutants and temperature

In order to determine the independent pollution effects we further investigate the significant relationships found in the meta-analysis using matching. The design is a replication of the analysis of Schwartz, 2004, “Is the association of airborne particles with daily mortality confounded by gaseous air pollutants?” Used the same case-crossover models as in the meta-analysis, that is, every model controlled for average temperature, average temperature difference (current minus previous day), average humidity, average pressure, extremes of hot and cold (coldest and warmest 1% of days), day of the week and public holiday (yes/no). Models of admission variables also included an indicator variable for the day after a public holiday. Models in Canberra included an indicator for the 15th of the month. Pollutants effects are the average over lagged days 0 and 1.

Matched using 28-day windows (with one day exclusion window) and then pollutant matches:

- ◆ PM₁₀ (lags 0 and 1) 24-hour average within 3 µg/m³
- ◆ PM_{2.5} (lags 0 and 1) 24-hour average within 2 µg/m³
- ◆ bsp (lags 0 and 1) 24-hour average within 0.1 10⁻⁴.m⁻¹
- ◆ SO₂ (lags 0 and 1) 24-hour average within 0.5 ppb
- ◆ SO₂ (lags 0 and 1) 1-hour average within 1 ppb
- ◆ O₃ (lags 0 and 1) 8-hour average within 2 ppb
- ◆ NO₂ (lags 0 and 1) 24-hour average within 1 ppb
- ◆ NO₂ (lags 0 and 1) 1-hour average within 1 ppb
- ◆ CO (lags 0 and 1) 8-hour average within 0.5 ppm
- ◆ Temperature lags 0 and 1 within 1 degree Celsius.

Only examined pollutants that showed a statistically significant increase using the meta-analysis, and only matched with other pollutants that showed a significant increase. The pollutants PM₁₀, PM_{2.5} and bsp were not matched because of a high degree of similarity.

The cells in each table show the increase in mortality for a one IQR increase in pollutant.

Differences from Joel’s method:

- ◆ Joel used non-linear apparent temperature as a covariate; we use linear temperature and include extreme hot and cold.
- ◆ Joel used maximum daily O₃; we use 8-hour maximum
- ◆ Joel used 24-hour average CO and matched in 0.03 ppm; we use 8-hour average maximum matched within 0.5 ppm
- ◆ Joel did not match on temperature.

Table MM.1 Cardiac admissions 15-64 yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average bsp	3.3	1.5, 5.3
	8-hour average CO (max)	-0.0	-1.6, 1.5
	Average temperature	2.4	0.9, 4.0
	Unmatched	2.2	0.9, 3.4
24-hour average bsp	24-hour average NO ₂	1.1	-0.3, 2.6
	8-hour average CO (max)	2.4	-0.3, 5.2
	Average temperature	1.1	0.0, 2.1
	Unmatched	1.0	0.2, 1.8
8-hour average CO (max)	24-hour average bsp	0.3	-1.4, 2.1
	24-hour average NO ₂	2.4	-1.4, 6.3
	Average temperature	1.9	0.6, 3.3
	Unmatched	1.7	0.5, 2.9

Table MM.2 Cardiac admissions 65+ yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average PM _{2.5}	7.5	1.7, 13.6
	8-hour average CO (max)	0.6	-1.7, 3.0
	Average temperature	3.5	1.7, 5.4
	Unmatched	3.4	1.9, 4.9
24-hour average PM _{2.5}	24-hour average NO ₂	0.4	-1.7, 2.5
	8-hour average CO (max)	1.2	0.0, 2.4
	Average temperature	1.8	0.6, 3.0
	Unmatched	1.9	1.0, 2.7
8-hour average CO (max)	24-hour average NO ₂	2.8	0.2, 5.4
	24-hour average PM _{2.5}	3.5	0.9, 6.2
	Average temperature	2.6	0.9, 4.4
	Unmatched	2.8	1.3, 4.4

Table MM.3 IHD admissions 65+ yrs

Pollutant	Match	Inc	95% CI
24-hour average PM _{2.5}	24-hour average NO ₂	0.7	-0.7, 2.0
	24-hour average SO ₂	1.3	-0.4, 3.1
	8-hour average CO (max)	0.9	-0.2, 2.1
	Average temperature	1.4	0.5, 2.4
	Unmatched	1.6	0.7, 2.4
24-hour average SO ₂	24-hour average NO ₂	4.3	0.1, 8.6
	24-hour average PM _{2.5}	4.9	1.5, 8.5
	8-hour average CO (max)	1.8	-2.6, 6.3
	Average temperature	4.7	0.9, 8.6
	Unmatched	2.9	0.1, 5.8
8-hour average CO (max)	24-hour average NO ₂	2.1	0.0, 4.3
	24-hour average PM _{2.5}	4.0	2.1, 5.8
	24-hour average SO ₂	2.8	-0.9, 6.7
	Average temperature	2.4	1.0, 3.7
	Unmatched	2.3	0.9, 3.8
24-hour average NO ₂	24-hour average PM _{2.5}	6.5	0.5, 13.0
	24-hour average SO ₂	2.7	0.2, 5.3
	8-hour average CO (max)	-0.4	-2.5, 1.8
	Average temperature	2.7	0.7, 4.8
	Unmatched	2.5	1.0, 4.1

Table MM.4 Arrhythmia admissions 15-64 yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	8-hour average CO (max)	3.8	0.3, 7.5
	Average temperature	4.5	1.0, 8.0
	Unmatched	5.1	2.2, 8.1
8-hour average CO (max)	24-hour average NO ₂	2.5	-1.6, 6.7
	Average temperature	2.1	-1.8, 6.1
	Unmatched	2.5	0.1, 4.9

Table MM.5 Cardiac failure admissions 15-64 yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average bsp	1.8	-4.8, 8.8
	8-hour average CO (max)	0.0	-5.4, 5.8
	Average temperature	2.7	-2.6, 8.3
	Unmatched	4.6	0.1, 9.3
24-hour average bsp	24-hour average NO ₂	3.1	-3.7, 10.4
	8-hour average CO (max)	6.2	-3.5, 17.0
	Average temperature	3.9	-2.4, 10.6
	Unmatched	4.5	1.1, 8.1
8-hour average CO (max)	24-hour average bsp	-0.6	-6.5, 5.5
	24-hour average NO ₂	2.6	-7.0, 13.2
	Average temperature	2.1	-2.0, 6.4
	Unmatched	4.2	0.6, 7.8

Table MM.6 Cardiac failure admissions 65+ yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average PM _{2.5}	11.5	7.8, 15.3
	8-hour average CO (max)	5.4	3.1, 7.7
	Average temperature	6.6	2.1, 11.4
	Unmatched	6.9	2.2, 11.8
24-hour average PM _{2.5}	24-hour average NO ₂	-0.6	-4.9, 3.9
	8-hour average CO (max)	2.3	0.3, 4.5
	Average temperature	3.4	1.1, 5.8
	Unmatched	3.6	1.8, 5.4
8-hour average CO (max)	24-hour average NO ₂	3.1	0.4, 5.8
	24-hour average PM _{2.5}	5.0	1.4, 8.8
	Average temperature	4.8	1.9, 7.8
	Unmatched	6.0	3.5, 8.5

Table MM.7 Myocardial infarction admissions 65+ yrs

Pollutant	Match	Inc	95% CI
24-hour average PM _{2.5}	24-hour average NO ₂	1.5	-1.3, 4.4
	24-hour average SO ₂	2.5	0.5, 4.5
	8-hour average CO (max)	2.4	-0.6, 5.4
	Average temperature	1.6	0.0, 3.2
	Unmatched	2.7	1.3, 4.2
24-hour average NO ₂	24-hour average PM _{2.5}	7.4	3.7, 11.2
	8-hour average CO (max)	1.9	-2.1, 6.1
	Average temperature	2.3	-1.7, 6.5
	Unmatched	4.4	1.0, 8.0
8-hour average CO (max)	24-hour average NO ₂	2.3	-4.0, 9.1
	24-hour average PM _{2.5}	4.8	1.7, 8.1
	Average temperature	1.4	-0.6, 3.4
	Unmatched	2.9	0.8, 4.9

Table MM.8 Cardiovascular admissions 15-64 yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	8-hour average CO (max)	-0.1	-1.6, 1.4
	Average temperature	1.8	0.2, 3.5
	Unmatched	1.7	0.6, 2.8
8-hour average CO (max)	24-hour average NO ₂	2.0	-1.8, 5.8
	Average temperature	1.3	0.0, 2.6
	Unmatched	1.2	0.3, 2.1

Table MM.9 Cardiovascular admissions 65+ yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average PM _{2.5}	6.5	0.9, 12.4
	8-hour average CO (max)	0.5	-0.9, 1.9
	Average temperature	3.2	2.0, 4.3
	Unmatched	3.0	2.1, 3.9
24-hour average PM _{2.5}	24-hour average NO ₂	0.2	-1.7, 2.2
	8-hour average CO (max)	1.0	-0.2, 2.3
	Average temperature	1.4	0.2, 2.5
	Unmatched	1.3	0.6, 2.0
8-hour average CO (max)	24-hour average NO ₂	2.6	-0.0, 5.3
	24-hour average PM _{2.5}	2.8	0.9, 4.7
	Average temperature	2.1	0.5, 3.7
	Unmatched	2.2	0.9, 3.4

Table MM.10 Asthma admissions 5-14 yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average bsp	8.6	-1.0, 19.1
	Average temperature	6.9	1.2, 13.0
	Unmatched	6.0	0.2, 12.1
24-hour average bsp	24-hour average NO ₂	-0.7	-4.9, 3.7
	Average temperature	2.8	0.4, 5.2
	Unmatched	0.1	-3.4, 3.7

Table MM.11 Asthma admissions 15-64 yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average PM _{2.5}	7.6	-3.7, 20.1
	Average temperature	2.8	-2.1, 7.9
	Unmatched	2.2	-0.6, 5.1
24-hour average PM _{2.5}	24-hour average NO ₂	3.2	0.1, 6.3
	Average temperature	2.5	0.0, 5.0
	Unmatched	2.2	0.7, 3.6

Table MM.12 COPD admissions 65+ yrs

Pollutant	Match	Inc	95% CI
24-hour average NO ₂	24-hour average PM _{2.5}	5.0	-1.8, 12.2
	Average temperature	1.4	-4.3, 7.4
	Unmatched	1.6	-2.0, 5.4
24-hour average PM _{2.5}	24-hour average NO ₂	1.1	-0.5, 2.7
	Average temperature	0.7	-0.5, 1.9
	Unmatched	1.6	0.6, 2.7

Table MM.13 Pneumonia + acute bronchitis 0 yrs

Pollutant	Match	Inc	95% CI
24-hour average PM _{2.5}	24-hour average bsp	5.4	1.4, 9.5
	Average temperature	1.2	-0.7, 3.1
	Unmatched	1.7	0.0, 3.4
24-hour average bsp	24-hour average PM _{2.5}	5.9	0.5, 11.5
	Average temperature	1.8	-0.2, 3.9
	Unmatched	2.1	0.3, 3.9

Table MM.14 Pneumonia + acute bronchitis 1-4 yrs

Pollutant	Match	Inc	95% CI
1-hour maximum SO ₂	24-hour average PM _{2.5}	4.7	-1.4, 11.1
	Average temperature	7.1	2.1, 12.5
	Unmatched	6.9	2.3, 11.7
24-hour average PM _{2.5}	1-hour maximum SO ₂	1.9	-1.7, 5.6
	Average temperature	2.3	-0.4, 5.1
	Unmatched	2.4	0.1, 4.7

Table MM.15 Pneumonia + Acute bronchitis 65+ yrs

Pollutant	Match	Inc	95% CI
1-hour maximum SO ₂	24-hour average NO ₂	1.4	-1.9, 4.9
	24-hour average PM ₁₀	3.4	-0.0, 7.0
	24-hour average PM _{2.5}	2.4	-4.1, 9.3
	Average temperature	3.2	0.0, 6.5
	Unmatched	3.2	0.3, 6.1
24-hour average PM ₁₀	24-hour average NO ₂	0.6	-2.1, 3.4
	24-hour average PM _{2.5}	2.5	-0.7, 5.8
	1-hour maximum SO ₂	5.6	2.6, 8.7
	Average temperature	2.0	0.2, 3.9
	Unmatched	1.8	0.3, 3.4
24-hour average PM _{2.5}	24-hour average NO ₂	2.0	0.1, 3.9
	24-hour average PM ₁₀	3.7	1.0, 6.5
	1-hour maximum SO ₂	2.9	1.0, 4.8
	Average temperature	1.4	0.1, 2.8
	Unmatched	2.0	0.8, 3.2

Table MM.16 Respiratory admissions 0 yrs

Pollutant	Match	Inc	95% CI
1-hour maximum SO ₂	24-hour average bsp	2.7	-1.1, 6.8
	24-hour average PM _{2.5}	0.6	-3.4, 4.9
	Average temperature	3.2	-0.1, 6.5
	Unmatched	3.2	0.3, 6.3
24-hour average PM _{2.5}	24-hour average bsp	6.3	3.3, 9.5
	1-hour maximum SO ₂	3.1	0.5, 5.7
	Average temperature	1.8	0.2, 3.4
	Unmatched	2.4	1.0, 3.8
24-hour average bsp	24-hour average PM _{2.5}	6.6	2.7, 10.6
	1-hour maximum SO ₂	5.3	2.5, 8.2
	Average temperature	2.6	0.6, 4.6
	Unmatched	2.5	1.1, 4.0

Table MM.17 Respiratory admissions 1-4 yrs

Pollutant	Match	Inc	95% CI
1-hour maximum NO ₂	24-hour average bsp	3.5	0.4, 6.6
	24-hour average PM ₁₀	0.7	-10.1, 12.7
	24-hour average PM _{2.5}	8.5	0.7, 16.9
	1-hour maximum O ₃	2.9	0.6, 5.2
	1-hour maximum SO ₂	5.3	2.6, 8.1
	Average temperature	2.3	-0.7, 5.4
	Unmatched	2.8	0.7, 4.9
1-hour maximum SO ₂	24-hour average bsp	2.0	-0.6, 4.6
	24-hour average PM ₁₀	3.8	-3.3, 11.5
	24-hour average PM _{2.5}	-0.4	-3.2, 2.4
	1-hour maximum NO ₂	0.9	-8.4, 11.0
	Average temperature	2.8	-1.1, 6.9
	Unmatched	2.7	0.6, 4.8
24-hour average PM ₁₀	24-hour average bsp	3.8	1.3, 6.4
	24-hour average PM _{2.5}	5.5	-0.2, 11.5
	1-hour maximum NO ₂	-0.0	-2.1, 2.1
	1-hour maximum SO ₂	3.2	0.3, 6.1
	1-hour maximum O ₃	2.1	-1.1, 5.5
	Average temperature	2.3	0.6, 3.9
	Unmatched	1.7	0.5, 2.9
24-hour average PM _{2.5}	24-hour average bsp	7.2	5.0, 9.4
	24-hour average PM ₁₀	2.9	0.2, 5.6
	1-hour maximum NO ₂	-1.5	-3.2, 0.2
	1-hour maximum SO ₂	1.3	-1.8, 4.4
	1-hour maximum O ₃	2.0	-0.6, 4.8
	Average temperature	1.5	-0.2, 3.1
	Unmatched	1.7	0.7, 2.7
24-hour average bsp	24-hour average PM ₁₀	2.5	-0.7, 5.7
	24-hour average PM _{2.5}	7.0	3.5, 10.5
	1-hour maximum NO ₂	2.7	-6.3, 12.5
	1-hour maximum SO ₂	2.0	-1.8, 5.9
	Average temperature	2.0	0.6, 3.4
	Unmatched	2.2	1.2, 3.2
1-hour maximum O ₃	24-hour average PM ₁₀	2.3	-0.7, 5.3
	24-hour average PM _{2.5}	5.0	2.7, 7.3
	1-hour maximum NO ₂	-1.1	-3.6, 1.4
	Average temperature	4.2	2.6, 5.9
	Unmatched	1.9	0.5, 3.4

Table MM.18 Respiratory admissions 5-14 yrs

Pollutant	Match	Inc	95% CI
1-hour maximum NO ₂	24-hour average PM ₁₀	3.8	-0.1, 7.8
	Average temperature	5.5	1.8, 9.3
	Unmatched	4.7	1.6, 7.9
24-hour average NO ₂	24-hour average PM ₁₀	6.4	3.0, 9.8
	Average temperature	6.5	3.6, 9.5
	Unmatched	5.8	1.7, 10.1
24-hour average PM ₁₀	24-hour average NO ₂	1.2	-1.8, 4.4
	1-hour maximum NO ₂	1.7	-1.2, 4.7
	Average temperature	3.6	1.4, 5.8
	Unmatched	1.9	0.1, 3.8

Table MM.19 Respiratory admissions 15-64 yrs

Pollutant	Match	Inc	95% CI
1-hour maximum NO ₂	24-hour average PM _{2.5}	3.4	-2.0, 9.0
	Average temperature	2.0	0.7, 3.3
	Unmatched	1.3	0.3, 2.4
24-hour average PM _{2.5}	1-hour maximum NO ₂	-0.2	-2.1, 1.8
	Average temperature	1.4	-0.2, 3.1
	Unmatched	1.1	0.0, 2.1

Table MM.20 Respiratory admissions 65 + yrs

Pollutant	Match	Inc	95% CI
1-hour maximum SO ₂	24-hour average NO ₂	1.9	-1.4, 5.3
	24-hour average PM _{2.5}	0.4	-1.8, 2.6
	Average temperature	3.1	1.0, 5.4
	Unmatched	2.8	1.1, 4.4
24-hour average PM _{2.5}	24-hour average NO ₂	1.5	0.1, 2.9
	1-hour maximum SO ₂	1.6	0.6, 2.7
	Average temperature	1.0	0.2, 1.8
	Unmatched	1.6	0.9, 2.3

Table MM.21 Cardiovascular mortality 75+ yrs

Pollutant	Match	Inc	95% CI
1-hour maximum NO ₂	24-hour average bsp	1.4	-1.4, 4.2
	24-hour average PM ₁₀	-0.5	-5.9, 5.2
	24-hour average PM _{2.5}	1.9	-1.5, 5.3
	1-hour maximum SO ₂	3.0	0.3, 5.7
	Average temperature	-0.1	-1.9, 1.8
	Unmatched	1.6	0.1, 3.1
1-hour maximum SO ₂	24-hour average bsp	3.8	-0.9, 8.8
	24-hour average PM ₁₀	3.2	0.8, 5.7
	24-hour average PM _{2.5}	1.1	-3.2, 5.7
	1-hour maximum NO ₂	2.9	0.0, 5.9
	Average temperature	2.5	0.3, 4.8)
	Unmatched	3.6	0.8, 6.4
24-hour average PM ₁₀	24-hour average PM _{2.5}	3.9	-1.0, 9.1
	1-hour maximum NO ₂	0.7	-1.2, 2.6
	1-hour maximum SO ₂	4.6	0.4, 9.0
	Average temperature	1.3	-0.1, 2.7
	Unmatched	1.8	0.4, 3.2
24-hour average PM _{2.5}	24-hour average PM ₁₀	4.8	2.8, 6.9
	1-hour maximum NO ₂	0.7	-2.9, 4.4
	1-hour maximum SO ₂	1.4	-0.1, 2.8
	Average temperature	0.9	-0.1, 2.0
	Unmatched	1.7	0.8, 2.7
24-hour average bsp	24-hour average PM ₁₀	2.7	0.7, 4.8
	1-hour maximum NO ₂	0.8	-3.9, 5.8
	1-hour maximum SO ₂	1.0	-1.0, 3.1
	Average temperature	0.4	-0.8, 1.6
	Unmatched	1.3	0.3, 2.2

Table MM.22 Cardiovascular mortality all ages

Pollutant	Match	Inc	95% CI
1-hour maximum NO ₂	24-hour average PM ₁₀	0.7	-1.7, 3.1
	24-hour average PM _{2.5}	2.2	-0.9, 5.5
	1-hour maximum O ₃	1.9	-1.5, 5.3
	Average temperature	0.1	-1.2, 1.4
	Unmatched	1.4	0.3, 2.5
1-hour maximum O ₃	24-hour average bsp	2.9	1.2, 4.6
	24-hour average PM ₁₀	2.9	0.9, 4.9
	24-hour average PM _{2.5}	3.5	2.2, 4.8
	1-hour maximum NO ₂	2.0	0.2, 3.9
	1-hour maximum SO ₂	-1.0	-8.4, 7.0
	8-hour av CO (max)	0.6	-1.4, 2.6
	Average temperature	1.5	-0.7, 3.8
	Unmatched	2.1	1.1, 3.1
	24-hour average PM _{2.5}	4.5	-0.7, 9.8
	1-hour maximum NO ₂	0.5	-1.6, 2.5
24-hour average PM ₁₀	1-hour maximum O ₃	2.4	0.8, 3.9
	Average temperature	1.2	0.0, 2.4
	Unmatched	1.4	0.2, 2.6
24-hour average PM _{2.5}	24-hour average PM ₁₀	3.9	2.2, 5.7
	1-hour maximum NO ₂	0.4	-2.3, 3.2
	1-hour maximum O ₃	2.1	0.6, 3.7
	Average temperature	0.8	-0.1, 1.7
	Unmatched	1.5	0.7, 2.3

Table MM.23 Respiratory mortality 75+ yrs

Pollutant	Match	Inc	95% CI
1-hour maximum NO ₂	24-hour average PM _{2.5}	7.9	0.0, 16.3
	Average temperature	2.3	-1.3, 5.9
	Unmatched	4.0	1.0, 7.0
24-hour average PM _{2.5}	1-hour maximum NO ₂	-1.0	-4.3, 2.5
	Average temperature	-0.1	-3.4, 3.4
	Unmatched	2.1	0.1, 4.2

Table MM.24 Total mortality 75+ yrs

Pollutant	Match	Inc	95% CI
1-hour maximum NO ₂	24-hour average bsp	1.7	-0.0, 3.5
	24-hour average PM _{2.5}	2.8	-2.0, 7.8
	1-hour maximum SO ₂	3.9	0.3, 7.6
	Average temperature	0.3	-1.5, 2.2
	Unmatched	1.6	0.2, 3.0
1-hour maximum SO ₂	24-hour average bsp	4.5	2.7, 6.3
	24-hour average PM _{2.5}	2.4	0.5, 4.4
	1-hour maximum NO ₂	3.0	-0.9, 7.0
	Average temperature	3.4	1.4, 5.5
	Unmatched	3.8	2.0, 5.7
24-hour average PM _{2.5}	1-hour maximum NO ₂	0.3	-2.3, 2.9
	1-hour maximum SO ₂	1.4	0.1, 2.8
	Average temperature	0.2	-0.5, 1.0
	Unmatched	1.2	0.5, 1.8
24-hour average bsp	1-hour maximum NO ₂	1.5	-4.0, 7.3
	1-hour maximum SO ₂	1.6	0.1, 3.1
	Average temperature	-0.1	-0.9, 0.6
	Unmatched	0.9	0.1, 1.8

Appendix A3.3: Case-crossover leave-one-city-out sensitivity analysis

Table ML.1 Cardiac admissions 15-64 yrs

City left-out	1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO				1-hour NO ₂				24-hour NO ₂			
	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.5	0.2	2.9	33.0	1.2	0.0	2.4	0.0	2.0	0.7	3.4	0.0
Brisbane	-1.0	-2.0	0.1	0.0	-1.1	-2.2	0.0	0.0	-1.4	-2.7	-0.1	0.0	1.9	0.6	3.2	29.7	0.9	-0.3	2.1	0.0	2.0	0.7	3.3	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.7	0.4	3.1	37.2	0.9	-0.2	2.1	0.0	2.1	0.8	3.4	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.8	0.6	3.1	30.5	1.1	-0.0	2.3	0.0	2.2	0.9	3.5	0.0
Melbourne	-0.3	-1.4	0.8	0.0	-0.4	-1.5	0.8	0.0	-0.7	-2.2	0.8	17.0	2.1	0.8	3.5	15.6	1.5	0.1	2.9	0.0	2.6	1.0	4.2	0.0
Perth	-0.6	-1.9	0.8	38.3	-0.6	-2.0	0.8	37.8	-0.8	-2.2	0.6	25.3	1.6	0.3	2.9	34.2	1.1	-0.1	2.3	0.0	2.2	0.9	3.5	0.0
Sydney	-0.3	-2.1	1.4	35.3	-0.5	-2.3	1.3	35.6	-0.7	-2.6	1.2	24.2	1.1	0.0	2.2	0.0	1.0	-0.3	2.4	0.0	2.2	0.6	3.7	0.0
Australian only	-0.6	-1.6	0.5	9.1	-0.7	-1.7	0.4	7.0	-1.0	-2.1	0.2	0.0	1.8	0.2	3.3	41.5	1.2	0.0	2.4	0.0	2.1	0.7	3.4	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-0.4	3.8	10.0	0.2	-3.1	3.6	0.0	2.8	-1.0	6.8	0.0
(Continued)																								
City left-out	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	1.0	-2.2	4.3	40.4	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	2.2	-0.7	5.3	14.7	0.8	-1.2	2.7	19.9	0.8	-0.0	1.7	0.0	0.5	-0.5	1.5	0.0	0.0	-1.1	1.2	0.0				
Canberra	-	-	-	-	-	-	-	-	1.1	0.2	2.0	0.0	-	-	-	-	-	-	-	-				
Christchurch	-0.3	-2.2	1.6	0.0	-0.2	-1.6	1.4	0.0	-	-	-	-	-	-	-	-	0.4	-0.8	1.5	0.0				
Melbourne	-	-	-	-	-	-	-	-	1.3	0.1	2.5	0.0	0.8	-0.2	1.8	0.0	0.7	-0.5	2.0	0.0				
Perth	-	-	-	-	-	-	-	-	0.9	0.0	1.7	0.0	0.5	-0.3	1.4	0.0	0.2	-0.9	1.3	0.0				
Sydney	1.2	-2.7	5.2	73.5	0.3	-2.3	2.9	36.7	1.0	-0.0	2.1	9.7	0.6	-0.4	1.6	0.0	0.1	-1.1	1.4	0.0				
Australian only	-0.3	-2.2	1.6	0.0	-0.4	-3.2	2.5	4.2	1.0	0.2	1.8	0.0	0.6	-0.2	1.4	0.0	0.4	-0.8	1.5	0.0				
NZ only	-	-	-	-	1.3	-2.4	5.2	55.8	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.2 Cardiac admissions 65+ yrs

1-hour O ₃					4-hour O ₃				8-hour O ₃				8-hour CO				1-hour NO ₂				24-hour NO ₂			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	2.9	1.1	4.7	77.7	2.9	1.6	4.1	44.9	3.6	2.1	5.2	54.1
Brisbane	-0.1	-0.9	0.7	0.0	-0.2	-1.2	0.8	24.4	-0.7	-1.9	0.6	40.6	3.2	1.5	4.9	71.5	3.0	1.7	4.2	42.9	2.8	0.5	5.1	61.7
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	3.1	1.5	4.7	76.1	3.1	2.0	4.2	34.8	3.5	2.0	5.1	56.8
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	3.0	1.3	4.8	76.5	3.3	2.5	4.2	0.0	4.0	3.0	5.0	7.4
Melbourne	0.2	-0.6	1.0	0.0	0.3	-0.6	1.2	9.6	0.3	-1.1	1.6	41.4	2.8	1.0	4.7	77.8	2.7	1.2	4.2	45.0	2.6	0.2	5.2	61.6
Perth	-0.1	-0.8	0.7	0.0	-0.1	-1.1	0.8	23.3	-0.5	-1.9	0.9	59.2	2.6	0.9	4.2	76.3	2.9	1.6	4.2	43.5	3.0	1.3	4.7	59.2
Sydney	0.3	-0.7	1.3	6.7	0.3	-1.1	1.8	47.7	0.1	-2.0	2.2	67.4	2.2	1.2	3.1	21.7	2.6	1.7	3.6	1.6	2.8	1.0	4.7	55.0
Australian only	0.1	-0.6	0.8	0.0	0.1	-0.8	1.0	26.6	-0.2	-1.5	1.1	53.7	3.2	1.0	5.3	80.8	3.3	2.4	4.3	13.3	4.2	3.3	5.2	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	2.0	0.6	3.5	0.0	0.9	-3.7	5.6	66.7	-1.1	-6.6	4.8	65.7
(Continued)																								
1-hour SO ₂					24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	3.6	-0.2	7.5	76.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	3.4	-0.6	7.6	78.3	3.4	-0.5	7.5	84.3	1.9	1.2	2.6	9.6	2.2	1.6	2.9	0.0	1.2	0.1	2.3	44.7	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	1.9	0.9	2.8	28.1	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	2.8	-1.6	7.5	89.8	2.6	-1.6	7.0	83.2	-	-	-	-	-	-	-	-	1.4	0.5	2.2	12.7	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.7	0.5	3.0	39.6	1.6	0.6	2.8	57.6	1.1	-0.1	2.4	49.1	-	-	-	-
Perth	-	-	-	-	-	-	-	-	1.6	1.0	2.2	0.0	1.7	0.7	2.6	61.4	0.8	0.1	1.6	0.9	-	-	-	-
Sydney	0.7	-0.7	2.1	0.0	0.9	-0.3	2.2	12.6	1.6	0.5	2.7	33.3	1.9	0.6	3.2	69.7	0.9	-0.2	2.0	38.0	-	-	-	-
Australian only	2.8	-1.6	7.5	89.8	3.9	-2.5	10.8	88.2	1.7	0.9	2.5	20.0	1.9	1.0	2.7	55.0	1.4	0.5	2.2	12.7	-	-	-	-
NZ only	-	-	-	-	1.4	-1.0	3.9	56.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.3 IHD admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-1.3	3.9	57.7	-0.1	-1.7	1.4	0.0	0.6	-1.1	2.4	0.0
Brisbane	-2.2	-4.0	-0.3	36.8	-2.3	-3.8	-0.8	0.0	-2.7	-4.4	-1.0	0.0	1.4	-1.2	4.2	60.7	-0.5	-2.0	1.1	0.0	0.6	-1.2	2.3	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-1.0	4.2	61.3	-0.3	-1.8	1.2	0.0	0.8	-0.9	2.5	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	2.3	0.8	3.8	13.2	-0.2	-1.7	1.3	0.0	0.8	-0.9	2.5	0.0
Melbourne	-0.3	-2.3	1.8	48.1	-0.6	-2.8	1.7	48.9	-1.1	-3.7	1.7	53.1	1.9	-0.8	4.7	54.7	0.0	-1.8	1.9	0.0	1.1	-1.1	3.3	0.0
Perth	-1.4	-4.2	1.5	77.7	-1.4	-4.1	1.3	72.5	-1.6	-4.2	1.1	62.5	1.6	-1.0	4.2	61.2	-0.3	-1.9	1.3	0.0	0.8	-0.9	2.6	0.0
Sydney	-1.0	-4.7	2.8	77.7	-1.1	-4.6	2.5	71.6	-1.1	-4.3	2.1	56.0	1.0	-1.2	3.1	38.6	-0.5	-2.3	1.2	0.0	0.2	-1.8	2.2	0.0
Australian only	-1.2	-3.5	1.1	67.2	-1.4	-3.5	0.8	59.0	-1.7	-3.8	0.5	43.8	2.1	0.3	3.9	24.2	-0.1	-1.6	1.5	0.0	0.8	-1.0	2.6	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.6	-8.0	7.5	85.9	-2.1	-6.6	2.6	0.0	0.1	-5.0	5.4	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	0.5	-2.6	3.8	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	1.8	-1.8	5.5	0.0	1.4	-0.8	3.7	0.0	0.8	-0.3	2.0	0.0	0.2	-1.2	1.5	0.0	-0.8	-2.3	0.8	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	1.0	-0.1	2.2	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	-0.1	-2.5	2.4	0.0	0.6	-1.5	2.7	0.0	-	-	-	-	-	-	-	-	0.2	-1.4	1.7	6.2	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.7	0.1	3.3	0.0	0.4	-0.9	1.7	0.0	0.2	-1.6	2.1	19.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	1.1	0.0	2.3	0.0	0.2	-0.9	1.4	0.0	-0.3	-2.2	1.6	39.9	-	-	-	-
Sydney	1.0	-2.1	4.2	32.3	0.9	-1.1	3.0	0.0	0.9	-0.3	2.2	0.0	-0.1	-1.4	1.3	0.0	-0.7	-2.6	1.3	26.7	-	-	-	-
Australian only	-0.1	-2.5	2.4	0.0	-0.6	-4.2	3.2	0.0	1.1	-0.0	2.2	0.0	0.2	-0.9	1.3	0.0	0.2	-1.4	1.7	6.2	-	-	-	-
NZ only	-	-	-	-	1.5	-0.9	3.9	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.4 IHD admissions 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	2.3	0.6	4.1	46.5	2.6	1.4	3.8	0.0	2.8	1.3	4.4	14.2
Brisbane	0.0	-1.5	1.6	41.1	0.0	-1.6	1.7	44.9	-0.1	-2.1	1.8	49.1	2.6	0.9	4.3	38.1	2.6	1.4	3.9	0.0	2.6	0.8	4.4	31.1
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	2.5	1.1	3.9	34.5	2.6	1.4	3.8	0.0	2.6	1.0	4.3	23.5
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	2.6	1.0	4.2	39.7	2.6	1.5	3.8	0.0	2.7	1.3	4.2	12.3
Melbourne	0.3	-1.2	1.7	33.9	0.3	-1.2	1.9	36.4	0.3	-1.6	2.3	42.5	2.3	0.5	4.2	46.5	2.5	1.1	4.0	0.0	2.2	0.0	4.4	32.7
Perth	-0.4	-1.5	0.7	0.0	-0.4	-1.5	0.7	0.0	-0.7	-1.9	0.6	0.0	2.1	0.7	3.6	37.4	2.4	1.2	3.7	0.0	2.2	0.9	3.6	0.0
Sydney	0.4	-1.3	2.0	29.7	0.4	-1.4	2.3	37.7	0.4	-1.8	2.6	42.6	1.9	0.8	3.0	0.0	2.2	0.8	3.5	0.0	2.2	0.1	4.2	30.7
Australian only	-0.0	-1.1	1.1	12.8	-0.0	-1.2	1.2	18.9	-0.2	-1.6	1.3	27.2	2.7	0.6	4.8	51.4	2.7	1.5	4.0	0.0	3.0	1.6	4.4	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-0.4	3.7	0.0	0.8	-2.7	4.4	0.0	-1.0	-4.9	3.1	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	4.3	1.8	6.8	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	3.9	1.3	6.6	0.0	3.3	-0.7	7.4	76.1	1.7	-0.2	3.7	50.3	1.9	0.9	2.9	0.0	0.5	-0.8	1.9	31.1				
Canberra	-	-	-	-	-	-	-	-	1.8	0.7	3.0	22.2	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	2.6	-0.3	5.6	50.2	1.9	-0.9	4.9	54.0	-	-	-	-	-	-	-	-	0.8	-0.4	2.0	0.0				
Melbourne	-	-	-	-	-	-	-	-	1.6	-0.5	3.8	51.0	1.5	0.3	2.8	31.1	0.6	-0.9	2.1	30.6				
Perth	-	-	-	-	-	-	-	-	1.3	0.4	2.2	0.0	1.4	0.5	2.2	0.0	0.1	-0.9	1.2	0.0				
Sydney	2.0	0.1	3.9	0.0	2.5	-0.9	5.9	70.3	1.4	-0.6	3.4	48.6	1.7	0.4	2.9	35.7	0.2	-1.1	1.5	19.1				
Australian only	2.6	-0.3	5.6	50.2	3.4	0.5	6.4	0.0	1.6	0.1	3.1	36.8	1.6	0.7	2.4	3.6	0.8	-0.4	2.0	0.0				
NZ only	-	-	-	-	2.7	-3.0	8.8	83.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.5 Stroke admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-2.2	3.6	1.3	1.8	-2.3	6.0	38.6	5.1	-3.5	14.5	63.4
Brisbane	-2.5	-5.1	0.1	0.0	-2.6	-5.2	0.2	0.0	-2.7	-5.7	0.4	0.0	0.0	-3.3	3.4	12.9	-0.1	-2.9	2.9	0.0	1.8	-5.7	10.0	45.8
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-2.8	2.2	0.0	0.4	-2.8	3.6	13.9	1.0	-4.1	6.4	37.5
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-3.2	3.6	14.3	0.9	-2.8	4.7	34.0	3.4	-5.1	12.6	63.0
Melbourne	-2.4	-5.2	0.4	4.1	-2.5	-5.3	0.4	0.0	-3.3	-6.5	0.1	0.0	0.2	-3.4	4.0	14.6	1.8	-3.0	6.9	40.6	4.7	-4.4	14.8	64.9
Perth	-1.6	-4.1	1.0	0.0	-1.6	-4.2	1.1	0.0	-1.9	-4.9	1.1	0.0	0.4	-2.1	2.9	0.0	1.9	-2.1	6.1	35.0	5.3	-2.7	13.9	60.7
Sydney	-1.1	-4.6	2.6	3.3	-1.5	-5.3	2.4	7.9	-1.7	-5.7	2.6	0.0	0.1	-3.3	3.6	13.6	2.3	-2.0	6.8	29.2	5.2	-3.7	14.9	61.6
Australian only	-2.0	-4.4	0.4	0.0	-2.1	-4.6	0.4	0.0	-2.4	-5.2	0.5	0.0	0.9	-3.6	5.7	21.1	1.5	-2.9	6.0	45.6	5.0	-5.3	16.4	69.2
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-1.2	-5.5	3.3	0.0	0.8	-7.1	9.3	5.5	0.2	-9.0	10.3	13.4
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	0.7	-5.5	7.3	5.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	0.0	-5.8	6.2	0.0	0.6	-3.0	4.4	0.0	-0.2	-3.8	3.4	49.8	-1.9	-4.3	0.6	0.0	-2.2	-4.9	0.5	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	-0.4	-3.7	3.1	46.1	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	2.0	-3.1	7.4	0.0	1.4	-2.3	5.3	2.9	-	-	-	-	-	-	-	-	-1.3	-4.6	2.0	20.2	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	0.3	-4.2	5.0	53.2	-0.6	-3.9	2.8	51.7	-1.0	-4.4	2.4	19.6	-	-	-	-
Perth	-	-	-	-	-	-	-	-	0.3	-3.6	4.3	56.1	-0.6	-3.6	2.5	51.7	-1.4	-4.3	1.7	19.9	-	-	-	-
Sydney	2.8	-2.2	8.1	0.0	1.9	-1.7	5.6	0.0	1.4	-1.0	3.7	0.0	0.6	-1.9	3.2	0.0	-0.4	-3.4	2.8	0.0	-	-	-	-
Australian only	2.0	-3.1	7.4	0.0	0.6	-10.0	12.5	51.4	0.2	-2.9	3.5	42.3	-0.6	-3.1	1.9	27.6	-1.3	-4.6	2.0	20.2	-	-	-	-
NZ only	-	-	-	-	1.2	-2.6	5.2	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.6 Stroke admissions 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.4	1.6	0.0	0.5	-1.2	2.1	0.0	1.0	-0.8	2.8	0.0
Brisbane	-0.7	-2.2	0.8	0.0	-1.0	-2.5	0.6	0.0	-1.6	-3.4	0.1	0.0	0.1	-1.4	1.6	0.0	1.8	-0.7	4.3	45.9	2.1	-0.4	4.6	33.8
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-1.3	1.6	0.0	1.4	-0.8	3.7	42.1	1.7	-0.5	3.9	23.4
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-1.0	2.0	0.0	1.6	-0.7	4.0	45.8	1.8	-0.4	4.2	30.0
Melbourne	-0.2	-1.8	1.3	0.0	-0.4	-2.0	1.3	0.0	-0.7	-2.6	1.2	0.0	0.6	-1.1	2.4	0.0	2.3	-0.1	4.8	25.4	2.9	0.0	5.8	25.1
Perth	-0.9	-2.3	0.6	0.0	-1.0	-2.5	0.5	0.0	-1.5	-3.2	0.2	0.0	0.0	-1.4	1.5	0.0	0.9	-1.2	3.0	25.9	1.4	-0.7	3.7	19.5
Sydney	-0.6	-2.6	1.3	0.0	-0.8	-2.8	1.3	0.0	-1.5	-3.8	0.9	2.7	0.1	-1.5	1.6	0.0	2.3	-0.4	5.0	38.5	2.7	0.2	5.2	13.3
Australian only	-0.6	-2.0	0.7	0.0	-0.8	-2.2	0.6	0.0	-1.3	-2.9	0.3	0.0	0.4	-1.3	2.0	0.0	0.6	-1.3	2.5	16.7	0.8	-1.0	2.7	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-3.0	2.5	0.0	5.4	0.6	10.5	0.0	6.7	1.0	12.7	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-0.2	-3.5	3.2	0.0	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	2.8	-0.6	6.4	0.0	-0.9	-3.2	1.4	0.0	-0.0	-1.2	1.2	0.0	-0.4	-1.8	1.1	8.0	-1.0	-3.0	1.0	40.7				
Canberra	-	-	-	-	-	-	-	-	-0.3	-1.7	1.2	12.1	-	-	-	-	-	-	-	-				
Christchurch	0.5	-2.8	3.9	26.0	-0.9	-3.2	1.4	0.0	-	-	-	-	-	-	-	-	-1.9	-3.5	-0.3	0.0				
Melbourne	-	-	-	-	-	-	-	-	-0.2	-2.2	1.8	11.7	-0.6	-2.1	1.0	18.8	-1.2	-3.3	1.0	41.1				
Perth	-	-	-	-	-	-	-	-	-0.4	-1.6	0.8	0.0	-0.8	-2.0	0.4	0.0	-1.2	-3.1	0.7	40.9				
Sydney	0.7	-2.6	4.0	31.1	-1.3	-3.5	0.9	0.0	-0.5	-1.8	0.8	0.2	-0.3	-1.9	1.2	11.6	-0.3	-2.0	1.3	0.0				
Australian only	0.5	-2.8	3.9	26.0	0.2	-3.9	4.4	0.0	-0.3	-1.4	0.9	0.0	-0.6	-1.7	0.6	0.0	-1.9	-3.5	-0.3	0.0				
NZ only	-	-	-	-	-1.3	-3.8	1.1	0.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.7 Arrhythmia admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	2.6	-0.5	5.8	21.1	3.5	0.8	6.4	0.0	4.5	1.4	7.7	0.0
Brisbane	-0.3	-3.4	2.9	33.1	-0.4	-3.8	3.0	36.8	-0.8	-4.6	3.2	39.0	3.1	0.6	5.6	0.0	2.9	0.2	5.7	0.0	4.6	1.6	7.7	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	2.8	0.5	5.2	0.0	3.7	1.1	6.4	0.0	5.2	2.2	8.3	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-0.5	4.3	0.0	3.4	0.8	6.1	0.0	5.1	2.2	8.1	0.0
Melbourne	-0.1	-3.5	3.5	44.3	0.0	-3.9	4.1	51.0	-0.1	-4.7	4.7	53.4	2.6	-0.6	6.0	20.7	3.5	0.4	6.7	0.0	5.2	1.5	8.9	0.0
Perth	1.1	-1.2	3.5	0.0	1.2	-1.2	3.7	0.0	1.2	-1.6	4.0	0.0	2.4	-0.4	5.3	20.5	3.6	0.9	6.4	0.0	5.2	2.2	8.3	0.0
Sydney	-0.0	-4.4	4.6	46.9	-0.3	-5.0	4.7	50.5	-0.8	-6.2	5.0	51.5	2.0	-0.7	4.7	7.4	4.2	1.1	7.4	0.0	6.6	3.0	10.3	0.0
Australian only	0.4	-2.2	3.0	20.4	0.4	-2.4	3.3	26.8	0.1	-3.1	3.5	30.3	1.8	-0.9	4.5	0.0	3.4	0.7	6.3	0.0	4.4	1.3	7.6	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	4.9	-1.7	11.9	51.7	4.3	-2.5	11.6	0.0	10.0	1.7	19.0	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	0.5	-7.1	8.8	44.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	4.6	-4.1	14.2	50.3	0.5	-4.5	5.8	26.3	0.9	-1.1	2.9	0.0	1.1	-1.1	3.4	0.0	1.9	-0.6	4.6	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	0.9	-1.0	2.9	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	-1.5	-5.8	3.0	0.0	-1.9	-5.0	1.4	0.0	-	-	-	-	-	-	-	-	0.9	-1.8	3.5	0.0	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.1	-1.6	3.9	0.0	1.4	-0.8	3.5	0.0	2.6	-0.2	5.4	0.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	0.6	-1.3	2.5	0.0	1.2	-0.7	3.1	0.0	1.8	-0.7	4.3	0.0	-	-	-	-
Sydney	2.9	-8.1	15.1	77.7	-0.4	-7.2	6.9	45.0	0.7	-1.4	2.9	0.0	1.6	-0.7	3.9	0.0	1.7	-1.2	4.7	0.0	-	-	-	-
Australian only	-1.5	-5.8	3.0	0.0	-3.0	-9.2	3.5	0.0	0.8	-1.1	2.7	0.0	1.3	-0.5	3.2	0.0	0.9	-1.8	3.5	0.0	-	-	-	-
NZ only	-	-	-	-	2.2	-7.4	12.6	62.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.8 Arrhythmia admissions 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-2.5	1.4	0.0	-0.2	-2.2	1.9	0.0	-0.0	-2.3	2.3	0.0
Brisbane	-0.5	-2.3	1.5	0.0	-0.4	-2.4	1.6	0.0	-0.6	-2.8	1.7	0.0	0.9	-1.0	2.8	0.0	0.3	-2.1	2.8	22.6	0.1	-2.2	2.5	2.2
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.1	2.1	20.5	0.5	-1.8	3.0	20.9	0.4	-2.0	2.9	13.1
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-2.2	2.3	25.3	0.4	-1.9	2.8	23.3	0.5	-1.8	2.9	5.3
Melbourne	-0.8	-2.7	1.2	0.0	-0.5	-2.6	1.5	0.0	-0.3	-2.7	2.1	0.0	-0.0	-2.5	2.5	25.4	-0.1	-2.7	2.7	14.8	-0.2	-3.0	2.8	5.9
Perth	-0.2	-2.0	1.7	0.0	-0.1	-2.0	1.9	0.0	-0.1	-2.3	2.1	0.0	0.3	-1.6	2.3	12.9	1.0	-1.1	3.2	0.0	1.0	-1.3	3.3	0.0
Sydney	-0.3	-2.7	2.3	0.0	-0.1	-2.7	2.6	0.0	0.1	-2.9	3.1	0.0	0.0	-2.3	2.4	25.6	0.9	-1.7	3.6	14.0	0.9	-1.8	3.8	4.2
Australian only	-0.4	-2.2	1.3	0.0	-0.3	-2.1	1.5	0.0	-0.3	-2.3	1.8	0.0	-0.7	-2.7	1.4	0.0	-0.2	-2.3	1.9	0.0	0.1	-2.2	2.4	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-1.0	6.1	0.0	5.4	-0.6	11.8	0.0	2.5	-6.1	12.0	25.7
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	1.0	-3.3	5.6	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	2.0	-2.6	6.8	0.0	1.4	-1.5	4.3	0.0	-0.5	-2.0	1.0	0.0	-0.5	-2.2	1.3	0.0	-0.7	-2.7	1.3	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	-0.6	-2.1	0.9	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	-0.2	-3.6	3.4	0.0	1.3	-1.5	4.1	0.0	-	-	-	-	-	-	-	-	-0.5	-2.5	1.6	0.0	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	-0.6	-2.8	1.5	0.0	-0.8	-2.4	1.0	0.0	-0.2	-2.4	1.9	0.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	-0.5	-2.0	1.0	0.0	-0.6	-2.1	0.9	0.0	-1.1	-3.0	0.8	0.0	-	-	-	-
Sydney	0.0	-3.4	3.6	0.0	1.4	-1.3	4.2	0.0	-0.2	-1.8	1.5	0.0	-0.5	-2.2	1.3	0.0	-0.7	-2.9	1.5	0.0	-	-	-	-
Australian only	-0.2	-3.6	3.4	0.0	0.8	-4.3	6.1	0.0	-0.5	-1.9	1.0	0.0	-0.6	-2.0	0.9	0.0	-0.5	-2.5	1.6	0.0	-	-	-	-
NZ only	-	-	-	-	1.5	-1.5	4.7	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.9 Cardiac failure admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	3.9	-0.1	8.0	0.0	3.9	-0.4	8.5	0.0	4.9	0.1	9.9	0.0
Brisbane	-0.3	-4.2	3.8	0.0	-0.8	-5.1	3.6	5.9	-2.1	-7.7	4.0	31.5	4.8	0.9	8.8	0.0	3.5	-0.8	8.0	0.0	4.7	0.0	9.7	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	4.1	0.6	7.8	0.0	3.7	-0.4	8.1	0.0	4.9	0.3	9.6	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	4.3	0.7	8.1	0.0	3.3	-0.8	7.6	0.0	4.6	0.0	9.3	0.0
Melbourne	-5.3	-12.5	2.5	68.4	-5.9	-13.5	2.4	68.6	-7.4	-15.8	1.8	66.9	4.9	0.5	9.5	0.0	3.3	-1.8	8.8	0.0	3.6	-2.2	9.7	0.0
Perth	-3.1	-10.8	5.4	69.0	-3.3	-10.9	4.9	65.5	-3.8	-11.8	5.0	59.9	4.3	0.7	8.0	0.0	4.0	-0.4	8.5	0.0	5.1	0.3	10.0	0.0
Sydney	-5.6	-13.2	2.6	60.6	-6.4	-14.0	1.8	56.7	-7.8	-16.5	1.8	59.8	3.0	-0.8	7.0	0.0	2.9	-1.8	7.9	0.0	4.1	-1.2	9.7	0.0
Australian only	-3.5	-9.1	2.5	58.6	-4.0	-9.8	2.1	57.5	-5.0	-11.5	1.9	57.0	4.1	-0.0	8.4	0.0	3.7	-0.7	8.2	0.0	4.9	0.0	9.9	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-2.3	11.6	0.0	2.8	-8.8	15.7	3.0	2.9	-9.3	16.7	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	1.9	-7.6	12.4	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	3.3	-7.2	14.9	0.0	-0.4	-5.3	4.7	0.0	5.2	1.2	9.5	24.4	4.4	0.9	8.1	0.0	3.3	-0.8	7.6	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	4.9	0.4	9.7	31.8	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	-0.1	-7.5	7.9	0.0	-0.7	-5.4	4.2	0.0	-	-	-	-	-	-	-	-	2.8	-1.4	7.1	0.0	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	6.5	1.8	11.3	0.0	2.4	-1.7	6.6	16.3	0.6	-4.0	5.3	0.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	3.5	0.4	6.6	0.0	2.8	-0.8	6.5	21.6	1.9	-2.5	6.6	16.5	-	-	-	-
Sydney	1.9	-6.0	10.6	0.0	-0.2	-4.9	4.7	0.0	4.3	-0.4	9.2	20.9	2.0	-1.6	5.9	0.0	1.3	-3.5	6.3	9.7	-	-	-	-
Australian only	-0.1	-7.5	7.9	0.0	0.1	-10.3	11.7	0.0	4.4	1.1	7.9	9.3	3.0	-0.1	6.1	0.0	2.8	-1.4	7.1	0.0	-	-	-	-
NZ only	-	-	-	-	-0.4	-5.4	4.9	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.10 Cardiac failure admissions 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	6.5	3.7	9.3	65.3	7.0	4.4	9.6	45.8	8.3	3.8	13.1	48.9
Brisbane	0.7	-0.9	2.4	8.1	0.2	-1.9	2.5	40.5	-0.9	-3.6	1.9	51.8	6.4	3.5	9.4	66.3	6.3	3.3	9.4	57.9	6.3	0.7	12.3	67.6
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	5.6	3.1	8.2	64.1	6.0	3.3	8.7	54.7	6.2	1.3	11.4	65.8
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	6.4	3.6	9.3	65.9	6.9	4.5	9.3	41.9	8.5	5.6	11.4	47.5
Melbourne	2.1	0.4	3.8	0.0	2.0	0.3	3.8	0.0	1.6	-1.0	4.3	34.0	6.4	3.4	9.5	63.6	6.1	2.6	9.7	56.8	6.5	0.5	12.8	66.9
Perth	1.4	-1.1	3.9	58.9	1.1	-1.9	4.2	70.5	0.5	-3.4	4.6	78.4	5.9	3.0	8.9	67.7	6.4	3.3	9.5	56.9	6.5	0.7	12.5	67.8
Sydney	1.2	-1.9	4.4	57.6	1.0	-2.8	4.9	68.9	0.2	-4.7	5.4	77.1	4.5	3.0	6.1	0.0	5.4	3.2	7.7	14.8	5.8	0.5	11.4	54.7
Australian only	1.3	-0.6	3.3	38.7	1.1	-1.3	3.5	55.7	0.3	-2.8	3.5	67.7	7.0	3.9	10.2	69.7	7.5	5.3	9.7	28.6	9.3	7.4	11.3	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	3.4	0.2	6.6	0.0	-0.1	-5.6	5.7	0.0	-2.3	-8.5	4.3	3.5
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	4.6	-7.4	18.1	91.2	-	-	-	-	-	-	-	-	3.2	1.7	4.7	0.0				
Brisbane	2.3	-13.7	21.2	94.8	6.0	-4.5	17.6	89.6	3.9	2.7	5.1	0.0	4.6	3.2	5.9	0.0	3.7	2.3	5.1	0.0				
Canberra	-	-	-	-	-	-	-	-	3.4	1.9	4.9	19.9	-	-	-	-	-	-	-	-				
Christchurch	5.1	-6.1	17.7	92.2	4.6	-7.4	18.1	91.2	-	-	-	-	-	-	-	-	3.7	2.4	5.1	0.0				
Melbourne	-	-	-	-	-	-	-	-	3.5	1.3	5.8	31.8	2.9	0.9	5.0	53.9	3.2	1.7	4.7	0.0				
Perth	-	-	-	-	-	-	-	-	3.6	1.7	5.5	31.5	3.6	1.4	5.9	72.1	3.5	2.2	4.8	0.0				
Sydney	-3.0	-8.0	2.3	65.7	0.1	-1.9	2.2	11.0	3.2	1.8	4.7	6.4	3.2	0.7	5.7	68.8	3.1	1.7	4.6	0.0				
Australian only	5.1	-6.1	17.7	92.2	6.8	-12.8	30.8	95.3	3.6	2.3	4.9	9.6	3.6	1.8	5.4	58.6	3.6	2.0	5.2	0.0				
NZ only	-	-	-	-	0.8	-1.3	2.9	0.0	-	-	-	-	-	-	-	-	3.0	0.4	5.7	35.7				

Table ML.11 Myocardial infarction admissions 15-64 yrs

	1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO				1-hour NO ₂				24-hour NO ₂			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-0.8	5.0	16.2	1.5	-1.1	4.3	0.0	1.9	-1.1	4.9	0.0
Brisbane	0.1	-2.8	3.0	24.2	0.1	-2.9	3.1	22.5	-0.1	-3.3	3.2	17.0	1.3	-1.6	4.3	21.7	1.2	-1.4	4.0	0.0	2.0	-1.0	5.1	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-0.8	4.6	17.1	1.3	-1.3	4.0	0.0	1.9	-1.0	4.8	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	2.4	0.0	4.9	0.0	1.0	-1.5	3.7	0.0	1.7	-1.2	4.6	0.0
Melbourne	1.1	-2.3	4.8	45.6	0.9	-2.9	4.9	49.6	0.7	-4.1	5.6	55.5	1.2	-2.0	4.5	20.8	1.6	-1.6	4.9	0.0	2.7	-0.9	6.5	0.0
Perth	1.6	-0.7	4.0	0.0	1.7	-0.8	4.2	0.0	1.7	-1.1	4.6	0.0	2.0	-0.6	4.6	13.6	1.6	-1.2	4.4	0.0	1.9	-1.1	5.0	0.0
Sydney	0.1	-4.1	4.5	47.5	0.2	-4.3	5.0	49.4	0.5	-5.0	6.3	55.5	1.0	-1.4	3.5	0.0	-0.3	-3.3	2.7	0.0	0.0	-3.3	3.5	0.0
Australian only	0.8	-1.8	3.6	28.3	0.9	-1.9	3.7	27.1	0.8	-2.5	4.3	33.3	3.0	0.4	5.7	0.0	1.4	-1.3	4.2	0.0	1.8	-1.1	4.9	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-1.3	-5.6	3.1	0.0	-0.9	-8.5	7.3	0.0	1.0	-7.5	10.2	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	6.5	-4.1	18.4	72.4	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	8.5	2.5	14.9	0.0	6.9	-2.0	16.7	72.0	1.7	-0.3	3.6	0.0	1.9	-0.3	4.2	0.0	-0.0	-2.9	3.0	27.8				
Canberra	-	-	-	-	-	-	-	-	1.9	-0.0	3.8	0.0	-	-	-	-	-	-	-	-				
Christchurch	4.2	-5.5	14.9	74.9	4.0	-6.6	15.7	73.4	-	-	-	-	-	-	-	-	0.8	-1.7	3.5	0.0				
Melbourne	-	-	-	-	-	-	-	-	2.7	-0.1	5.6	0.0	1.6	-0.7	3.9	4.8	0.1	-3.0	3.4	25.8				
Perth	-	-	-	-	-	-	-	-	1.7	-0.2	3.6	0.0	1.1	-0.9	3.1	1.5	-0.5	-3.1	2.3	17.8				
Sydney	2.6	-3.9	9.7	55.9	0.9	-3.1	5.2	13.2	1.5	-0.6	3.6	0.0	0.4	-1.8	2.7	0.0	-1.2	-3.9	1.6	0.0				
Australian only	4.2	-5.5	14.9	74.9	6.6	-11.2	27.9	85.5	1.8	-0.0	3.7	0.0	1.2	-0.6	3.1	0.0	0.8	-1.7	3.5	0.0				
NZ only	-	-	-	-	2.4	-3.3	8.3	32.7	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.12 Myocardial infarction admissions 65+ yrs

	1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO				1-hour NO ₂				24-hour NO ₂			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	3.4	1.5	5.3	2.4	4.6	2.3	7.0	11.9	5.2	2.3	8.3	26.5
Brisbane	3.3	-3.6	10.6	86.2	3.2	-4.2	11.3	86.7	3.4	-4.7	12.1	85.7	3.0	0.5	5.6	33.5	4.8	2.6	7.0	0.0	5.2	1.6	9.0	35.2
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	2.7	0.6	4.9	26.5	3.9	1.3	6.5	30.3	4.2	0.4	8.2	46.7
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	3.3	1.2	5.5	15.9	4.3	1.7	6.9	27.0	4.4	0.4	8.6	48.5
Melbourne	3.7	-2.7	10.5	83.7	3.9	-2.9	11.0	82.9	4.0	-3.3	12.0	81.6	2.7	0.1	5.4	31.9	3.8	0.6	7.2	33.0	4.5	0.1	9.0	48.3
Perth	0.3	-1.6	2.2	0.0	0.1	-1.9	2.1	5.9	-0.1	-2.4	2.1	0.0	2.6	0.5	4.8	25.3	3.6	1.3	5.8	2.2	3.7	1.3	6.1	0.0
Sydney	2.7	-4.0	9.8	87.1	2.7	-5.1	11.3	87.3	2.9	-5.6	12.3	86.1	2.3	0.4	4.2	4.3	3.5	0.6	6.5	25.2	4.2	-0.3	8.8	47.3
Australian only	2.2	-1.9	6.4	80.6	2.3	-3.1	8.0	81.0	2.3	-3.6	8.6	79.2	4.1	2.0	6.1	0.0	4.8	2.3	7.4	18.8	5.4	1.6	9.4	41.2
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-3.4	3.0	0.0	-0.4	-6.2	5.7	0.0	-0.1	-6.5	6.7	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	4.3	0.3	8.5	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	3.1	-1.0	7.3	0.0	2.6	-4.8	10.6	80.9	2.5	0.8	4.2	10.1	3.1	1.0	5.2	27.8	0.8	-1.4	3.1	29.9				
Canberra	-	-	-	-	-	-	-	-	2.3	0.2	4.4	25.6	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	3.0	-0.4	6.6	0.0	1.3	-5.5	8.7	73.7	-	-	-	-	-	-	-	-	1.9	-0.2	3.9	0.0				
Melbourne	-	-	-	-	-	-	-	-	3.0	0.6	5.4	8.5	2.9	0.8	5.0	31.4	0.7	-1.6	3.2	28.5				
Perth	-	-	-	-	-	-	-	-	1.7	0.3	3.2	0.0	2.4	0.9	3.8	0.0	0.5	-1.4	2.5	11.0				
Sydney	1.9	-1.2	5.2	0.0	0.3	-4.6	5.5	69.2	2.2	-0.1	4.6	23.2	3.1	1.2	5.1	22.7	0.5	-1.7	2.8	19.9				
Australian only	3.0	-0.4	6.6	0.0	4.6	-2.8	12.6	47.1	2.2	0.6	3.7	5.0	2.7	1.3	4.2	0.0	1.9	-0.2	3.9	0.0				
NZ only	-	-	-	-	0.2	-7.8	9.0	82.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.13 Cardiovascular admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-0.0	2.2	19.9	1.3	0.3	2.3	0.0	1.7	0.6	2.8	0.0
Brisbane	-0.7	-1.6	0.2	0.0	-0.8	-1.7	0.2	0.0	-0.9	-2.0	0.2	0.0	1.3	0.3	2.3	8.9	0.9	-0.1	1.9	0.0	1.5	0.4	2.6	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.1	0.1	2.2	21.2	0.9	-0.1	1.9	0.0	1.5	0.4	2.7	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.3	0.3	2.3	12.7	1.1	0.1	2.1	0.0	1.7	0.6	2.8	0.0
Melbourne	-0.4	-1.3	0.6	0.8	-0.4	-1.4	0.6	0.0	-0.7	-1.9	0.4	0.0	1.5	0.4	2.6	6.4	1.2	-0.0	2.4	0.0	2.0	0.6	3.3	0.0
Perth	-0.4	-1.3	0.5	2.7	-0.4	-1.4	0.5	0.0	-0.6	-1.6	0.5	0.0	1.2	0.1	2.2	21.9	1.1	0.1	2.1	0.0	1.7	0.6	2.9	0.0
Sydney	-0.0	-1.2	1.2	0.0	-0.1	-1.3	1.2	0.0	-0.1	-1.5	1.4	0.0	0.7	-0.2	1.7	0.0	1.2	0.1	2.4	0.0	1.8	0.5	3.1	0.0
Australian only	-0.4	-1.3	0.4	0.0	-0.5	-1.3	0.4	0.0	-0.6	-1.6	0.4	0.0	1.3	0.1	2.5	28.8	1.3	0.3	2.3	0.0	1.7	0.6	2.9	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-0.6	2.8	0.0	-0.5	-3.3	2.4	0.0	1.5	-1.7	4.9	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	0.5	-2.2	3.4	38.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	2.0	-0.5	4.5	8.7	0.6	-0.7	2.0	0.0	0.4	-0.3	1.1	0.0	-0.0	-0.9	0.8	0.0	-0.7	-1.7	0.3	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	0.6	-0.3	1.4	6.8	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	-0.1	-1.8	1.6	0.0	-0.0	-1.3	1.3	0.0	-	-	-	-	-	-	-	-	-0.2	-1.4	1.1	33.5	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	0.8	-0.3	1.8	0.0	0.4	-0.5	1.2	0.0	0.0	-1.1	1.1	0.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	0.5	-0.2	1.2	0.0	0.2	-0.6	0.9	0.0	-0.3	-1.5	0.8	31.8	-	-	-	-
Sydney	1.1	-2.2	4.5	71.7	0.3	-1.9	2.5	35.6	0.7	-0.1	1.5	0.0	0.4	-0.5	1.3	0.0	-0.2	-1.5	1.2	33.2	-	-	-	-
Australian only	-0.1	-1.8	1.6	0.0	-0.7	-3.2	1.8	0.0	0.5	-0.2	1.2	0.0	0.2	-0.5	0.9	0.0	-0.2	-1.4	1.1	33.5	-	-	-	-
NZ only	-	-	-	-	0.9	-1.3	3.2	34.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.14 Cardiovascular admissions 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	2.2	0.7	3.7	74.6	2.4	1.7	3.2	6.4	3.0	2.0	4.1	30.9
Brisbane	0.0	-0.9	1.0	51.4	-0.1	-1.2	1.0	56.5	-0.5	-1.8	0.7	58.0	2.3	0.9	3.8	71.9	2.5	1.7	3.4	19.5	2.9	1.9	4.0	30.1
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	2.3	1.0	3.7	72.9	2.6	1.8	3.4	10.8	3.1	2.1	4.1	24.3
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	2.5	1.2	3.8	67.6	2.7	2.0	3.4	0.0	3.2	2.4	3.9	0.0
Melbourne	0.4	-0.5	1.3	34.7	0.5	-0.5	1.5	42.0	0.4	-0.9	1.6	50.6	2.2	0.7	3.8	74.2	2.7	1.8	3.7	11.5	3.0	1.8	4.3	30.0
Perth	-0.1	-0.7	0.5	0.0	-0.1	-1.0	0.8	42.5	-0.4	-1.7	0.9	65.9	1.9	0.6	3.2	70.6	2.5	1.6	3.4	18.3	2.8	2.0	3.7	9.2
Sydney	0.4	-0.9	1.7	55.3	0.4	-1.1	2.0	66.5	0.2	-1.8	2.2	74.7	1.7	0.7	2.7	33.4	2.3	1.5	3.1	0.3	2.8	1.6	4.1	28.7
Australian only	0.2	-0.6	1.0	38.7	0.1	-0.8	1.1	52.4	-0.1	-1.3	1.1	63.3	2.6	1.0	4.2	73.7	2.6	1.8	3.3	0.0	3.2	2.4	4.0	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-0.5	3.0	50.1	1.5	-3.0	6.1	76.6	0.7	-3.5	5.0	63.2
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	2.8	-0.6	6.4	78.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	3.3	0.1	6.7	76.9	2.6	-0.9	6.3	85.2	1.3	0.7	1.8	2.4	1.5	0.9	2.2	19.4	0.5	-0.3	1.2	24.0				
Canberra	-	-	-	-	-	-	-	-	1.2	0.4	2.1	28.9	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	2.4	-1.9	7.0	92.2	2.3	-1.5	6.2	85.1	-	-	-	-	-	-	-	-	0.5	-0.2	1.3	8.7				
Melbourne	-	-	-	-	-	-	-	-	1.1	0.0	2.2	39.5	1.2	0.2	2.1	59.3	0.4	-0.5	1.2	28.7				
Perth	-	-	-	-	-	-	-	-	1.0	0.5	1.6	0.0	1.1	0.4	1.7	40.3	0.2	-0.5	0.8	0.0				
Sydney	0.6	-0.8	2.1	34.6	0.5	-0.4	1.5	0.0	1.0	0.1	2.0	37.0	1.4	0.3	2.5	67.7	0.4	-0.4	1.3	28.9				
Australian only	2.4	-1.9	7.0	92.2	3.5	-2.2	9.4	88.9	1.1	0.5	1.8	19.3	1.3	0.6	2.0	51.9	0.5	-0.2	1.3	8.7				
NZ only	-	-	-	-	0.5	-0.6	1.6	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.15 Asthma admissions 1-4 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-1.9	5.4	55.2	3.0	0.7	5.3	0.0	3.2	0.6	5.8	0.0
Brisbane	1.7	-0.8	4.3	32.7	1.3	-1.3	3.9	29.1	0.6	-2.8	4.2	48.2	0.5	-3.0	4.1	52.3	2.0	-0.8	4.9	25.4	1.7	-1.4	4.9	23.8
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-1.7	4.9	55.3	2.7	-0.1	5.6	30.4	3.0	-1.2	7.2	41.9
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-2.1	2.3	7.2	2.1	-0.2	4.5	8.2	2.3	-2.0	6.7	44.8
Melbourne	3.4	0.9	6.0	27.6	3.3	0.5	6.3	35.9	3.2	0.1	6.3	26.7	1.2	-2.7	5.3	59.9	2.7	-0.8	6.4	35.3	2.4	-2.8	7.8	46.0
Perth	2.2	-0.9	5.4	58.3	1.9	-1.5	5.4	61.4	1.4	-2.8	5.9	69.5	1.2	-2.5	5.0	60.1	2.1	-1.0	5.2	31.2	1.9	-2.4	6.4	40.2
Sydney	3.2	-1.6	8.2	63.5	3.0	-2.1	8.4	65.5	2.4	-4.0	9.4	72.4	1.8	-1.8	5.5	50.9	2.5	-1.1	6.3	36.3	2.9	-2.2	8.3	43.9
Australian only	2.6	-0.1	5.4	47.4	2.3	-0.6	5.3	50.2	1.9	-1.7	5.7	58.6	0.4	-2.1	3.0	15.3	2.7	0.4	5.1	0.0	3.2	0.4	6.1	12.3
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-6.9	14.5	85.2	3.2	-13.5	23.1	79.8	-1.7	-14.6	13.2	57.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	5.2	-1.7	12.5	47.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	4.1	-9.1	19.3	87.4	2.7	-4.5	10.5	62.6	1.5	-0.6	3.6	26.1	0.8	-1.0	2.7	0.5	2.1	-1.1	5.5	58.1	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	1.8	0.0	3.6	7.4	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	0.3	-4.2	5.0	30.4	1.1	-2.4	4.7	10.1	-	-	-	-	-	-	-	-	1.5	-1.4	4.4	35.3	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	0.0	-2.4	2.5	0.0	0.6	-1.3	2.5	0.0	2.8	-0.9	6.7	62.6	-	-	-	-
Perth	-	-	-	-	-	-	-	-	1.3	-0.7	3.4	26.4	0.8	-0.9	2.5	0.0	2.3	-1.0	5.8	61.1	-	-	-	-
Sydney	6.4	-2.5	16.0	77.4	4.6	-1.6	11.3	64.8	2.4	0.5	4.4	0.0	1.8	-0.2	4.0	0.0	3.9	1.5	6.3	0.0	-	-	-	-
Australian only	0.3	-4.2	5.0	30.4	2.6	-4.0	9.7	33.1	1.6	-0.1	3.3	3.5	1.0	-0.6	2.6	0.0	1.5	-1.4	4.4	35.3	-	-	-	-
NZ only	-	-	-	-	4.9	-5.8	16.8	79.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.16 Asthma admissions 5-14 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-2.4	2.7	0.0	2.1	-2.6	7.1	69.5	4.3	-0.4	9.3	55.3
Brisbane	-1.4	-12.7	11.4	94.7	-1.2	-12.4	11.4	94.2	-0.7	-13.1	13.5	93.9	2.6	-0.6	5.8	19.9	3.9	-1.0	9.1	60.7	7.7	2.2	13.5	55.3
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-1.8	5.4	46.5	3.0	-2.1	8.4	68.7	5.9	-0.6	12.8	68.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-1.7	5.7	45.4	3.0	-2.0	8.3	68.4	5.7	-0.6	12.4	67.6
Melbourne	3.8	0.6	7.1	33.8	4.1	0.9	7.3	23.1	5.3	2.1	8.6	5.8	2.0	-2.0	6.1	45.3	3.3	-2.3	9.1	61.0	7.2	0.3	14.6	59.3
Perth	-2.8	-13.0	8.7	94.6	-2.5	-12.6	8.7	94.1	-2.3	-13.4	10.1	93.8	1.2	-2.3	4.8	42.1	2.3	-3.4	8.2	70.2	7.0	0.4	14.0	66.0
Sydney	-3.4	-13.1	7.5	89.6	-3.2	-12.9	7.5	88.1	-2.9	-13.8	9.5	88.0	1.6	-2.4	5.6	46.4	0.4	-2.7	3.7	0.0	4.6	-2.0	11.6	48.9
Australian only	-1.1	-9.3	7.8	92.1	-0.9	-8.6	7.4	91.4	-0.4	-9.4	9.5	90.9	0.2	-2.4	2.9	0.0	2.3	-3.3	8.3	74.2	3.8	-1.3	9.3	62.9
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	4.7	-5.4	15.9	71.1	3.7	-6.3	14.7	22.2	18.4	6.7	31.4	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	3.4	-10.2	19.1	84.3	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	6.7	-5.7	20.6	74.2	6.2	-4.4	18.0	72.4	1.0	-2.6	4.7	35.9	2.2	-1.8	6.3	64.3	2.0	-2.3	6.4	60.0				
Canberra	-	-	-	-	-	-	-	-	1.1	-1.8	4.1	29.5	-	-	-	-	-	-	-	-				
Christchurch	5.0	-9.0	21.1	88.5	3.6	-9.5	18.6	84.3	-	-	-	-	-	-	-	-	1.9	-2.4	6.4	60.1				
Melbourne	-	-	-	-	-	-	-	-	-0.5	-5.3	4.6	57.8	1.9	-2.5	6.5	70.7	3.6	0.7	6.5	0.0				
Perth	-	-	-	-	-	-	-	-	-0.6	-4.8	3.9	56.5	0.4	-3.8	4.8	76.7	1.1	-2.8	5.2	56.0				
Sydney	-1.6	-6.1	3.0	0.0	-1.4	-6.3	3.8	34.0	-1.0	-4.6	2.7	31.6	-0.9	-3.6	1.9	14.4	0.2	-3.0	3.6	16.4				
Australian only	5.0	-9.0	21.1	88.5	5.1	-17.0	33.1	92.2	0.1	-3.4	3.7	43.7	1.0	-2.5	4.7	67.4	1.9	-2.4	6.4	60.1				
NZ only	-	-	-	-	1.2	-3.5	6.1	0.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.17 Asthma admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-1.5	2.2	5.4	3.3	0.1	6.6	47.5	3.2	0.9	5.5	0.0
Brisbane	0.1	-3.9	4.2	74.3	0.4	-5.2	6.4	76.3	0.3	-5.6	6.6	76.8	0.7	-1.2	2.7	6.6	3.3	-2.2	9.2	58.9	2.4	-1.4	6.2	38.9
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-1.0	2.4	1.2	2.0	0.0	4.1	0.0	2.1	-0.4	4.6	13.5
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-1.2	2.5	7.5	3.2	-2.0	8.7	59.1	2.1	-1.4	5.7	40.1
Melbourne	2.8	-0.6	6.3	60.7	3.2	-0.5	7.0	62.5	3.6	0.2	7.1	40.8	-0.4	-2.3	1.6	0.0	2.8	-2.9	8.8	52.7	1.1	-2.0	4.3	13.7
Perth	0.2	-3.7	4.2	77.7	0.3	-4.0	4.7	79.9	0.7	-5.3	7.1	82.3	0.9	-0.8	2.5	0.0	3.1	-2.4	9.0	59.3	2.1	-1.5	5.9	40.2
Sydney	1.9	-4.4	8.6	83.2	2.2	-4.7	9.6	84.8	2.1	-5.6	10.6	84.8	1.0	-0.8	2.8	0.0	3.4	-1.8	8.8	55.9	2.4	-1.7	6.6	37.0
Australian only	1.2	-2.5	5.0	75.2	1.4	-2.6	5.6	77.4	1.7	-2.9	6.4	77.3	0.2	-2.0	2.5	22.9	4.4	-1.2	10.3	57.5	3.1	0.7	5.6	6.1
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-2.4	4.3	0.0	-2.3	-8.0	3.8	0.0	-3.3	-9.6	3.4	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	2.6	-1.6	7.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	2.0	-2.7	6.8	0.0	-0.3	-4.0	3.6	29.5	1.8	0.3	3.4	0.0	2.7	1.0	4.4	0.0	0.9	-1.6	3.4	37.9	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	2.1	0.6	3.6	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	0.5	-2.8	4.0	0.0	-0.6	-3.6	2.5	21.7	-	-	-	-	-	-	-	-	1.8	-0.2	3.8	0.0	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	2.5	0.4	4.8	0.0	1.6	-0.1	3.4	0.0	0.1	-1.9	2.2	0.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	2.2	0.8	3.7	0.0	2.2	0.7	3.7	0.0	1.3	-0.9	3.6	30.4	-	-	-	-
Sydney	1.0	-2.5	4.5	0.0	-0.6	-3.6	2.5	21.7	2.2	0.6	3.9	0.0	2.1	0.3	3.9	0.0	1.1	-1.6	3.9	38.3	-	-	-	-
Australian only	0.5	-2.8	4.0	0.0	2.3	-2.5	7.3	0.0	2.1	0.7	3.6	0.0	2.2	0.7	3.6	0.0	1.8	-0.2	3.8	0.0	-	-	-	-
NZ only	-	-	-	-	-0.8	-5.6	4.3	36.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.18 Asthma admissions 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-4.1	5.1	23.3	-0.1	-3.9	3.7	0.0	-0.1	-4.1	4.2	0.0
Brisbane	-0.8	-4.2	2.8	0.0	-1.0	-4.6	2.8	0.0	-1.3	-5.3	2.9	0.0	-0.9	-5.2	3.6	22.3	-0.6	-4.5	3.4	0.0	-0.5	-4.7	3.8	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-4.7	4.6	30.3	-0.2	-3.9	3.6	0.0	-0.1	-4.1	4.1	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-5.1	4.5	32.0	-0.2	-3.8	3.7	0.0	-0.2	-4.1	4.0	0.0
Melbourne	-1.0	-4.5	2.6	0.0	-1.2	-4.9	2.6	0.0	-1.7	-5.9	2.7	0.0	-1.2	-5.9	3.7	18.2	-1.6	-6.1	3.1	0.0	-2.3	-7.3	2.9	0.0
Perth	-0.6	-4.0	2.8	0.0	-0.9	-4.4	2.7	0.0	-1.3	-5.2	2.8	0.0	1.6	-1.7	5.0	0.0	0.2	-3.7	4.3	0.0	0.5	-3.7	4.8	0.0
Sydney	-0.9	-5.4	3.9	0.0	-1.5	-6.2	3.4	0.0	-1.6	-6.9	4.0	0.0	-0.4	-5.4	4.9	31.4	1.4	-3.1	6.1	0.0	0.7	-4.2	5.9	0.0
Australian only	-0.8	-3.9	2.4	0.0	-1.1	-4.4	2.3	0.0	-1.4	-5.1	2.4	0.0	-0.2	-5.9	5.8	38.6	-0.1	-3.9	3.8	0.0	0.0	-4.1	4.2	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-2.3	-10.5	6.6	0.0	-0.8	-16.3	17.7	0.0	-4.9	-21.5	15.3	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-1.5	-9.6	7.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	2.0	-7.4	12.4	0.0	0.7	-6.4	8.4	0.0	1.1	-1.7	3.9	0.0	0.4	-3.4	4.4	25.3	1.1	-3.6	6.1	37.3				
Canberra	-	-	-	-	-	-	-	-	0.3	-3.1	3.9	19.8	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	2.3	-4.1	9.2	0.0	-0.0	-6.3	6.7	0.0	-	-	-	-	-	-	-	-	-2.1	-7.2	3.3	52.7				
Melbourne	-	-	-	-	-	-	-	-	-2.1	-6.7	2.8	32.1	-1.7	-5.2	2.0	18.9	-2.0	-8.8	5.4	60.1				
Perth	-	-	-	-	-	-	-	-	-0.9	-5.6	4.0	45.7	0.2	-2.9	3.4	23.6	0.6	-5.5	7.0	55.0				
Sydney	4.7	-2.6	12.4	0.0	1.1	-5.5	8.2	0.0	-1.7	-6.1	2.8	41.7	-1.5	-6.3	3.6	51.4	-1.3	-8.7	6.7	66.1				
Australian only	2.3	-4.1	9.2	0.0	-2.3	-11.0	7.3	0.0	-0.6	-4.2	3.2	30.3	-0.5	-3.7	2.8	31.2	-2.1	-7.2	3.3	52.7				
NZ only	-	-	-	-	2.2	-5.9	11.1	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.19 COPD admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-2.1	3.0	0.0	0.4	-2.6	3.4	0.0	1.9	-1.3	5.2	0.0
Brisbane	-0.2	-4.1	3.8	42.8	-0.4	-4.3	3.7	40.4	-1.3	-6.1	3.8	51.5	-0.3	-2.8	2.2	0.0	0.7	-2.2	3.7	0.0	1.7	-1.4	5.0	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-2.6	2.0	0.0	0.9	-2.0	3.7	0.0	1.6	-1.5	4.8	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.6	2.4	0.0	1.0	-1.8	3.9	0.0	1.7	-1.4	4.9	0.0
Melbourne	3.2	-0.3	6.8	23.5	3.5	-0.9	8.0	43.9	4.0	-3.2	11.8	63.1	-1.3	-4.0	1.5	0.0	1.5	-1.9	5.1	0.0	1.6	-2.2	5.6	0.0
Perth	1.7	-3.4	7.1	71.9	2.0	-4.5	9.1	75.0	2.4	-6.4	12.1	81.9	-0.5	-2.8	1.8	0.0	0.4	-2.5	3.4	0.0	1.2	-1.9	4.4	0.0
Sydney	0.8	-6.1	8.2	71.7	1.1	-6.6	9.4	75.4	1.1	-9.0	12.3	82.3	-0.6	-3.0	2.0	0.0	-0.0	-3.3	3.4	0.0	-0.1	-3.7	3.6	0.0
Australian only	1.3	-2.8	5.7	59.5	1.4	-3.2	6.3	64.2	1.4	-5.4	8.7	74.1	0.9	-1.9	3.8	0.0	0.7	-2.3	3.8	0.0	2.3	-1.0	5.6	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-2.9	-6.7	1.1	0.0	-0.6	-10.1	9.9	42.6	-3.7	-11.3	4.6	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	2.9	-6.6	13.3	61.1	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	8.5	-0.1	17.9	56.1	3.8	-1.8	9.6	32.2	2.0	-3.6	8.0	53.8	3.3	0.3	6.4	31.9	1.1	-1.4	3.7	0.0				
Canberra	-	-	-	-	-	-	-	-	2.9	0.8	5.1	0.0	-	-	-	-	-	-	-	-				
Christchurch	4.7	-10.5	22.5	88.3	2.5	-6.6	12.4	61.0	-	-	-	-	-	-	-	-	1.5	-1.3	4.4	0.0				
Melbourne	-	-	-	-	-	-	-	-	2.4	-3.5	8.7	49.7	3.1	-1.1	7.5	57.0	1.6	-1.0	4.3	0.0				
Perth	-	-	-	-	-	-	-	-	1.6	-2.8	6.2	42.0	1.7	-0.6	4.1	21.5	0.9	-1.5	3.4	0.0				
Sydney	0.5	-6.5	8.0	59.6	1.0	-2.1	4.3	0.0	1.6	-3.9	7.5	46.3	1.9	-2.2	6.2	45.4	0.9	-1.8	3.6	0.0				
Australian only	4.7	-10.5	22.5	88.3	3.5	-12.9	22.9	80.5	2.4	-1.6	6.7	39.1	2.3	-0.4	5.1	40.8	1.5	-1.3	4.4	0.0				
NZ only	-	-	-	-	1.8	-1.6	5.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.20 COPD admissions 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-1.5	2.4	29.6	2.0	-0.3	4.4	42.4	2.4	-1.4	6.3	45.8
Brisbane	-0.5	-2.4	1.5	33.7	-0.5	-2.3	1.4	20.7	-0.9	-3.1	1.3	28.1	0.6	-1.5	2.8	34.6	1.1	-0.9	3.2	23.1	0.8	-2.9	4.7	47.4
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-0.1	2.6	0.0	2.0	-0.2	4.2	38.0	2.4	0.1	4.8	36.2
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-0.6	3.0	16.2	1.4	-0.9	3.9	49.1	1.2	-2.1	4.6	51.1
Melbourne	1.4	-2.6	5.5	83.5	1.4	-4.1	7.1	84.4	1.6	-5.1	8.7	86.2	0.3	-1.8	2.5	30.8	1.3	-1.7	4.3	49.4	1.4	-3.3	6.3	57.7
Perth	1.8	-1.5	5.3	79.9	1.9	-1.8	5.7	81.4	2.2	-3.4	8.1	84.7	1.0	-0.7	2.8	20.9	2.4	0.2	4.6	26.5	2.0	-2.3	6.5	52.9
Sydney	0.7	-4.5	6.3	85.5	0.9	-4.7	6.7	85.9	0.9	-5.8	8.0	87.9	0.4	-1.5	2.3	22.8	1.2	-1.6	4.2	48.5	1.1	-3.4	5.8	54.4
Australian only	0.8	-2.3	4.0	78.3	0.8	-2.5	4.2	79.0	0.8	-4.1	5.9	81.9	0.7	-1.6	3.0	28.5	1.8	-0.7	4.5	52.7	1.8	-2.1	5.8	48.5
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-3.2	4.4	50.6	0.3	-5.2	6.0	13.6	2.3	-9.1	15.1	72.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	3.6	0.2	7.1	0.0	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	2.7	-0.7	6.1	0.0	0.8	-1.4	3.2	0.0	1.1	-0.1	2.2	0.0	1.6	0.3	2.9	0.0	-0.0	-1.7	1.6	23.8				
Canberra	-	-	-	-	-	-	-	-	1.9	0.3	3.4	29.0	-	-	-	-	-	-	-	-				
Christchurch	3.0	0.2	5.9	0.0	1.3	-1.3	3.8	15.1	-	-	-	-	-	-	-	-	0.8	-1.0	2.5	20.5				
Melbourne	-	-	-	-	-	-	-	-	1.9	-0.6	4.4	42.2	1.7	0.5	3.0	0.0	0.4	-1.6	2.5	40.7				
Perth	-	-	-	-	-	-	-	-	1.7	-0.6	4.0	49.2	1.7	0.6	2.8	0.0	0.6	-1.0	2.3	23.6				
Sydney	3.1	0.3	5.9	0.0	2.0	-0.9	5.0	36.2	1.6	-0.8	4.1	49.0	1.5	0.2	2.8	0.0	-0.3	-1.9	1.3	2.2				
Australian only	3.0	0.2	5.9	0.0	3.4	-0.7	7.7	0.0	1.6	-0.1	3.4	32.3	1.6	0.6	2.7	0.0	0.8	-1.0	2.5	20.5				
NZ only	-	-	-	-	1.1	-2.0	4.3	26.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.21 Pneumonia + acute bronchitis 0 yrs

	1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO				1-hour NO ₂				24-hour NO ₂			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-2.0	4.9	48.5	4.7	0.6	8.8	45.9	6.1	3.1	9.1	0.2
Brisbane	-0.3	-3.7	3.3	20.8	-0.8	-4.6	3.1	32.5	-3.1	-9.0	3.2	54.7	1.1	-2.4	4.7	62.1	3.5	-1.6	8.9	69.6	3.8	-1.8	9.8	71.9
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-2.9	3.8	64.0	2.7	-2.3	7.9	72.3	2.8	-2.5	8.4	73.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-3.2	4.0	63.7	2.0	-2.9	7.1	70.0	2.4	-2.6	7.6	71.4
Melbourne	-0.6	-3.5	2.3	0.0	-1.2	-4.6	2.4	22.4	-3.1	-9.1	3.2	54.5	0.1	-3.3	3.6	59.0	1.5	-3.4	6.6	62.8	2.0	-3.4	7.7	67.8
Perth	0.4	-2.4	3.3	0.0	0.2	-2.6	3.2	0.0	-0.5	-3.6	2.7	0.0	1.4	-1.0	3.9	49.4	3.7	-1.4	9.0	67.8	3.7	-1.9	9.6	72.5
Sydney	-0.8	-5.2	3.8	17.0	-1.5	-6.2	3.5	27.0	-3.3	-9.5	3.3	50.6	-0.0	-3.2	3.3	53.9	1.9	-3.6	7.8	67.6	2.2	-3.4	8.1	68.8
Australian only	-0.2	-2.9	2.5	0.0	-0.5	-3.2	2.3	0.0	-2.0	-5.8	2.0	34.1	1.0	-3.3	5.5	58.5	4.0	-0.3	8.5	52.2	5.7	2.5	9.0	7.2
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-4.7	4.7	64.3	1.6	-13.3	19.2	82.5	1.2	-15.6	21.4	83.2
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	3.6	-1.3	8.7	0.0	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	3.9	-1.0	9.1	0.0	0.8	-4.9	6.8	67.4	2.0	0.2	3.9	0.0	2.3	0.3	4.3	0.0	1.7	-0.4	3.8	0.0				
Canberra	-	-	-	-	-	-	-	-	2.1	0.3	4.0	0.0	-	-	-	-	-	-	-	-				
Christchurch	2.2	-2.3	6.9	0.0	-2.4	-4.6	-0.1	0.0	-	-	-	-	-	-	-	-	1.6	-0.9	4.2	0.0				
Melbourne	-	-	-	-	-	-	-	-	1.8	-0.6	4.2	0.0	1.1	-0.9	3.0	0.0	1.1	-1.0	3.2	0.0				
Perth	-	-	-	-	-	-	-	-	2.2	0.4	4.1	0.0	1.8	-0.0	3.7	5.8	1.6	-0.5	3.7	0.0				
Sydney	4.2	-0.0	8.6	0.0	0.7	-4.8	6.4	67.7	2.2	0.1	4.3	0.0	1.7	-0.6	4.1	11.0	1.5	-0.7	3.9	0.0				
Australian only	2.2	-2.3	6.9	0.0	1.3	-4.8	7.9	0.0	2.1	0.3	3.9	0.0	1.7	0.0	3.4	0.0	1.6	-0.9	4.2	0.0				
NZ only	-	-	-	-	1.2	-7.9	11.2	82.2	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.22 Pneumonia + acute bronchitis 1-4 yrs

	1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO				1-hour NO ₂				24-hour NO ₂			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-1.0	4.2	0.0	3.6	-4.2	12.1	63.9	5.4	-1.9	13.3	46.4
Brisbane	0.6	-3.2	4.6	20.7	-0.2	-4.9	4.7	42.7	-0.4	-5.4	4.9	41.1	0.5	-2.0	3.1	7.3	3.7	-4.1	12.2	64.1	3.8	-2.8	10.8	34.9
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-1.0	3.6	0.0	5.7	2.5	9.0	0.0	4.9	1.4	8.7	10.5
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-2.0	3.3	9.7	3.0	-3.8	10.2	59.9	3.7	-0.5	8.1	20.8
Melbourne	2.0	-1.2	5.3	0.0	1.8	-1.9	5.7	16.3	1.3	-3.3	6.1	26.3	0.6	-2.1	3.4	10.4	4.6	-3.4	13.2	59.8	5.5	-2.0	13.5	45.6
Perth	1.8	-1.3	5.0	0.0	1.9	-1.3	5.1	0.0	1.8	-1.8	5.5	0.0	0.8	-1.7	3.4	11.2	3.0	-4.4	10.9	60.1	4.3	-2.6	11.7	43.5
Sydney	-0.7	-5.1	3.9	0.0	-1.1	-5.9	3.9	11.1	-1.6	-6.6	3.7	0.0	0.2	-2.3	2.7	0.0	3.5	-4.5	12.1	62.5	5.3	-2.3	13.5	46.6
Australian only	1.3	-1.7	4.3	0.0	0.9	-2.7	4.5	20.3	0.7	-3.1	4.6	15.0	1.3	-1.8	4.5	8.1	2.1	-6.2	11.2	67.4	3.9	-2.3	10.5	35.9
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-3.9	3.4	0.0	8.0	0.4	16.2	0.0	10.1	-7.5	31.0	67.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	6.4	-0.9	14.4	26.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	5.6	-0.7	12.2	0.0	2.5	-5.3	10.9	56.7	1.8	-2.3	6.2	63.7	3.3	0.7	5.9	8.1	2.2	-1.5	6.0	46.1	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	3.3	0.7	6.0	22.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	8.5	3.0	14.3	0.0	4.8	-3.1	13.4	70.3	-	-	-	-	-	-	-	-	2.2	-2.0	6.5	43.5	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.9	-2.6	6.5	62.4	2.7	-0.3	5.7	36.3	1.8	-2.2	6.0	51.3	-	-	-	-
Perth	-	-	-	-	-	-	-	-	2.0	-2.1	6.2	63.3	2.5	-0.3	5.3	41.0	2.3	-1.2	5.9	43.2	-	-	-	-
Sydney	6.4	1.2	11.9	0.0	0.6	-3.7	5.1	25.0	0.8	-1.7	3.4	0.0	0.9	-1.7	3.5	0.0	0.1	-2.8	3.1	0.0	-	-	-	-
Australian only	8.5	3.0	14.3	0.0	10.0	2.1	18.5	0.0	2.0	-1.3	5.4	51.9	2.4	0.1	4.7	16.3	2.2	-2.0	6.5	43.5	-	-	-	-
NZ only	-	-	-	-	-0.9	-3.9	2.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.23 Pneumonia + acute bronchitis 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	-1.1	-5.4	3.4	55.9	1.1	-1.2	3.5	0.0	1.7	-0.8	4.4	0.0
Brisbane	0.9	-5.3	7.5	76.6	0.6	-5.5	7.0	73.4	-0.2	-6.5	6.5	69.8	-0.9	-5.2	3.6	55.3	0.9	-1.5	3.3	2.7	1.5	-1.0	4.1	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-1.5	2.2	0.0	0.8	-1.6	3.1	5.4	1.4	-1.1	3.9	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	-1.1	-5.3	3.3	55.8	0.5	-1.7	2.8	0.0	1.1	-1.3	3.6	0.0
Melbourne	3.5	-2.7	10.0	84.5	3.3	-3.1	10.2	84.0	3.2	-4.2	11.2	84.5	-1.0	-5.4	3.6	55.2	1.3	-1.5	4.2	0.0	1.5	-1.6	4.7	0.0
Perth	0.2	-4.1	4.6	75.3	0.1	-4.4	4.8	75.7	-0.2	-5.5	5.4	78.3	-0.7	-4.9	3.6	55.0	0.1	-2.2	2.4	0.0	1.1	-1.4	3.6	0.0
Sydney	3.7	-2.4	10.2	78.6	3.7	-2.6	10.3	77.3	3.7	-3.2	11.1	76.5	-1.5	-4.7	1.7	24.7	0.5	-2.1	3.2	3.8	0.4	-2.4	3.3	0.0
Australian only	1.9	-2.7	6.7	79.2	1.7	-2.9	6.6	78.2	1.4	-3.8	7.0	78.3	-1.6	-7.0	4.1	64.6	0.9	-1.5	3.3	0.0	1.6	-1.0	4.2	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-3.3	3.6	0.0	1.3	-9.2	13.0	52.2	0.9	-9.7	12.7	40.6
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	0.2	-4.7	5.4	0.0	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-1.4	-6.5	4.0	0.0	1.6	-1.1	4.3	0.0	1.9	-2.1	6.0	66.7	1.5	-1.0	4.2	42.3	1.8	-1.2	4.9	46.5				
Canberra	-	-	-	-	-	-	-	-	2.2	-0.9	5.4	59.3	-	-	-	-	-	-	-	-				
Christchurch	-0.3	-4.3	3.9	0.0	1.9	-0.7	4.6	0.0	-	-	-	-	-	-	-	-	-0.3	-3.6	3.1	51.5				
Melbourne	-	-	-	-	-	-	-	-	2.2	-1.9	6.4	55.6	1.5	-2.3	5.4	62.3	1.6	-2.1	5.4	57.4				
Perth	-	-	-	-	-	-	-	-	0.7	-1.9	3.3	45.3	0.1	-1.7	1.9	12.3	0.2	-3.4	3.9	66.2				
Sydney	0.3	-3.7	4.5	0.0	1.3	-1.3	3.9	0.0	0.7	-2.9	4.5	45.8	0.7	-3.1	4.6	56.9	0.3	-3.8	4.5	66.3				
Australian only	-0.3	-4.3	3.9	0.0	1.9	-3.9	8.2	0.0	1.5	-1.6	4.7	56.3	0.7	-1.5	3.1	47.0	-0.3	-3.6	3.1	51.5				
NZ only	-	-	-	-	0.7	-3.8	5.4	28.8	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.24 Pneumonia + acute bronchitis 65+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-2.4	3.5	48.8	-0.3	-4.7	4.3	64.8	0.1	-6.8	7.5	71.1
Brisbane	-0.4	-2.1	1.3	0.0	-0.4	-2.1	1.4	0.0	-0.4	-2.3	1.6	0.0	-0.2	-3.4	3.1	63.1	-1.0	-4.9	3.0	58.5	-0.9	-7.4	6.0	69.9
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-1.8	2.9	51.1	1.3	-0.5	3.0	0.0	2.2	-0.0	4.4	18.8
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-3.5	2.7	62.3	-0.2	-4.4	4.1	64.9	-0.8	-6.9	5.7	70.5
Melbourne	-0.1	-1.9	1.8	0.0	-0.1	-2.0	1.9	0.0	-0.1	-2.2	2.2	0.0	-0.4	-3.6	2.9	63.0	-0.5	-5.3	4.5	64.3	-0.2	-7.2	7.2	70.8
Perth	0.0	-1.6	1.7	0.0	-0.0	-1.7	1.7	0.0	-0.2	-2.1	1.7	0.0	0.2	-2.6	3.2	59.7	-0.2	-4.7	4.4	64.3	0.2	-6.6	7.6	70.6
Sydney	0.5	-1.7	2.7	0.0	0.7	-1.6	3.0	0.0	0.8	-1.7	3.4	0.0	-0.7	-2.9	1.5	30.2	-1.0	-5.3	3.5	57.9	-0.9	-7.6	6.2	64.1
Australian only	-0.1	-1.6	1.5	0.0	-0.0	-1.6	1.6	0.0	-0.1	-1.9	1.8	0.0	0.0	-3.6	3.8	58.5	-0.6	-6.3	5.5	71.7	-1.1	-8.8	7.2	75.8
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.8	-5.4	4.0	58.6	-0.4	-5.9	5.4	0.0	1.4	-5.6	9.0	22.8
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	3.5	-3.2	10.5	63.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	4.1	-0.5	9.0	24.0	3.4	-2.7	9.9	68.2	0.8	-0.4	2.0	0.0	1.7	0.2	3.2	9.8	1.8	0.1	3.5	7.3				
Canberra	-	-	-	-	-	-	-	-	0.9	-0.3	2.1	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	3.8	-0.1	8.0	29.2	2.7	-4.0	9.7	70.3	-	-	-	-	-	-	-	-	1.9	0.2	3.8	6.6				
Melbourne	-	-	-	-	-	-	-	-	1.9	0.0	3.8	0.0	2.6	1.2	4.1	0.0	2.1	0.2	4.0	2.1				
Perth	-	-	-	-	-	-	-	-	0.9	-0.3	2.1	0.0	2.0	0.6	3.5	26.1	2.2	0.6	3.8	0.0				
Sydney	2.0	-1.3	5.4	0.0	0.1	-2.4	2.5	0.0	0.7	-0.6	2.0	0.0	1.5	0.1	3.0	0.0	1.2	-0.6	3.0	0.0				
Australian only	3.8	-0.1	8.0	29.2	4.6	-6.3	16.7	80.8	0.9	-0.3	2.1	0.0	2.0	0.8	3.2	0.0	1.9	0.2	3.8	6.6				
NZ only	-	-	-	-	0.3	-2.4	3.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.25 Respiratory admissions 0 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-0.6	3.8	31.5	4.6	2.1	7.1	13.5	5.7	3.3	8.1	0.0
Brisbane	0.4	-2.3	3.1	24.8	0.2	-2.5	3.0	24.6	-0.9	-4.3	2.6	41.1	1.0	-1.4	3.4	53.3	2.1	-2.3	6.7	74.0	2.9	-1.8	7.8	73.3
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-1.2	3.2	52.4	2.4	-1.7	6.7	73.4	3.3	-1.0	7.9	72.7
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-1.7	3.2	54.6	1.7	-2.4	6.1	73.7	2.4	-1.9	6.9	71.6
Melbourne	-0.4	-2.5	1.8	0.0	-0.5	-2.8	1.7	0.0	-1.6	-4.7	1.6	27.1	0.5	-1.9	2.9	51.3	1.3	-3.2	6.0	70.9	2.6	-2.1	7.6	72.7
Perth	0.6	-1.5	2.7	0.0	0.4	-1.7	2.7	0.0	-0.1	-2.5	2.4	0.0	1.2	-0.8	3.3	46.1	2.6	-1.7	7.1	71.9	3.1	-1.5	8.0	73.1
Sydney	-0.5	-4.1	3.2	30.0	-0.8	-4.4	3.0	29.4	-1.8	-6.1	2.6	36.5	0.2	-1.4	1.8	0.0	1.1	-3.1	5.5	64.8	2.0	-2.6	6.8	63.0
Australian only	0.1	-1.9	2.2	3.5	-0.1	-2.1	2.1	3.4	-0.9	-3.4	1.7	15.5	1.4	-1.4	4.3	44.5	4.2	1.5	7.1	29.7	5.5	3.1	8.0	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-3.0	2.4	25.0	-1.0	-12.8	12.4	81.9	0.7	-13.9	17.9	85.2
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	3.5	-0.4	7.6	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	3.6	-0.2	7.7	0.0	1.5	-4.4	7.7	80.3	2.2	0.7	3.8	0.0	2.8	1.1	4.5	0.0	1.6	-0.1	3.4	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	2.5	1.0	4.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	3.0	-0.7	6.7	0.0	-0.4	-5.1	4.6	60.7	-	-	-	-	-	-	-	-	2.3	0.2	4.3	0.0	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	3.2	1.3	5.3	0.0	2.2	0.6	3.8	0.0	1.4	-0.4	3.1	0.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	2.6	1.1	4.2	0.0	2.4	1.0	3.9	0.0	1.6	-0.1	3.3	0.0	-	-	-	-
Sydney	3.2	-0.1	6.6	0.0	0.0	-4.8	5.1	73.1	2.2	0.5	3.9	0.0	2.0	0.2	3.8	0.0	0.9	-0.9	2.8	0.0	-	-	-	-
Australian only	3.0	-0.7	6.7	0.0	2.3	-2.7	7.6	0.0	2.5	1.1	4.0	0.0	2.4	1.0	3.8	0.0	2.3	0.2	4.3	0.0	-	-	-	-
NZ only	-	-	-	-	0.3	-7.6	8.9	85.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.26 Respiratory admissions 1-4 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.3	0.1	2.6	0.0	3.5	1.6	5.4	30.9	3.6	1.4	5.9	36.0
Brisbane	1.6	-0.0	3.2	23.0	1.4	-0.1	2.9	8.2	1.1	-0.8	3.2	30.1	0.9	-0.3	2.2	0.0	2.3	0.1	4.5	47.1	1.6	-1.3	4.7	50.3
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-0.0	2.4	0.0	3.3	1.4	5.2	37.9	3.2	0.2	6.2	52.9
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-0.1	2.4	0.0	2.8	0.6	5.1	55.0	2.5	-1.1	6.2	64.2
Melbourne	2.5	1.1	3.8	0.0	2.4	1.0	3.8	0.0	2.7	0.9	4.7	17.2	0.9	-0.5	2.2	0.0	2.8	0.2	5.5	52.8	2.0	-2.0	6.1	64.1
Perth	1.8	-0.0	3.7	44.8	1.8	-0.3	4.0	55.7	2.0	-0.8	5.0	68.6	1.1	-0.1	2.3	0.0	2.4	0.0	4.9	54.3	1.8	-1.8	5.6	62.6
Sydney	1.7	-0.8	4.2	42.6	1.7	-1.2	4.8	55.1	1.8	-2.2	5.9	68.2	0.8	-0.5	2.1	0.0	2.1	-0.3	4.6	42.3	2.1	-1.9	6.3	64.7
Australian only	1.9	0.5	3.4	18.2	1.8	0.2	3.5	33.6	1.9	-0.4	4.2	53.3	1.5	0.1	2.9	0.0	3.6	1.5	5.7	42.2	3.8	0.7	6.9	46.5
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-2.1	2.2	0.0	-0.7	-4.7	3.4	0.0	-2.3	-6.7	2.2	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	2.8	-0.1	5.7	0.0	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	2.9	-0.5	6.4	28.8	0.7	-2.1	3.7	47.1	2.3	1.2	3.4	0.0	2.1	1.0	3.3	0.0	1.5	0.3	2.8	0.0				
Canberra	-	-	-	-	-	-	-	-	2.4	1.3	3.5	0.0	-	-	-	-	-	-	-	-				
Christchurch	1.9	-0.5	4.4	0.0	0.0	-2.1	2.2	18.5	-	-	-	-	-	-	-	-	2.3	0.9	3.8	0.0				
Melbourne	-	-	-	-	-	-	-	-	2.0	0.5	3.4	0.0	1.5	0.3	2.7	7.8	1.6	0.3	3.0	0.0				
Perth	-	-	-	-	-	-	-	-	2.3	1.2	3.4	0.0	1.7	0.5	2.9	18.9	1.8	0.5	3.0	0.0				
Sydney	3.2	0.8	5.6	0.0	0.9	-1.9	3.8	54.1	1.9	0.7	3.1	0.0	1.3	0.0	2.6	0.0	1.4	-0.0	2.8	0.0				
Australian only	1.9	-0.5	4.4	0.0	2.2	-1.3	5.9	0.0	2.2	1.2	3.2	0.0	1.7	0.7	2.7	0.0	2.3	0.9	3.8	0.0				
NZ only	-	-	-	-	0.8	-3.6	5.4	69.3	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.27 Respiratory admissions 5-14 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-2.0	1.7	0.0	3.8	1.0	6.7	38.0	4.5	1.9	7.3	15.8
Brisbane	-1.1	-7.0	5.3	90.3	-1.0	-6.9	5.3	89.3	-0.7	-8.4	7.6	89.4	1.0	-1.5	3.5	34.6	5.3	1.9	8.8	54.9	6.6	1.9	11.5	57.9
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-1.9	2.8	37.3	4.2	0.9	7.5	54.5	5.3	0.7	10.1	59.1
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-0.8	3.1	7.4	5.0	1.8	8.4	57.3	5.9	1.2	10.8	61.7
Melbourne	2.4	0.5	4.4	0.0	2.3	0.3	4.4	0.0	2.9	0.6	5.3	0.0	0.8	-1.9	3.5	40.4	5.3	1.6	9.2	52.4	6.5	1.4	11.8	56.4
Perth	-1.2	-6.8	4.8	90.3	-1.1	-6.7	4.8	89.1	-1.0	-8.2	6.7	89.1	0.7	-1.8	3.2	40.9	5.5	2.1	8.9	51.7	6.9	2.7	11.2	50.0
Sydney	-1.3	-8.2	6.1	86.7	-1.2	-8.1	6.2	85.1	-0.8	-8.9	8.0	86.1	0.6	-2.1	3.2	40.6	4.1	0.5	7.8	50.2	5.5	0.4	10.9	58.0
Australian only	-0.3	-4.9	4.5	85.8	-0.3	-4.9	4.5	84.3	0.1	-5.2	5.7	84.7	0.3	-1.7	2.3	0.0	4.0	1.1	7.1	46.4	4.4	1.4	7.5	32.6
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-7.9	10.7	85.7	6.7	-5.3	20.3	68.3	12.7	1.4	25.3	46.1
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	0.3	-8.6	10.1	77.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	4.3	-6.8	16.8	85.1	1.0	-7.1	9.8	75.3	1.4	-0.1	3.0	0.0	2.0	0.2	3.7	0.0	1.6	-0.3	3.6	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	1.3	-0.3	2.9	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	3.9	-7.6	16.8	89.8	0.5	-7.9	9.7	77.6	-	-	-	-	-	-	-	-	2.3	0.2	4.4	0.0	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.1	-0.9	3.2	0.0	1.4	-0.8	3.7	37.7	2.5	0.4	4.6	0.0	-	-	-	-
Perth	-	-	-	-	-	-	-	-	1.3	-0.2	2.9	0.0	1.2	-0.8	3.3	42.0	1.9	-0.1	3.8	0.0	-	-	-	-
Sydney	-1.8	-5.2	1.7	0.0	-3.0	-5.7	-0.2	0.0	0.9	-0.8	2.6	0.0	0.3	-1.5	2.2	0.0	1.4	-0.8	3.6	0.0	-	-	-	-
Australian only	3.9	-7.6	16.8	89.8	2.5	-11.4	18.6	87.4	1.2	-0.2	2.7	0.0	1.3	-0.3	2.9	13.2	2.3	0.2	4.4	0.0	-	-	-	-
NZ only	-	-	-	-	-2.6	-5.6	0.6	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.28 Respiratory admissions 15-64 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-1.4	0.6	0.0	1.6	0.4	2.7	0.0	1.8	0.5	3.0	0.0
Brisbane	-0.1	-2.5	2.4	78.9	-0.3	-2.6	2.1	75.5	-0.5	-2.9	1.8	68.5	-0.2	-1.2	0.9	9.6	1.2	0.1	2.4	0.0	0.8	-0.9	2.6	40.1
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.9	1.0	0.0	1.3	0.2	2.4	0.0	0.9	-0.7	2.6	40.5
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-0.9	1.0	0.0	1.4	0.3	2.5	0.0	1.1	-0.4	2.7	33.1
Melbourne	2.4	-0.5	5.3	84.4	2.4	-0.6	5.6	84.3	2.6	-0.8	6.1	82.8	-0.2	-1.3	1.0	10.0	1.2	-0.1	2.5	0.0	0.5	-1.3	2.3	24.8
Perth	0.5	-2.7	3.8	90.0	0.6	-2.8	4.2	90.5	0.9	-3.1	5.0	90.8	-0.1	-1.1	0.9	8.7	1.2	0.0	2.3	0.0	0.8	-0.9	2.6	39.5
Sydney	1.7	-2.9	6.5	90.8	1.7	-3.2	6.8	91.0	1.6	-3.8	7.3	90.9	-0.2	-1.2	0.8	6.3	1.5	0.2	2.7	0.0	0.7	-1.3	2.8	40.2
Australian only	1.1	-1.7	3.9	87.1	1.1	-1.8	4.1	87.2	1.1	-2.1	4.4	86.6	-0.2	-1.3	0.8	0.0	1.6	0.5	2.8	0.0	1.9	0.6	3.2	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.0	-2.5	2.5	49.7	-0.8	-3.7	2.3	0.0	-3.3	-6.5	0.0	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	1.3	-1.0	3.7	0.0	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	2.2	-0.3	4.7	0.0	0.6	-1.1	2.5	28.6	1.1	-0.7	3.0	60.4	1.5	0.4	2.6	25.4	0.8	-0.2	1.9	0.0				
Canberra	-	-	-	-	-	-	-	-	1.9	0.5	3.2	56.2	-	-	-	-	-	-	-	-				
Christchurch	0.2	-1.7	2.2	0.0	0.0	-1.3	1.3	0.0	-	-	-	-	-	-	-	-	0.8	-0.3	1.9	0.0				
Melbourne	-	-	-	-	-	-	-	-	1.9	-0.2	4.0	58.8	1.3	-0.2	2.9	58.9	1.2	0.1	2.3	0.0				
Perth	-	-	-	-	-	-	-	-	1.2	-0.5	2.9	62.9	0.8	-0.0	1.7	13.0	0.8	-0.2	1.9	0.0				
Sydney	1.0	-1.9	3.9	55.0	0.0	-1.3	1.3	0.0	1.3	-0.7	3.5	64.6	0.9	-0.5	2.4	50.8	0.8	-0.3	2.0	0.0				
Australian only	0.2	-1.7	2.2	0.0	0.9	-2.2	4.1	21.2	1.5	-0.1	3.1	60.9	1.1	0.0	2.1	40.7	0.8	-0.3	1.9	0.0				
NZ only	-	-	-	-	0.4	-1.8	2.6	32.9	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.29 Respiratory admissions 65 + yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	-0.8	-3.6	2.2	75.9	0.6	-1.3	2.7	67.4	0.5	-4.6	5.9	79.2
Brisbane	-0.5	-1.5	0.5	0.0	-0.6	-1.6	0.4	0.0	-0.8	-1.9	0.4	0.0	-0.8	-3.7	2.1	76.5	0.0	-1.9	2.0	64.2	-0.3	-5.3	4.9	79.9
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-1.2	1.9	57.3	1.2	0.1	2.4	12.8	1.6	-0.7	4.0	57.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	-0.9	-3.7	2.0	77.0	0.3	-1.6	2.2	68.4	-0.8	-4.8	3.5	77.3
Melbourne	0.7	-2.0	3.4	84.8	0.8	-2.0	3.7	84.5	1.1	-2.2	4.5	85.4	-1.0	-3.8	1.8	75.8	0.1	-2.3	2.6	69.0	-0.0	-5.3	5.5	80.7
Perth	0.9	-1.4	3.3	83.0	0.9	-1.6	3.5	84.1	1.0	-2.0	4.1	86.3	-0.2	-2.8	2.4	70.7	0.7	-1.3	2.8	65.2	0.6	-4.5	6.0	77.7
Sydney	0.5	-2.8	3.9	85.3	0.6	-2.8	4.2	84.7	0.9	-3.1	5.1	86.0	-1.2	-3.6	1.2	66.4	0.0	-2.2	2.3	66.0	-0.3	-5.4	5.1	78.0
Australian only	0.3	-1.7	2.4	78.9	0.4	-1.7	2.5	78.7	0.5	-2.0	3.0	80.5	-1.1	-4.6	2.5	80.7	0.4	-1.7	2.6	73.3	-0.8	-5.8	4.5	80.3
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-1.9	1.6	0.0	0.2	-3.1	3.6	1.6	3.3	-6.6	14.3	81.9
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	2.4	0.1	4.7	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	3.1	0.8	5.4	0.0	1.5	-0.7	3.8	42.7	0.9	-0.4	2.2	37.5	1.5	0.5	2.5	28.4	0.7	-1.0	2.4	67.5	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	1.4	0.6	2.2	6.2	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	2.8	1.0	4.7	0.0	0.9	-0.8	2.7	26.1	-	-	-	-	-	-	-	-	0.9	-0.8	2.7	65.4	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.2	-0.7	3.1	54.2	1.6	0.7	2.6	22.9	0.7	-1.1	2.6	67.7	-	-	-	-
Perth	-	-	-	-	-	-	-	-	1.2	-0.5	3.0	56.7	1.7	1.0	2.5	0.0	1.4	0.4	2.4	8.5	-	-	-	-
Sydney	2.5	0.6	4.4	0.0	0.6	-0.8	2.1	0.0	0.9	-0.8	2.6	49.2	1.3	0.5	2.2	0.0	0.3	-1.0	1.7	35.3	-	-	-	-
Australian only	2.8	1.0	4.7	0.0	2.2	-0.5	5.0	3.4	1.2	-0.2	2.5	43.6	1.6	0.9	2.3	0.0	0.9	-0.8	2.7	65.4	-	-	-	-
NZ only	-	-	-	-	0.6	-1.2	2.6	24.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.30 Cardiovascular mortality 0-74 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-2.8	2.2	27.9	1.0	-1.2	3.3	0.0	0.3	-2.2	2.8	0.0
Brisbane	2.0	-0.9	4.9	41.2	2.3	-1.1	5.9	55.3	3.0	-1.1	7.2	58.5	1.2	-0.8	3.3	0.0	1.3	-0.9	3.7	0.0	0.4	-2.0	3.0	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-2.2	2.4	27.9	1.2	-1.0	3.5	0.0	0.2	-2.2	2.7	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.6	2.4	31.4	1.2	-1.0	3.4	0.0	-0.0	-2.4	2.4	0.0
Melbourne	1.6	-1.4	4.6	41.0	1.8	-1.9	5.5	55.1	2.2	-2.1	6.8	58.3	-0.7	-3.2	1.8	12.6	0.1	-2.6	3.0	0.0	-1.2	-4.2	2.0	0.0
Perth	0.8	-1.2	2.8	0.0	0.7	-1.4	2.8	0.0	1.0	-1.4	3.4	0.0	0.1	-2.2	2.5	28.7	0.8	-1.5	3.2	0.0	-0.1	-2.5	2.4	0.0
Sydney	2.5	-0.5	5.5	16.2	2.8	-0.8	6.6	38.8	3.5	-0.8	8.0	43.3	-0.3	-2.8	2.2	28.2	1.3	-1.2	4.0	0.0	-0.3	-3.1	2.6	0.0
Australian only	1.5	-0.6	3.6	15.2	1.7	-0.9	4.4	36.5	2.2	-0.9	5.4	41.3	-0.6	-3.5	2.4	42.2	1.1	-1.1	3.5	0.0	0.2	-2.4	2.9	5.4
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-2.6	5.1	0.0	0.1	-6.6	7.3	0.0	-2.6	-9.8	5.1	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-0.7	-6.5	5.4	31.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	-1.2	-9.8	8.3	69.9	0.2	-5.4	6.2	41.7	0.5	-1.1	2.2	0.0	1.0	-0.8	2.9	0.0	0.7	-1.5	3.0	7.1				
Canberra	-	-	-	-	-	-	-	-	0.8	-0.8	2.5	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	0.9	-3.0	4.9	0.0	1.6	-1.5	4.8	0.0	-	-	-	-	-	-	-	-	1.0	-1.2	3.2	0.0				
Melbourne	-	-	-	-	-	-	-	-	0.9	-1.7	3.5	0.0	0.6	-1.3	2.5	0.0	-0.3	-2.6	2.1	0.0				
Perth	-	-	-	-	-	-	-	-	0.6	-1.0	2.3	0.0	0.9	-0.7	2.6	0.0	0.8	-1.3	2.9	0.0				
Sydney	-2.3	-7.2	2.8	39.8	-0.3	-4.4	4.0	28.3	0.4	-1.4	2.2	0.0	0.6	-1.3	2.5	0.0	-0.1	-2.5	2.2	0.0				
Australian only	0.9	-3.0	4.9	0.0	1.7	-3.9	7.6	0.0	0.6	-1.0	2.2	0.0	0.8	-0.8	2.4	0.0	1.0	-1.2	3.2	0.0				
NZ only	-	-	-	-	-1.4	-8.9	6.6	64.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.31 Cardiovascular mortality 75+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-0.7	1.6	0.0	1.8	0.3	3.3	13.8	1.8	0.1	3.5	13.8
Brisbane	1.8	-0.4	4.1	65.0	1.8	-0.5	4.2	65.3	2.1	-0.5	4.7	63.0	0.4	-0.8	1.7	0.0	1.2	-0.2	2.5	0.0	1.0	-0.7	2.7	13.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-0.8	1.5	0.0	1.6	-0.1	3.3	28.5	1.2	-0.7	3.1	32.7
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-0.5	1.8	0.0	1.6	-0.0	3.3	28.3	1.5	-0.5	3.5	37.0
Melbourne	2.0	-0.2	4.3	61.0	2.1	-0.3	4.5	60.3	2.4	-0.2	5.1	57.9	0.3	-1.1	1.7	0.0	2.0	0.0	4.0	17.9	1.6	-1.0	4.2	35.2
Perth	2.6	1.3	4.0	14.9	2.7	1.3	4.1	11.6	3.1	1.7	4.6	0.0	0.5	-0.6	1.7	0.0	1.9	0.3	3.5	14.8	1.7	-0.3	3.7	32.8
Sydney	1.2	-0.5	2.8	0.0	1.2	-0.5	2.9	0.0	1.4	-0.6	3.5	10.1	0.3	-0.9	1.5	0.0	1.1	-0.6	2.9	12.4	0.8	-1.4	3.1	27.6
Australian only	2.0	0.3	3.7	48.3	2.0	0.3	3.8	48.3	2.3	0.4	4.3	44.6	0.7	-0.6	2.0	0.0	1.9	0.2	3.7	30.5	1.9	0.1	3.8	24.4
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-2.8	1.9	0.0	-0.6	-4.8	3.8	0.0	-2.6	-7.2	2.2	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	3.9	0.8	7.0	12.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	4.4	-0.5	9.6	64.3	1.8	-2.7	6.5	70.1	1.0	0.1	2.0	0.0	1.7	0.6	2.8	0.0	1.3	0.1	2.6	0.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	1.4	0.4	2.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	4.4	0.3	8.7	66.3	2.8	-1.9	7.6	78.4	-	-	-	-	-	-	-	-	2.1	0.6	3.7	26.0	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.3	-0.6	3.2	24.5	1.7	0.6	2.8	0.0	2.1	0.3	3.9	34.8	-	-	-	-
Perth	-	-	-	-	-	-	-	-	1.4	-0.1	2.8	21.4	1.8	0.9	2.8	0.0	1.9	0.3	3.6	41.9	-	-	-	-
Sydney	2.3	0.0	4.7	0.0	0.9	-2.1	4.0	55.6	1.3	-0.4	3.0	24.3	1.7	0.6	2.8	0.0	1.4	-0.3	3.0	27.9	-	-	-	-
Australian only	4.4	0.3	8.7	66.3	5.2	1.7	8.8	0.0	1.3	0.3	2.2	0.0	1.7	0.8	2.7	0.0	2.1	0.6	3.7	26.0	-	-	-	-
NZ only	-	-	-	-	-0.7	-2.8	1.4	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.32 Cardiovascular mortality all ages

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-0.7	1.3	0.0	1.5	0.4	2.7	0.0	1.3	0.1	2.6	0.0
Brisbane	2.2	1.1	3.3	0.0	2.2	1.0	3.3	0.0	2.5	1.2	3.8	0.0	0.6	-0.4	1.7	0.0	1.2	0.0	2.4	0.0	0.9	-0.4	2.2	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-0.6	1.3	0.0	1.4	0.3	2.6	0.0	1.0	-0.4	2.3	8.6
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.5	1.5	0.0	1.4	0.3	2.6	0.0	1.1	-0.2	2.3	2.7
Melbourne	2.2	1.1	3.3	0.0	2.2	1.0	3.4	0.0	2.6	1.2	4.0	0.0	0.0	-1.2	1.2	0.0	1.5	0.1	3.0	0.0	1.0	-0.8	2.7	8.4
Perth	2.2	1.1	3.2	0.0	2.2	1.1	3.3	0.0	2.5	1.3	3.8	0.0	0.5	-0.5	1.4	0.0	1.5	0.4	2.7	0.0	1.2	-0.1	2.4	0.0
Sydney	1.5	0.1	2.9	0.0	1.5	0.1	3.0	0.0	1.9	0.3	3.6	0.0	0.2	-0.8	1.3	0.0	1.1	-0.2	2.5	0.0	0.5	-0.9	2.0	0.0
Australian only	2.1	1.1	3.1	0.0	2.1	1.1	3.1	0.0	2.4	1.2	3.6	0.0	0.5	-0.6	1.6	0.0	1.6	0.4	2.8	0.0	1.4	0.1	2.7	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.0	-2.0	2.0	0.0	-0.4	-4.1	3.3	0.0	-2.6	-6.5	1.4	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	2.8	-1.1	6.8	55.3	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	3.0	-2.8	9.2	81.4	1.4	-2.8	5.8	68.3	0.9	0.1	1.7	0.0	1.5	0.6	2.5	0.0	1.1	-0.2	2.4	30.3				
Canberra	-	-	-	-	-	-	-	-	1.2	0.4	2.0	0.0	-	-	-	-	-	-	-	-				
Christchurch	3.7	-0.3	7.7	72.6	2.5	-1.2	6.3	72.7	-	-	-	-	-	-	-	-	1.8	0.6	3.0	6.7				
Melbourne	-	-	-	-	-	-	-	-	1.0	-0.9	3.0	38.0	1.4	0.4	2.4	0.0	1.4	-0.3	3.1	44.5				
Perth	-	-	-	-	-	-	-	-	1.1	-0.5	2.8	36.3	1.6	0.8	2.4	0.0	1.6	0.3	2.9	31.4				
Sydney	1.2	-0.8	3.2	0.0	0.4	-1.5	2.4	26.0	1.0	-0.8	2.8	38.4	1.4	0.4	2.4	0.0	0.9	-0.3	2.2	9.5				
Australian only	3.7	-0.3	7.7	72.6	4.3	1.1	7.5	11.2	1.1	-0.1	2.3	18.2	1.5	0.7	2.3	0.0	1.8	0.6	3.0	6.7				
NZ only	-	-	-	-	-0.4	-2.2	1.4	0.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.33 Respiratory mortality 0-74 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	4.6	0.4	9.0	0.0	2.9	-4.3	10.7	38.8	3.4	-3.4	10.6	21.8
Brisbane	1.5	-3.0	6.1	0.0	1.3	-3.3	6.1	0.0	1.1	-4.1	6.5	0.0	2.9	-1.3	7.3	0.0	0.2	-4.5	5.2	0.0	0.8	-4.4	6.2	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	4.1	0.2	8.2	0.0	3.9	-2.7	10.8	40.2	3.4	-3.0	10.3	21.3
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	4.3	0.2	8.5	0.0	3.1	-3.8	10.5	39.2	2.1	-3.0	7.3	0.0
Melbourne	1.6	-3.0	6.4	0.0	1.5	-3.3	6.6	0.0	1.1	-4.4	7.0	0.0	4.7	-0.1	9.8	0.0	5.0	-3.1	13.7	38.0	4.3	-3.5	12.8	20.3
Perth	1.5	-2.7	5.9	0.0	1.4	-3.0	6.0	0.0	1.4	-3.6	6.7	0.0	4.2	0.3	8.4	0.0	4.4	-2.5	11.9	39.0	3.7	-2.8	10.7	19.8
Sydney	-1.2	-6.7	4.7	0.0	-1.3	-7.0	4.8	0.0	-1.3	-7.7	5.6	0.0	4.4	0.2	8.9	0.0	4.9	-2.9	13.2	38.5	4.6	-1.8	11.5	5.5
Australian only	1.1	-3.0	5.3	0.0	0.9	-3.3	5.3	0.0	0.8	-4.0	5.8	0.0	4.8	0.3	9.5	0.0	2.4	-5.5	11.1	47.4	2.5	-4.0	9.3	19.5
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-5.2	10.5	0.0	10.4	-5.1	28.3	0.0	7.9	-8.5	27.3	1.9
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-1.3	-24.8	29.7	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	-3.9	-13.5	6.7	0.0	-6.6	-17.3	5.5	57.2	-0.0	-3.4	3.5	0.0	-0.1	-3.9	3.9	0.0	-0.9	-8.6	7.4	54.8	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	0.9	-2.4	4.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	5.0	-11.6	24.8	74.2	2.9	-19.7	31.8	86.1	-	-	-	-	-	-	-	-	-0.2	-9.7	10.3	65.8	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	-0.0	-5.0	5.3	0.0	1.3	-2.8	5.5	10.0	1.3	-8.8	12.4	66.7	-	-	-	-
Perth	-	-	-	-	-	-	-	-	0.7	-2.6	4.1	0.0	1.7	-1.6	5.2	0.0	3.5	-0.7	7.9	0.0	-	-	-	-
Sydney	6.1	-9.1	23.8	68.0	5.5	-14.0	29.4	82.6	1.0	-2.6	4.7	0.0	2.3	-1.5	6.3	0.0	0.5	-9.4	11.6	68.4	-	-	-	-
Australian only	5.0	-11.6	24.8	74.2	3.3	-33.4	60.2	92.2	0.6	-2.6	3.9	0.0	1.4	-1.8	4.7	0.0	-0.2	-9.7	10.3	65.8	-	-	-	-
NZ only	-	-	-	-	-1.9	-11.8	9.1	31.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.34 Respiratory mortality 75+ yrs

City left-out	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-1.5	4.0	7.7	4.3	1.2	7.5	0.0	2.6	-0.7	6.0	0.0
Brisbane	2.4	-0.5	5.4	0.0	2.4	-0.6	5.5	0.0	2.6	-0.8	6.1	0.0	-0.5	-3.9	3.1	45.6	3.5	0.4	6.6	0.0	1.9	-1.4	5.2	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-3.6	3.0	45.5	4.0	1.0	7.1	0.0	2.2	-0.9	5.5	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-3.1	3.5	40.1	4.0	1.0	7.1	0.0	2.4	-0.8	5.7	0.0
Melbourne	3.7	0.6	6.9	0.0	3.7	0.5	7.1	0.0	4.3	0.6	8.2	0.0	-2.3	-5.4	0.8	0.0	4.3	0.4	8.3	0.0	2.7	-1.5	7.0	0.0
Perth	2.9	0.1	5.8	0.0	2.9	0.0	5.9	0.0	3.3	-0.0	6.7	0.0	-0.5	-3.7	2.8	44.9	3.7	0.5	6.9	0.0	2.2	-1.1	5.5	0.0
Sydney	2.6	-1.2	6.4	0.0	2.3	-1.6	6.3	0.0	2.4	-2.0	6.9	0.0	0.2	-3.2	3.7	38.0	4.2	0.6	7.8	0.0	2.2	-1.6	6.1	0.0
Australian only	2.9	0.3	5.7	0.0	2.9	0.1	5.7	0.0	3.2	0.0	6.4	0.0	1.8	-1.0	4.8	0.8	4.4	1.3	7.6	0.0	2.8	-0.6	6.2	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-4.7	-9.5	0.3	0.0	-0.4	-9.7	9.9	0.0	-2.4	-12.1	8.4	0.0
(Continued)																								
City left-out	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	1.0	-8.7	11.7	59.4	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-5.6	-11.7	0.9	0.0	-0.1	-4.3	4.3	0.0	0.9	-1.2	3.0	0.0	1.6	-0.8	4.1	0.0	-0.1	-3.4	3.3	30.4				
Canberra	-	-	-	-	-	-	-	-	2.1	-1.4	5.8	40.6	-	-	-	-	-	-	-	-				
Christchurch	4.0	-9.9	20.1	84.1	2.8	-2.0	7.9	12.6	-	-	-	-	-	-	-	-	1.0	-4.6	6.9	61.3				
Melbourne	-	-	-	-	-	-	-	-	2.7	-1.5	7.0	27.7	2.0	-0.6	4.7	11.7	0.7	-5.0	6.8	62.1				
Perth	-	-	-	-	-	-	-	-	2.3	-0.6	5.2	27.9	2.5	0.4	4.6	0.0	2.0	-0.7	4.8	2.0				
Sydney	1.9	-15.1	22.4	90.0	1.3	-7.5	11.0	59.0	1.7	-2.3	5.9	38.8	2.0	-0.6	4.7	11.6	0.4	-5.2	6.3	61.0				
Australian only	4.0	-9.9	20.1	84.1	5.7	-3.6	16.0	25.9	1.8	-0.9	4.7	22.8	2.1	0.1	4.2	0.0	1.0	-4.6	6.9	61.3				
NZ only	-	-	-	-	-1.6	-9.4	6.8	48.4	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.35 Respiratory mortality all ages

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	2.3	0.0	4.6	0.0	3.8	0.9	6.7	12.2	2.6	-0.2	5.4	0.0
Brisbane	2.2	-0.3	4.7	0.0	2.1	-0.4	4.7	0.0	2.2	-0.7	5.1	0.0	0.7	-1.9	3.4	28.4	2.5	-0.1	5.2	0.0	1.5	-1.2	4.4	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-1.6	3.7	35.2	3.7	0.9	6.6	11.5	2.3	-0.4	5.1	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-1.2	4.1	28.7	3.6	0.7	6.5	14.3	2.3	-0.4	5.1	0.0
Melbourne	3.1	0.5	5.7	0.0	3.1	0.4	5.9	0.0	3.4	0.3	6.6	0.0	-0.2	-2.8	2.5	0.0	4.2	0.7	7.8	8.9	2.8	-0.7	6.5	0.0
Perth	2.5	0.1	4.9	0.0	2.5	0.0	5.0	0.0	2.7	-0.1	5.6	0.0	1.0	-1.6	3.7	35.0	3.6	0.6	6.7	14.6	2.3	-0.5	5.2	0.0
Sydney	1.4	-1.7	4.7	0.0	1.2	-2.0	4.6	0.0	1.3	-2.3	5.1	0.0	1.6	-1.0	4.4	24.5	4.1	0.8	7.5	10.0	2.7	-0.5	6.1	0.0
Australian only	2.4	0.1	4.7	0.0	2.3	-0.0	4.7	0.0	2.5	-0.2	5.2	0.0	2.7	0.3	5.2	0.0	3.9	0.6	7.4	29.5	2.5	-0.3	5.4	0.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-2.7	-6.7	1.6	0.0	2.4	-5.7	11.1	0.0	0.3	-8.2	9.6	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	0.3	-13.4	16.2	87.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	-5.2	-10.4	0.4	0.0	-2.8	-8.6	3.4	53.4	0.6	-1.2	2.4	0.0	1.1	-1.0	3.3	7.5	-0.9	-5.8	4.3	66.5	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	1.8	-1.5	5.2	45.9	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	4.1	-10.7	21.2	90.1	3.7	-7.5	16.2	81.9	-	-	-	-	-	-	-	-	0.5	-6.5	7.9	80.5	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	1.6	-2.6	6.0	47.8	1.4	-2.0	4.8	47.0	0.7	-6.3	8.3	80.2	-	-	-	-
Perth	-	-	-	-	-	-	-	-	2.0	-1.2	5.2	41.5	2.3	0.5	4.1	0.0	2.7	-0.3	5.7	40.4	-	-	-	-
Sydney	2.8	-13.8	22.6	92.5	2.5	-10.1	16.9	85.6	1.3	-2.8	5.5	51.6	1.6	-1.7	5.0	44.6	0.3	-6.6	7.8	80.3	-	-	-	-
Australian only	4.1	-10.7	21.2	90.1	4.9	-14.1	28.1	88.6	1.4	-1.5	4.4	36.0	1.8	-0.1	3.8	20.5	0.5	-6.5	7.9	80.5	-	-	-	-
NZ only	-	-	-	-	-2.8	-11.8	7.2	70.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.36 Total mortality all ages

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.7	0.0	1.4	0.0	1.7	0.4	3.0	59.1	1.3	-0.1	2.8	58.4
Brisbane	1.0	-0.1	2.0	49.8	0.9	-0.1	2.0	46.2	1.0	0.0	2.0	29.9	0.4	-0.2	1.1	0.0	1.0	0.3	1.8	0.0	0.6	-0.3	1.5	12.1
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.1	1.2	0.0	1.7	0.4	2.9	58.6	1.2	-0.3	2.6	60.6
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.2	1.1	0.0	1.6	0.3	2.9	59.6	1.2	-0.3	2.6	60.7
Melbourne	1.8	1.1	2.5	0.0	1.8	1.0	2.7	10.1	1.9	0.9	3.0	17.5	0.6	-0.2	1.4	0.0	2.0	0.8	3.2	27.6	1.6	0.1	3.0	34.1
Perth	1.4	0.1	2.7	73.6	1.4	0.0	2.8	73.8	1.6	0.1	3.1	69.8	0.5	-0.1	1.2	0.0	1.6	0.3	3.0	59.6	1.1	-0.4	2.6	61.3
Sydney	1.3	-0.4	3.0	71.6	1.3	-0.5	3.1	72.0	1.4	-0.5	3.3	68.4	0.3	-0.4	1.0	0.0	1.5	0.0	2.9	54.3	0.8	-0.7	2.4	50.4
Australian only	1.4	0.3	2.4	60.5	1.4	0.2	2.5	61.0	1.5	0.3	2.6	55.6	0.7	-0.0	1.4	0.0	1.7	0.3	3.2	67.3	1.4	-0.2	3.0	66.0
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.0	-1.5	1.5	23.4	1.0	-1.4	3.4	0.0	-0.5	-3.1	2.2	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	3.4	0.8	6.2	62.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	2.1	-0.8	5.2	67.4	1.6	-1.4	4.7	75.4	0.2	-0.7	1.2	37.5	0.7	-0.2	1.6	44.8	0.6	-0.7	1.8	68.0	-	-	-	-
Canberra	-	-	-	-	-	-	-	-	0.9	-0.3	2.1	66.9	-	-	-	-	-	-	-	-	-	-	-	-
Christchurch	3.2	1.9	4.6	0.0	2.9	-0.3	6.3	87.6	-	-	-	-	-	-	-	-	1.3	-0.7	3.3	86.5	-	-	-	-
Melbourne	-	-	-	-	-	-	-	-	0.7	-1.1	2.5	67.1	1.3	0.6	1.9	0.0	1.6	-0.1	3.4	78.5	-	-	-	-
Perth	-	-	-	-	-	-	-	-	0.7	-0.9	2.4	74.0	1.0	0.2	1.8	51.1	1.7	-0.1	3.4	83.7	-	-	-	-
Sydney	2.0	-0.1	4.2	61.5	1.6	-1.2	4.5	81.7	0.4	-1.3	2.1	70.3	0.7	-0.2	1.6	44.5	1.0	-1.0	3.0	84.6	-	-	-	-
Australian only	3.2	1.9	4.6	0.0	4.8	2.8	6.8	0.0	0.6	-0.7	1.9	66.2	0.9	0.2	1.6	40.8	1.3	-0.7	3.3	86.5	-	-	-	-
NZ only	-	-	-	-	0.0	-1.1	1.2	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table ML.37 Total mortality 0-74 yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-0.3	2.0	0.0	1.4	0.1	2.6	0.0	0.8	-0.5	2.2	0.0
Brisbane	0.9	-0.4	2.1	16.9	0.9	-0.5	2.3	25.3	0.8	-0.8	2.5	29.6	0.5	-0.6	1.6	0.0	1.1	-0.1	2.4	0.0	0.6	-0.8	1.9	0.0
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.5	1.6	0.0	1.6	0.4	2.8	0.0	1.0	-0.3	2.3	0.0
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-0.7	1.5	0.0	1.4	0.2	2.6	0.7	0.8	-0.5	2.1	0.0
Melbourne	1.7	-0.1	3.6	55.5	1.9	-0.2	4.0	60.0	2.1	-0.4	4.6	62.4	0.4	-0.9	1.7	0.0	1.8	0.3	3.4	0.0	1.1	-0.6	2.9	0.0
Perth	1.1	-0.3	2.4	34.5	1.1	-0.4	2.6	41.2	1.1	-0.7	2.8	44.6	0.6	-0.4	1.7	0.0	1.3	0.1	2.6	0.0	0.7	-0.6	2.1	0.0
Sydney	2.0	0.5	3.5	8.2	2.1	0.3	4.0	30.3	2.3	0.1	4.6	38.6	0.3	-0.9	1.4	0.0	1.4	-0.0	2.8	1.2	0.7	-0.8	2.3	0.0
Australian only	1.4	0.0	2.7	35.3	1.4	-0.1	2.9	42.9	1.5	-0.2	3.3	46.6	0.7	-0.5	1.9	0.0	1.4	-0.0	2.9	19.5	0.8	-0.7	2.4	13.8
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-2.9	3.3	50.2	1.7	-2.2	5.6	0.0	0.7	-3.5	5.1	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	1.6	-1.0	4.3	0.0	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	0.3	-2.7	3.3	13.4	1.3	-0.5	3.1	0.0	-0.5	-2.0	1.0	34.0	0.0	-1.5	1.5	51.1	0.1	-1.8	2.1	63.1				
Canberra	-	-	-	-	-	-	-	-	0.4	-1.3	2.0	47.2	-	-	-	-	-	-	-	-				
Christchurch	0.9	-1.2	3.0	0.0	1.5	-0.2	3.2	0.0	-	-	-	-	-	-	-	-	0.6	-1.8	3.0	75.0				
Melbourne	-	-	-	-	-	-	-	-	-0.1	-2.6	2.5	60.3	0.7	-0.9	2.2	50.7	1.0	-1.4	3.5	70.0				
Perth	-	-	-	-	-	-	-	-	0.3	-1.8	2.3	56.0	0.7	-0.3	1.7	21.5	1.4	-0.2	3.0	48.0				
Sydney	-0.0	-2.1	2.1	0.0	1.2	-0.5	2.9	0.0	-0.5	-2.7	1.9	56.1	0.0	-1.5	1.6	55.4	0.3	-2.1	2.6	69.6				
Australian only	0.9	-1.2	3.0	0.0	2.2	-0.9	5.4	0.0	-0.1	-1.9	1.7	50.8	0.4	-0.8	1.6	45.9	0.6	-1.8	3.0	75.0				
NZ only	-	-	-	-	1.1	-0.8	3.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-				

Table ML.38 Total mortality 75+ yrs

	1-hour O3				4-hour O3				8-hour O3				8-hour CO				1-hour NO2				24-hour NO2			
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-0.2	1.5	0.0	1.8	0.3	3.4	53.2	1.6	-0.3	3.5	61.3
Brisbane	0.8	-1.2	2.8	78.0	0.7	-1.2	2.7	76.9	0.8	-1.3	3.0	73.7	0.4	-0.4	1.3	0.0	1.0	-0.0	2.0	3.8	0.6	-0.9	2.1	38.7
Canberra	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.3	1.3	0.0	1.5	0.1	3.1	54.1	1.1	-0.7	2.9	62.7
Christchurch	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.3	1.4	0.0	1.6	0.1	3.1	55.2	1.4	-0.4	3.3	63.1
Melbourne	2.0	0.8	3.3	38.5	1.9	0.5	3.4	46.6	2.0	0.3	3.8	52.7	0.8	-0.2	1.8	0.0	2.2	0.9	3.6	12.9	1.9	0.0	3.8	36.7
Perth	1.5	-0.3	3.4	78.1	1.6	-0.3	3.5	76.1	1.8	-0.1	3.7	69.9	0.5	-0.3	1.3	0.0	1.8	0.1	3.5	54.8	1.3	-0.7	3.4	64.4
Sydney	0.7	-1.2	2.7	66.3	0.7	-1.3	2.7	65.0	0.7	-1.4	2.9	59.5	0.4	-0.5	1.2	0.0	1.4	-0.3	3.0	45.1	0.8	-1.1	2.8	50.8
Australian only	1.2	-0.3	2.8	71.8	1.2	-0.4	2.9	70.8	1.3	-0.4	3.1	66.9	0.7	-0.2	1.6	0.0	1.9	0.2	3.6	62.4	1.8	-0.2	3.9	67.4
NZ only	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-1.7	1.6	0.0	0.5	-2.5	3.7	0.0	-1.3	-4.6	2.1	0.0
(Continued)																								
	1-hour SO ₂				24-hour SO ₂				24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City left-out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	4.6	1.0	8.2	65.8	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	3.2	0.2	6.4	52.7	1.8	-2.3	6.1	80.9	0.6	-0.1	1.2	0.0	1.0	0.3	1.8	0.0	0.8	-0.2	1.9	28.8				
Canberra	-	-	-	-	-	-	-	-	1.0	0.1	2.0	35.8	-	-	-	-	-	-	-	-				
Christchurch	4.7	3.0	6.4	0.0	3.7	-1.1	8.7	91.1	-	-	-	-	-	-	-	-	1.7	-0.3	3.7	77.3				
Melbourne	-	-	-	-	-	-	-	-	1.4	0.4	2.5	0.0	1.5	0.7	2.3	0.0	2.1	0.5	3.6	56.6				
Perth	-	-	-	-	-	-	-	-	1.0	-0.1	2.1	42.7	1.1	0.5	1.8	0.0	1.7	-0.1	3.6	77.0				
Sydney	3.4	0.7	6.1	60.5	2.0	-2.3	6.4	87.7	0.9	-0.3	2.1	35.3	1.0	0.2	1.8	0.0	1.4	-0.5	3.4	75.7				
Australian only	4.7	3.0	6.4	0.0	6.4	3.9	9.0	0.0	0.9	0.1	1.8	24.0	1.2	0.5	1.8	0.0	1.7	-0.3	3.7	77.3				
NZ only	-	-	-	-	-0.6	-2.1	0.9	0.0	-	-	-	-	-	-	-	-	-	-	-	-				

Appendix A3.4: Case-crossover single-city seasonal analysis

Results are stratified by warm and cool season, a separate case-crossover analysis is run for each season in each city. Warm season in November to April, Cool season is May to October. Results shown for a one-IQR increase. Estimates from a case-crossover analysis used average of lag 0 & 1 pollutant.

Table WC.1 Cardiac admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	1.8	-1.3	5.0	3.3	-3.2	10.2	6.6	0.9	12.7
	Warm	-	-	-	-	-	-	-	-	-	3.0	-0.6	6.8	0.4	-4.3	5.4	3.2	-3.4	10.2
Brisbane	Cool	2.3	-2.1	6.9	2.6	-2.1	7.6	2.2	-3.3	8.0	1.0	-1.6	3.8	4.1	-0.4	8.8	4.4	-0.6	9.6
	Warm	1.1	-1.4	3.7	1.2	-1.6	4.1	1.6	-1.8	5.0	0.7	-6.5	8.5	1.3	-5.8	8.9	3.2	-5.7	12.9
Canberra	Cool	-	-	-	-	-	-	-	-	-	4.0	-1.5	9.8	7.4	-0.3	15.8	9.8	0.1	20.5
	Warm	-	-	-	-	-	-	-	-	-	-5.3	-17.4	8.5	1.3	-5.0	8.0	-0.8	-10.0	9.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-0.5	-4.4	3.5	0.7	-8.7	11.0	0.7	-10.4	13.1
	Warm	-	-	-	-	-	-	-	-	-	0.8	-19.0	25.4	-4.5	-18.0	11.2	-7.9	-23.5	10.9
Melbourne	Cool	-6.6	-11.5	-1.4	-6.3	-10.9	-1.6	-6.1	-10.4	-1.5	-0.4	-2.3	1.6	-0.5	-3.7	2.9	1.6	-1.5	4.7
	Warm	-0.6	-3.2	2.1	-0.2	-3.0	2.7	0.7	-2.6	4.0	5.0	-0.8	11.1	0.3	-2.6	3.2	0.8	-2.7	4.4
Perth	Cool	-0.8	-8.6	7.6	-1.8	-9.4	6.5	-2.9	-10.4	5.1	6.8	0.4	13.7	4.5	-1.2	10.6	6.6	-0.9	14.6
	Warm	-0.1	-3.5	3.5	-0.6	-4.6	3.4	-1.2	-5.9	3.6	-6.1	-14.1	2.7	-1.4	-5.9	3.4	-3.4	-9.8	3.5
Sydney	Cool	-1.9	-5.0	1.3	-2.0	-5.1	1.1	-2.9	-6.1	0.4	4.7	1.8	7.7	1.5	-1.5	4.7	2.4	-0.6	5.4
	Warm	-0.6	-2.2	1.0	-0.6	-2.4	1.2	-0.8	-2.8	1.3	3.5	-3.5	11.0	0.9	-2.3	4.3	1.8	-2.1	5.8
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-0.2	-2.2	1.8	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	1.6	-3.0	6.4	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-0.1	-3.6	3.6	1.1	-4.0	6.5	1.8	-1.1	4.8	0.9	-0.6	2.5	2.2	-1.1	5.6			
	Warm	-1.3	-4.1	1.6	-3.0	-7.8	2.1	8.5	0.5	17.2	1.5	-2.9	6.1	1.5	-3.4	6.7			
Canberra	Cool	-	-	-	-	-	-	1.6	-1.6	5.0	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-2.1	-7.6	3.7	-	-	-	-	-	-			
Christchurch	Cool	2.4	-2.7	7.8	2.1	-4.3	8.8	-	-	-	-	-	-	-0.1	-2.9	2.9			
	Warm	4.9	-1.7	12.0	6.5	-2.3	16.0	-	-	-	-	-	-	-2.5	-11.9	7.8			
Melbourne	Cool	-	-	-	-	-	-	0.4	-1.1	1.9	-0.1	-2.2	2.0	-0.7	-3.8	2.5			
	Warm	-	-	-	-	-	-	0.5	-1.4	2.5	-0.3	-3.1	2.5	-2.1	-5.0	0.8			
Perth	Cool	-	-	-	-	-	-	2.6	-2.1	7.6	1.4	-2.9	5.9	-0.6	-5.3	4.4			
	Warm	-	-	-	-	-	-	2.0	-3.4	7.7	0.0	-5.0	5.3	1.9	-3.0	7.0			
Sydney	Cool	1.3	-4.0	6.8	4.3	-2.9	11.9	1.9	-0.4	4.3	1.4	-0.5	3.2	1.4	-1.3	4.2			
	Warm	0.6	-4.8	6.3	-0.7	-8.0	7.2	0.4	-2.7	3.6	-0.0	-2.5	2.5	0.6	-2.3	3.6			

Table WC.2 Cardiac admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	3.0	0.5	5.5	1.3	-3.8	6.7	1.0	-3.3	5.6
	Warm	-	-	-	-	-	-	-	-	-	1.5	-1.6	4.6	4.3	0.3	8.4	1.7	-3.7	7.4
Brisbane	Cool	0.7	-2.5	3.9	0.6	-2.8	4.0	0.0	-3.8	4.0	1.4	-0.4	3.3	2.2	-0.9	5.4	3.5	0.1	7.1
	Warm	0.2	-1.7	2.2	0.6	-1.6	2.8	1.2	-1.4	3.8	-4.3	-9.5	1.2	3.4	-2.1	9.2	5.0	-1.8	12.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	1.9	-2.6	6.6	5.0	-1.5	11.9	6.1	-1.8	14.7
	Warm	-	-	-	-	-	-	-	-	-	-5.3	-16.2	7.0	-2.0	-7.4	3.9	-2.8	-10.9	5.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	2.1	-0.3	4.7	-4.0	-9.8	2.1	-5.6	-12.3	1.5
	Warm	-	-	-	-	-	-	-	-	-	6.5	-7.8	23.0	5.7	-4.3	16.8	3.6	-8.3	17.1
Melbourne	Cool	-5.5	-8.9	-2.0	-5.6	-8.7	-2.4	-6.4	-9.4	-3.3	2.9	1.5	4.3	5.0	2.6	7.4	5.1	3.0	7.3
	Warm	0.4	-1.4	2.4	0.3	-1.7	2.3	0.1	-2.1	2.5	3.8	-0.2	8.0	3.1	1.0	5.2	4.3	1.8	6.9
Perth	Cool	2.7	-2.5	8.1	2.8	-2.3	8.2	0.6	-4.4	5.7	6.5	2.4	10.7	3.8	0.2	7.6	6.8	2.0	11.8
	Warm	0.5	-2.0	3.0	0.6	-2.2	3.5	1.2	-2.1	4.7	-2.1	-8.0	4.1	1.0	-2.3	4.4	2.5	-2.4	7.5
Sydney	Cool	0.9	-1.3	3.3	0.3	-1.9	2.6	-1.3	-3.7	1.1	6.1	4.1	8.2	6.6	4.3	9.0	6.7	4.5	9.0
	Warm	-1.4	-2.6	-0.1	-1.4	-2.7	-0.0	-1.6	-3.1	0.0	7.1	1.8	12.7	2.4	-0.0	4.9	1.5	-1.4	4.5
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.4	-1.2	2.0	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	1.2	-2.7	5.3	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-0.6	-3.1	1.9	-0.6	-4.1	3.0	0.2	-1.8	2.3	0.2	-0.9	1.3	-1.1	-3.3	1.3			
	Warm	1.1	-1.1	3.4	2.4	-1.5	6.5	4.6	-1.3	10.9	6.1	2.7	9.7	4.5	0.6	8.4			
Canberra	Cool	-	-	-	-	-	-	0.8	-2.0	3.6	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	4.4	-0.9	10.0	-	-	-	-	-	-			
Christchurch	Cool	1.1	-2.1	4.4	3.7	-0.3	7.9	-	-	-	-	-	-	-0.2	-2.0	1.7			
	Warm	3.8	-0.6	8.4	4.6	-1.1	10.6	-	-	-	-	-	-	5.9	-0.9	13.1			
Melbourne	Cool	-	-	-	-	-	-	2.1	1.0	3.1	3.2	1.8	4.6	2.7	0.5	4.9			
	Warm	-	-	-	-	-	-	1.1	-0.2	2.5	1.4	-0.6	3.3	-1.3	-3.3	0.8			
Perth	Cool	-	-	-	-	-	-	3.9	0.8	7.0	3.3	0.6	6.2	3.2	0.1	6.4			
	Warm	-	-	-	-	-	-	1.8	-2.0	5.8	1.7	-1.9	5.4	2.0	-1.4	5.6			
Sydney	Cool	8.0	4.1	12.2	11.3	5.9	17.1	3.6	2.0	5.3	3.1	1.7	4.4	3.5	1.6	5.5			
	Warm	1.6	-2.6	5.9	1.8	-3.9	7.9	-0.5	-2.7	1.8	-0.3	-2.2	1.6	-0.8	-2.9	1.4			

Table WC.3 IHD admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	1.9	-2.5	6.5	0.9	-7.9	10.6	6.1	-1.8	14.8
	Warm	-	-	-	-	-	-	-	-	-	3.8	-1.1	8.9	-2.3	-8.9	4.7	-2.1	-10.6	7.2
Brisbane	Cool	2.0	-3.7	8.0	2.5	-3.6	8.9	1.9	-5.2	9.4	2.3	-1.2	6.0	2.8	-2.9	9.0	3.0	-3.4	9.7
	Warm	1.9	-1.3	5.2	1.8	-1.8	5.5	2.1	-2.1	6.5	3.7	-5.6	14.0	-2.1	-10.6	7.3	-1.7	-12.2	10.2
Canberra	Cool	-	-	-	-	-	-	-	-	-	8.6	0.3	17.5	6.4	-4.9	19.1	11.7	-2.8	28.3
	Warm	-	-	-	-	-	-	-	-	-	-15.5	-31.3	4.1	-1.6	-10.7	8.3	-11.5	-23.6	2.5
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-5.7	-10.6	-0.6	-7.1	-18.0	5.4	-7.8	-20.5	7.0
	Warm	-	-	-	-	-	-	-	-	-	2.6	-22.2	35.3	4.1	-14.4	26.6	-4.4	-24.7	21.4
Melbourne	Cool	-6.7	-13.1	0.2	-5.7	-11.6	0.7	-4.5	-10.3	1.7	0.2	-2.3	2.8	-1.0	-5.2	3.4	0.9	-3.1	5.0
	Warm	-2.9	-6.3	0.5	-2.5	-6.0	1.2	-1.3	-5.4	3.0	0.0	-7.2	7.7	-0.6	-4.3	3.3	-0.7	-5.2	4.0
Perth	Cool	5.8	-5.0	17.8	4.2	-6.4	16.0	1.6	-8.6	13.0	7.9	-0.6	17.2	6.0	-1.6	14.2	7.4	-2.4	18.3
	Warm	-0.9	-5.4	3.8	-1.6	-6.7	3.7	-2.2	-8.2	4.2	-10.6	-20.6	0.6	-3.6	-9.5	2.5	-8.3	-16.4	0.5
Sydney	Cool	-3.2	-7.4	1.2	-3.8	-8.0	0.5	-5.0	-9.4	-0.4	5.8	1.7	10.0	0.4	-3.8	4.8	2.2	-1.9	6.4
	Warm	-1.4	-3.6	0.8	-1.7	-4.0	0.7	-2.3	-5.0	0.5	6.5	-3.1	17.0	-0.2	-4.5	4.4	1.4	-3.9	6.9
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	1.5	-1.4	4.4	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-0.1	-6.1	6.4	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-0.1	-4.7	4.7	0.7	-5.8	7.7	2.7	-1.1	6.6	0.4	-1.6	2.5	2.8	-1.5	7.3			
	Warm	-0.3	-3.9	3.4	-3.5	-9.5	2.9	8.7	-1.4	19.8	-0.4	-5.8	5.4	1.4	-4.8	7.9			
Canberra	Cool	-	-	-	-	-	-	4.3	-0.2	9.0	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-0.4	-8.0	7.8	-	-	-	-	-	-			
Christchurch	Cool	0.3	-6.1	7.1	-0.2	-8.0	8.2	-	-	-	-	-	-	-3.0	-6.7	0.9			
	Warm	8.8	0.1	18.2	10.9	-0.5	23.6	-	-	-	-	-	-	-0.3	-12.4	13.4			
Melbourne	Cool	-	-	-	-	-	-	0.2	-1.7	2.3	-0.3	-3.0	2.4	-0.2	-4.2	4.0			
	Warm	-	-	-	-	-	-	0.8	-1.7	3.4	-0.7	-4.3	3.0	-3.0	-6.7	0.8			
Perth	Cool	-	-	-	-	-	-	3.4	-2.9	10.2	3.9	-2.0	10.1	2.1	-4.3	8.9			
	Warm	-	-	-	-	-	-	-6.2	-13.0	1.2	-6.9	-13.1	-0.3	-2.3	-8.4	4.2			
Sydney	Cool	3.3	-4.0	11.1	3.7	-6.0	14.4	3.2	-0.0	6.5	1.9	-0.6	4.6	2.3	-1.5	6.2			
	Warm	-2.3	-9.4	5.3	-2.1	-11.8	8.6	0.3	-3.9	4.7	-0.4	-3.8	3.1	0.5	-3.4	4.5			

Table WC.4 IHD admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	1.4	-2.1	5.1	2.4	-4.9	10.3	0.7	-5.5	7.2
	Warm	-	-	-	-	-	-	-	-	-	2.1	-2.0	6.5	2.2	-3.2	8.0	-1.8	-9.0	5.9
Brisbane	Cool	1.9	-2.4	6.5	1.9	-2.8	6.7	1.7	-3.7	7.4	1.4	-1.1	4.0	3.2	-1.1	7.8	2.4	-2.3	7.4
	Warm	-0.5	-3.0	2.1	-0.4	-3.2	2.5	-0.2	-3.6	3.2	-3.3	-10.2	4.2	0.3	-6.8	7.9	0.9	-7.9	10.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	0.0	-6.5	7.1	6.3	-3.7	17.5	8.6	-3.8	22.5
	Warm	-	-	-	-	-	-	-	-	-	-6.1	-22.3	13.4	-2.4	-10.6	6.7	-6.3	-18.0	7.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	0.6	-2.7	4.0	-2.4	-10.0	5.9	-1.7	-10.8	8.2
	Warm	-	-	-	-	-	-	-	-	-	16.7	-2.8	40.1	2.7	-9.8	16.9	0.0	-14.7	17.3
Melbourne	Cool	-5.9	-10.7	-0.7	-5.3	-9.8	-0.6	-4.9	-9.3	-0.4	2.0	0.0	3.9	2.3	-1.0	5.6	2.0	-1.0	5.1
	Warm	1.3	-1.3	4.0	1.4	-1.4	4.3	1.5	-1.7	4.8	6.9	1.2	13.0	4.4	1.5	7.5	6.1	2.5	9.8
Perth	Cool	2.3	-5.1	10.3	2.0	-5.3	9.9	0.2	-6.9	7.8	5.2	-0.6	11.4	2.9	-2.3	8.5	7.6	0.7	15.1
	Warm	1.8	-1.6	5.4	2.3	-1.6	6.4	3.6	-1.2	8.6	1.3	-7.1	10.5	2.3	-2.3	7.1	4.3	-2.5	11.5
Sydney	Cool	1.5	-2.0	5.1	1.1	-2.3	4.6	-0.1	-3.7	3.6	5.6	2.4	8.8	5.5	2.1	9.2	5.0	1.7	8.5
	Warm	-1.7	-3.4	0.0	-1.8	-3.7	0.1	-2.1	-4.3	0.2	7.4	-0.2	15.7	2.1	-1.4	5.7	0.7	-3.5	5.0
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.3	-2.0	2.6	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-1.4	-6.6	4.0	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-0.2	-3.7	3.4	1.2	-3.8	6.3	0.7	-2.2	3.6	0.4	-1.2	1.9	-1.3	-4.5	2.0			
	Warm	2.3	-0.6	5.4	4.3	-0.9	9.8	3.8	-3.9	12.1	5.1	0.7	9.8	3.9	-1.1	9.2			
Canberra	Cool	-	-	-	-	-	-	-2.4	-6.3	1.8	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	6.2	-1.2	14.1	-	-	-	-	-	-			
Christchurch	Cool	2.2	-2.1	6.6	5.5	0.1	11.3	-	-	-	-	-	-	-1.6	-4.0	0.9			
	Warm	7.0	1.2	13.1	9.9	2.2	18.1	-	-	-	-	-	-	7.6	-1.1	17.1			
Melbourne	Cool	-	-	-	-	-	-	1.3	-0.2	2.8	1.8	-0.2	3.9	0.7	-2.3	3.9			
	Warm	-	-	-	-	-	-	1.3	-0.5	3.3	2.2	-0.5	4.9	-0.8	-3.7	2.1			
Perth	Cool	-	-	-	-	-	-	3.6	-0.8	8.2	4.1	0.0	8.2	3.8	-0.7	8.5			
	Warm	-	-	-	-	-	-	4.8	-0.4	10.4	2.2	-2.7	7.4	0.7	-4.0	5.7			
Sydney	Cool	9.1	2.9	15.6	11.2	2.9	20.2	3.9	1.4	6.5	2.7	0.7	4.8	3.5	0.5	6.6			
	Warm	0.2	-5.7	6.4	-0.7	-8.6	8.0	-1.1	-4.2	2.2	-0.8	-3.4	1.9	-1.9	-4.9	1.2			

Table WC.5 Stroke admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	2.6	-4.7	10.3	-13.3	-25.8	1.1	-7.9	-19.2	5.1
	Warm	-	-	-	-	-	-	-	-	-	-8.9	-16.5	-0.6	8.6	-2.9	21.4	8.3	-7.5	26.7
Brisbane	Cool	3.3	-8.9	17.1	3.9	-9.1	18.8	1.1	-13.5	18.2	0.8	-6.5	8.8	12.2	-1.1	27.2	15.5	0.6	32.7
	Warm	1.6	-5.6	9.5	1.2	-6.8	10.0	0.6	-8.8	10.9	0.8	-18.6	24.8	19.9	-2.6	47.5	32.6	2.5	71.5
Canberra	Cool	-	-	-	-	-	-	-	-	-	20.8	1.6	43.6	43.3	9.7	87.0	71.8	23.6	138.8
	Warm	-	-	-	-	-	-	-	-	-	23.7	-16.2	82.6	7.7	-13.1	33.4	21.9	-10.9	66.7
Christchurch	Cool	-	-	-	-	-	-	-	-	-	1.1	-7.2	10.2	-2.5	-20.9	20.2	3.6	-19.2	32.8
	Warm	-	-	-	-	-	-	-	-	-	19.2	-22.6	83.4	34.7	0.6	80.2	22.8	-14.2	75.8
Melbourne	Cool	-9.4	-20.3	2.9	-8.1	-18.3	3.4	-5.8	-15.9	5.5	-2.0	-6.6	3.0	-3.9	-11.4	4.1	-1.9	-8.8	5.6
	Warm	2.4	-3.9	9.3	2.3	-4.4	9.5	3.5	-4.3	11.8	17.0	2.5	33.6	5.4	-1.7	12.9	6.4	-2.2	15.8
Perth	Cool	-6.5	-24.0	15.0	-7.7	-24.8	13.4	-7.5	-24.5	13.3	-10.3	-23.5	5.2	-4.3	-17.2	10.6	-3.9	-20.3	15.9
	Warm	-5.7	-13.6	3.0	-7.0	-15.9	2.9	-7.6	-18.1	4.3	-2.2	-21.5	21.8	-0.8	-11.9	11.6	-7.6	-22.5	10.1
Sydney	Cool	-0.4	-7.7	7.6	0.4	-6.9	8.3	0.1	-7.7	8.6	4.5	-2.5	12.0	0.2	-6.9	7.9	1.0	-6.0	8.5
	Warm	-2.6	-6.4	1.4	-2.8	-7.0	1.6	-3.4	-8.3	1.7	-10.4	-24.3	6.0	-3.1	-10.5	5.0	-4.2	-12.9	5.4
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.3	-4.3	5.1	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	6.3	-4.8	18.8	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	10.4	-0.1	21.9	14.8	-1.0	33.1	3.1	-5.2	12.2	2.3	-1.9	6.6	5.8	-3.7	16.3			
	Warm	-0.5	-8.4	8.1	1.8	-12.0	17.8	20.7	-2.7	49.8	8.0	-4.7	22.5	11.8	-2.9	28.7			
Canberra	Cool	-	-	-	-	-	-	9.7	-1.0	21.4	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	3.0	-12.0	20.7	-	-	-	-	-	-			
Christchurch	Cool	-6.9	-16.8	4.2	-5.9	-18.3	8.3	-	-	-	-	-	-	-0.4	-6.6	6.2			
	Warm	12.7	-0.4	27.5	6.6	-9.8	26.0	-	-	-	-	-	-	2.3	-16.2	24.9			
Melbourne	Cool	-	-	-	-	-	-	1.4	-2.3	5.2	-0.9	-5.8	4.3	-2.5	-9.7	5.3			
	Warm	-	-	-	-	-	-	-0.7	-5.2	4.0	-1.1	-7.4	5.7	-2.4	-9.3	5.0			
Perth	Cool	-	-	-	-	-	-	6.7	-5.1	20.1	2.2	-8.3	14.0	3.7	-8.4	17.3			
	Warm	-	-	-	-	-	-	-6.7	-20.0	8.8	-6.2	-17.9	7.0	-4.1	-15.7	9.1			
Sydney	Cool	-0.7	-12.7	13.0	-3.1	-18.5	15.2	-3.3	-8.6	2.3	-0.7	-5.1	3.9	0.3	-6.1	7.1			
	Warm	0.2	-12.5	14.8	-4.3	-20.9	15.6	-5.2	-12.5	2.7	-6.0	-12.0	0.3	-6.1	-12.7	1.0			

Table WC.6 Stroke admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	2.8	-2.0	7.8	13.0	2.1	25.1	9.2	0.3	18.9
	Warm	-	-	-	-	-	-	-	-	-	-1.9	-7.6	4.0	4.3	-2.9	12.1	5.1	-5.2	16.6
Brisbane	Cool	-1.9	-8.2	4.8	-1.7	-8.4	5.4	-3.4	-11.0	4.9	-0.9	-4.7	3.1	0.6	-5.7	7.4	1.4	-5.5	8.9
	Warm	-0.2	-4.1	3.9	0.0	-4.3	4.6	0.7	-4.5	6.1	11.2	-0.9	24.9	-1.6	-12.1	10.2	-1.3	-14.0	13.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	2.1	-8.4	13.8	21.7	4.5	41.6	26.3	5.0	51.9
	Warm	-	-	-	-	-	-	-	-	-	-7.5	-29.6	21.5	-4.3	-16.3	9.4	-6.0	-23.2	15.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-2.2	-6.6	2.5	-4.8	-15.0	6.6	-0.8	-13.1	13.4
	Warm	-	-	-	-	-	-	-	-	-	16.4	-9.5	49.6	20.5	1.1	43.5	23.1	-0.7	52.7
Melbourne	Cool	-1.1	-7.8	6.1	-2.7	-8.8	3.8	-4.3	-10.1	1.8	0.3	-2.3	3.1	0.4	-3.9	5.0	2.0	-2.0	6.2
	Warm	-1.1	-4.6	2.7	-0.7	-4.5	3.3	-1.1	-5.4	3.4	-6.8	-13.8	0.8	-1.0	-4.9	3.0	-0.6	-5.3	4.3
Perth	Cool	-3.2	-12.9	7.6	-4.2	-13.7	6.3	-5.6	-14.8	4.6	0.8	-6.8	9.2	4.0	-3.3	12.0	3.9	-5.4	14.2
	Warm	2.8	-2.0	7.9	2.7	-2.8	8.6	2.6	-4.0	9.7	8.0	-4.4	22.0	5.4	-1.2	12.6	6.6	-3.0	17.3
Sydney	Cool	-1.8	-6.0	2.5	-1.5	-5.7	2.8	-2.5	-6.9	2.1	1.5	-2.3	5.4	0.9	-3.3	5.2	0.5	-3.4	4.7
	Warm	-1.1	-3.4	1.2	-1.4	-3.9	1.1	-1.5	-4.4	1.4	-9.6	-18.0	-0.4	-4.0	-8.3	0.5	-5.3	-10.4	0.1
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-1.8	-4.7	1.3	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	3.5	-3.9	11.6	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	0.5	-4.7	6.0	-1.1	-8.3	6.7	-4.5	-8.6	-0.1	-2.1	-4.5	0.3	-2.0	-6.7	2.9			
	Warm	-0.7	-5.1	4.0	0.5	-7.2	8.8	4.4	-7.5	17.9	7.3	0.1	14.9	-1.9	-9.2	6.0			
Canberra	Cool	-	-	-	-	-	-	2.4	-4.1	9.3	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-8.1	-19.0	4.4	-	-	-	-	-	-			
Christchurch	Cool	2.9	-2.9	9.0	-1.1	-8.0	6.3	-	-	-	-	-	-	2.2	-1.1	5.6			
	Warm	5.8	-1.9	14.0	3.4	-6.3	14.2	-	-	-	-	-	-	-4.9	-15.4	6.9			
Melbourne	Cool	-	-	-	-	-	-	0.6	-1.4	2.7	0.9	-1.9	3.9	1.9	-2.4	6.3			
	Warm	-	-	-	-	-	-	-1.4	-4.0	1.2	-1.9	-5.6	1.9	-2.6	-6.6	1.6			
Perth	Cool	-	-	-	-	-	-	2.4	-3.7	8.8	3.3	-2.2	9.2	-0.0	-6.1	6.4			
	Warm	-	-	-	-	-	-	1.5	-6.1	9.8	1.6	-5.4	9.1	-1.0	-7.5	6.0			
Sydney	Cool	5.0	-2.2	12.8	7.8	-2.1	18.7	3.2	0.1	6.4	1.1	-1.4	3.7	-0.0	-3.6	3.7			
	Warm	-2.0	-9.4	6.0	-7.0	-16.6	3.7	-7.1	-11.3	-2.7	-6.9	-10.3	-3.4	-9.4	-13.1	-5.5			

Table WC.7 Arrhythmia admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	4.7	-1.6	11.3	6.4	-6.6	21.2	9.4	-2.0	22.2
	Warm	-	-	-	-	-	-	-	-	-	-0.4	-8.3	8.1	5.6	-3.7	15.9	21.1	5.7	38.8
Brisbane	Cool	10.2	-0.9	22.5	10.9	-0.9	24.1	11.7	-2.0	27.4	0.2	-5.8	6.5	10.4	-0.3	22.4	11.6	-0.4	25.0
	Warm	-0.1	-6.0	6.1	0.1	-6.3	7.1	0.4	-7.2	8.7	-4.1	-19.7	14.6	12.0	-5.7	33.1	14.9	-7.2	42.3
Canberra	Cool	-	-	-	-	-	-	-	-	-	-4.1	-15.6	8.9	4.0	-12.8	24.0	10.4	-10.7	36.5
	Warm	-	-	-	-	-	-	-	-	-	-29.2	-50.4	1.2	-6.5	-19.7	8.9	-15.0	-32.7	7.2
Christchurch	Cool	-	-	-	-	-	-	-	-	-	9.8	0.9	19.6	18.1	-6.2	48.6	7.2	-19.0	41.7
	Warm	-	-	-	-	-	-	-	-	-	-6.2	-45.0	59.9	-9.0	-36.2	29.9	4.9	-32.1	62.2
Melbourne	Cool	-5.3	-16.3	7.1	-6.7	-16.6	4.3	-7.8	-17.2	2.7	-0.4	-4.9	4.3	2.5	-4.9	10.6	4.4	-2.6	11.9
	Warm	-0.3	-6.4	6.2	-0.2	-6.7	6.8	-0.3	-7.7	7.6	10.2	-3.5	26.0	1.2	-5.5	8.5	2.7	-5.6	11.6
Perth	Cool	-9.0	-24.6	9.8	-9.6	-24.9	8.9	-9.8	-24.9	8.2	3.1	-11.0	19.4	5.8	-7.5	21.0	5.8	-11.0	25.6
	Warm	-4.7	-12.2	3.4	-5.2	-13.7	4.1	-5.7	-15.7	5.5	4.1	-15.1	27.7	1.5	-8.9	13.1	2.8	-12.3	20.6
Sydney	Cool	-1.1	-7.8	6.1	-0.7	-7.3	6.5	-0.8	-7.9	6.9	4.3	-1.9	11.0	2.3	-4.4	9.4	2.5	-3.9	9.4
	Warm	0.1	-3.5	3.8	0.4	-3.5	4.5	0.6	-4.0	5.4	5.0	-10.0	22.5	0.3	-6.7	7.8	0.5	-7.9	9.6
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-3.5	-7.5	0.6	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	9.1	-1.5	20.8	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-0.3	-8.4	8.6	-3.3	-14.3	9.3	0.1	-6.7	7.3	1.7	-1.7	5.3	2.2	-5.4	10.3			
	Warm	-3.5	-10.0	3.5	-3.7	-14.8	8.8	-1.9	-18.4	17.9	1.0	-8.9	12.0	-2.3	-13.2	9.9			
Canberra	Cool	-	-	-	-	-	-	-1.3	-8.7	6.7	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-4.3	-17.7	11.2	-	-	-	-	-	-			
Christchurch	Cool	11.3	-1.5	25.7	8.4	-7.3	26.7	-	-	-	-	-	-	6.6	0.3	13.2			
	Warm	4.5	-10.1	21.5	7.7	-11.5	31.0	-	-	-	-	-	-	-3.8	-24.6	22.6			
Melbourne	Cool	-	-	-	-	-	-	0.6	-2.9	4.1	1.1	-3.7	6.0	-0.7	-7.8	6.8			
	Warm	-	-	-	-	-	-	-1.0	-5.5	3.7	-1.5	-7.7	5.1	-3.3	-9.8	3.7			
Perth	Cool	-	-	-	-	-	-	1.4	-9.3	13.3	0.0	-9.6	10.6	0.6	-10.2	12.7			
	Warm	-	-	-	-	-	-	10.3	-2.0	24.1	9.1	-2.9	22.5	4.3	-7.1	17.0			
Sydney	Cool	-2.5	-13.3	9.7	9.9	-6.0	28.5	3.1	-1.8	8.4	2.1	-2.0	6.3	3.3	-2.6	9.7			
	Warm	2.0	-9.8	15.3	-10.1	-24.3	6.8	-2.2	-8.7	4.8	-1.4	-6.8	4.2	1.1	-5.2	7.7			

Table WC.8 Arrhythmia admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	5.0	-0.7	11.0	12.6	0.3	26.5	5.9	-4.1	17.0
	Warm	-	-	-	-	-	-	-	-	-	2.5	-4.3	9.8	5.8	-3.1	15.5	6.1	-6.2	20.0
Brisbane	Cool	-3.9	-11.5	4.3	-3.3	-11.3	5.5	-2.2	-11.6	8.2	-3.7	-8.2	1.1	-2.5	-10.0	5.6	0.3	-8.0	9.5
	Warm	-0.6	-5.4	4.6	0.4	-5.1	6.1	1.2	-5.3	8.1	-9.2	-21.4	4.8	5.8	-8.1	21.8	6.8	-10.2	27.1
Canberra	Cool	-	-	-	-	-	-	-	-	-	3.6	-7.4	15.8	2.4	-12.7	20.0	-0.9	-18.2	20.0
	Warm	-	-	-	-	-	-	-	-	-	-1.7	-26.4	31.3	-9.9	-21.2	3.0	-10.2	-26.7	9.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	0.5	-5.9	7.3	-4.7	-19.3	12.4	-14.2	-29.3	4.2
	Warm	-	-	-	-	-	-	-	-	-	10.4	-25.5	63.6	17.9	-8.4	51.8	24.8	-8.9	71.1
Melbourne	Cool	-0.1	-9.1	9.7	-0.7	-8.9	8.2	-2.8	-10.5	5.5	1.0	-2.5	4.6	0.2	-5.4	6.2	0.6	-4.6	6.1
	Warm	-1.6	-6.2	3.2	-2.2	-7.1	2.9	-2.6	-8.1	3.3	-5.9	-14.7	3.9	0.9	-4.2	6.2	0.3	-5.7	6.6
Perth	Cool	2.3	-10.5	16.9	2.9	-9.9	17.5	3.1	-9.5	17.5	0.1	-9.7	10.8	-4.5	-13.0	4.9	-7.4	-17.9	4.4
	Warm	-2.3	-8.0	3.7	-2.6	-9.1	4.3	-2.3	-10.0	6.1	-13.3	-25.5	0.8	-4.0	-11.4	3.9	-6.0	-16.5	5.7
Sydney	Cool	2.7	-2.7	8.5	2.9	-2.5	8.7	2.3	-3.5	8.5	0.3	-4.6	5.3	0.1	-5.1	5.6	0.3	-4.7	5.6
	Warm	-1.3	-4.1	1.6	-1.4	-4.4	1.8	-1.5	-5.1	2.3	0.7	-10.9	13.8	-1.7	-7.2	4.1	-2.8	-9.3	4.2
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	1.1	-2.5	4.8	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	4.1	-4.7	13.7	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-1.7	-7.9	5.0	0.6	-8.5	10.5	-1.4	-6.5	4.0	-1.7	-4.5	1.1	-2.7	-8.4	3.3			
	Warm	-0.6	-6.0	5.2	1.2	-8.2	11.7	4.4	-10.4	21.6	3.5	-5.0	12.8	1.9	-7.6	12.2			
Canberra	Cool	-	-	-	-	-	-	1.7	-4.9	8.7	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-0.4	-13.2	14.3	-	-	-	-	-	-			
Christchurch	Cool	3.4	-4.9	12.5	7.0	-3.5	18.7	-	-	-	-	-	-	-3.3	-8.1	1.8			
	Warm	3.3	-7.2	15.1	-5.5	-18.0	8.9	-	-	-	-	-	-	14.5	-3.3	35.5			
Melbourne	Cool	-	-	-	-	-	-	-0.6	-3.3	2.1	-0.7	-4.3	3.0	-3.4	-8.6	2.2			
	Warm	-	-	-	-	-	-	0.1	-3.2	3.6	0.4	-4.4	5.3	-1.8	-6.8	3.4			
Perth	Cool	-	-	-	-	-	-	0.9	-6.7	9.0	-0.1	-6.9	7.2	-0.3	-8.0	7.9			
	Warm	-	-	-	-	-	-	-3.6	-12.6	6.4	-1.1	-9.4	8.0	7.1	-1.5	16.4			
Sydney	Cool	3.2	-5.8	13.0	3.9	-8.0	17.4	-1.5	-5.4	2.5	0.4	-2.8	3.7	1.8	-2.9	6.6			
	Warm	2.8	-6.9	13.5	-0.3	-13.1	14.5	0.5	-4.9	6.2	-1.4	-5.8	3.2	-1.0	-6.1	4.3			

Table WC.9 Cardiac failure admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	2.1	-7.3	12.5	-3.9	-21.6	17.9	6.2	-10.7	26.3
	Warm	-	-	-	-	-	-	-	-	-	10.6	-1.8	24.7	6.8	-8.7	24.9	6.6	-14.2	32.5
Brisbane	Cool	-5.9	-20.5	11.3	-7.3	-22.4	10.7	-9.9	-26.6	10.7	2.3	-7.0	12.4	6.7	-8.9	25.1	5.7	-11.2	25.8
	Warm	-9.7	-19.8	1.6	-9.6	-20.7	3.0	-9.6	-22.4	5.3	-0.6	-27.8	36.7	3.2	-25.5	42.9	5.8	-29.4	58.6
Canberra	Cool	-	-	-	-	-	-	-	-	-	15.0	-14.1	54.1	6.1	-29.7	60.1	-3.4	-41.1	58.3
	Warm	-	-	-	-	-	-	-	-	-	-27.8	-62.2	37.8	-3.9	-29.1	30.3	-1.5	-37.5	55.2
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-3.3	-17.9	14.0	29.7	-15.7	99.5	17.0	-28.6	91.5
	Warm	-	-	-	-	-	-	-	-	-	43.4	-51.6	325.0	12.4	-41.5	116.1	-20.4	-65.5	83.9
Melbourne	Cool	-4.3	-20.4	14.9	-6.9	-21.2	10.0	-8.2	-21.8	7.9	0.5	-5.9	7.3	3.0	-7.8	15.1	6.5	-3.9	18.1
	Warm	-0.5	-9.3	9.2	-0.4	-9.8	10.1	1.1	-9.8	13.4	12.2	-7.7	36.2	1.2	-8.6	12.0	2.4	-9.5	15.9
Perth	Cool	-	-39.4	3.8	-22.4	-40.5	1.3	-23.2	-40.9	-0.2	4.1	-15.2	27.8	0.8	-16.3	21.4	2.2	-19.6	29.8
	Warm	20.7																	
Sydney	Cool	-5.1	-16.6	8.0	-7.4	-20.2	7.4	-10.5	-25.0	6.9	-7.8	-33.4	27.5	-2.0	-17.6	16.6	-6.9	-27.5	19.6
	Warm	-0.7	-11.4	11.4	-1.0	-11.5	10.8	-1.8	-13.0	10.7	12.5	2.0	24.0	9.7	-1.8	22.5	8.8	-2.1	20.9
	Warm	3.0	-3.4	9.8	3.3	-3.7	10.9	3.1	-5.2	12.1	14.9	-12.7	51.1	4.7	-7.9	19.1	5.6	-9.5	23.2

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	1.0	-4.7	7.1	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-8.1	-21.1	7.1	-	-	-	-	-	-	-	-	-
Brisbane	Cool	4.1	-9.2	19.2	3.0	-14.7	24.4	1.7	-8.3	12.8	-1.5	-7.7	5.3	-5.1	-16.1	7.5
	Warm	-5.7	-17.4	7.7	-6.1	-25.0	17.6	-1.9	-30.7	38.7	-0.7	-18.3	20.6	-7.3	-25.5	15.5
Canberra	Cool	-	-	-	-	-	-	17.3	-1.0	39.1	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-11.9	-32.3	14.8	-	-	-	-	-	-
Christchurch	Cool	1.4	-17.9	25.3	2.6	-22.3	35.4	-	-	-	-	-	-	-4.1	-14.5	7.6
	Warm	12.0	-17.8	52.6	3.3	-30.8	54.1	-	-	-	-	-	-	1.5	-36.1	61.2
Melbourne	Cool	-	-	-	-	-	-	2.6	-2.5	8.0	3.0	-3.7	10.3	6.1	-4.5	17.8
	Warm	-	-	-	-	-	-	-0.9	-8.0	6.7	1.1	-8.3	11.5	0.9	-8.9	11.7
Perth	Cool	-	-	-	-	-	-	3.9	-10.8	21.0	-3.4	-16.2	11.3	-8.8	-22.5	7.2
	Warm	-	-	-	-	-	-	30.9	10.9	54.4	15.7	-3.8	39.2	12.1	-5.8	33.5
Sydney	Cool	-0.5	-17.8	20.3	-1.2	-23.3	27.2	5.2	-2.9	13.9	4.4	-2.0	11.3	1.8	-7.5	12.0
	Warm	2.9	-17.4	28.1	1.1	-25.5	37.1	11.6	-0.9	25.8	8.3	-1.9	19.5	7.3	-4.2	20.2

Table WC.10 Cardiac failure admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	6.2	0.9	11.8	-7.8	-17.6	3.0	-3.7	-12.4	5.7
	Warm	-	-	-	-	-	-	-	-	-	-1.3	-8.1	6.1	4.1	-4.1	13.1	2.7	-9.1	16.0
Brisbane	Cool	0.5	-5.7	7.1	-0.2	-6.7	6.7	-1.5	-8.8	6.5	4.8	1.2	8.6	3.8	-2.3	10.2	7.7	0.8	15.1
	Warm	3.4	-1.1	8.1	4.3	-0.7	9.6	5.7	-0.3	12.1	-7.1	-18.2	5.5	11.1	-1.8	25.7	15.2	-1.2	34.2
Canberra	Cool	-	-	-	-	-	-	-	-	-	14.7	3.1	27.6	19.9	3.2	39.3	23.8	2.7	49.2
	Warm	-	-	-	-	-	-	-	-	-	5.1	-22.0	41.6	4.8	-9.2	21.0	8.8	-12.3	34.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	5.5	0.2	11.1	-8.6	-20.2	4.7	-12.9	-25.7	2.1
	Warm	-	-	-	-	-	-	-	-	-	-0.9	-29.3	38.9	20.8	-4.2	52.4	21.5	-8.8	62.0
Melbourne	Cool	-8.3	-14.2	-1.9	-8.6	-14.0	-2.9	-9.8	-15.0	-4.4	4.7	2.2	7.2	11.8	7.4	16.4	11.9	7.8	16.2
	Warm	0.6	-3.1	4.5	0.2	-3.7	4.3	-0.3	-4.8	4.4	6.2	-1.7	14.6	3.2	-0.9	7.4	4.9	-0.1	10.1
Perth	Cool	2.9	-6.3	13.0	3.4	-5.8	13.5	0.0	-8.7	9.6	9.1	1.7	17.1	8.1	1.2	15.4	9.8	1.0	19.4
	Warm	-1.0	-6.1	4.2	-1.4	-7.1	4.7	-2.4	-9.2	4.8	-5.7	-17.2	7.4	1.7	-5.1	9.0	3.8	-6.3	14.9
Sydney	Cool	0.8	-3.5	5.3	-0.2	-4.4	4.1	-2.6	-6.9	2.0	9.5	5.6	13.5	11.5	7.1	16.2	12.2	8.0	16.7
	Warm	-0.4	-2.9	2.2	-0.2	-3.0	2.6	-0.3	-3.5	3.1	17.3	5.5	30.4	7.6	2.4	13.1	8.0	1.7	14.6
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.6	-2.6	3.9	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	3.3	-5.6	12.9	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-0.4	-5.4	4.8	-4.1	-10.8	3.1	0.0	-3.9	4.1	0.8	-1.4	3.0	0.3	-4.2	-0.4			
	Warm	-1.4	-6.4	3.8	-4.1	-12.3	5.0	4.4	-8.5	19.1	8.4	0.7	16.7	4.8	-3.7	-1.4			
Canberra	Cool	-	-	-	-	-	-	7.8	1.0	15.1	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	1.8	-10.7	16.0	-	-	-	-	-	-			
Christchurch	Cool	-5.4	-11.8	1.5	-5.9	-13.7	2.7	-	-	-	-	-	-	3.2	-0.6	-5.4			
	Warm	-6.8	-16.2	3.7	-7.1	-18.8	6.4	-	-	-	-	-	-	4.0	-11.1	-6.8			
Melbourne	Cool	-	-	-	-	-	-	4.3	2.5	6.3	7.0	4.4	9.7	8.6	4.5	-			
	Warm	-	-	-	-	-	-	1.9	-0.8	4.6	1.6	-2.2	5.5	-1.0	-5.0	-			
Perth	Cool	-	-	-	-	-	-	4.2	-1.2	10.0	2.9	-2.1	8.1	4.1	-1.6	-			
	Warm	-	-	-	-	-	-	-1.9	-9.6	6.6	1.0	-6.3	8.9	-1.0	-8.1	-			
Sydney	Cool	11.8	4.4	19.8	19.1	8.6	30.6	6.2	3.1	9.3	5.1	2.7	7.7	5.5	1.8	11.8			
	Warm	5.0	-3.9	14.7	10.1	-2.5	24.4	0.5	-4.2	5.5	1.4	-2.5	5.4	1.0	-3.5	5.0			

Table WC.11 Myocardial infarction admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	1.9	-4.3	8.4	-2.9	-12.5	7.8	-3.9	-14.2	7.7
	Warm	-	-	-	-	-	-	-	-	-	18.1	-0.7	40.3	10.2	-6.8	30.3	8.0	-12.4	33.0
Brisbane	Cool	-29.6	-54.9	9.9	-26.3	-52.1	13.5	-25.2	-51.0	14.3	4.4	-11.7	23.4	0.6	-21.0	28.2	16.3	-13.7	56.7
	Warm	11.8	-8.8	37.1	13.2	-8.3	39.8	14.2	-9.4	43.9	-24.6	-50.0	13.6	0.5	-17.3	22.0	-6.4	-30.3	25.6
Canberra	Cool	-	-	-	-	-	-	-	-	-	-3.7	-10.9	4.1	2.8	-14.5	23.6	8.5	-13.0	35.4
	Warm	-	-	-	-	-	-	-	-	-	4.9	-30.6	58.6	11.2	-18.5	51.8	-7.6	-37.4	36.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	2.7	-1.5	7.1	-3.6	-10.3	3.6	-2.0	-8.3	4.8
	Warm	-	-	-	-	-	-	-	-	-	2.6	-9.5	16.2	3.3	-3.1	10.2	2.4	-5.3	10.7
Melbourne	Cool	5.1	-11.1	24.3	0.4	-15.0	18.7	-3.6	-18.2	13.5	5.2	-7.4	19.6	8.5	-3.4	21.9	10.1	-5.2	28.0
	Warm	-3.8	-10.9	3.9	-4.0	-12.1	5.0	-3.7	-13.4	7.1	-21.2	-35.6	-3.5	-5.8	-15.1	4.4	-6.4	-19.8	9.3
Perth	Cool	-0.3	-7.3	7.3	-1.5	-8.4	5.9	-3.9	-11.2	3.9	6.1	-0.6	13.2	5.5	-1.7	13.1	5.9	-1.1	13.2
	Warm	2.0	-1.8	5.8	2.0	-2.1	6.3	2.0	-2.8	7.1	20.7	3.0	41.4	7.5	-0.2	15.8	10.0	0.5	20.3
Sydney	Cool	5.0	-5.3	16.5	6.0	-5.0	18.4	6.0	-6.8	20.5	1.9	-4.3	8.4	-2.9	-12.5	7.8	-3.9	-14.2	7.7
	Warm	4.4	-1.5	10.8	4.6	-2.1	11.7	6.4	-1.6	15.0	18.1	-0.7	40.3	10.2	-6.8	30.3	8.0	-12.4	33.0
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-1.8	-9.9	7.1	-1.0	-12.4	11.8	3.5	-3.1	10.6	0.1	-3.6	3.9	0.4	-7.1	8.5			
	Warm	0.8	-5.8	7.8	-4.4	-15.1	7.6	3.1	-13.5	23.0	-4.2	-13.5	6.2	-4.5	-15.0	7.2			
Brisbane	Cool	-	-	-	-	-	-	4.2	-5.2	14.5	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	0.0	-13.4	15.6	-	-	-	-	-	-			
Canberra	Cool	4.1	-5.7	14.8	5.9	-6.4	19.7	-	-	-	-	-	-	-4.5	-10.0	1.2			
	Warm	9.3	-4.3	24.9	7.5	-9.8	28.1	-	-	-	-	-	-	-3.9	-21.6	18.0			
Christchurch	Cool	-	-	-	-	-	-	-0.2	-3.4	3.1	-0.5	-4.9	4.0	-1.8	-8.3	5.1			
	Warm	-	-	-	-	-	-	2.5	-1.7	6.8	1.3	-4.7	7.7	-1.1	-7.5	5.7			
Melbourne	Cool	-	-	-	-	-	-	7.0	-2.8	17.9	7.6	-1.6	17.5	4.7	-5.2	15.7			
	Warm	-	-	-	-	-	-	-1.5	-12.7	11.1	-2.8	-13.1	8.7	2.2	-8.1	13.8			
Perth	Cool	12.1	-0.5	26.3	20.8	2.7	42.1	5.7	0.4	11.3	5.5	1.2	10.1	6.5	0.1	13.3			
	Warm	9.5	-3.6	24.3	19.3	0.1	42.3	-1.1	-8.0	6.2	-0.9	-6.5	5.1	-1.2	-7.6	5.7			
Sydney	Cool	-1.8	-9.9	7.1	-1.0	-12.4	11.8	3.5	-3.1	10.6	0.1	-3.6	3.9	0.4	-7.1	8.5			
	Warm	0.8	-5.8	7.8	-4.4	-15.1	7.6	3.1	-13.5	23.0	-4.2	-13.5	6.2	-4.5	-15.0	7.2			

Table WC.12 Myocardial infarction admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	4.2	-3.5	12.4	4.2	-3.9	13.0	4.5	-4.9	14.9	1.7	-2.6	6.1	0.2	-7.0	7.9	1.3	-6.5	9.9
	Warm	-2.9	-7.4	1.8	-3.1	-8.0	2.2	-3.5	-9.3	2.7	4.1	-8.8	18.8	-0.9	-13.1	12.9	-6.4	-20.4	10.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	13.4	-1.7	31.0	8.2	-13.0	34.5	8.3	-17.1	41.3
	Warm	-	-	-	-	-	-	-	-	-	-5.8	-37.5	42.0	11.5	-7.6	34.5	20.5	-8.4	58.6
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.2	-5.9	3.8	2.3	-8.9	14.8	7.4	-6.6	23.5
	Warm	-	-	-	-	-	-	-	-	-	21.3	-7.6	59.4	-5.2	-22.3	15.8	0.8	-21.0	28.6
Melbourne	Cool	-7.6	-15.4	1.1	-7.1	-14.3	0.8	-5.7	-12.8	2.0	2.7	-0.6	6.1	3.9	-1.6	9.8	2.8	-2.3	8.1
	Warm	-2.1	-6.6	2.6	-2.7	-7.5	2.2	-3.1	-8.4	2.6	9.1	-0.8	20.1	4.5	-0.6	9.9	6.7	0.5	13.3
Perth	Cool	6.6	-5.7	20.6	6.1	-6.1	19.9	3.8	-7.9	17.1	2.9	-6.2	12.9	5.7	-3.0	15.1	9.6	-1.7	22.2
	Warm	8.2	2.0	14.8	9.2	2.1	16.9	11.8	3.1	21.2	1.1	-12.8	17.2	3.6	-4.2	12.2	6.6	-4.9	19.5
Sydney	Cool	1.0	-4.8	7.3	0.6	-5.1	6.7	-0.3	-6.3	6.2	4.6	-0.6	10.0	5.1	-0.7	11.3	4.2	-1.3	10.0
	Warm	-0.7	-3.7	2.4	-0.6	-4.0	2.8	-0.9	-4.7	3.1	10.3	-3.1	25.6	4.7	-1.5	11.3	4.9	-2.6	12.9
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-2.8	-8.7	3.4	-1.4	-9.6	7.5	-0.2	-5.1	5.0	2.0	-0.6	4.7	1.7	-3.9	7.5			
	Warm	5.8	0.3	11.6	7.0	-2.5	17.5	1.3	-11.8	16.3	6.0	-2.0	14.5	1.3	-7.4	10.8			
Canberra	Cool	-	-	-	-	-	-	5.4	-3.5	15.1	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	3.1	-12.4	21.3	-	-	-	-	-	-			
Christchurch	Cool	0.5	-5.6	7.1	4.1	-3.7	12.5	-	-	-	-	-	-	-3.6	-7.2	0.1			
	Warm	5.0	-3.7	14.5	8.9	-2.6	21.8	-	-	-	-	-	-	11.2	-2.1	26.3			
Melbourne	Cool	-	-	-	-	-	-	2.1	-0.4	4.6	3.2	-0.2	6.8	2.0	-3.2	7.5			
	Warm	-	-	-	-	-	-	-0.1	-3.4	3.4	1.2	-3.5	6.1	-1.0	-5.9	4.3			
Perth	Cool	-	-	-	-	-	-	-0.2	-7.1	7.2	2.3	-4.0	9.1	-0.0	-7.1	7.6			
	Warm	-	-	-	-	-	-	8.8	-0.0	18.4	6.9	-1.8	16.3	2.9	-5.1	11.7			
Sydney	Cool	7.7	-2.1	18.4	11.8	-1.7	27.2	3.2	-0.9	7.6	1.9	-1.4	5.5	2.5	-2.5	7.7			
	Warm	-0.8	-10.8	10.4	2.3	-11.7	18.5	0.8	-4.7	6.6	0.5	-4.0	5.3	-1.0	-6.3	4.6			

Table WC.13 Cardiovascular admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	1.8	-0.8	4.6	-0.5	-5.9	5.2	4.1	-0.7	9.2
	Warm	-	-	-	-	-	-	-	-	-	0.6	-2.5	3.9	0.4	-3.6	4.7	1.7	-3.9	7.7
Brisbane	Cool	2.5	-1.4	6.7	2.9	-1.3	7.4	2.2	-2.7	7.3	0.4	-1.9	2.9	4.6	0.6	8.8	5.0	0.6	9.7
	Warm	0.9	-1.3	3.3	0.9	-1.6	3.5	1.0	-2.0	4.1	0.9	-5.6	7.9	1.3	-5.1	8.1	4.0	-4.1	12.7
Canberra	Cool	-	-	-	-	-	-	-	-	-	3.8	-0.5	8.2	6.9	1.0	13.3	8.9	1.5	16.9
	Warm	-	-	-	-	-	-	-	-	-	0.5	-9.7	11.8	2.5	-2.6	7.8	1.6	-5.8	9.6
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-0.7	-4.0	2.7	-0.4	-8.4	8.2	-1.1	-10.4	9.1
	Warm	-	-	-	-	-	-	-	-	-	2.8	-14.5	23.5	3.1	-9.3	17.1	-2.0	-16.1	14.5
Melbourne	Cool	-5.3	-9.6	-0.9	-4.9	-8.8	-0.8	-4.2	-8.0	-0.3	-0.6	-2.3	1.1	-1.5	-4.3	1.3	0.0	-2.5	2.6
	Warm	0.1	-2.1	2.4	0.4	-2.0	2.8	1.4	-1.3	4.3	5.3	0.4	10.4	2.1	-0.3	4.7	2.0	-1.0	5.1
Perth	Cool	0.2	-6.7	7.5	-0.6	-7.3	6.7	-1.0	-7.7	6.1	3.8	-1.7	9.6	2.6	-2.4	7.8	3.6	-2.8	10.4
	Warm	-0.3	-3.3	2.8	-0.5	-3.9	3.0	-0.7	-4.8	3.5	-5.3	-12.4	2.3	-0.2	-4.2	4.0	-2.5	-8.2	3.6
Sydney	Cool	-1.6	-4.3	1.1	-1.7	-4.3	1.1	-2.4	-5.2	0.5	4.2	1.7	6.8	1.3	-1.4	4.0	1.8	-0.7	4.5
	Warm	-0.5	-1.9	0.9	-0.5	-2.0	1.1	-0.6	-2.4	1.3	0.5	-5.4	6.8	0.4	-2.4	3.3	0.8	-2.5	4.3
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.1	-1.6	1.8	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	1.5	-2.5	5.7	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	1.2	-2.0	4.5	1.9	-2.7	6.7	2.0	-0.7	4.7	1.0	-0.4	2.4	2.4	-0.5	5.5			
	Warm	-1.7	-4.2	0.9	-3.7	-7.9	0.8	7.4	0.2	15.0	0.7	-3.2	4.8	2.0	-2.4	6.7			
Canberra	Cool	-	-	-	-	-	-	1.6	-0.9	4.2	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	0.8	-3.6	5.5	-	-	-	-	-	-			
Christchurch	Cool	0.9	-3.4	5.5	0.5	-4.9	6.3	-	-	-	-	-	-	-0.5	-3.0	2.0			
	Warm	5.9	0.3	11.9	6.1	-1.3	14.0	-	-	-	-	-	-	-4.6	-12.5	3.9			
Melbourne	Cool	-	-	-	-	-	-	0.2	-1.1	1.5	-0.4	-2.1	1.4	-1.1	-3.7	1.6			
	Warm	-	-	-	-	-	-	-0.3	-2.0	1.4	-1.0	-3.3	1.3	-2.7	-5.1	-0.2			
Perth	Cool	-	-	-	-	-	-	1.9	-2.2	6.2	1.0	-2.7	4.9	0.2	-4.0	4.6			
	Warm	-	-	-	-	-	-	-0.4	-5.1	4.6	-1.2	-5.6	3.4	0.0	-4.2	4.4			
Sydney	Cool	1.0	-3.6	5.8	2.8	-3.4	9.3	1.0	-1.0	3.0	0.8	-0.8	2.4	0.5	-1.8	2.9			
	Warm	1.3	-3.4	6.3	0.4	-6.1	7.3	-1.1	-3.7	1.7	-1.2	-3.3	1.1	-0.9	-3.4	1.6			

Table WC.14 Cardiovascular admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	2.9	0.8	5.1	4.7	0.2	9.4	3.1	-0.7	7.0
	Warm	-	-	-	-	-	-	-	-	-	0.5	-2.1	3.1	4.0	0.7	7.4	1.9	-2.6	6.7
Brisbane	Cool	0.2	-2.5	3.0	0.2	-2.7	3.1	-0.7	-4.0	2.7	1.2	-0.4	2.8	1.9	-0.8	4.7	3.1	0.1	6.1
	Warm	0.4	-1.3	2.1	0.8	-1.1	2.7	1.5	-0.8	3.7	-0.5	-5.2	4.4	4.0	-0.8	9.0	4.8	-1.2	11.1
Canberra	Cool	-	-	-	-	-	-	-	-	-	1.9	-1.9	5.8	6.5	0.9	12.3	7.6	0.8	14.8
	Warm	-	-	-	-	-	-	-	-	-	-1.0	-10.5	9.6	-1.4	-6.1	3.5	-2.7	-9.5	4.6
Christchurch	Cool	-	-	-	-	-	-	-	-	-	0.7	-1.4	2.8	-3.7	-8.6	1.4	-4.0	-9.7	2.0
	Warm	-	-	-	-	-	-	-	-	-	5.3	-6.5	18.7	6.8	-1.6	15.9	6.0	-4.1	17.3
Melbourne	Cool	-3.8	-6.8	-0.8	-4.1	-6.8	-1.3	-4.9	-7.5	-2.3	2.3	1.1	3.4	3.6	1.6	5.5	3.9	2.1	5.7
	Warm	-0.0	-1.6	1.6	-0.1	-1.8	1.6	-0.2	-2.2	1.7	1.9	-1.4	5.3	2.2	0.4	3.9	3.0	0.9	5.2
Perth	Cool	1.9	-2.5	6.5	1.8	-2.6	6.3	-0.3	-4.5	4.0	5.1	1.7	8.7	3.4	0.3	6.6	5.4	1.4	9.7
	Warm	1.3	-0.8	3.5	1.4	-1.0	3.9	1.9	-1.0	4.9	0.1	-5.0	5.5	2.0	-0.9	4.8	3.3	-0.8	7.6
Sydney	Cool	0.2	-1.7	2.2	-0.2	-2.1	1.8	-1.5	-3.5	0.5	4.7	2.9	6.5	4.8	2.9	6.8	4.9	3.0	6.8
	Warm	-1.1	-2.2	-0.1	-1.2	-2.3	-0.1	-1.3	-2.6	0.0	3.0	-1.4	7.5	1.0	-1.1	3.1	-0.0	-2.4	2.5
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.1	-1.2	1.5	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	1.9	-1.4	5.3	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-0.4	-2.6	1.8	0.1	-2.9	3.3	-0.5	-2.3	1.3	-0.2	-1.1	0.8	-1.3	-3.2	0.8			
	Warm	0.6	-1.3	2.6	1.9	-1.5	5.3	5.2	0.0	10.7	6.3	3.3	9.4	3.0	-0.3	6.4			
Canberra	Cool	-	-	-	-	-	-	0.8	-1.5	3.2	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	2.8	-1.7	7.4	-	-	-	-	-	-			
Christchurch	Cool	1.8	-0.9	4.5	2.2	-1.1	5.7	-	-	-	-	-	-	0.0	-1.5	1.6			
	Warm	3.4	-0.2	7.1	3.2	-1.4	8.1	-	-	-	-	-	-	1.1	-4.2	6.8			
Melbourne	Cool	-	-	-	-	-	-	1.7	0.8	2.6	2.6	1.4	3.8	2.7	0.9	4.6			
	Warm	-	-	-	-	-	-	0.5	-0.6	1.7	0.5	-1.2	2.1	-1.6	-3.3	0.1			
Perth	Cool	-	-	-	-	-	-	3.1	0.5	5.8	2.9	0.5	5.3	2.2	-0.4	4.9			
	Warm	-	-	-	-	-	-	1.2	-2.1	4.5	1.7	-1.3	4.9	1.7	-1.3	4.7			
Sydney	Cool	7.1	3.8	10.6	10.4	5.8	15.2	3.1	1.7	4.5	2.4	1.3	3.5	2.4	0.7	4.1			
	Warm	1.4	-2.1	5.0	0.7	-4.1	5.7	-2.1	-4.0	-0.1	-1.7	-3.2	-0.1	-3.0	-4.8	-1.2			

Table WC.15 Asthma admissions 1-4 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	5.7	-1.7	13.6	10.7	-4.7	28.6	6.9	-5.9	21.4
	Warm	-	-	-	-	-	-	-	-	-	-13.3	-20.7	-5.1	-10.5	-19.8	-0.1	-23.8	-34.6	-11.2
Brisbane	Cool	6.3	-3.2	16.6	6.1	-3.9	17.2	6.8	-5.0	20.0	2.4	-3.0	8.1	1.1	-7.7	10.7	2.8	-7.0	13.7
	Warm	6.6	0.8	12.6	7.2	0.7	14.0	7.4	-0.3	15.7	19.9	2.2	40.8	20.6	3.0	41.3	38.0	14.1	66.8
Canberra	Cool	-	-	-	-	-	-	-	-	-	-3.1	-16.0	11.7	14.8	-9.2	45.1	14.5	-13.7	51.9
	Warm	-	-	-	-	-	-	-	-	-	-6.4	-33.3	31.3	-8.6	-23.0	8.5	-15.9	-35.3	9.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	6.7	0.2	13.7	11.5	-5.2	31.2	5.4	-13.3	28.0
	Warm	-	-	-	-	-	-	-	-	-	74.5	17.3	159.6	30.4	-1.9	73.2	19.2	-16.6	70.3
Melbourne	Cool	-13.8	-22.7	-3.8	-12.9	-21.2	-3.7	-11.3	-19.4	-2.3	-1.7	-5.6	2.4	-3.1	-9.3	3.6	-2.9	-8.7	3.4
	Warm	2.7	-2.7	8.5	3.6	-2.3	9.9	2.4	-4.3	9.5	-0.0	-10.4	11.6	1.7	-4.0	7.7	5.7	-1.4	13.2
Perth	Cool	-0.2	-12.4	13.7	-2.0	-13.9	11.6	-1.9	-13.7	11.5	-5.6	-14.7	4.5	-3.2	-11.7	6.3	-3.4	-14.4	8.9
	Warm	7.7	0.4	15.6	8.9	0.4	18.2	10.3	-0.0	21.6	10.5	-7.1	31.6	11.4	1.4	22.4	17.7	2.6	35.0
Sydney	Cool	-4.0	-9.7	2.1	-4.2	-9.9	1.7	-4.8	-10.8	1.6	-1.3	-6.1	3.8	-1.1	-6.6	4.7	-2.2	-7.4	3.4
	Warm	4.8	2.0	7.6	4.8	1.7	7.9	5.4	1.8	9.1	-5.1	-15.0	6.1	8.1	2.5	14.0	7.8	1.0	14.9
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-0.2	-4.6	4.5	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-2.9	-13.2	8.6	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-1.3	-8.0	5.9	3.7	-6.3	14.6	2.2	-4.3	9.1	1.6	-1.8	5.1	6.5	-0.8	14.2			
	Warm	3.6	-2.6	10.3	8.2	-2.7	20.2	-7.1	-23.2	12.3	-4.3	-13.6	6.0	-1.4	-12.0	10.4			
Canberra	Cool	-	-	-	-	-	-	-1.0	-9.4	8.2	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	5.6	-7.0	20.0	-	-	-	-	-	-			
Christchurch	Cool	10.1	0.9	20.2	12.6	0.9	25.7	-	-	-	-	-	-	4.8	0.1	9.6			
	Warm	16.5	3.4	31.4	11.1	-5.1	30.2	-	-	-	-	-	-	7.7	-11.2	30.8			
Melbourne	Cool	-	-	-	-	-	-	0.6	-2.5	3.7	-1.4	-5.4	2.9	-1.2	-7.2	5.2			
	Warm	-	-	-	-	-	-	3.5	-0.7	7.8	2.9	-2.8	8.9	-0.3	-6.2	5.9			
Perth	Cool	-	-	-	-	-	-	0.1	-7.5	8.3	-0.2	-7.0	7.2	1.2	-6.5	9.6			
	Warm	-	-	-	-	-	-	5.2	-5.7	17.4	8.8	-1.7	20.4	7.8	-2.0	18.7			
Sydney	Cool	2.3	-7.6	13.3	3.1	-10.0	18.1	-2.5	-6.5	1.8	-2.5	-5.8	0.9	-5.6	-10.3	-0.7			
	Warm	-5.9	-14.5	3.6	-4.8	-16.3	8.4	3.2	-2.3	9.1	4.5	0.0	9.2	4.1	-1.0	9.5			

Table WC.16 Asthma admissions 5-14 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	14.4	4.5	25.2	32.7	10.0	60.1	34.4	14.9	57.2
	Warm	-	-	-	-	-	-	-	-	-	2.3	-8.9	14.8	-0.5	-13.6	14.5	0.0	-18.4	22.6
Brisbane	Cool	-1.1	-10.8	9.6	0.0	-10.3	11.6	4.5	-8.0	18.8	-4.2	-9.5	1.5	-7.8	-16.3	1.5	-8.0	-17.3	2.3
	Warm	1.3	-5.3	8.3	1.1	-6.1	9.0	-0.2	-8.8	9.2	15.0	-5.4	39.7	13.5	-6.5	37.7	20.1	-4.7	51.5
Canberra	Cool	-	-	-	-	-	-	-	-	-	1.0	-16.7	22.5	1.8	-23.7	35.9	21.1	-13.9	70.2
	Warm	-	-	-	-	-	-	-	-	-	-9.6	-41.3	39.3	-3.6	-20.9	17.4	-2.7	-28.5	32.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.6	-10.3	7.9	-8.1	-26.4	14.9	9.5	-16.5	43.8
	Warm	-	-	-	-	-	-	-	-	-	13.3	-31.0	86.0	-3.1	-33.4	41.0	23.6	-21.4	94.5
Melbourne	Cool	-18.7	-29.2	-6.8	-17.1	-26.8	-6.0	-15.8	-25.4	-5.0	0.4	-4.4	5.4	-1.3	-9.0	7.1	3.7	-3.9	11.9
	Warm	-9.8	-15.6	-3.7	-8.9	-15.2	-2.2	-8.7	-15.9	-0.8	-3.3	-15.4	10.5	1.5	-5.3	8.8	1.3	-6.8	10.2
Perth	Cool	7.8	-7.3	25.4	8.9	-6.4	26.7	10.4	-5.1	28.5	4.4	-7.5	17.7	2.9	-7.4	14.3	-0.5	-13.3	14.2
	Warm	6.8	-2.4	17.0	7.0	-3.6	18.8	8.7	-4.1	23.2	13.4	-9.8	42.5	10.4	-2.2	24.5	11.2	-6.7	32.5
Sydney	Cool	8.3	0.2	16.9	8.0	0.0	16.5	7.5	-1.1	16.7	-0.3	-6.3	6.1	11.2	3.6	19.3	9.1	1.9	16.8
	Warm	8.1	4.5	11.7	8.5	4.6	12.6	10.3	5.7	15.1	19.4	4.0	37.1	18.3	10.7	26.4	21.5	12.1	31.7
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-0.7	-6.1	5.2	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	10.5	-5.2	28.8	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-2.6	-9.8	5.3	-7.0	-16.4	3.5	-4.3	-11.1	2.9	-2.0	-6.0	2.2	1.4	-6.1	9.5			
	Warm	-0.1	-7.4	7.7	0.3	-11.8	14.1	-1.9	-21.9	23.3	-3.8	-14.9	8.7	1.5	-11.6	16.6			
Canberra	Cool	-	-	-	-	-	-	-4.1	-15.0	8.1	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-17.6	-32.0	-0.1	-	-	-	-	-	-			
Christchurch	Cool	-3.3	-14.9	9.8	-1.6	-15.9	15.1	-	-	-	-	-	-	0.9	-5.9	8.1			
	Warm	7.4	-7.9	25.2	9.9	-10.5	34.9	-	-	-	-	-	-	3.6	-17.6	30.4			
Melbourne	Cool	-	-	-	-	-	-	0.6	-3.1	4.5	-0.7	-5.5	4.4	1.7	-5.8	9.7			
	Warm	-	-	-	-	-	-	-4.6	-10.1	1.4	-8.4	-15.1	-1.2	-10.6	-17.0	-3.6			
Perth	Cool	-	-	-	-	-	-	6.4	-2.8	16.6	4.6	-3.8	13.6	6.8	-2.6	17.2			
	Warm	-	-	-	-	-	-	-3.7	-17.2	11.9	7.9	-5.3	23.0	5.2	-6.8	18.8			
Sydney	Cool	15.8	2.2	31.2	10.1	-6.9	30.2	1.2	-4.0	6.7	1.6	-2.7	6.0	3.1	-3.2	9.7			
	Warm	16.0	3.3	30.2	32.1	13.0	54.4	8.6	1.5	16.3	12.2	6.4	18.3	10.0	3.3	17.1			

Table WC.17 Asthma admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	2.8	-2.3	8.1	-9.5	-19.0	1.0	-6.2	-14.6	2.9
	Warm	-	-	-	-	-	-	-	-	-	0.8	-6.6	8.8	0.1	-8.4	9.4	-1.7	-13.8	12.1
Brisbane	Cool	4.8	-2.5	12.8	4.8	-3.0	13.2	6.3	-2.8	16.3	-1.1	-4.9	2.9	2.1	-4.5	9.1	1.2	-5.9	8.8
	Warm	3.7	-1.4	9.1	4.7	-1.0	10.7	5.4	-1.4	12.6	6.9	-8.3	24.7	-0.0	-13.5	15.5	0.1	-16.1	19.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	-5.3	-17.5	8.7	13.1	-8.3	39.5	10.5	-14.6	43.0
	Warm	-	-	-	-	-	-	-	-	-	49.9	-3.1	131.9	36.3	11.2	67.2	27.9	-6.4	74.7
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.5	-7.2	4.7	5.2	-9.5	22.3	7.3	-10.7	28.9
	Warm	-	-	-	-	-	-	-	-	-	20.2	-17.7	75.8	-16.2	-36.3	10.4	-9.7	-35.8	27.0
Melbourne	Cool	-0.7	-9.4	8.7	-1.2	-9.0	7.3	-1.2	-8.7	6.9	1.7	-1.5	5.0	5.6	-0.0	11.6	5.5	0.2	11.0
	Warm	-4.9	-9.5	-0.2	-5.4	-10.2	-0.4	-6.9	-12.3	-1.1	10.6	0.6	21.7	5.0	-0.3	10.6	6.2	-0.2	13.0
Perth	Cool	2.4	-10.1	16.6	3.8	-8.8	18.1	1.7	-10.4	15.4	-5.2	-14.2	4.7	-2.0	-10.7	7.4	-0.8	-11.9	11.8
	Warm	6.0	-2.1	14.7	6.9	-2.4	17.1	7.5	-3.6	19.8	-15.6	-30.9	3.0	4.7	-5.8	16.5	1.7	-12.9	18.7
Sydney	Cool	-1.4	-6.8	4.2	-0.8	-6.0	4.8	0.2	-5.4	6.1	0.7	-3.6	5.1	2.4	-2.8	7.8	3.1	-1.9	8.3
	Warm	1.6	-1.3	4.6	1.9	-1.3	5.1	3.4	-0.3	7.3	-9.4	-19.3	1.7	-0.4	-5.9	5.3	-0.8	-7.3	6.2

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-2.8	-6.0	0.4	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-0.1	-9.4	10.2	-	-	-	-	-	-	-	-	-
Brisbane	Cool	0.3	-5.3	6.2	4.4	-3.3	12.8	6.0	1.3	10.9	1.4	-1.5	4.3	4.4	-1.0	10.0
	Warm	-1.4	-7.1	4.6	-4.6	-13.9	5.7	-13.1	-26.6	2.9	-5.1	-13.8	4.3	-7.4	-16.5	2.7
Canberra	Cool	-	-	-	-	-	-	0.8	-7.5	9.8	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	14.7	-1.2	33.2	-	-	-	-	-	-
Christchurch	Cool	2.1	-6.1	11.0	0.8	-9.3	12.2	-	-	-	-	-	-	-2.6	-6.8	1.7
	Warm	-1.1	-12.6	11.9	2.1	-13.0	19.7	-	-	-	-	-	-	6.4	-11.1	27.2
Melbourne	Cool	-	-	-	-	-	-	2.2	-0.4	4.8	3.8	0.4	7.4	2.4	-2.9	7.9
	Warm	-	-	-	-	-	-	1.2	-2.2	4.8	3.8	-1.1	8.9	6.7	1.2	12.5
Perth	Cool	-	-	-	-	-	-	0.1	-7.2	8.1	1.0	-5.8	8.3	-2.5	-9.8	5.3
	Warm	-	-	-	-	-	-	-5.1	-17.3	8.9	-0.4	-11.5	12.1	-1.5	-11.8	10.2
Sydney	Cool	3.0	-5.7	12.5	6.2	-5.6	19.4	3.3	-0.4	7.2	2.6	-0.4	5.7	2.7	-1.8	7.4
	Warm	2.9	-6.8	13.7	4.5	-8.8	19.7	-1.1	-6.5	4.5	2.2	-2.2	6.8	-2.2	-7.1	3.0

Table WC.18 Asthma admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	6.3	-7.8	22.6	4.6	-24.7	45.3	-1.4	-25.1	29.8
	Warm	-	-	-	-	-	-	-	-	-	-24.7	-39.0	-7.1	-7.7	-29.2	20.3	-17.1	-42.9	20.4
Brisbane	Cool	-1.6	-14.1	12.6	-3.3	-16.2	11.6	-6.1	-20.5	10.9	3.6	-4.3	12.1	1.6	-10.8	15.8	3.4	-10.4	19.3
	Warm	1.1	-8.3	11.5	0.9	-9.5	12.4	2.2	-10.1	16.2	25.3	-6.3	67.5	20.0	-9.3	58.8	6.7	-24.9	51.6
Canberra	Cool	-	-	-	-	-	-	-	-	-	-4.1	-24.6	22.0	-2.6	-30.3	36.2	-11.5	-40.5	31.7
	Warm	-	-	-	-	-	-	-	-	-	18.2	-42.8	144.4	25.1	-9.5	72.9	31.9	-19.9	117.4
Christchurch	Cool	-	-	-	-	-	-	-	-	-	1.1	-13.0	17.4	-18.8	-47.9	26.6	-26.7	-55.9	22.0
	Warm	-	-	-	-	-	-	-	-	-	144.8	-3.4	520.4	130.9	7.2	397.3	219.7	21.0	744.3
Melbourne	Cool	-13.1	-26.0	2.0	-14.0	-25.6	-0.5	-13.0	-24.4	0.0	1.5	-4.1	7.5	-5.8	-14.6	3.9	-2.9	-11.3	6.3
	Warm	3.0	-6.0	12.9	3.9	-5.8	14.7	6.6	-4.8	19.3	18.7	-2.0	43.8	11.6	0.9	23.5	14.1	0.9	29.0
Perth	Cool	3.7	-16.6	28.9	1.7	-18.1	26.2	0.6	-18.5	24.3	-10.8	-24.7	5.8	2.4	-12.5	19.8	-2.4	-20.5	19.7
	Warm	-0.1	-11.3	12.4	-0.2	-13.0	14.6	0.1	-15.2	18.2	-24.3	-43.3	1.2	-3.0	-17.3	13.8	-9.3	-28.3	14.7
Sydney	Cool	2.4	-7.0	12.7	2.0	-7.1	12.0	0.4	-9.0	10.7	0.9	-6.5	9.0	2.7	-6.4	12.7	3.9	-4.8	13.2
	Warm	-1.5	-6.7	3.9	-1.6	-7.3	4.4	-1.9	-8.5	5.2	-6.5	-25.2	16.9	-12.8	-22.0	-2.6	-15.1	-25.8	-2.9
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	2.8	-6.9	13.4	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-1.2	-22.4	25.8	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	0.6	-10.0	12.5	-3.3	-17.3	12.9	-4.7	-13.1	4.5	-2.0	-7.5	3.9	-5.6	-14.9	4.8			
	Warm	10.5	-1.4	23.9	13.9	-6.7	39.1	-36.2	-53.7	-12.0	-18.7	-32.5	-1.9	-21.9	-36.4	-4.0			
Canberra	Cool	-	-	-	-	-	-	-6.9	-18.6	6.5	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-2.7	-32.3	39.7	-	-	-	-	-	-			
Christchurch	Cool	5.3	-14.8	30.1	0.4	-22.1	29.2	-	-	-	-	-	-	5.8	-5.9	18.9			
	Warm	26.3	-9.2	75.7	22.1	-21.7	90.4	-	-	-	-	-	-	140.7	42.1	308.0			
Melbourne	Cool	-	-	-	-	-	-	1.0	-3.4	5.5	0.9	-4.9	7.0	0.4	-8.4	10.1			
	Warm	-	-	-	-	-	-	2.3	-4.4	9.5	5.9	-3.6	16.4	5.6	-4.5	16.8			
Perth	Cool	-	-	-	-	-	-	-4.5	-16.2	8.8	-6.6	-17.5	5.8	-8.6	-20.0	4.4			
	Warm	-	-	-	-	-	-	13.4	-6.1	36.9	-0.2	-16.5	19.3	-1.6	-16.9	16.6			
Sydney	Cool	11.0	-5.4	30.2	-0.1	-19.1	23.4	3.7	-2.9	10.8	1.8	-3.4	7.4	2.0	-5.7	10.4			
	Warm	-13.1	-27.8	4.5	-11.2	-31.2	14.7	-2.5	-12.2	8.2	-2.8	-10.6	5.7	-2.1	-10.9	7.5			

Table WC.19 COPD admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-3.6	-9.6	2.8	-1.7	-14.4	12.9	-4.5	-15.1	7.4
	Warm	-	-	-	-	-	-	-	-	-	-1.4	-10.4	8.6	6.0	-5.3	18.8	4.5	-11.8	23.7
Brisbane	Cool	19.9	7.6	33.7	23.2	9.7	38.4	32.4	15.6	51.6	-3.2	-9.3	3.3	-4.4	-14.2	6.5	-5.9	-16.2	5.7
	Warm	2.0	-5.6	10.1	2.4	-5.9	11.6	3.1	-6.8	14.0	18.3	-3.8	45.4	15.2	-6.4	41.8	11.6	-14.0	44.8
Canberra	Cool	-	-	-	-	-	-	-	-	-	-6.9	-23.3	13.0	-10.7	-31.5	16.4	-10.4	-34.1	22.0
	Warm	-	-	-	-	-	-	-	-	-	28.8	-28.1	130.7	4.3	-21.5	38.6	8.9	-28.8	66.6
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-0.3	-6.7	6.4	-10.9	-24.5	5.1	-7.7	-23.9	11.9
	Warm	-	-	-	-	-	-	-	-	-	33.9	-14.2	108.9	15.4	-15.7	58.1	8.5	-26.3	59.6
Melbourne	Cool	-4.5	-15.6	8.1	-5.0	-15.2	6.3	-6.9	-16.5	3.7	2.3	-2.3	7.0	-1.1	-8.4	6.7	2.9	-4.1	10.4
	Warm	-2.6	-9.2	4.4	-2.2	-9.2	5.4	-3.2	-11.1	5.4	-7.4	-20.4	7.8	-0.2	-7.5	7.7	-0.3	-9.1	9.4
Perth	Cool	-1.7	-19.1	19.4	-2.7	-19.9	18.2	-7.3	-23.3	12.0	10.0	-5.4	27.9	8.0	-5.7	23.7	15.2	-3.1	37.1
	Warm	-1.0	-11.1	10.2	-1.1	-12.6	11.8	0.2	-13.5	16.0	-18.6	-38.8	8.4	0.8	-12.6	16.3	-8.6	-26.2	13.1
Sydney	Cool	2.6	-4.6	10.3	1.8	-5.2	9.3	1.1	-6.3	9.1	-1.6	-7.7	5.0	1.7	-5.2	9.1	3.2	-3.5	10.3
	Warm	2.8	-1.5	7.4	3.2	-1.6	8.2	4.0	-1.6	9.9	7.6	-10.8	29.9	2.6	-6.0	11.9	7.9	-2.8	19.8

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	2.9	-1.0	7.0	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-9.3	-20.1	2.9	-	-	-	-	-	-	-	-	-
Brisbane	Cool	0.6	-7.9	9.9	-8.5	-19.6	4.2	3.9	-2.8	11.1	-0.2	-4.0	3.8	1.2	-6.3	9.3
	Warm	-7.1	-14.9	1.4	-4.9	-18.4	10.9	-1.3	-20.8	23.0	-0.9	-12.4	12.2	2.4	-11.0	17.8
Canberra	Cool	-	-	-	-	-	-	-8.0	-18.1	3.4	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-18.4	-44.4	20.0	-	-	-	-	-	-
Christchurch	Cool	6.3	-2.1	15.3	4.8	-5.3	16.0	-	-	-	-	-	-	3.3	-1.3	8.1
	Warm	2.1	-10.7	16.7	-0.0	-16.2	19.3	-	-	-	-	-	-	-5.2	-22.8	16.5
Melbourne	Cool	-	-	-	-	-	-	2.9	-0.7	6.6	2.2	-2.6	7.2	3.2	-4.0	11.0
	Warm	-	-	-	-	-	-	-1.3	-6.3	4.1	-2.4	-9.4	5.2	-5.8	-13.0	2.0
Perth	Cool	-	-	-	-	-	-	7.3	-4.1	20.0	9.6	-1.0	21.3	2.3	-8.9	15.0
	Warm	-	-	-	-	-	-	8.5	-6.6	26.1	9.9	-5.5	27.7	10.5	-4.7	28.0
Sydney	Cool	7.9	-3.9	21.2	8.8	-7.0	27.4	0.7	-4.4	6.0	0.8	-3.3	5.1	0.1	-5.9	6.4
	Warm	24.5	7.2	44.5	23.7	0.5	52.2	10.2	2.6	18.4	10.5	3.8	17.6	3.4	-4.3	11.6

Table WC.20 COPD admissions 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	4.5	0.1	9.2	-3.3	-12.2	6.4	-5.1	-12.5	3.0
	Warm	-	-	-	-	-	-	-	-	-	-3.7	-10.1	3.1	0.2	-8.1	9.2	2.8	-8.9	15.9
Brisbane	Cool	3.9	-2.2	10.4	4.9	-1.7	11.9	7.1	-0.6	15.4	-0.1	-3.6	3.4	4.9	-1.1	11.3	5.3	-1.3	12.3
	Warm	6.0	1.6	10.6	6.6	1.7	11.8	7.9	2.0	14.1	1.2	-10.4	14.3	9.3	-3.2	23.3	5.3	-9.6	22.6
Canberra	Cool	-	-	-	-	-	-	-	-	-	-6.2	-15.1	3.7	-3.0	-15.9	11.7	-9.7	-23.7	6.8
	Warm	-	-	-	-	-	-	-	-	-	-26.4	-46.4	1.1	-8.5	-20.9	6.0	-17.9	-34.4	2.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.8	-5.8	2.5	4.4	-5.8	15.7	8.9	-3.6	23.1
	Warm	-	-	-	-	-	-	-	-	-	8.3	-21.0	48.3	-2.6	-21.5	20.7	7.9	-17.3	40.7
Melbourne	Cool	-1.0	-7.3	5.8	-1.5	-7.3	4.6	-2.5	-8.0	3.3	2.5	0.1	5.1	4.9	0.6	9.2	4.3	0.4	8.3
	Warm	-1.2	-5.1	2.8	-0.8	-5.0	3.5	-0.9	-5.6	4.1	-7.1	-14.8	1.2	0.3	-4.0	4.7	-2.2	-7.3	3.1
Perth	Cool	-10.2	-17.9	-1.7	-10.1	-17.8	-1.7	-10.3	-17.7	-2.1	-4.6	-11.0	2.3	-1.4	-7.4	5.0	-0.4	-8.1	8.0
	Warm	-4.3	-9.1	0.9	-4.6	-10.1	1.3	-4.6	-11.2	2.5	-4.0	-16.2	10.0	-8.5	-14.6	-1.9	-11.6	-20.4	-1.9
Sydney	Cool	-2.7	-6.5	1.2	-2.5	-6.2	1.3	-1.9	-5.9	2.2	0.5	-2.9	4.1	0.9	-2.9	4.8	2.4	-1.2	6.1
	Warm	0.2	-2.2	2.6	-0.1	-2.7	2.6	-0.5	-3.6	2.6	6.5	-4.2	18.4	1.8	-3.0	6.9	1.7	-4.1	7.8
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.1	-2.7	3.0	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	2.5	-6.0	11.8	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	1.8	-3.1	7.0	4.0	-3.2	11.7	4.4	0.7	8.2	1.6	-0.4	3.6	2.2	-2.2	6.6			
	Warm	3.3	-1.6	8.4	3.3	-5.1	12.5	2.1	-9.4	15.1	-0.4	-7.0	6.6	-1.8	-9.5	6.5			
Canberra	Cool	-	-	-	-	-	-	-2.5	-8.1	3.5	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-4.4	-16.4	9.4	-	-	-	-	-	-			
Christchurch	Cool	1.6	-3.7	7.2	3.7	-2.9	10.8	-	-	-	-	-	-	-1.9	-4.9	1.1			
	Warm	5.1	-4.2	15.4	1.7	-9.8	14.7	-	-	-	-	-	-	16.2	1.0	33.8			
Melbourne	Cool	-	-	-	-	-	-	1.5	-0.4	3.4	2.1	-0.5	4.7	0.2	-3.7	4.2			
	Warm	-	-	-	-	-	-	-0.3	-3.2	2.6	-0.5	-4.6	3.7	-1.8	-6.1	2.7			
Perth	Cool	-	-	-	-	-	-	-0.1	-5.3	5.3	0.1	-4.5	5.0	-1.8	-7.0	3.7			
	Warm	-	-	-	-	-	-	0.9	-6.4	8.8	-2.1	-9.0	5.5	-4.9	-11.5	2.3			
Sydney	Cool	1.2	-5.0	7.7	-0.1	-8.3	8.7	0.7	-2.0	3.5	0.8	-1.4	3.1	1.2	-2.1	4.6			
	Warm	0.4	-7.7	9.3	-3.5	-14.2	8.5	1.5	-2.7	6.0	2.7	-0.9	6.5	0.9	-3.4	5.3			

Table WC.21 Pneumonia + acute bronchitis 0 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-2.1	-5.7	1.6	-10.5	-17.6	-2.9	-8.5	-14.7	-1.9
	Warm	-	-	-	-	-	-	-	-	-	0.0	-7.8	8.5	3.9	-6.9	16.0	4.0	-10.9	21.4
Brisbane	Cool	-3.2	-11.8	6.2	-3.2	-12.2	6.8	-1.4	-12.0	10.4	-1.0	-5.5	3.8	-1.7	-9.4	6.7	-0.2	-8.7	9.1
	Warm	1.9	-6.5	11.0	1.9	-7.4	12.1	0.8	-10.0	12.9	-2.9	-23.8	23.7	-2.8	-23.8	24.0	-2.2	-26.9	30.9
Canberra	Cool	-	-	-	-	-	-	-	-	-	5.7	-5.9	18.7	5.6	-11.1	25.4	11.6	-10.0	38.3
	Warm	-	-	-	-	-	-	-	-	-	13.7	-35.9	101.6	3.5	-26.5	45.7	-6.2	-43.3	55.2
Christchurch	Cool	-	-	-	-	-	-	-	-	-	2.4	-2.2	7.4	12.2	-0.5	26.6	12.2	-2.6	29.4
	Warm	-	-	-	-	-	-	-	-	-	-41.4	-75.8	41.8	-1.8	-41.7	65.1	5.3	-44.5	99.6
Melbourne	Cool	-2.5	-12.1	8.2	-3.1	-11.8	6.5	-5.0	-13.2	4.0	1.9	-2.0	6.0	5.5	-1.2	12.8	5.4	-0.7	11.9
	Warm	7.0	-4.5	19.7	7.9	-4.4	21.7	9.7	-4.5	26.2	7.2	-14.3	34.2	13.6	0.9	28.0	10.3	-4.4	27.2
Perth	Cool	-16.6	-26.6	-5.3	-16.2	-26.0	-5.1	-17.9	-27.1	-7.7	-8.9	-17.2	0.2	-4.6	-12.7	4.2	-0.3	-11.0	11.8
	Warm	9.1	-4.5	24.5	8.6	-6.7	26.5	10.4	-8.1	32.5	-2.1	-29.4	35.7	11.7	-6.0	32.8	10.7	-14.3	42.8
Sydney	Cool	-0.5	-6.3	5.5	-1.4	-6.9	4.4	-2.5	-8.2	3.5	2.4	-1.8	6.8	4.1	-1.4	9.9	4.6	-0.5	10.0
	Warm	-0.3	-5.1	4.6	0.3	-4.9	5.7	0.3	-5.7	6.6	30.6	9.2	56.3	13.3	3.9	23.5	15.0	3.7	27.6
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-3.4	-5.8	-0.9	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	5.6	-5.4	17.8	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	2.3	-4.6	9.7	1.2	-7.9	11.2	3.5	-2.1	9.4	0.4	-2.8	3.8	0.1	-6.1	6.7			
	Warm	5.9	-3.8	16.5	6.6	-9.9	26.1	-17.7	-36.7	6.9	-1.3	-14.1	13.5	-4.2	-18.8	13.1			
Canberra	Cool	-	-	-	-	-	-	2.9	-3.5	9.7	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-16.4	-40.5	17.4	-	-	-	-	-	-			
Christchurch	Cool	4.9	-1.7	12.0	6.4	-1.9	15.3	-	-	-	-	-	-	1.3	-1.9	4.6			
	Warm	11.1	-10.6	38.1	15.8	-12.8	53.9	-	-	-	-	-	-	-13.6	-39.4	23.1			
Melbourne	Cool	-	-	-	-	-	-	1.3	-1.6	4.2	2.2	-1.7	6.2	2.8	-3.3	9.4			
	Warm	-	-	-	-	-	-	-2.2	-10.5	6.8	-0.4	-11.5	12.1	-4.0	-15.8	9.3			
Perth	Cool	-	-	-	-	-	-	0.5	-6.5	7.9	0.1	-6.5	7.1	-0.9	-8.0	6.7			
	Warm	-	-	-	-	-	-	8.9	-8.6	29.8	14.9	-3.6	37.0	19.2	-0.5	42.9			
Sydney	Cool	-1.6	-10.1	7.8	-1.6	-12.7	10.9	1.9	-1.8	5.6	1.3	-1.7	4.3	0.6	-3.8	5.2			
	Warm	2.9	-13.2	22.0	4.2	-16.9	30.8	-1.7	-10.5	7.9	2.1	-5.0	9.6	1.8	-6.7	11.1			

Table WC.22 Pneumonia + acute bronchitis 1-4 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-1.8	-6.7	3.4	11.9	-0.5	25.9	3.6	-6.1	14.3
	Warm	-	-	-	-	-	-	-	-	-	-1.7	-11.9	9.7	-0.8	-13.4	13.7	-1.8	-19.3	19.4
Brisbane	Cool	-3.6	-14.0	8.1	-4.1	-14.9	8.2	-7.6	-19.7	6.2	2.0	-4.1	8.5	3.8	-6.4	15.1	9.0	-2.7	22.1
	Warm	4.6	-4.0	14.0	6.6	-3.1	17.3	8.3	-3.3	21.2	-7.5	-29.0	20.7	14.2	-11.1	46.7	27.9	-5.8	73.6
Canberra	Cool	-	-	-	-	-	-	-	-	-	-6.3	-17.6	6.6	-14.2	-28.5	3.1	-5.9	-24.1	16.6
	Warm	-	-	-	-	-	-	-	-	-	-24.1	-54.3	26.1	-10.3	-31.6	17.7	-8.8	-39.8	38.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	1.0	-5.4	7.8	14.0	-3.3	34.3	21.9	0.0	48.6
	Warm	-	-	-	-	-	-	-	-	-	-7.4	-57.2	100.7	15.2	-28.5	85.5	16.1	-36.9	113.6
Melbourne	Cool	-5.9	-17.9	7.8	-6.0	-16.9	6.4	-5.5	-16.0	6.3	1.3	-3.7	6.4	-1.1	-9.2	7.6	2.4	-5.2	10.7
	Warm	1.6	-8.8	13.1	1.9	-9.1	14.2	4.5	-8.4	19.1	-8.8	-26.4	13.2	3.4	-7.6	15.7	1.0	-11.7	15.6
Perth	Cool	-8.7	-23.4	8.9	-11.2	-25.3	5.6	-11.5	-25.1	4.5	-0.4	-12.9	13.9	13.4	0.4	28.0	14.2	-2.3	33.5
	Warm	-1.9	-14.2	12.2	-2.9	-16.6	13.2	-3.2	-19.4	16.1	-6.7	-32.9	29.9	6.9	-9.9	26.9	-2.2	-24.0	25.9
Sydney	Cool	5.4	-1.7	13.0	4.6	-2.3	11.9	3.3	-3.8	11.0	3.0	-2.3	8.6	7.2	0.3	14.6	2.8	-3.4	9.4
	Warm	3.2	-1.9	8.6	3.9	-1.7	9.8	5.2	-1.4	12.2	13.4	-7.3	38.8	11.4	1.4	22.3	10.0	-1.8	23.2

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-1.0	-4.3	2.4	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-1.4	-14.6	13.7	-	-	-	-	-	-	-	-	-
Brisbane	Cool	6.1	-2.7	15.7	3.7	-8.3	17.4	-0.7	-7.5	6.7	-0.5	-4.3	3.4	-4.2	-11.7	4.0
	Warm	9.2	-0.8	20.2	14.3	-3.6	35.6	30.9	1.7	68.5	13.3	-1.9	30.9	10.1	-6.7	29.9
Canberra	Cool	-	-	-	-	-	-	-3.1	-9.6	3.9	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-2.6	-21.7	21.3	-	-	-	-	-	-
Christchurch	Cool	0.8	-7.9	10.4	-1.7	-12.3	10.1	-	-	-	-	-	-	0.1	-4.2	4.6
	Warm	15.8	-5.9	42.6	1.4	-22.5	32.7	-	-	-	-	-	-	-2.5	-30.9	37.6
Melbourne	Cool	-	-	-	-	-	-	2.1	-1.7	6.0	1.5	-3.6	6.9	2.5	-5.4	11.1
	Warm	-	-	-	-	-	-	-3.3	-11.2	5.2	-4.7	-14.9	6.7	-3.3	-14.2	9.0
Perth	Cool	-	-	-	-	-	-	4.4	-5.7	15.6	3.9	-5.3	14.0	1.9	-8.1	13.0
	Warm	-	-	-	-	-	-	-9.8	-27.2	11.8	-8.5	-24.4	10.8	-12.0	-27.2	6.4
Sydney	Cool	9.2	-2.1	21.8	14.1	-1.4	31.9	6.2	1.5	11.1	4.3	0.5	8.2	4.6	-1.0	10.6
	Warm	10.9	-7.1	32.4	17.0	-7.9	48.8	8.5	-0.5	18.2	9.5	2.0	17.5	15.0	5.2	25.7

Table WC.23 Pneumonia + acute bronchitis 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-0.4	-5.2	4.6	6.9	-4.0	19.1	5.1	-4.0	15.1
	Warm	-	-	-	-	-	-	-	-	-	0.1	-7.3	8.0	-11.2	-20.0	-1.4	-18.8	-29.3	-6.9
Brisbane	Cool	7.5	-1.3	17.2	8.0	-1.4	18.3	7.6	-3.2	19.7	-1.0	-5.9	4.1	0.1	-7.8	8.7	-0.1	-8.7	9.3
	Warm	4.7	-1.3	11.0	4.9	-1.7	12.0	6.6	-1.3	15.1	-5.4	-20.7	12.9	-10.5	-24.6	6.1	-15.7	-31.8	4.2
Canberra	Cool	-	-	-	-	-	-	-	-	-	-14.8	-25.2	-3.0	-5.6	-21.0	12.9	-8.0	-25.3	13.4
	Warm	-	-	-	-	-	-	-	-	-	-0.2	-30.6	43.6	16.6	-2.0	38.7	17.8	-9.5	53.4
Christchurch	Cool	-	-	-	-	-	-	-	-	-	0.0	-6.5	7.0	5.5	-10.6	24.6	4.3	-14.5	27.3
	Warm	-	-	-	-	-	-	-	-	-	35.7	-15.9	118.9	40.3	-0.5	97.9	55.7	1.5	138.9
Melbourne	Cool	-3.6	-12.4	6.1	-4.0	-12.0	4.7	-5.2	-12.8	3.0	-0.2	-3.6	3.3	3.1	-2.7	9.3	4.0	-1.5	9.8
	Warm	-0.4	-5.3	4.7	-0.2	-5.4	5.2	-0.3	-6.2	6.0	-0.3	-10.6	11.1	-1.7	-7.0	3.9	-0.7	-7.1	6.2
Perth	Cool	0.7	-13.0	16.6	1.0	-12.8	17.0	-0.8	-14.2	14.6	-3.7	-14.4	8.3	5.2	-5.1	16.7	0.9	-11.7	15.4
	Warm	10.6	2.1	19.8	11.3	1.5	22.1	13.2	1.3	26.4	-6.1	-24.2	16.2	7.3	-4.0	20.0	2.7	-12.7	20.9
Sydney	Cool	-9.2	-14.8	-3.3	-9.7	-15.1	-3.9	-11.2	-16.9	-5.2	4.3	-1.0	9.9	0.6	-5.3	6.9	4.1	-1.7	10.2
	Warm	-0.6	-4.2	3.0	-0.5	-4.4	3.5	-1.0	-5.5	3.7	11.9	-4.0	30.5	1.2	-5.8	8.8	2.2	-6.4	11.6

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	1.5	-1.6	4.7	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	4.8	-5.1	15.7	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.2	-5.8	8.6	0.4	-9.2	11.0	1.5	-3.9	7.1	-1.0	-4.2	2.2	-3.4	-9.4	2.9
	Warm	-1.1	-7.7	6.1	-2.7	-13.8	9.9	-18.9	-32.2	-3.1	-8.9	-17.7	0.8	-12.2	-21.8	-1.5
Canberra	Cool	-	-	-	-	-	-	-4.9	-11.7	2.3	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	4.6	-6.7	17.2	-	-	-	-	-	-
Christchurch	Cool	-0.9	-9.1	8.1	-3.5	-13.4	7.5	-	-	-	-	-	-	3.6	-1.2	8.7
	Warm	1.5	-12.7	18.0	-5.9	-22.7	14.6	-	-	-	-	-	-	45.2	16.2	81.3
Melbourne	Cool	-	-	-	-	-	-	1.2	-1.5	4.0	1.1	-2.5	4.9	-1.0	-6.5	4.7
	Warm	-	-	-	-	-	-	-2.5	-6.2	1.4	-2.5	-7.6	2.8	-2.8	-8.1	2.8
Perth	Cool	-	-	-	-	-	-	1.9	-6.8	11.3	2.1	-5.8	10.7	1.2	-7.6	10.8
	Warm	-	-	-	-	-	-	13.2	2.2	25.3	11.8	0.2	24.7	7.2	-3.9	19.5
Sydney	Cool	-0.6	-10.2	10.0	7.3	-6.1	22.7	3.2	-1.2	7.8	1.0	-2.5	4.6	2.7	-2.5	8.3
	Warm	-5.8	-16.9	6.8	-0.0	-15.8	18.7	6.0	-0.6	13.1	2.7	-2.8	8.4	1.2	-5.2	7.9

Table WC.24 Pneumonia + acute bronchitis 65+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-4.1	-8.5	0.4	-3.0	-12.3	7.3	-1.6	-9.7	7.2
	Warm	-	-	-	-	-	-	-	-	-	1.3	-5.3	8.3	2.2	-6.6	11.7	3.3	-8.6	16.7
Brisbane	Cool	6.1	-1.0	13.7	6.1	-1.4	14.1	6.3	-2.4	15.8	-0.6	-4.6	3.5	4.4	-2.4	11.7	6.1	-1.4	14.2
	Warm	-0.3	-5.3	4.8	-0.3	-5.7	5.5	-0.4	-6.8	6.4	6.9	-7.7	23.9	7.9	-6.3	24.3	-2.7	-18.5	16.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-6.5	-16.1	4.2	-11.7	-23.8	2.3	-17.6	-31.1	-1.4
	Warm	-	-	-	-	-	-	-	-	-	-13.2	-37.5	20.4	-16.3	-28.1	-2.6	-21.4	-37.7	-0.8
Christchurch	Cool	-	-	-	-	-	-	-	-	-	1.7	-3.4	7.0	0.7	-11.7	14.8	6.4	-9.0	24.3
	Warm	-	-	-	-	-	-	-	-	-	36.1	-6.9	98.8	-5.2	-26.5	22.4	20.1	-12.6	65.2
Melbourne	Cool	0.1	-6.5	7.1	-0.5	-6.5	5.9	-0.7	-6.4	5.4	0.8	-1.7	3.3	0.7	-3.4	4.9	1.5	-2.3	5.5
	Warm	-0.7	-4.4	3.1	-0.3	-4.2	3.8	-0.6	-5.0	4.1	-5.2	-12.6	2.7	-1.7	-5.7	2.4	-2.5	-7.3	2.5
Perth	Cool	-1.0	-11.5	10.8	0.5	-10.2	12.5	3.5	-7.4	15.6	-3.8	-12.0	5.2	-2.9	-10.3	5.1	-3.7	-13.2	6.7
	Warm	-2.7	-9.1	4.1	-2.4	-9.7	5.5	-1.7	-10.4	7.9	-7.8	-22.1	9.2	-0.8	-9.3	8.4	-3.3	-15.3	10.4
Sydney	Cool	-1.4	-5.8	3.1	-1.7	-5.9	2.7	-2.4	-6.9	2.3	4.3	0.4	8.5	5.6	1.0	10.3	6.7	2.4	11.3
	Warm	-1.2	-3.9	1.6	-1.4	-4.4	1.7	-1.4	-4.9	2.2	8.9	-3.5	22.9	-0.5	-6.0	5.3	-0.4	-6.9	6.6

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	1.3	-1.8	4.5	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-4.4	-12.3	4.3	-	-	-	-	-	-	-	-	-
Brisbane	Cool	3.0	-2.7	9.0	-0.2	-7.9	8.3	2.0	-2.4	6.5	2.5	0.1	4.9	3.4	-1.8	8.7
	Warm	1.9	-3.9	8.1	-0.4	-10.2	10.4	-2.7	-16.0	12.8	5.2	-3.3	14.4	-3.0	-11.9	6.8
Canberra	Cool	-	-	-	-	-	-	2.5	-3.4	8.8	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	1.6	-10.0	14.7	-	-	-	-	-	-
Christchurch	Cool	3.3	-3.5	10.5	5.5	-2.9	14.8	-	-	-	-	-	-	1.3	-2.4	5.1
	Warm	-4.4	-14.9	7.5	-13.1	-25.4	1.1	-	-	-	-	-	-	7.0	-9.8	27.0
Melbourne	Cool	-	-	-	-	-	-	0.9	-1.1	2.8	1.0	-1.6	3.6	1.8	-2.2	5.9
	Warm	-	-	-	-	-	-	-2.4	-5.2	0.5	-1.9	-5.7	2.1	-1.0	-5.1	3.2
Perth	Cool	-	-	-	-	-	-	-0.3	-6.8	6.8	-1.5	-7.4	4.8	-3.9	-10.4	3.0
	Warm	-	-	-	-	-	-	4.4	-5.1	14.8	3.6	-5.7	13.8	1.0	-8.1	11.0
Sydney	Cool	8.8	1.3	16.9	17.3	6.5	29.2	2.8	-0.4	6.1	3.9	1.3	6.6	6.8	2.8	10.8
	Warm	2.1	-7.3	12.6	-0.6	-13.2	13.7	-2.0	-6.8	3.1	-0.7	-4.8	3.5	-3.0	-7.7	2.0

Table WC.25 Respiratory admissions 0 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-0.8	-4.1	2.7	-7.2	-13.9	0.0	-5.4	-11.2	0.8
	Warm	-	-	-	-	-	-	-	-	-	-3.4	-9.9	3.6	-6.2	-15.0	3.5	-8.5	-19.6	4.2
Brisbane	Cool	0.2	-7.1	8.1	0.1	-7.5	8.5	1.2	-7.7	11.0	0.8	-3.2	4.9	4.1	-2.9	11.5	6.3	-1.4	14.7
	Warm	-3.1	-9.0	3.2	-3.9	-10.4	3.1	-5.1	-12.6	3.1	-11.6	-26.1	5.6	-6.9	-21.8	10.9	-8.7	-26.0	12.8
Canberra	Cool	-	-	-	-	-	-	-	-	-	-1.2	-10.6	9.2	-3.4	-16.6	11.9	-2.2	-18.4	17.2
	Warm	-	-	-	-	-	-	-	-	-	5.4	-27.7	53.5	3.7	-15.4	27.2	-1.2	-27.2	34.1
Christchurch	Cool	-	-	-	-	-	-	-	-	-	1.1	-2.8	5.1	9.2	-1.1	20.7	11.0	-1.3	24.8
	Warm	-	-	-	-	-	-	-	-	-	-27.3	-52.8	12.0	-5.0	-28.1	25.5	7.7	-23.1	50.9
Melbourne	Cool	-2.6	-10.9	6.4	-2.4	-9.9	5.7	-3.6	-10.7	4.1	1.2	-2.1	4.6	2.3	-3.3	8.1	2.3	-2.8	7.6
	Warm	7.2	-0.5	15.4	7.8	-0.4	16.7	8.9	-0.6	19.2	1.5	-12.3	17.6	12.0	3.7	21.0	9.6	-0.0	20.2
Perth	Cool	-14.0	-22.7	-4.3	-12.8	-21.5	-3.2	-13.6	-21.8	-4.5	-6.4	-13.6	1.5	-5.4	-12.2	1.9	-2.3	-11.2	7.5
	Warm	-1.7	-9.5	6.8	-2.1	-11.0	7.5	-2.0	-12.5	9.7	-3.9	-21.1	16.9	3.8	-6.7	15.5	4.6	-10.3	22.0
Sydney	Cool	-2.3	-7.0	2.6	-3.0	-7.5	1.7	-4.9	-9.6	0.0	3.4	-0.3	7.2	5.6	0.8	10.5	6.3	1.8	10.9
	Warm	0.9	-2.5	4.5	1.5	-2.3	5.4	2.2	-2.1	6.8	24.5	8.7	42.6	9.9	3.0	17.2	11.2	2.8	20.2
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-3.7	-5.9	-1.5	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	3.5	-5.5	13.5	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	4.2	-1.7	10.4	2.8	-5.2	11.3	6.3	1.6	11.2	2.0	-0.6	4.6	2.3	-3.0	7.9			
	Warm	1.2	-5.7	8.5	-1.8	-13.3	11.1	-11.6	-26.9	6.8	-5.1	-14.5	5.3	-5.9	-16.5	6.1			
Canberra	Cool	-	-	-	-	-	-	3.3	-2.2	9.1	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	4.3	-9.7	20.6	-	-	-	-	-	-			
Christchurch	Cool	3.2	-2.2	8.8	3.7	-2.9	10.8	-	-	-	-	-	-	-0.3	-3.0	2.4			
	Warm	6.1	-5.6	19.2	15.5	-0.8	34.4	-	-	-	-	-	-	3.9	-13.6	25.0			
Melbourne	Cool	-	-	-	-	-	-	0.8	-1.7	3.3	1.4	-1.9	4.8	1.3	-3.9	6.7			
	Warm	-	-	-	-	-	-	0.4	-4.9	5.9	4.0	-3.2	11.7	-0.4	-8.2	8.0			
Perth	Cool	-	-	-	-	-	-	0.7	-5.3	7.0	0.1	-5.5	6.0	0.0	-6.0	6.5			
	Warm	-	-	-	-	-	-	-2.3	-14.5	11.7	3.6	-8.0	16.5	0.3	-10.4	12.3			
Sydney	Cool	2.0	-5.6	10.1	3.8	-6.3	14.9	2.8	-0.4	6.0	2.2	-0.3	4.8	2.3	-1.6	6.3			
	Warm	2.9	-8.7	16.1	3.5	-12.1	21.8	2.6	-3.8	9.4	4.1	-1.1	9.6	3.3	-2.9	10.0			

Table WC.26 Respiratory admissions 1-4 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	0.7	-2.8	4.3	7.8	-0.3	16.5	1.9	-4.6	8.8
	Warm	-	-	-	-	-	-	-	-	-	-5.1	-10.5	0.6	-7.4	-14.0	-0.3	-14.4	-22.9	-5.0
Brisbane	Cool	2.1	-3.5	8.0	3.0	-3.0	9.3	4.2	-2.8	11.7	1.7	-1.5	5.1	3.7	-1.8	9.4	5.4	-0.7	11.8
	Warm	3.7	-0.0	7.6	4.6	0.4	8.9	5.6	0.6	10.8	-0.6	-10.9	10.9	13.4	2.0	26.0	20.8	6.3	37.2
Canberra	Cool	-	-	-	-	-	-	-	-	-	-0.7	-7.6	6.6	-0.9	-11.0	10.3	-0.5	-12.5	13.3
	Warm	-	-	-	-	-	-	-	-	-	-4.9	-22.2	16.3	-3.0	-12.5	7.6	-7.9	-21.1	7.6
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-0.3	-3.4	3.0	1.2	-6.7	9.8	1.2	-8.1	11.5
	Warm	-	-	-	-	-	-	-	-	-	3.8	-19.7	34.1	1.9	-14.5	21.3	-3.4	-22.0	19.7
Melbourne	Cool	-11.1	-17.1	-4.8	-10.6	-16.1	-4.8	-9.6	-14.9	-4.0	0.5	-2.0	3.0	-0.0	-4.2	4.3	1.6	-2.3	5.7
	Warm	2.8	-1.1	6.8	4.0	-0.2	8.3	4.6	-0.1	9.6	5.2	-2.4	13.4	2.9	-1.1	7.1	5.4	0.5	10.5
Perth	Cool	-3.3	-10.7	4.9	-4.5	-11.8	3.5	-4.5	-11.7	3.2	-1.5	-7.4	4.8	1.8	-3.8	7.7	2.2	-5.0	9.9
	Warm	5.3	0.4	10.4	5.7	0.2	11.6	7.1	0.4	14.3	2.1	-8.8	14.3	7.4	1.0	14.1	9.7	0.5	19.7
Sydney	Cool	-0.7	-4.3	3.0	-1.2	-4.7	2.4	-1.8	-5.5	2.0	2.4	-0.5	5.5	4.3	0.7	7.9	2.2	-1.1	5.6
	Warm	3.9	1.9	5.9	4.2	2.0	6.4	5.1	2.6	7.8	-1.1	-8.5	6.9	8.0	4.1	12.1	6.0	1.3	10.8

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-1.1	-3.3	1.2	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-2.9	-10.0	4.7	-	-	-	-	-	-	-	-	-
Brisbane	Cool	2.0	-2.4	6.6	1.1	-5.1	7.7	1.5	-2.1	5.3	0.0	-1.9	2.1	2.4	-1.7	6.7
	Warm	1.9	-2.2	6.3	3.9	-3.4	11.7	-2.1	-12.7	9.9	-0.3	-6.5	6.4	2.7	-4.4	10.4
Canberra	Cool	-	-	-	-	-	-	1.5	-2.5	5.6	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	0.3	-8.0	9.2	-	-	-	-	-	-
Christchurch	Cool	2.8	-1.6	7.4	2.4	-3.0	8.2	-	-	-	-	-	-	-0.4	-2.7	2.0
	Warm	10.7	3.0	19.0	8.5	-1.3	19.3	-	-	-	-	-	-	-1.9	-12.8	10.2
Melbourne	Cool	-	-	-	-	-	-	2.4	0.4	4.3	1.8	-0.8	4.5	2.2	-1.8	6.3
	Warm	-	-	-	-	-	-	0.9	-1.9	3.7	1.2	-2.5	5.2	-0.1	-4.1	4.1
Perth	Cool	-	-	-	-	-	-	1.1	-3.6	6.1	0.5	-3.7	5.0	-0.2	-4.9	4.8
	Warm	-	-	-	-	-	-	1.1	-6.3	9.2	4.7	-2.3	12.2	4.8	-1.8	11.9
Sydney	Cool	5.5	-0.6	11.9	5.4	-2.6	14.0	2.9	0.4	5.5	1.8	-0.2	3.9	0.8	-2.1	3.9
	Warm	-3.2	-9.4	3.5	-1.7	-10.2	7.7	3.6	-0.2	7.5	4.4	1.4	7.6	5.9	2.3	9.7

Table WC.27 Respiratory admissions 5-14 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	8.9	2.8	15.4	32.6	17.1	50.3	24.8	12.5	38.4
	Warm	-	-	-	-	-	-	-	-	-	-1.7	-9.6	6.8	8.4	-2.0	19.9	7.8	-7.2	25.1
Brisbane	Cool	-1.2	-8.8	6.9	-1.4	-9.4	7.2	1.6	-7.9	12.0	-2.6	-6.9	1.9	-4.0	-11.0	3.6	-3.2	-10.9	5.1
	Warm	5.0	-0.4	10.7	5.4	-0.6	11.8	5.3	-1.8	13.0	23.0	5.0	44.0	28.8	10.7	49.9	36.6	13.6	64.3
Canberra	Cool	-	-	-	-	-	-	-	-	-	2.6	-6.3	12.4	12.3	-0.6	27.0	13.5	-2.5	32.0
	Warm	-	-	-	-	-	-	-	-	-	2.1	-18.8	28.3	8.4	-2.7	20.8	6.0	-10.0	25.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-6.0	-11.0	-0.6	-1.8	-14.2	12.5	3.1	-12.1	21.0
	Warm	-	-	-	-	-	-	-	-	-	32.1	-7.7	89.2	-4.8	-27.1	24.4	3.4	-25.4	43.2
Melbourne	Cool	-18.0	-25.8	-9.3	-16.1	-23.5	-8.1	-15.3	-22.4	-7.5	1.3	-2.2	5.0	2.9	-3.1	9.3	5.9	0.1	12.0
	Warm	-4.4	-9.2	0.6	-3.6	-8.8	1.9	-2.9	-8.9	3.4	-4.4	-13.7	5.9	5.3	-0.2	11.1	4.8	-1.8	11.8
Perth	Cool	4.6	-7.0	17.6	5.5	-6.2	18.7	7.0	-4.8	20.2	-1.0	-9.7	8.7	-0.0	-7.9	8.5	-3.1	-13.0	7.8
	Warm	2.9	-3.8	10.1	2.9	-4.7	11.2	3.9	-5.3	14.0	2.0	-13.7	20.7	2.7	-6.0	12.3	3.3	-9.2	17.4
Sydney	Cool	-2.8	-8.1	2.9	-2.7	-8.0	2.8	-2.9	-8.5	3.1	-0.3	-4.7	4.4	6.4	1.0	12.2	5.8	0.7	11.2
	Warm	5.4	2.6	8.2	5.7	2.6	8.8	6.9	3.3	10.6	8.0	-3.6	20.9	12.1	6.3	18.2	13.5	6.4	21.0
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-3.3	-6.9	0.5	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	0.8	-9.8	12.6	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-1.2	-7.1	5.1	-5.4	-13.3	3.2	-2.3	-7.4	3.2	-0.9	-4.0	2.2	3.5	-2.3	9.8			
	Warm	-1.6	-7.4	4.5	1.2	-8.8	12.2	13.9	-4.0	35.1	2.8	-6.5	13.0	6.8	-4.0	18.8			
Canberra	Cool	-	-	-	-	-	-	1.4	-3.6	6.8	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-5.5	-13.8	3.6	-	-	-	-	-	-			
Christchurch	Cool	-5.2	-12.2	2.2	-5.3	-13.7	3.8	-	-	-	-	-	-	-0.5	-4.7	3.8			
	Warm	9.8	-1.5	22.5	5.0	-9.2	21.4	-	-	-	-	-	-	3.0	-13.2	22.1			
Melbourne	Cool	-	-	-	-	-	-	2.5	-0.3	5.4	2.3	-1.4	6.2	5.2	-0.6	11.4			
	Warm	-	-	-	-	-	-	-2.2	-6.3	2.1	-3.3	-8.6	2.2	-4.6	-10.0	1.0			
Perth	Cool	-	-	-	-	-	-	1.2	-5.6	8.6	1.8	-4.5	8.5	4.6	-2.6	12.2			
	Warm	-	-	-	-	-	-	1.6	-8.2	12.5	5.3	-4.3	15.8	1.8	-7.2	11.6			
Sydney	Cool	10.1	0.7	20.4	6.7	-5.5	20.3	1.0	-2.8	4.9	1.2	-1.9	4.3	1.4	-3.2	6.1			
	Warm	13.4	3.4	24.5	16.2	2.4	31.9	3.9	-1.5	9.6	7.5	3.1	12.1	5.9	0.7	11.3			

Table WC.28 Respiratory admissions 15-64 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	1.2	-1.4	3.8	-3.8	-9.0	1.7	-4.9	-9.3	-0.3
	Warm	-	-	-	-	-	-	-	-	-	0.8	-2.9	4.6	0.5	-3.9	5.2	-0.6	-7.0	6.1
Brisbane	Cool	7.1	2.7	11.7	7.5	2.8	12.4	8.4	2.9	14.2	-0.6	-3.0	1.8	2.3	-1.7	6.4	1.9	-2.4	6.5
	Warm	3.4	0.5	6.3	4.0	0.8	7.3	5.0	1.2	8.9	3.9	-4.3	12.8	1.1	-6.6	9.4	0.4	-9.0	10.8
Canberra	Cool	-	-	-	-	-	-	-	-	-	-4.6	-9.5	0.7	-0.6	-7.8	7.2	-0.3	-8.9	9.2
	Warm	-	-	-	-	-	-	-	-	-	3.2	-10.7	19.2	7.1	-0.1	14.9	6.8	-3.8	18.6
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.7	-4.7	1.3	-1.9	-9.2	6.1	-4.1	-12.5	5.2
	Warm	-	-	-	-	-	-	-	-	-	12.6	-8.4	38.5	5.7	-8.7	22.4	5.0	-12.4	26.0
Melbourne	Cool	-0.2	-4.9	4.8	-1.0	-5.2	3.5	-1.8	-5.9	2.5	-0.1	-1.8	1.7	4.3	1.2	7.4	4.8	2.0	7.7
	Warm	-2.7	-5.2	-0.1	-2.8	-5.4	-0.0	-3.0	-6.1	0.2	0.8	-4.5	6.4	1.4	-1.5	4.3	1.6	-1.8	5.1
Perth	Cool	-1.1	-7.9	6.3	-1.1	-7.9	6.3	-3.0	-9.6	4.0	0.9	-4.5	6.7	2.3	-2.8	7.6	3.3	-3.2	10.2
	Warm	3.2	-0.7	7.2	3.1	-1.4	7.7	3.1	-2.2	8.7	-12.5	-20.8	-3.4	0.7	-4.4	6.0	-4.7	-11.7	2.9
Sydney	Cool	-0.0	-3.0	3.0	-0.1	-3.0	2.9	-0.3	-3.4	2.9	0.4	-2.2	2.9	0.8	-2.1	3.7	1.6	-1.1	4.4
	Warm	0.1	-1.6	1.7	0.2	-1.6	2.0	0.7	-1.4	2.8	-1.6	-8.1	5.5	1.0	-2.2	4.4	1.1	-2.9	5.1
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	-0.2	-1.8	1.4	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-0.8	-5.5	4.1	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	0.7	-2.6	4.2	0.6	-4.0	5.5	4.2	1.6	7.0	0.6	-1.0	2.1	2.9	-0.2	6.1			
	Warm	-2.1	-5.3	1.1	-4.1	-9.4	1.5	-9.0	-16.5	-0.8	-5.6	-10.1	-0.9	-4.5	-9.6	0.9			
Canberra	Cool	-	-	-	-	-	-	-1.5	-4.6	1.7	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	0.8	-5.1	7.1	-	-	-	-	-	-			
Christchurch	Cool	3.2	-0.9	7.4	2.8	-2.2	8.1	-	-	-	-	-	-	1.3	-0.9	3.5			
	Warm	0.5	-5.8	7.1	0.3	-7.8	9.0	-	-	-	-	-	-	8.8	-1.1	19.7			
Melbourne	Cool	-	-	-	-	-	-	1.6	0.2	3.0	1.9	0.1	3.8	1.5	-1.3	4.4			
	Warm	-	-	-	-	-	-	-1.3	-3.2	0.7	-0.9	-3.5	1.8	-1.0	-3.8	1.9			
Perth	Cool	-	-	-	-	-	-	2.4	-1.8	6.9	2.4	-1.5	6.4	-0.9	-5.1	3.6			
	Warm	-	-	-	-	-	-	3.6	-2.3	9.9	3.9	-1.7	9.9	4.0	-1.4	9.7			
Sydney	Cool	4.9	-0.1	10.1	7.3	0.5	14.4	2.0	-0.1	4.1	1.4	-0.3	3.1	1.8	-0.7	4.4			
	Warm	-1.4	-6.8	4.4	-0.4	-7.9	7.7	2.2	-0.8	5.3	1.9	-0.6	4.5	-0.5	-3.4	2.5			

Table WC.29 Respiratory admissions 65 + yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	0.2	-2.6	3.0	-1.4	-7.2	4.9	-2.3	-7.3	2.9
	Warm	-	-	-	-	-	-	-	-	-	-2.4	-6.4	1.8	-0.9	-6.2	4.6	0.9	-6.4	8.7
Brisbane	Cool	3.8	-0.2	8.0	4.2	-0.1	8.6	5.6	0.6	10.9	-0.8	-3.1	1.5	2.0	-1.8	6.0	2.7	-1.5	7.1
	Warm	3.8	0.9	6.7	4.2	1.0	7.5	5.0	1.2	8.9	3.7	-4.4	12.4	8.0	-0.2	16.9	3.0	-6.8	13.7
Canberra	Cool	-	-	-	-	-	-	-	-	-	-7.5	-13.1	-1.5	-5.6	-13.4	2.9	-11.0	-19.8	-1.3
	Warm	-	-	-	-	-	-	-	-	-	-24.7	-38.3	-8.3	-12.2	-19.7	-4.0	-19.0	-29.4	-7.1
Christchurch	Cool	-	-	-	-	-	-	-	-	-	0.6	-2.3	3.5	3.2	-4.0	11.0	7.9	-1.0	17.6
	Warm	-	-	-	-	-	-	-	-	-	20.0	-3.2	48.7	0.7	-12.9	16.4	17.3	-1.9	40.4
Melbourne	Cool	-1.5	-5.5	2.8	-1.9	-5.6	1.9	-2.3	-5.8	1.3	1.4	-0.2	2.9	2.6	-0.0	5.2	2.8	0.4	5.2
	Warm	-0.3	-2.7	2.1	-0.1	-2.6	2.5	-0.0	-2.9	2.9	-5.2	-9.9	-0.2	-0.5	-3.1	2.1	-1.6	-4.7	1.5
Perth	Cool	-7.5	-12.9	-1.8	-6.8	-12.2	-1.1	-6.1	-11.4	-0.5	-5.3	-9.6	-0.7	-2.3	-6.3	1.9	-3.7	-8.8	1.7
	Warm	-2.1	-5.4	1.3	-2.1	-5.8	1.9	-1.5	-6.0	3.2	-3.4	-11.4	5.4	-2.5	-6.9	2.1	-5.1	-11.3	1.6
Sydney	Cool	-1.4	-3.9	1.2	-1.4	-3.8	1.1	-1.5	-4.0	1.2	1.7	-0.5	4.0	2.8	0.3	5.4	3.6	1.2	6.0
	Warm	-0.9	-2.4	0.7	-1.1	-2.7	0.6	-1.2	-3.2	0.7	4.8	-2.0	12.1	-0.7	-3.7	2.5	-0.7	-4.4	3.1
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.7	-1.2	2.6	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-2.3	-7.4	3.1	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	2.5	-0.8	5.8	0.7	-3.9	5.4	2.3	-0.2	4.8	1.5	0.1	2.9	1.4	-1.5	4.3			
	Warm	2.5	-0.8	5.8	2.6	-3.0	8.6	3.9	-4.1	12.6	3.5	-1.1	8.4	-0.5	-5.7	4.9			
Canberra	Cool	-	-	-	-	-	-	-2.3	-5.8	1.3	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-1.5	-8.9	6.6	-	-	-	-	-	-			
Christchurch	Cool	2.5	-1.3	6.4	4.1	-0.6	9.1	-	-	-	-	-	-	0.2	-1.9	2.3			
	Warm	3.1	-3.4	9.9	-2.2	-10.0	6.3	-	-	-	-	-	-	10.1	0.1	21.1			
Melbourne	Cool	-	-	-	-	-	-	1.3	0.1	2.5	1.8	0.2	3.5	1.6	-0.8	4.1			
	Warm	-	-	-	-	-	-	-0.3	-2.0	1.5	-0.4	-2.9	2.1	-0.5	-3.1	2.2			
Perth	Cool	-	-	-	-	-	-	-1.0	-4.4	2.6	-1.8	-5.0	1.4	-3.4	-6.9	0.2			
	Warm	-	-	-	-	-	-	2.2	-2.7	7.4	0.6	-4.1	5.6	-1.8	-6.3	3.0			
Sydney	Cool	4.9	0.7	9.2	7.4	1.7	13.5	1.6	-0.2	3.5	2.0	0.5	3.4	3.3	1.1	5.5			
	Warm	-0.9	-6.1	4.5	-5.6	-12.4	1.8	0.7	-2.1	3.5	1.1	-1.2	3.5	-0.3	-3.0	2.5			

Table WC.30 Cardiovascular mortality 0-74 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	0.6	-5.7	7.3	1.3	-11.7	16.2	-5.4	-15.7	6.3
	Warm	-	-	-	-	-	-	-	-	-	1.1	-6.2	9.0	1.8	-8.2	12.9	-1.9	-14.7	12.9
Brisbane	Cool	-2.8	-11.2	6.4	-3.3	-12.1	6.5	-3.0	-13.3	8.4	-5.5	-10.3	-0.5	-3.7	-11.7	4.9	-6.9	-15.3	2.4
	Warm	-0.1	-5.3	5.4	-0.5	-6.2	5.6	-0.7	-7.4	6.4	-6.5	-19.7	9.0	-0.4	-14.5	16.0	-5.4	-21.7	14.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	-4.5	-17.9	11.1	-6.3	-23.9	15.5	-16.5	-35.1	7.4
	Warm	-	-	-	-	-	-	-	-	-	-3.9	-33.2	38.1	-3.5	-21.1	18.0	-11.4	-34.8	20.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.2	-7.5	5.7	-2.0	-16.9	15.7	-2.1	-19.6	19.2
	Warm	-	-	-	-	-	-	-	-	-	-3.4	-35.1	43.9	-11.6	-33.2	16.9	0.9	-27.7	40.8
Melbourne	Cool	1.5	-7.9	11.8	1.2	-7.4	10.5	1.8	-6.4	10.9	2.1	-1.3	5.6	3.7	-2.2	10.0	1.8	-3.6	7.6
	Warm	0.3	-4.5	5.3	0.6	-4.5	5.9	0.9	-4.9	7.0	3.8	-5.9	14.5	2.0	-3.2	7.5	1.8	-4.4	8.4
Perth	Cool	5.4	-9.9	23.3	8.6	-7.1	27.0	13.3	-2.9	32.3	1.0	-10.2	13.6	-1.2	-11.5	10.2	-0.8	-13.7	14.1
	Warm	6.1	-1.1	13.8	7.1	-1.2	16.2	7.5	-2.5	18.5	-16.0	-29.7	0.3	1.4	-7.8	11.6	-4.6	-17.1	9.7
Sydney	Cool	-0.4	-6.3	5.8	-0.8	-6.5	5.3	-0.3	-6.5	6.2	1.1	-4.0	6.5	3.9	-1.9	10.1	3.4	-2.2	9.3
	Warm	-0.5	-3.7	2.8	-0.7	-4.3	2.9	-0.9	-5.0	3.4	2.6	-10.6	17.7	-4.8	-10.9	1.7	-5.0	-12.2	2.9
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	2.7	-1.4	7.0	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-4.3	-13.3	5.6	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	-3.0	-9.9	4.4	-3.9	-13.3	6.4	0.7	-5.0	6.7	-0.5	-3.6	2.6	-3.3	-9.6	3.5			
	Warm	1.3	-4.9	7.9	2.4	-8.1	14.2	5.1	-10.3	23.0	3.5	-5.6	13.5	0.8	-8.9	11.7			
Canberra	Cool	-	-	-	-	-	-	-3.9	-12.1	5.1	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	4.1	-10.7	21.5	-	-	-	-	-	-			
Christchurch	Cool	-6.7	-14.7	2.1	-6.7	-16.7	4.4	-	-	-	-	-	-	-2.9	-7.8	2.2			
	Warm	-1.5	-12.6	11.0	-4.4	-18.3	11.9	-	-	-	-	-	-	6.8	-11.3	28.7			
Melbourne	Cool	-	-	-	-	-	-	1.5	-1.2	4.3	2.1	-1.5	5.9	5.1	-0.6	11.1			
	Warm	-	-	-	-	-	-	0.5	-3.1	4.2	1.7	-3.3	6.9	0.7	-4.5	6.2			
Perth	Cool	-	-	-	-	-	-	-2.0	-10.5	7.3	-2.6	-10.3	5.8	-2.8	-11.4	6.7			
	Warm	-	-	-	-	-	-	0.7	-10.7	13.6	-3.9	-13.8	7.1	-5.7	-15.0	4.5			
Sydney	Cool	1.3	-8.4	12.0	3.5	-9.5	18.4	2.5	-1.8	7.0	1.6	-1.9	5.2	4.4	-0.8	9.8			
	Warm	4.0	-6.9	16.1	2.6	-11.9	19.5	-3.1	-9.9	4.3	-1.6	-6.9	4.0	-3.1	-8.9	3.0			

Table WC.31 Cardiovascular mortality 75+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-0.2	-4.1	3.8	-1.5	-9.6	7.3	-3.6	-10.3	3.6
	Warm	-	-	-	-	-	-	-	-	-	1.4	-3.6	6.6	0.4	-6.4	7.8	-1.0	-9.7	8.6
Brisbane	Cool	2.0	-3.2	7.5	1.6	-3.9	7.3	1.8	-4.6	8.6	0.3	-2.6	3.4	3.0	-2.0	8.4	3.3	-2.2	9.1
	Warm	0.0	-3.2	3.4	0.3	-3.2	4.1	1.0	-3.2	5.4	1.0	-7.8	10.7	10.9	1.2	21.5	10.0	-1.9	23.3
Canberra	Cool	-	-	-	-	-	-	-	-	-	7.2	-2.1	17.3	1.9	-11.0	16.7	6.1	-9.7	24.7
	Warm	-	-	-	-	-	-	-	-	-	3.4	-20.7	34.9	1.7	-10.6	15.6	9.9	-9.5	33.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.0	-4.8	3.0	1.5	-7.7	11.5	1.2	-9.7	13.3
	Warm	-	-	-	-	-	-	-	-	-	-17.8	-35.1	4.3	0.8	-13.6	17.5	-8.1	-24.2	11.4
Melbourne	Cool	-3.5	-8.7	2.0	-2.9	-7.7	2.1	-1.9	-6.6	2.9	0.4	-1.6	2.4	1.6	-1.8	5.1	1.5	-1.6	4.8
	Warm	2.0	-1.0	5.0	2.3	-0.9	5.5	2.9	-0.7	6.6	-1.9	-7.7	4.2	-1.0	-4.1	2.2	-1.8	-5.5	2.0
Perth	Cool	-1.7	-10.0	7.5	-1.9	-10.1	7.2	-1.4	-9.5	7.5	-2.2	-8.6	4.7	-3.4	-9.3	2.7	-3.7	-11.1	4.3
	Warm	-0.6	-4.8	3.8	-0.9	-5.7	4.1	-1.4	-7.1	4.7	-4.0	-13.7	6.8	1.8	-3.9	7.8	1.2	-6.9	10.0
Sydney	Cool	3.2	-0.4	6.8	2.9	-0.6	6.5	2.3	-1.4	6.1	0.8	-2.2	3.9	3.6	0.1	7.1	3.2	-0.0	6.6
	Warm	2.3	0.3	4.3	2.4	0.2	4.7	2.9	0.3	5.6	1.3	-6.8	10.1	1.0	-3.0	5.1	1.3	-3.4	6.4

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-0.6	-3.1	2.0	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-5.3	-11.2	1.0	-	-	-	-	-	-	-	-	-
Brisbane	Cool	3.3	-0.9	7.8	6.0	-0.2	12.5	2.8	-0.5	6.2	1.4	-0.4	3.2	4.9	1.0	8.9
	Warm	1.1	-2.7	5.0	1.9	-4.6	8.9	2.7	-6.4	12.6	1.8	-3.6	7.4	-0.2	-6.2	6.2
Canberra	Cool	-	-	-	-	-	-	-0.6	-6.0	5.2	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-8.5	-19.1	3.4	-	-	-	-	-	-
Christchurch	Cool	1.0	-3.9	6.2	1.5	-4.5	8.0	-	-	-	-	-	-	0.0	-2.8	2.9
	Warm	2.8	-4.0	10.0	-0.6	-9.0	8.6	-	-	-	-	-	-	7.6	-3.0	19.3
Melbourne	Cool	-	-	-	-	-	-	1.6	0.1	3.2	2.4	0.4	4.6	2.5	-0.7	5.9
	Warm	-	-	-	-	-	-	-0.3	-2.5	1.9	-0.6	-3.6	2.5	-2.1	-5.2	1.1
Perth	Cool	-	-	-	-	-	-	1.1	-4.0	6.6	0.7	-4.0	5.6	1.0	-4.3	6.6
	Warm	-	-	-	-	-	-	-0.4	-7.1	6.9	1.1	-5.2	7.8	0.9	-5.1	7.2
Sydney	Cool	7.5	1.6	13.8	8.8	0.8	17.4	0.7	-1.8	3.2	1.3	-0.7	3.4	3.0	0.0	6.0
	Warm	3.0	-3.8	10.2	-0.1	-9.1	9.7	0.8	-3.5	5.4	1.7	-1.7	5.2	0.8	-3.0	4.7

Table WC.32 Cardiovascular mortality all ages

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-0.0	-3.3	3.4	-0.7	-7.7	6.8	-4.1	-9.8	2.0
	Warm	-	-	-	-	-	-	-	-	-	1.3	-2.8	5.7	0.7	-5.0	6.8	-1.4	-8.7	6.5
Brisbane	Cool	0.8	-3.7	5.4	0.3	-4.4	5.2	0.5	-4.9	6.3	-1.2	-3.7	1.4	1.3	-3.0	5.8	0.6	-4.1	5.5
	Warm	-0.0	-2.8	2.8	0.1	-3.0	3.3	0.5	-3.1	4.2	-1.0	-8.5	7.0	7.9	-0.3	16.7	5.7	-4.2	16.5
Canberra	Cool	-	-	-	-	-	-	-	-	-	3.9	-3.8	12.2	-0.6	-11.3	11.3	-1.2	-13.7	13.1
	Warm	-	-	-	-	-	-	-	-	-	0.3	-19.0	24.2	0.1	-10.2	11.5	3.0	-12.5	21.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-1.1	-4.4	2.4	0.5	-7.4	9.1	0.3	-9.1	10.6
	Warm	-	-	-	-	-	-	-	-	-	-14.1	-29.9	5.3	-2.2	-14.6	11.9	-5.9	-20.4	11.1
Melbourne	Cool	-2.3	-6.9	2.5	-1.9	-6.1	2.4	-1.0	-5.1	3.2	0.8	-0.9	2.5	2.1	-0.9	5.2	1.6	-1.1	4.4
	Warm	1.5	-1.0	4.1	1.8	-0.9	4.6	2.3	-0.7	5.5	-0.4	-5.4	4.9	-0.2	-2.9	2.5	-0.9	-4.1	2.4
Perth	Cool	-0.1	-7.5	7.9	0.5	-6.9	8.5	1.9	-5.5	9.9	-1.5	-7.1	4.5	-3.0	-8.1	2.4	-3.1	-9.6	3.9
	Warm	1.2	-2.5	5.0	1.2	-3.0	5.6	1.0	-4.1	6.2	-7.4	-15.5	1.5	1.7	-3.2	6.9	-0.4	-7.3	7.0
Sydney	Cool	2.3	-0.8	5.4	1.9	-1.0	5.0	1.6	-1.6	4.9	0.9	-1.7	3.5	3.7	0.7	6.7	3.3	0.4	6.2
	Warm	1.5	-0.2	3.2	1.5	-0.4	3.4	1.8	-0.4	4.1	1.5	-5.4	9.0	-0.7	-4.0	2.8	-0.5	-4.5	3.7
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.3	-1.8	2.5	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-5.0	-10.0	0.3	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	1.8	-1.9	5.5	3.4	-1.8	8.8	2.3	-0.6	5.2	0.9	-0.6	2.5	2.9	-0.4	6.3			
	Warm	1.1	-2.1	4.5	2.1	-3.6	8.0	3.4	-4.6	11.9	2.2	-2.4	7.1	0.1	-5.0	5.6			
Canberra	Cool	-	-	-	-	-	-	-1.6	-6.2	3.2	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-4.4	-13.2	5.2	-	-	-	-	-	-			
Christchurch	Cool	-0.9	-5.2	3.5	-0.5	-5.7	5.0	-	-	-	-	-	-	-0.7	-3.1	1.8			
	Warm	1.7	-4.1	7.9	-1.6	-8.9	6.3	-	-	-	-	-	-	7.3	-1.9	17.5			
Melbourne	Cool	-	-	-	-	-	-	1.6	0.3	2.9	2.4	0.6	4.2	3.2	0.4	6.1			
	Warm	-	-	-	-	-	-	-0.1	-2.0	1.8	-0.0	-2.6	2.6	-1.4	-4.1	1.4			
Perth	Cool	-	-	-	-	-	-	0.3	-4.2	5.0	-0.2	-4.3	4.0	-0.0	-4.6	4.8			
	Warm	-	-	-	-	-	-	-0.0	-5.9	6.2	-0.2	-5.5	5.5	-0.8	-5.9	4.5			
Sydney	Cool	6.0	0.9	11.4	7.5	0.6	14.9	1.1	-1.0	3.3	1.4	-0.4	3.1	3.3	0.7	6.0			
	Warm	3.2	-2.6	9.4	0.6	-7.1	9.0	-0.3	-4.0	3.5	0.7	-2.1	3.7	-0.4	-3.6	2.9			

Table WC.33 Respiratory mortality 0-74 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	6.0	-6.5	20.1	32.1	0.8	73.1	10.1	-12.4	38.6
	Warm	-	-	-	-	-	-	-	-	-	-1.9	-17.2	16.2	-6.0	-28.7	24.1	-3.1	-31.0	36.1
Brisbane	Cool	7.2	-9.8	27.4	7.2	-10.8	28.9	6.8	-13.8	32.2	8.2	-1.9	19.4	21.6	2.9	43.7	19.4	-0.5	43.3
	Warm	-9.3	-19.9	2.7	-10.3	-21.9	3.0	-10.8	-24.1	4.9	25.6	-9.3	73.9	0.9	-27.9	41.1	7.3	-29.3	63.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	5.5	-21.9	42.5	-1.7	-33.8	46.1	12.9	-32.2	87.8
	Warm	-	-	-	-	-	-	-	-	-	142.0	5.5	455.3	17.2	-23.3	79.2	35.1	-27.8	152.8
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-0.7	-12.9	13.1	10.0	-20.2	51.7	22.9	-17.0	81.8
	Warm	-	-	-	-	-	-	-	-	-	21.8	-62.2	292.1	-0.6	-51.1	102.2	10.6	-56.0	178.1
Melbourne	Cool	3.3	-15.3	26.0	1.9	-14.9	22.1	4.1	-12.5	23.8	2.2	-4.8	9.7	-0.5	-12.1	12.5	4.4	-6.7	16.9
	Warm	-2.9	-12.7	7.9	-3.0	-13.3	8.6	-3.1	-14.8	10.2	-0.2	-20.7	25.6	-2.1	-12.9	10.0	-5.0	-17.7	9.6
Perth	Cool	-6.2	-31.4	28.4	-9.4	-33.5	23.6	-10.5	-33.7	21.0	-5.4	-26.0	20.9	3.6	-16.8	29.0	-2.5	-26.5	29.3
	Warm	-8.0	-21.4	7.8	-8.1	-23.3	10.2	-10.4	-27.9	11.2	14.3	-21.9	67.4	-	-32.2	4.3	-	-36.4	18.9
Sydney	Cool	8.8	-3.4	22.5	8.5	-3.5	21.9	8.3	-4.3	22.5	1.0	-8.9	11.9	-1.7	-12.5	10.6	-2.8	-12.9	8.5
	Warm	1.6	-5.5	9.3	1.1	-6.7	9.6	0.2	-8.8	10.1	15.7	-15.1	57.7	-1.3	-15.0	14.7	-1.9	-18.1	17.4

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	3.8	-4.0	12.3	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-14.1	-31.9	8.5	-	-	-	-	-	-	-	-	-
Brisbane	Cool	13.2	-1.4	29.8	22.9	0.6	50.1	4.2	-6.3	15.8	1.7	-4.4	8.3	8.6	-3.9	22.8
	Warm	9.8	-4.1	25.8	22.9	-2.3	54.6	9.4	-23.0	55.6	27.8	4.6	56.1	9.0	-13.0	36.5
Canberra	Cool	-	-	-	-	-	-	-6.8	-22.0	11.4	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	12.9	-22.4	64.1	-	-	-	-	-	-
Christchurch	Cool	-0.3	-15.8	18.0	-10.3	-27.8	11.6	-	-	-	-	-	-	2.6	-5.9	11.9
	Warm	-20.7	-44.5	13.3	-26.3	-52.5	14.3	-	-	-	-	-	-	20.1	-25.0	92.3
Melbourne	Cool	-	-	-	-	-	-	2.6	-2.9	8.3	4.5	-3.0	12.6	8.2	-3.4	21.3
	Warm	-	-	-	-	-	-	-4.5	-12.3	4.0	-7.8	-18.0	3.7	-11.7	-21.7	-0.3
Perth	Cool	-	-	-	-	-	-	-6.7	-22.6	12.4	-5.1	-19.8	12.4	-12.4	-27.7	6.2
	Warm	-	-	-	-	-	-	-5.2	-27.3	23.5	-12.9	-31.2	10.2	-23.7	-39.3	-4.1
Sydney	Cool	-4.8	-21.8	16.0	-17.9	-36.9	6.8	-1.8	-9.9	7.0	-1.8	-8.4	5.2	1.0	-8.7	11.8
	Warm	-6.5	-27.0	19.6	-22.4	-45.0	9.5	-0.9	-16.2	17.2	1.5	-10.6	15.3	3.9	-9.5	19.3

Table WC.34 Respiratory mortality 75+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-3.5	-11.3	5.0	11.6	-7.1	34.0	11.2	-4.7	29.8
	Warm	-	-	-	-	-	-	-	-	-	-12.4	-21.9	-1.7	-8.0	-22.5	9.2	-20.1	-35.5	-1.0
Brisbane	Cool	-1.9	-12.9	10.5	-2.8	-14.4	10.3	-3.1	-16.3	12.2	0.2	-6.6	7.4	4.7	-6.8	17.5	4.3	-8.0	18.3
	Warm	8.0	-0.3	17.0	8.9	-0.4	19.1	11.9	0.8	24.4	-0.3	-20.1	24.3	32.9	5.7	67.0	21.9	-8.3	62.1
Canberra	Cool	-	-	-	-	-	-	-	-	-	-4.9	-23.6	18.3	-5.3	-30.7	29.5	-3.6	-33.8	40.5
	Warm	-	-	-	-	-	-	-	-	-	-5.0	-51.3	85.3	-1.5	-28.4	35.6	7.7	-33.2	73.7
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-4.1	-12.1	4.7	0.2	-19.3	24.3	-3.0	-24.4	24.5
	Warm	-	-	-	-	-	-	-	-	-	-55.0	-77.2	-11.3	1.5	-31.7	50.9	-9.4	-44.1	46.9
Melbourne	Cool	3.4	-8.4	16.7	1.8	-8.8	13.7	0.1	-10.0	11.2	5.1	0.7	9.7	5.1	-2.4	13.1	2.6	-4.2	9.8
	Warm	-1.6	-8.0	5.2	-1.4	-8.2	5.9	-1.5	-9.2	6.8	-2.3	-15.4	12.8	1.1	-6.1	8.9	-2.1	-10.5	7.0
Perth	Cool	-2.8	-19.4	17.2	-4.1	-20.4	15.7	-5.8	-21.6	13.3	4.2	-10.1	20.7	5.8	-7.3	20.8	2.8	-13.3	22.0
	Warm	6.7	-3.4	17.8	7.3	-4.2	20.2	9.6	-4.3	25.5	-5.2	-25.4	20.5	8.1	-5.3	23.4	4.5	-13.4	26.1
Sydney	Cool	5.9	-1.6	13.9	5.3	-2.0	13.2	5.7	-2.0	14.1	-4.0	-10.0	2.4	2.3	-4.8	10.0	0.4	-6.2	7.5
	Warm	0.6	-4.0	5.5	1.0	-4.1	6.3	1.1	-4.9	7.4	-0.0	-18.4	22.4	4.6	-4.9	15.0	6.9	-4.6	19.8
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	3.9	-1.5	9.5	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-18.1	-29.0	-5.4	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	11.4	1.3	22.5	7.8	-6.3	24.0	6.7	-0.5	14.3	3.1	-0.8	7.0	6.6	-2.0	15.9			
	Warm	10.4	0.6	21.1	11.6	-5.2	31.5	20.8	-4.1	52.0	0.7	-12.2	15.4	11.7	-3.9	29.9			
Canberra	Cool	-	-	-	-	-	-	2.6	-9.5	16.4	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-27.5	-52.2	9.9	-	-	-	-	-	-			
Christchurch	Cool	-5.6	-15.9	5.9	-3.0	-15.8	11.7	-	-	-	-	-	-	1.4	-4.4	7.5			
	Warm	-11.6	-26.3	6.0	-19.6	-36.2	1.3	-	-	-	-	-	-	-41.6	-56.6	-21.4			
Melbourne	Cool	-	-	-	-	-	-	1.4	-2.0	4.9	3.8	-0.8	8.7	2.5	-4.5	10.0			
	Warm	-	-	-	-	-	-	-0.8	-5.5	4.0	-1.6	-8.2	5.5	-1.4	-8.4	6.0			
Perth	Cool	-	-	-	-	-	-	0.2	-10.2	11.7	-1.3	-10.9	9.3	-6.5	-16.7	4.9			
	Warm	-	-	-	-	-	-	-11.4	-25.1	4.8	-9.7	-22.0	4.5	-10.4	-22.1	3.1			
Sydney	Cool	-6.9	-17.7	5.4	-5.3	-19.6	11.5	2.0	-3.2	7.4	1.0	-3.2	5.4	0.2	-5.9	6.7			
	Warm	-4.0	-18.1	12.5	2.8	-17.5	28.1	2.3	-7.5	13.1	3.7	-4.0	12.1	3.4	-5.4	12.9			

Table WC.35 Respiratory mortality all ages

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-0.8	-7.5	6.4	17.4	0.8	36.6	10.7	-2.6	25.8
	Warm	-	-	-	-	-	-	-	-	-	-9.5	-17.7	-0.5	-7.9	-20.4	6.6	-16.3	-30.1	0.4
Brisbane	Cool	1.1	-8.4	11.5	0.4	-9.5	11.4	0.0	-11.4	12.9	2.7	-2.9	8.8	9.9	-0.1	20.8	8.9	-1.8	20.8
	Warm	2.7	-4.0	9.8	2.9	-4.5	10.9	4.6	-4.2	14.3	7.6	-10.4	29.2	22.2	1.2	47.6	17.8	-6.9	49.1
Canberra	Cool	-	-	-	-	-	-	-	-	-	-0.6	-16.7	18.5	-4.5	-25.4	22.2	0.6	-25.7	36.2
	Warm	-	-	-	-	-	-	-	-	-	39.3	-16.3	131.7	6.2	-17.6	36.9	19.0	-18.5	73.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-3.2	-9.9	4.1	2.8	-14.0	22.9	3.6	-16.0	27.8
	Warm	-	-	-	-	-	-	-	-	-	-44.2	-69.1	0.6	1.2	-28.4	43.0	-5.3	-38.1	45.0
Melbourne	Cool	3.4	-6.8	14.7	1.8	-7.3	11.9	1.1	-7.6	10.7	4.3	0.5	8.2	3.5	-2.8	10.3	3.0	-2.8	9.2
	Warm	-2.1	-7.5	3.6	-2.0	-7.7	4.1	-2.1	-8.6	4.9	-1.7	-13.0	11.0	0.1	-5.9	6.6	-3.0	-10.1	4.6
Perth	Cool	-3.7	-18.0	13.0	-5.5	-19.5	10.9	-7.0	-20.5	8.8	1.5	-10.5	15.1	5.1	-6.2	17.7	1.3	-12.5	17.2
	Warm	2.4	-5.8	11.4	2.8	-6.6	13.2	3.6	-7.6	16.3	-0.3	-18.6	22.1	1.0	-9.7	13.0	-0.5	-15.3	16.9
Sydney	Cool	6.7	0.2	13.5	6.2	-0.1	12.9	6.4	-0.3	13.5	-2.6	-7.8	2.9	1.3	-4.8	7.7	-0.4	-6.0	5.5
	Warm	0.9	-3.0	5.0	1.0	-3.3	5.5	0.9	-4.2	6.1	4.4	-11.9	23.7	2.9	-5.1	11.5	4.3	-5.3	14.8

(Continued)

		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	3.8	-0.6	8.4	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-16.8	-26.4	-6.0	-	-	-	-	-	-	-	-	-
Brisbane	Cool	12.1	3.7	21.2	12.8	0.6	26.5	5.8	-0.1	12.1	2.7	-0.6	6.1	7.2	0.1	14.9
	Warm	10.0	1.9	18.7	14.7	0.4	31.0	17.6	-3.0	42.6	8.8	-2.8	21.8	11.2	-1.9	26.0
Canberra	Cool	-	-	-	-	-	-	-0.5	-10.2	10.3	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-11.0	-32.5	17.2	-	-	-	-	-	-
Christchurch	Cool	-3.9	-12.7	5.6	-5.4	-15.9	6.5	-	-	-	-	-	-	1.7	-3.2	6.7
	Warm	-13.7	-26.6	1.4	-21.1	-35.7	-3.2	-	-	-	-	-	-	-29.0	-44.7	-8.9
Melbourne	Cool	-	-	-	-	-	-	1.7	-1.2	4.7	4.0	0.0	8.1	4.0	-2.0	10.5
	Warm	-	-	-	-	-	-	-1.9	-5.9	2.3	-3.4	-9.0	2.6	-4.4	-10.3	1.7
Perth	Cool	-	-	-	-	-	-	-1.8	-10.6	8.0	-2.4	-10.6	6.5	-8.1	-16.8	1.4
	Warm	-	-	-	-	-	-	-9.4	-21.3	4.3	-10.4	-20.9	1.4	-14.1	-23.8	-3.2
Sydney	Cool	-6.2	-15.6	4.1	-8.9	-20.7	4.6	1.0	-3.4	5.6	0.3	-3.3	4.0	0.5	-4.7	6.0
	Warm	-4.6	-16.6	9.0	-5.2	-21.2	14.1	1.4	-7.0	10.5	3.2	-3.4	10.2	3.5	-3.9	11.5

Table WC.36 Total mortality all ages

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-0.5	-2.7	1.7	0.2	-4.5	5.1	-0.9	-4.8	3.1
	Warm	-	-	-	-	-	-	-	-	-	-1.3	-3.9	1.4	1.8	-1.9	5.6	0.3	-4.5	5.4
Brisbane	Cool	2.1	-0.9	5.3	2.0	-1.2	5.3	2.2	-1.5	6.1	0.7	-1.1	2.5	2.9	-0.1	6.0	2.9	-0.4	6.2
	Warm	1.5	-0.3	3.4	1.8	-0.3	3.8	2.0	-0.4	4.4	1.6	-3.5	6.8	7.8	2.4	13.5	8.7	2.0	15.8
Canberra	Cool	-	-	-	-	-	-	-	-	-	-0.2	-5.2	5.1	0.7	-6.6	8.6	0.6	-8.1	10.0
	Warm	-	-	-	-	-	-	-	-	-	2.7	-10.0	17.1	-0.9	-7.3	6.0	-4.8	-14.0	5.4
Christchurch	Cool	-	-	-	-	-	-	-	-	-	0.9	-1.4	3.3	2.9	-2.6	8.7	2.1	-4.4	9.0
	Warm	-	-	-	-	-	-	-	-	-	1.2	-11.6	15.7	-1.4	-10.0	7.9	-6.4	-16.4	4.7
Melbourne	Cool	-1.1	-4.1	1.9	-1.2	-3.9	1.7	-0.5	-3.1	2.3	0.3	-0.8	1.4	0.6	-1.3	2.5	-0.0	-1.8	1.7
	Warm	-0.1	-1.6	1.5	0.0	-1.6	1.7	0.1	-1.8	2.0	-0.6	-3.8	2.7	-0.2	-1.9	1.5	-0.9	-2.9	1.2
Perth	Cool	-0.0	-4.8	5.0	-0.5	-5.2	4.5	-0.4	-5.1	4.5	-1.3	-5.0	2.5	-1.4	-4.7	2.1	-2.4	-6.6	2.1
	Warm	0.5	-1.8	2.8	0.4	-2.2	3.1	0.3	-2.8	3.5	-1.7	-7.2	4.1	1.3	-1.7	4.5	0.7	-3.7	5.3
Sydney	Cool	1.2	-0.8	3.2	0.9	-1.1	2.9	0.3	-1.8	2.5	1.6	-0.2	3.3	2.8	0.9	4.8	2.4	0.6	4.3
	Warm	1.1	0.0	2.3	1.2	0.0	2.5	1.5	0.1	3.0	0.8	-3.7	5.7	1.1	-1.1	3.4	0.9	-1.7	3.7
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	1.3	-0.1	2.8	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-8.3	-11.4	-5.1	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	2.7	0.2	5.2	4.1	0.5	7.8	1.9	-0.0	3.9	0.9	-0.1	2.0	3.6	1.3	5.9			
	Warm	2.8	0.7	5.0	4.7	0.9	8.6	6.5	1.0	12.3	3.5	0.3	6.7	5.0	1.4	8.7			
Canberra	Cool	-	-	-	-	-	-	-1.4	-4.4	1.7	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-2.1	-7.6	3.7	-	-	-	-	-	-			
Christchurch	Cool	0.4	-2.5	3.4	1.0	-2.6	4.7	-	-	-	-	-	-	1.4	-0.3	3.1			
	Warm	0.9	-3.1	5.0	-1.0	-6.0	4.3	-	-	-	-	-	-	-2.5	-8.3	3.7			
Melbourne	Cool	-	-	-	-	-	-	0.8	-0.0	1.7	1.2	-0.0	2.3	1.3	-0.5	3.1			
	Warm	-	-	-	-	-	-	-1.3	-2.5	-0.2	-1.7	-3.3	-0.0	-2.2	-3.9	-0.5			
Perth	Cool	-	-	-	-	-	-	-0.7	-3.5	2.3	-0.8	-3.4	1.8	-1.6	-4.5	1.4			
	Warm	-	-	-	-	-	-	-2.4	-6.0	1.3	-1.8	-5.1	1.6	-1.3	-4.4	1.9			
Sydney	Cool	3.5	0.2	7.0	4.6	0.1	9.3	1.6	0.2	3.0	1.4	0.2	2.5	2.2	0.5	3.9			
	Warm	2.2	-1.6	6.1	3.7	-1.6	9.2	-1.0	-3.4	1.4	0.8	-1.1	2.7	0.7	-1.4	2.8			

Table WC.37 Total mortality 0-74 yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	-1.5	-4.9	2.1	1.1	-6.3	9.0	-1.0	-7.1	5.6
	Warm	-	-	-	-	-	-	-	-	-	-1.2	-5.2	3.0	3.1	-2.6	9.1	2.7	-4.9	10.8
Brisbane	Cool	3.9	-1.1	9.2	4.0	-1.3	9.7	4.4	-1.8	11.0	0.3	-2.6	3.3	3.5	-1.4	8.7	2.0	-3.3	7.6
	Warm	1.1	-1.8	4.1	1.3	-1.9	4.6	1.5	-2.3	5.4	0.5	-7.3	9.1	2.6	-5.4	11.3	4.0	-5.9	15.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	0.3	-7.4	8.7	-0.5	-11.3	11.7	-2.1	-14.7	12.5
	Warm	-	-	-	-	-	-	-	-	-	-0.4	-17.8	20.7	-3.8	-13.1	6.5	-10.0	-22.8	5.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	1.1	-2.7	5.1	4.7	-4.6	14.9	4.6	-6.5	16.9
	Warm	-	-	-	-	-	-	-	-	-	14.0	-8.6	42.2	-11.6	-24.5	3.5	-8.1	-24.1	11.3
Melbourne	Cool	3.6	-1.6	9.1	2.8	-2.0	7.7	2.6	-2.0	7.3	0.4	-1.4	2.3	0.5	-2.6	3.7	0.1	-2.8	3.1
	Warm	0.1	-2.4	2.7	-0.1	-2.7	2.7	-0.4	-3.4	2.7	2.0	-3.3	7.6	1.0	-1.7	3.9	0.4	-2.9	3.8
Perth	Cool	2.0	-6.0	10.7	1.9	-6.0	10.6	2.8	-5.1	11.3	-4.4	-10.2	1.8	-1.3	-6.8	4.5	-2.2	-9.1	5.3
	Warm	2.0	-1.6	5.8	2.4	-1.8	6.8	2.7	-2.4	8.0	-4.0	-12.5	5.3	1.4	-3.5	6.6	-0.1	-7.1	7.4
Sydney	Cool	0.9	-2.4	4.3	0.6	-2.6	4.0	-0.1	-3.5	3.5	2.0	-0.9	5.0	2.4	-0.9	5.7	1.7	-1.4	4.8
	Warm	-0.0	-1.8	1.7	-0.1	-2.0	1.9	-0.1	-2.4	2.2	1.2	-6.1	8.9	0.4	-3.1	4.1	-0.6	-4.7	3.8
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	2.8	0.6	5.1	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-8.2	-13.0	-3.1	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	0.2	-3.7	4.4	1.7	-3.9	7.8	2.0	-1.3	5.3	0.6	-1.1	2.4	2.5	-1.2	6.3			
	Warm	0.5	-2.8	3.9	0.7	-5.0	6.7	5.6	-3.1	15.1	4.8	-0.3	10.1	4.4	-1.2	10.3			
Canberra	Cool	-	-	-	-	-	-	-3.6	-8.1	1.1	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	2.7	-5.1	11.2	-	-	-	-	-	-			
Christchurch	Cool	-2.1	-7.0	2.9	-1.9	-7.8	4.5	-	-	-	-	-	-	1.0	-1.9	3.9			
	Warm	-0.2	-6.8	7.0	2.3	-6.3	11.8	-	-	-	-	-	-	-2.8	-12.7	8.3			
Melbourne	Cool	-	-	-	-	-	-	0.1	-1.4	1.5	0.1	-1.8	2.1	1.1	-1.8	4.2			
	Warm	-	-	-	-	-	-	-1.0	-2.9	0.9	-0.9	-3.5	1.8	-2.0	-4.7	0.8			
Perth	Cool	-	-	-	-	-	-	-4.4	-8.9	0.4	-4.6	-8.7	-0.3	-6.1	-10.6	-1.3			
	Warm	-	-	-	-	-	-	-3.6	-9.4	2.5	-3.7	-8.8	1.8	-2.7	-7.6	2.5			
Sydney	Cool	2.9	-2.7	8.7	3.5	-3.9	11.5	1.8	-0.6	4.2	1.6	-0.4	3.5	2.5	-0.4	5.4			
	Warm	-0.4	-6.2	5.7	0.3	-7.6	8.8	-2.3	-6.0	1.7	-0.4	-3.3	2.6	0.5	-2.8	3.9			

Table WC.38 Total mortality 75+ yrs

		1-hour O ₃			4-hour O ₃			8-hour O ₃			8-hour CO			1-hour NO ₂			24-hour NO ₂		
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	Cool	-	-	-	-	-	-	-	-	-	0.1	-2.7	3.0	-0.4	-6.3	5.9	-0.9	-5.9	4.3
	Warm	-	-	-	-	-	-	-	-	-	-1.4	-4.8	2.2	0.8	-4.0	5.9	-1.3	-7.6	5.3
Brisbane	Cool	1.1	-2.6	5.0	0.8	-3.1	5.0	1.0	-3.6	5.8	0.9	-1.3	3.2	2.6	-1.1	6.5	3.4	-0.7	7.6
	Warm	1.8	-0.6	4.2	2.1	-0.6	4.8	2.3	-0.8	5.5	2.3	-4.2	9.1	11.3	4.2	18.8	11.8	3.0	21.3
Canberra	Cool	-	-	-	-	-	-	-	-	-	-0.5	-7.0	6.4	1.5	-8.1	12.1	2.6	-8.8	15.4
	Warm	-	-	-	-	-	-	-	-	-	6.2	-11.3	27.3	1.6	-7.1	11.1	-0.1	-12.8	14.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	0.8	-2.0	3.7	2.0	-4.7	9.2	0.8	-7.0	9.3
	Warm	-	-	-	-	-	-	-	-	-	-5.6	-20.4	11.9	3.9	-7.1	16.1	-5.6	-17.9	8.5
Melbourne	Cool	-3.7	-7.3	0.1	-3.2	-6.6	0.2	-2.1	-5.3	1.3	0.2	-1.1	1.6	0.7	-1.7	3.1	-0.1	-2.3	2.1
	Warm	-0.2	-2.1	1.8	0.1	-2.0	2.3	0.4	-2.0	2.8	-2.2	-6.2	2.0	-1.0	-3.1	1.2	-1.7	-4.2	0.9
Perth	Cool	-1.2	-7.1	5.1	-1.8	-7.6	4.4	-2.2	-7.9	3.9	0.5	-4.2	5.3	-1.4	-5.6	2.9	-2.4	-7.7	3.1
	Warm	-0.5	-3.3	2.5	-0.9	-4.2	2.5	-1.3	-5.1	2.8	-0.3	-7.2	7.2	1.2	-2.6	5.3	1.1	-4.5	7.0
Sydney	Cool	1.4	-1.2	3.9	1.0	-1.4	3.5	0.5	-2.1	3.2	1.3	-0.9	3.5	3.1	0.6	5.6	2.9	0.5	5.3
	Warm	2.0	0.5	3.4	2.1	0.5	3.7	2.6	0.7	4.5	0.7	-5.1	6.9	1.6	-1.2	4.6	2.0	-1.5	5.6
(Continued)																			
		1-hour SO ₂			24-hour SO ₂			24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
		I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	Cool	-	-	-	0.4	-1.5	2.2	-	-	-	-	-	-	-	-	-			
	Warm	-	-	-	-8.4	-12.5	-4.2	-	-	-	-	-	-	-	-	-			
Brisbane	Cool	4.1	1.0	7.4	5.5	1.0	10.3	1.9	-0.5	4.4	1.1	-0.2	2.4	4.2	1.3	7.0			
	Warm	4.4	1.6	7.2	7.4	2.4	12.5	7.0	-0.0	14.4	2.6	-1.4	6.7	5.4	0.8	10.2			
Canberra	Cool	-	-	-	-	-	-	0.3	-3.8	4.4	-	-	-	-	-	-			
	Warm	-	-	-	-	-	-	-6.4	-13.9	1.7	-	-	-	-	-	-			
Christchurch	Cool	1.7	-1.9	5.5	2.5	-1.9	7.2	-	-	-	-	-	-	1.6	-0.5	3.6			
	Warm	1.4	-3.5	6.5	-2.6	-8.7	3.8	-	-	-	-	-	-	-2.3	-9.4	5.3			
Melbourne	Cool	-	-	-	-	-	-	1.2	0.2	2.3	1.7	0.3	3.2	1.3	-0.9	3.6			
	Warm	-	-	-	-	-	-	-1.5	-3.0	-0.0	-2.1	-4.1	-0.1	-2.3	-4.4	-0.1			
Perth	Cool	-	-	-	-	-	-	1.5	-2.1	5.2	1.4	-1.9	4.8	1.0	-2.6	4.9			
	Warm	-	-	-	-	-	-	-1.8	-6.3	3.0	-0.7	-4.9	3.7	-0.5	-4.5	3.6			
Sydney	Cool	3.9	-0.3	8.2	5.2	-0.5	11.1	1.5	-0.3	3.3	1.2	-0.2	2.7	2.0	-0.1	4.2			
	Warm	4.0	-0.9	9.1	6.0	-0.8	13.3	-0.2	-3.3	3.0	1.6	-0.8	4.1	0.8	-1.9	3.6			

Appendix A3.5: Case-crossover seasonal meta-analysis and seasonal Leave-One-City-Out sensitivity analysis

The results here are stratified by warm and cool season, so a separate case-crossover analysis is run for each season in each city. Warm season is November to April, and Cool season in May to October. Results shown for a one-IQR increase. Estimates from a case-crossover analysis used average of lag 0 & 1 pollutant.

* Results for ozone for Brisbane, Sydney, Melbourne and Perth for the leave-one-city-out analysis included data for Canberra and Auckland. Results for Australian cities only and meta-analysis include data for Brisbane, Melbourne, Perth and Sydney only.

Table WCL.1 Cardiac admissions 15-64 yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	2.0	-0.2	4.2	60.2
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-2.3	4.9	11.4
Brisbane	Cool	1.1	-0.1	2.2	0.0	0.8	-0.6	2.1	0.0	0.2	-1.3	1.8	0.0	2.1	-0.0	4.4	60.0
	Warm	0.4	-1.1	2.0	0.0	-0.1	-1.9	1.6	0.0	-0.4	-2.3	1.5	0.0	2.0	-1.2	5.3	14.6
Canberra	Cool	1.1	-0.0	2.3	0.0	-	-	-	-	-	-	-	-	1.7	-0.3	3.8	57.6
	Warm	1.4	-1.1	4.0	22.3	-	-	-	-	-	-	-	-	2.4	-0.1	5.0	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	0.8	-0.8	2.5	0.0	2.2	0.3	4.2	57.0
	Warm	-	-	-	-	-	-	-	-	-0.1	-1.9	1.7	2.3	1.8	-1.2	5.0	16.8
Melbourne	Cool	1.9	0.4	3.4	0.0	1.1	-0.0	2.3	0.0	0.9	-0.7	2.6	0.0	2.5	0.6	4.4	34.3
	Warm	1.5	-2.2	5.2	36.9	0.3	-1.7	2.3	0.0	0.9	-1.3	3.1	0.0	1.5	-1.2	4.3	0.0
Perth	Cool	1.1	-0.0	2.2	0.0	0.8	-0.2	1.8	0.0	0.7	-0.8	2.2	0.0	1.5	-0.2	3.2	49.4
	Warm	1.0	-2.3	4.5	35.2	0.1	-1.6	1.8	0.0	-0.5	-2.3	1.4	0.0	2.9	0.3	5.5	0.0
Sydney	Cool	1.0	-0.2	2.2	0.0	0.6	-0.6	1.8	0.0	0.3	-1.4	2.0	0.0	1.1	-0.6	2.8	27.0
	Warm	1.4	-2.1	5.1	37.4	0.1	-2.0	2.3	0.0	-0.6	-2.8	1.6	0.0	1.6	-1.6	4.8	14.8
Australia only	Cool	1.2	0.1	2.2	0.0	0.8	-0.2	1.8	0.0	0.4	-1.0	1.7	0.0	2.0	-0.3	4.3	52.9
	Warm	1.0	-1.3	3.3	17.4	0.1	-1.5	1.7	0.0	0.1	-1.2	1.5	0.0	1.5	-0.7	3.7	32.3
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-0.5	3.6	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-0.1	4.7	0.0
Overall	Cool	1.2	0.1	2.2	0.0	0.8	-0.2	1.8	0.0	0.6	-0.8	2.0	0.0	1.9	0.1	3.7	52.5
	Warm	1.0	-1.3	3.3	17.4	0.1	-1.5	1.7	0.0	-0.2	-1.9	1.6	0.0	2.2	-0.3	4.7	0.3

Table WCL.1 Cardiac admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.1	0.1	4.1	10.6	2.9	1.0	4.7	0.0	-	-	-	-	2.1	-1.4	5.8	0.0
	Warm	0.3	-1.5	2.1	0.0	0.6	-1.7	2.9	0.0	-	-	-	-	0.0	-5.1	5.4	40.2
Brisbane	Cool	1.7	-0.2	3.6	0.0	3.1	1.1	5.2	6.3	1.8	-1.8	5.7	0.0	0.2	-1.6	2.1	0.0
	Warm	0.3	-1.5	2.0	0.0	0.7	-1.5	3.0	0.0	2.4	-1.8	6.8	0.0	1.9	-1.7	5.7	0.0
Canberra	Cool	1.8	-0.0	3.6	0.0	3.0	1.2	4.8	0.0	-	-	-	-	-	-	-	-
	Warm	0.2	-1.5	2.0	0.0	0.9	-1.3	3.2	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	2.2	0.3	4.2	11.6	3.4	1.5	5.3	7.4	0.3	-2.6	3.4	0.0	0.2	-1.6	2.0	0.0
	Warm	0.4	-1.3	2.1	0.0	1.0	-1.2	3.2	0.0	-0.8	-3.4	1.7	0.0	-0.5	-3.6	2.6	0.0
Melbourne	Cool	3.0	0.9	5.1	0.0	4.0	1.9	6.2	0.0	-	-	-	-	-	-	-	-
	Warm	0.3	-1.7	2.5	0.0	0.9	-1.8	3.7	0.0	-	-	-	-	-	-	-	-
Perth	Cool	1.8	-0.0	3.7	0.0	3.0	1.2	4.9	0.0	-	-	-	-	-	-	-	-
	Warm	0.6	-1.2	2.4	0.0	1.3	-0.9	3.7	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	2.5	0.2	4.8	10.4	3.7	1.5	6.0	2.0	0.7	-2.2	3.7	0.0	0.1	-1.7	1.9	0.0
	Warm	0.1	-1.9	2.1	0.0	0.5	-2.1	3.1	0.0	1.0	-4.5	6.9	64.0	0.8	-3.9	5.8	47.5
Australia only	Cool	1.2	-0.2	2.7	0.0	2.1	0.5	3.7	0.2	-0.5	-2.5	1.6	0.0	0.2	-3.6	4.2	30.4
	Warm	1.1	-0.3	2.6	0.0	2.0	0.3	3.7	0.0	-0.6	-2.7	1.5	0.0	-0.9	-4.1	2.4	0.0
NZ only	Cool	1.3	-2.2	5.0	0.0	4.7	0.6	8.9	0.0	-	-	-	-	0.2	-1.6	2.0	0.0
	Warm	1.1	-2.6	4.9	0.0	4.3	-0.5	9.3	17.9	-	-	-	-	0.6	-1.7	3.0	18.2
Overall	Cool	2.1	0.3	3.8	0.0	3.2	1.5	5.0	0.0	0.8	-1.7	3.5	0.0	0.3	-1.4	2.1	0.0
	Warm	0.3	-1.4	2.0	0.0	0.9	-1.3	3.1	0.0	0.3	-2.7	3.4	30.0	0.4	-3.0	3.9	22.7

Table WCL.2 Cardiac admissions 65+ yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	3.4	1.7	5.1	66.5
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-3.0	5.4	61.0
Brisbane	Cool	2.6	1.4	3.8	35.7	3.2	2.2	4.1	0.0	2.2	0.4	4.1	64.6	3.7	2.2	5.2	53.8
	Warm	1.0	-0.3	2.3	11.8	0.6	-0.6	1.9	0.0	0.2	-1.8	2.2	49.5	2.4	-0.6	5.5	35.5
Canberra	Cool	2.3	0.8	3.9	60.6	-	-	-	-	-	-	-	-	3.4	1.9	5.0	65.9
	Warm	0.9	-0.3	2.2	6.3	-	-	-	-	-	-	-	-	1.7	-1.8	5.2	56.5
Christchurch	Cool	-	-	-	-	-	-	-	-	2.1	-0.0	4.2	69.3	3.5	1.9	5.2	64.8
	Warm	-	-	-	-	-	-	-	-	0.6	-1.6	2.9	64.5	0.9	-2.6	4.6	59.8
Melbourne	Cool	2.1	0.3	4.0	64.9	2.0	-0.1	4.2	83.9	1.3	-1.0	3.6	76.4	3.4	1.7	5.2	65.9
	Warm	1.6	-0.8	4.0	36.9	2.3	-1.3	5.9	81.2	2.1	-0.7	5.0	62.2	0.6	-3.3	4.5	56.0
Perth	Cool	1.8	0.4	3.3	59.2	2.1	0.1	4.2	86.9	1.3	-0.8	3.4	76.7	3.0	1.6	4.4	59.4
	Warm	1.3	-0.7	3.4	34.9	2.1	-1.4	5.8	81.1	1.0	-1.7	3.8	70.2	1.8	-1.9	5.6	55.6
Sydney	Cool	1.7	0.3	3.0	38.0	2.1	-0.1	4.3	83.9	1.0	-0.9	3.0	65.7	2.6	1.7	3.6	8.5
	Warm	1.5	0.3	2.8	0.0	2.9	0.2	5.6	65.4	2.0	-1.0	5.2	69.7	0.3	-2.7	3.3	38.6
Australia only	Cool	2.1	0.8	3.5	53.7	2.3	0.6	4.0	81.5	1.8	0.0	3.5	70.1	2.3	-0.1	4.7	69.1
	Warm	1.2	-0.2	2.6	16.1	1.9	-0.4	4.3	71.8	1.0	-0.6	2.7	65.6	2.1	-0.3	4.6	56.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	2.3	0.7	3.8	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.4	0.5	4.4	0.0
Overall	Cool	2.1	0.8	3.5	53.7	2.3	0.6	4.0	81.5	1.6	-0.3	3.4	71.7	3.3	1.9	4.8	59.9
	Warm	1.2	-0.2	2.6	16.1	1.9	-0.4	4.3	71.8	1.1	-1.1	3.4	64.3	1.2	-2.1	4.6	53.2

Table WCL.2 Cardiac admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.8	1.6	6.1	61.1	4.5	1.6	7.4	56.9	-	-	-	-	4.5	-2.0	11.4	84.6
	Warm	2.3	1.0	3.7	0.0	2.9	1.3	4.7	0.0	-	-	-	-	2.8	-0.0	5.7	0.0
Brisbane	Cool	3.8	1.5	6.2	58.5	3.9	0.7	7.3	64.2	4.4	-2.1	11.4	85.7	4.7	-1.4	11.1	87.6
	Warm	2.5	1.2	3.8	0.0	2.7	1.1	4.4	0.0	2.6	-0.4	5.8	0.0	2.2	-0.6	5.1	0.0
Canberra	Cool	3.4	1.1	5.7	64.6	3.7	0.7	6.8	65.7	-	-	-	-	-	-	-	-
	Warm	2.8	1.5	4.1	0.0	3.0	1.4	4.7	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	4.5	2.9	6.1	26.6	5.1	3.6	6.7	20.2	3.5	-4.7	12.3	92.4	3.3	-3.6	10.7	87.4
	Warm	2.5	1.2	3.8	0.0	2.8	1.2	4.5	0.0	1.2	-0.8	3.2	0.0	1.8	-0.7	4.4	0.0
Melbourne	Cool	3.0	0.4	5.7	63.6	3.5	0.1	7.0	65.8	-	-	-	-	-	-	-	-
	Warm	2.2	0.6	3.9	0.0	1.8	-0.2	3.9	0.0	-	-	-	-	-	-	-	-
Perth	Cool	3.4	1.0	5.9	64.4	3.5	0.4	6.6	64.5	-	-	-	-	-	-	-	-
	Warm	2.8	1.4	4.2	0.0	2.9	1.2	4.6	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	2.8	0.7	5.0	43.2	3.3	0.2	6.4	55.1	0.0	-2.0	2.0	0.0	0.8	-1.1	2.7	27.6
	Warm	2.6	1.1	4.1	0.0	3.4	1.5	5.4	0.0	1.7	-0.4	3.9	12.9	2.4	-0.1	4.9	0.0
Australia only	Cool	3.5	2.1	5.0	45.3	5.1	3.9	6.2	0.0	2.6	-2.3	7.7	85.1	4.1	-2.6	11.1	84.7
	Warm	3.0	2.0	4.1	0.0	4.0	2.7	5.2	3.4	0.5	-1.0	2.1	0.0	1.0	-1.4	3.4	0.0
NZ only	Cool	1.0	-3.4	5.6	60.4	-0.3	-4.1	3.7	33.2	-	-	-	-	1.0	-0.6	2.5	12.5
	Warm	3.4	0.4	6.5	0.0	1.5	-1.9	4.9	0.0	-	-	-	-	0.8	-0.7	2.2	0.8
Overall	Cool	3.6	1.5	5.7	57.6	4.0	1.3	6.7	59.1	2.6	-2.0	7.4	85.0	3.3	-1.6	8.4	82.8
	Warm	2.5	1.3	3.8	0.0	2.8	1.2	4.5	0.0	1.6	-0.2	3.5	0.0	2.3	-0.0	4.6	0.0

Table WCL.3 IHD admissions 15-64 yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-1.6	6.8	71.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.0	-7.2	5.7	39.4
Brisbane	Cool	1.9	0.0	3.9	31.0	1.2	-0.7	3.1	11.7	0.0	-2.5	2.6	27.3	2.5	-1.7	6.8	71.7
	Warm	0.0	-2.1	2.2	3.3	-1.8	-5.1	1.7	37.2	-1.4	-3.9	1.1	0.0	-0.6	-6.7	5.9	46.5
Canberra	Cool	1.5	-0.1	3.1	8.7	-	-	-	-	-	-	-	-	1.7	-1.8	5.3	66.9
	Warm	0.4	-4.4	5.4	47.2	-	-	-	-	-	-	-	-	1.7	-2.6	6.1	22.3
Christchurch	Cool	-	-	-	-	-	-	-	-	1.7	-0.5	3.9	0.0	3.1	0.7	5.6	44.6
	Warm	-	-	-	-	-	-	-	-	-1.1	-3.4	1.3	0.0	-0.1	-6.0	6.2	47.6
Melbourne	Cool	3.3	1.2	5.4	0.0	1.2	-0.3	2.8	0.0	0.9	-2.0	3.8	42.9	2.9	-1.2	7.1	68.2
	Warm	0.0	-5.2	5.5	45.9	-1.9	-5.7	2.0	37.3	0.1	-2.8	3.0	0.0	0.0	-6.5	7.0	46.3
Perth	Cool	1.9	0.2	3.7	31.1	0.7	-0.7	2.1	0.0	0.4	-2.2	3.1	42.2	1.8	-1.8	5.5	68.2
	Warm	0.9	-1.1	3.1	0.0	-0.5	-2.8	1.8	0.0	-0.9	-3.3	1.6	0.0	2.7	-0.7	6.3	0.0
Sydney	Cool	1.6	-0.2	3.5	18.1	0.4	-1.2	2.0	0.0	0.1	-2.6	2.8	30.7	1.7	-2.1	5.7	62.1
	Warm	0.2	-4.9	5.6	47.7	-2.0	-5.4	1.5	32.1	-1.8	-4.6	1.0	0.0	-0.8	-6.4	5.1	41.2
Australia only	Cool	1.9	0.3	3.4	13.5	0.8	-0.5	2.2	0.0	0.4	-1.4	2.2	5.6	2.0	-2.1	6.2	54.6
	Warm	0.2	-3.3	3.9	30.2	-1.3	-3.5	1.1	8.6	-0.0	-1.8	1.8	0.0	1.8	-2.3	6.1	45.7
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-5.5	5.9	74.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-0.5	6.1	0.0
Overall	Cool	1.9	0.3	3.4	13.5	0.8	-0.5	2.2	0.0	0.6	-1.6	2.9	26.3	2.4	-1.1	5.9	66.2
	Warm	0.2	-3.3	3.9	30.2	-1.3	-3.5	1.1	8.6	-1.1	-3.3	1.3	0.0	0.4	-4.8	5.8	37.1

Table WCL.3 IHD admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-1.8	-5.7	2.3	37.7	-2.0	-5.7	1.8	31.4	-3.3	-8.3	2.0	43.7	2.5	-1.6	6.8	71.9
	Warm	-0.7	-2.5	1.2	27.3	-0.9	-2.6	0.8	6.3	-1.0	-2.9	1.0	0.9	-1.0	-7.2	5.7	39.4
Brisbane	Cool	-3.4	-6.6	-0.0	0.0	-3.8	-6.9	-0.6	0.0	-4.7	-8.1	-1.2	10.9	2.5	-1.7	6.8	71.7
	Warm	-1.4	-3.1	0.2	0.0	-1.5	-3.3	0.3	0.0	-1.6	-3.7	0.5	0.0	-0.6	-6.7	5.9	46.5
Canberra	Cool	-1.7	-5.4	2.1	33.5	-2.1	-5.6	1.5	28.5	-3.2	-6.1	-0.2	0.0	1.7	-1.8	5.3	66.9
	Warm	-0.7	-2.6	1.2	28.8	-0.9	-2.7	0.8	8.0	-1.0	-2.9	0.9	0.0	1.7	-2.6	6.1	22.3
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	3.1	0.7	5.6	44.6
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-6.0	6.2	47.6
Melbourne	Cool	-0.9	-4.2	2.5	6.6	-1.5	-5.1	2.3	17.2	-3.4	-8.9	2.5	43.8	2.9	-1.2	7.1	68.2
	Warm	-0.1	-1.9	1.8	10.5	-0.4	-2.3	1.6	7.5	-0.5	-2.9	2.0	15.7	0.0	-6.5	7.0	46.3
Perth	Cool	-2.6	-5.7	0.6	9.1	-3.0	-6.1	0.3	11.4	-4.1	-8.0	0.0	35.6	1.8	-1.8	5.5	68.2
	Warm	-0.4	-2.6	1.8	38.2	-0.6	-2.6	1.5	22.3	-0.5	-2.7	1.7	13.1	2.7	-0.7	6.3	0.0
Sydney	Cool	-1.3	-6.1	3.7	32.9	-1.6	-6.0	3.1	26.0	-3.2	-8.8	2.9	39.2	1.7	-2.1	5.7	62.1
	Warm	0.0	-2.6	2.6	29.9	-0.1	-2.4	2.3	7.9	0.4	-2.2	3.0	0.0	-0.8	-6.4	5.1	41.2
Australia only	Cool	-0.9	-3.1	1.4	34.2	-1.1	-3.2	1.1	23.9	-1.4	-4.0	1.3	36.5	2.0	-2.1	6.2	54.6
	Warm	-0.7	-2.5	1.2	29.0	-0.9	-2.6	0.8	12.8	-1.1	-3.2	1.1	24.0	1.8	-2.3	6.1	45.7
NZ only	Cool	1.0	-7.1	9.9	1.0	-0.2	-10.0	10.5	34.2	-0.9	-10.7	9.8	31.7	0.0	-5.5	5.9	74.0
	Warm	1.0	-7.1	9.9	1.0	-0.2	-10.0	10.5	34.2	-0.9	-10.7	9.8	31.7	2.7	-0.5	6.1	0.0
Overall	Cool	-1.9	-5.3	1.6	23.0	-2.4	-5.6	1.0	17.9	-3.5	-7.1	0.3	30.9	2.4	-1.1	5.9	66.2
	Warm	-0.6	-2.4	1.2	22.9	-0.8	-2.5	0.9	4.6	-0.8	-2.7	1.1	0.0	0.4	-4.8	5.8	37.1

Table WCL.4 IHD admissions 65+ yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	2.4	0.8	4.0	29.2
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	3.5	-1.4	8.7	40.4
Brisbane	Cool	1.7	-0.9	4.4	60.7	2.5	1.1	3.9	0.0	1.3	-1.3	3.9	63.2	2.5	0.8	4.2	26.5
	Warm	1.8	-1.0	4.7	43.8	0.9	-1.2	3.0	25.5	-0.3	-2.7	2.1	30.7	4.2	1.1	7.5	8.2
Canberra	Cool	2.1	0.6	3.6	30.4	-	-	-	-	-	-	-	-	2.4	0.9	3.9	27.2
	Warm	1.3	-0.9	3.6	26.2	-	-	-	-	-	-	-	-	3.6	-0.3	7.6	35.9
Christchurch	Cool	-	-	-	-	-	-	-	-	1.5	-0.8	3.9	47.0	2.5	1.0	4.0	20.0
	Warm	-	-	-	-	-	-	-	-	-0.2	-2.3	2.0	23.8	2.8	-0.7	6.4	28.5
Melbourne	Cool	1.6	-1.2	4.4	61.5	1.9	-0.1	3.9	59.8	0.8	-2.0	3.7	68.8	2.4	0.6	4.2	30.2
	Warm	2.4	-1.0	5.9	47.1	1.8	-1.7	5.4	62.1	1.4	-2.1	5.0	53.5	2.2	-2.0	6.5	25.3
Perth	Cool	1.2	-1.1	3.6	58.8	1.5	0.1	2.9	42.7	0.3	-2.0	2.6	59.8	2.1	0.7	3.5	19.7
	Warm	1.2	-1.1	3.6	24.1	1.8	-1.2	4.8	64.3	0.7	-2.4	3.8	56.1	3.5	-1.1	8.3	41.8
Sydney	Cool	0.9	-1.0	2.8	26.6	1.4	-0.2	3.0	40.9	-0.1	-2.1	2.0	39.0	1.7	0.4	2.9	0.0
	Warm	2.1	0.4	3.8	0.0	2.8	0.7	5.0	0.0	1.5	-1.4	4.5	38.5	2.4	-1.7	6.8	33.3
Australia only	Cool	1.5	-0.4	3.6	50.7	1.8	0.4	3.2	40.7	1.2	-0.4	2.8	30.9	2.7	0.8	4.6	30.1
	Warm	1.8	-0.5	4.1	29.7	1.7	-0.6	4.2	47.3	0.2	-1.4	1.7	20.5	2.3	0.5	4.1	11.7
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-0.8	3.4	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-1.5	6.4	8.9
Overall	Cool	1.5	-0.4	3.6	50.7	1.8	0.4	3.2	40.7	0.8	-1.4	3.0	58.5	2.2	0.9	3.6	17.4
	Warm	1.8	-0.5	4.1	29.7	1.7	-0.6	4.2	47.3	0.5	-1.9	3.0	42.3	3.2	-0.5	7.1	31.7

Table WCL.4 IHD admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.4	1.5	5.3	0.0	3.5	1.6	5.4	0.0	-	-	-	-	5.2	-0.0	10.8	53.0
	Warm	2.8	0.9	4.7	0.0	3.0	0.1	5.9	21.1	-	-	-	-	4.7	-0.7	10.3	38.3
Brisbane	Cool	3.3	1.3	5.4	0.0	3.4	1.3	5.6	8.6	5.2	-1.1	12.0	68.4	4.6	-1.2	10.8	76.4
	Warm	2.9	1.0	4.8	0.0	2.3	-0.8	5.6	35.3	3.6	-2.8	10.5	59.4	2.3	-4.4	9.6	66.7
Canberra	Cool	3.2	1.4	5.1	0.0	3.1	1.3	5.0	0.0	-	-	-	-	-	-	-	-
	Warm	3.0	1.1	4.8	0.0	2.9	0.3	5.6	16.3	-	-	-	-	-	-	-	-
Christchurch	Cool	3.6	1.7	5.5	0.0	3.4	1.6	5.3	0.0	4.0	-4.6	13.5	84.8	3.3	-2.8	9.7	68.4
	Warm	2.7	0.9	4.6	0.0	2.3	-0.8	5.4	35.9	1.9	-0.7	4.7	0.0	1.1	-2.6	4.9	18.6
Melbourne	Cool	3.8	1.6	6.0	0.0	3.9	1.7	6.3	0.0	-	-	-	-	-	-	-	-
	Warm	1.7	-0.5	4.0	0.0	0.6	-2.3	3.6	0.0	-	-	-	-	-	-	-	-
Perth	Cool	3.4	1.4	5.3	0.0	2.9	1.1	4.8	0.0	-	-	-	-	-	-	-	-
	Warm	2.8	0.9	4.8	0.0	1.8	-1.5	5.2	35.5	-	-	-	-	-	-	-	-
Sydney	Cool	2.5	0.4	4.6	0.0	2.5	0.3	4.7	0.0	0.7	-2.0	3.5	0.0	1.6	-1.2	4.4	33.7
	Warm	3.0	0.9	5.1	0.0	2.9	-0.4	6.4	23.2	3.8	0.0	7.8	47.4	3.8	-2.3	10.2	66.0
Australia only	Cool	3.4	2.0	4.9	0.0	4.0	2.4	5.6	0.0	3.2	-1.6	8.2	69.6	4.8	-0.5	10.3	51.0
	Warm	2.8	1.4	4.3	0.0	3.2	1.3	5.1	11.9	1.2	-1.0	3.3	0.0	2.2	-1.2	5.6	0.0
NZ only	Cool	1.2	-2.6	5.2	0.0	-0.6	-4.8	3.8	0.0	-	-	-	-	1.2	-2.4	4.9	46.7
	Warm	2.3	-1.8	6.7	0.0	-0.3	-4.8	4.4	0.0	-	-	-	-	2.2	-3.9	8.7	68.4
Overall	Cool	3.3	1.5	5.2	0.0	3.3	1.4	5.1	0.0	3.2	-1.9	8.5	69.6	3.5	-0.8	8.1	64.8
	Warm	2.7	0.9	4.6	0.0	2.4	-0.4	5.2	24.2	2.9	-0.0	6.0	27.7	2.9	-1.9	7.9	54.3

Table WCL.5 Stroke admissions 15-64 yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-4.3	7.3	41.4
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-5.6	15.6	33.6
Brisbane	Cool	2.0	-3.1	7.3	46.9	-0.5	-3.7	2.8	0.0	-0.3	-4.0	3.5	0.0	1.7	-4.0	7.7	42.9
	Warm	-1.9	-5.5	1.9	0.0	-3.9	-8.0	0.4	0.0	-3.9	-8.3	0.7	0.0	0.8	-9.6	12.4	61.0
Canberra	Cool	0.7	-2.4	3.9	10.5	-	-	-	-	-	-	-	-	0.4	-2.5	3.4	0.0
	Warm	-1.0	-9.2	7.9	38.4	-	-	-	-	-	-	-	-	-0.6	-9.6	9.2	56.5
Christchurch	Cool	-	-	-	-	-	-	-	-	0.9	-3.2	5.2	0.0	1.6	-4.0	7.6	42.9
	Warm	-	-	-	-	-	-	-	-	-1.9	-8.0	4.6	36.0	-0.2	-9.5	10.1	58.6
Melbourne	Cool	2.5	-3.1	8.5	48.6	1.0	-1.9	4.0	0.0	1.3	-2.6	5.4	0.0	2.4	-2.9	8.1	25.7
	Warm	-0.2	-9.6	10.3	40.0	-2.4	-10.5	6.3	49.1	-1.1	-8.4	6.7	39.0	-6.2	-12.3	0.4	0.0
Perth	Cool	1.5	-3.0	6.1	40.6	0.5	-2.1	3.1	0.0	0.2	-3.3	4.0	0.0	1.8	-1.9	5.7	24.0
	Warm	0.4	-7.1	8.4	35.0	-1.3	-8.0	5.9	49.5	-1.3	-7.4	5.2	38.1	1.2	-9.1	12.8	61.2
Sydney	Cool	2.7	-0.4	6.0	0.0	1.1	-1.9	4.3	0.0	0.6	-3.5	4.8	0.0	0.9	-4.5	6.6	33.8
	Warm	1.0	-6.7	9.4	23.4	-0.2	-6.5	6.5	18.7	-0.1	-5.9	6.0	8.4	2.7	-7.0	13.4	56.8
Australia only	Cool	1.8	-2.0	5.8	31.6	0.6	-2.0	3.1	0.0	0.4	-2.9	3.9	0.0	3.2	-2.6	9.4	44.3
	Warm	-1.0	-6.8	5.3	22.5	-2.3	-7.5	3.1	30.2	-0.7	-4.6	3.4	23.5	1.8	-5.0	9.2	47.5
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-1.6	-8.5	5.7	56.6
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.0	-11.5	8.5	59.7
Overall	Cool	1.8	-2.0	5.8	31.6	0.6	-2.0	3.1	0.0	0.5	-2.9	4.1	0.0	1.4	-2.9	6.0	31.5
	Warm	-1.0	-6.8	5.3	22.5	-2.3	-7.5	3.1	30.2	-2.1	-7.0	3.0	18.7	0.4	-8.4	10.1	53.4

Table WCL.5 Stroke admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.6	-6.3	14.5	56.3	8.3	-6.6	25.6	65.0	-	-	-	-	1.6	-10.2	15.0	50.5
	Warm	4.7	-2.8	12.7	41.2	5.8	-5.0	17.8	49.9	-	-	-	-	1.7	-7.5	11.9	0.0
Brisbane	Cool	-0.5	-11.3	11.6	54.2	4.2	-11.0	21.9	59.7	-4.3	-12.1	4.2	0.0	-0.5	-4.7	3.8	0.0
	Warm	3.6	-2.0	9.4	31.6	2.7	-4.0	9.8	24.6	6.6	-4.9	19.6	36.4	4.3	-4.0	13.3	0.0
Canberra	Cool	-1.5	-7.0	4.3	33.1	0.3	-4.9	5.8	19.9	-	-	-	-	-	-	-	-
	Warm	5.2	-2.0	12.9	45.2	4.7	-4.6	14.9	46.0	-	-	-	-	-	-	-	-
Christchurch	Cool	2.1	-9.6	15.3	66.2	6.3	-9.3	24.6	69.4	5.6	-4.5	16.8	38.3	2.7	-5.6	11.8	36.8
	Warm	3.4	-1.5	8.5	18.1	4.9	-4.5	15.2	47.1	-0.3	-7.1	7.0	0.0	3.0	-4.9	11.6	0.0
Melbourne	Cool	2.7	-9.2	16.1	63.6	7.5	-8.3	26.2	67.7	-	-	-	-	-	-	-	-
	Warm	5.6	-2.6	14.6	44.1	6.2	-5.2	18.8	48.4	-	-	-	-	-	-	-	-
Perth	Cool	2.5	-9.1	15.6	65.5	7.5	-8.0	25.5	69.0	-	-	-	-	-	-	-	-
	Warm	6.4	-0.9	14.1	41.7	7.4	-1.6	17.1	41.4	-	-	-	-	-	-	-	-
Sydney	Cool	1.8	-10.3	15.6	66.2	7.0	-9.1	25.9	69.5	1.6	-13.9	19.9	79.8	2.0	-7.8	12.9	49.0
	Warm	6.6	1.2	12.3	6.8	8.4	-1.0	18.7	24.4	5.0	-7.0	18.4	62.8	5.1	-2.8	13.6	0.0
Australia only	Cool	4.3	-1.9	10.9	46.8	8.9	-2.5	21.6	62.3	3.0	-3.8	10.4	29.7	4.8	-4.9	15.6	16.4
	Warm	4.0	-2.6	11.0	51.5	8.4	-3.4	21.5	65.5	3.3	-3.5	10.5	25.7	4.8	-5.4	16.1	19.6
NZ only	Cool	-1.9	-14.2	12.2	63.3	-0.5	-10.3	10.4	20.7	-	-	-	-	0.6	-3.5	4.8	0.0
	Warm	5.9	-16.5	34.3	77.5	2.1	-11.6	18.0	46.4	-	-	-	-	1.5	-2.6	5.8	0.0
Overall	Cool	1.2	-8.4	11.9	59.5	5.4	-7.5	20.2	63.4	1.1	-8.6	11.7	60.9	1.0	-6.0	8.4	27.1
	Warm	4.7	-1.1	10.7	35.0	5.5	-3.2	15.1	41.9	3.2	-4.2	11.2	29.8	3.7	-3.5	11.4	0.0

Table WCL.6 Stroke admissions 65+ yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.6	1.8	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-7.8	9.0	62.2
Brisbane	Cool	1.5	-0.1	3.2	0.0	1.3	-0.5	3.1	0.0	1.2	-0.8	3.3	0.0	0.6	-1.1	2.4	0.0
	Warm	-3.3	-7.2	0.7	55.1	-3.1	-7.6	1.7	67.8	-4.8	-9.0	-0.4	60.7	-2.6	-8.6	3.7	39.3
Canberra	Cool	0.5	-2.7	3.8	62.6	-	-	-	-	-	-	-	-	0.3	-1.3	2.0	0.0
	Warm	-2.1	-6.4	2.4	57.7	-	-	-	-	-	-	-	-	0.2	-7.0	8.0	61.7
Christchurch	Cool	-	-	-	-	-	-	-	-	0.1	-2.1	2.4	0.0	0.7	-1.0	2.5	0.0
	Warm	-	-	-	-	-	-	-	-	-4.3	-8.4	0.1	64.1	-1.4	-7.7	5.5	56.3
Melbourne	Cool	0.8	-2.9	4.5	63.2	0.1	-2.6	2.9	59.6	0.5	-1.5	2.6	0.0	0.4	-1.6	2.4	0.0
	Warm	-3.1	-8.6	2.7	51.2	0.0	-7.9	8.6	86.3	-5.0	-9.5	-0.3	53.0	1.3	-6.1	9.2	54.7
Perth	Cool	0.5	-2.8	3.8	62.5	-0.1	-2.2	2.0	50.5	0.8	-1.1	2.8	0.0	0.3	-1.3	2.0	0.0
	Warm	-3.5	-7.8	1.0	56.3	-1.1	-8.6	6.9	84.9	-5.1	-9.2	-0.9	56.0	-1.7	-8.6	5.7	53.1
Sydney	Cool	-0.1	-3.1	3.0	44.7	0.0	-2.7	2.8	55.5	1.0	-1.1	3.2	0.0	0.1	-1.6	1.9	0.0
	Warm	-1.2	-3.5	1.2	0.0	1.6	-3.4	6.8	61.1	-2.3	-5.3	0.8	0.0	1.4	-5.2	8.4	49.9
Australia only	Cool	0.7	-1.9	3.4	51.5	0.3	-1.7	2.3	44.6	-0.6	-2.5	1.2	0.0	0.5	-1.8	2.7	11.2
	Warm	-2.7	-6.5	1.3	49.7	-0.7	-6.3	5.3	79.6	-2.4	-5.5	0.9	64.2	-0.4	-4.1	3.4	36.8
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-3.5	3.0	21.5
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-3.7	6.4	25.7
Overall	Cool	0.7	-1.9	3.4	51.5	0.3	-1.7	2.3	44.6	0.8	-1.1	2.7	0.0	0.4	-1.2	2.0	0.0
	Warm	-2.7	-6.5	1.3	49.7	-0.7	-6.3	5.3	79.6	-4.4	-8.0	-0.6	52.1	-0.4	-6.9	6.5	54.6

Table WCL.6 Stroke admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.5	-1.7	4.9	33.1	2.0	-0.9	4.9	16.0	-	-	-	-	1.0	-4.0	6.3	16.3
	Warm	0.4	-4.4	5.4	51.7	0.2	-5.5	6.3	44.8	-	-	-	-	-0.6	-6.0	5.2	6.8
Brisbane	Cool	3.9	-1.7	9.9	56.7	4.0	-0.8	9.0	39.6	3.7	-0.8	8.5	0.0	0.2	-4.7	5.2	39.0
	Warm	1.4	-3.5	6.5	58.1	1.3	-4.6	7.6	51.4	1.9	-5.4	9.8	46.6	0.6	-5.7	7.4	30.2
Canberra	Cool	1.6	-1.3	4.5	21.2	2.0	-0.4	4.5	0.0	-	-	-	-	-	-	-	-
	Warm	1.2	-2.9	5.4	56.9	1.3	-4.1	7.0	50.0	-	-	-	-	-	-	-	-
Christchurch	Cool	4.0	-0.7	9.0	51.3	3.8	-0.6	8.4	38.5	2.1	-2.1	6.6	0.0	0.2	-4.6	5.3	39.0
	Warm	-0.2	-3.3	3.0	33.1	-0.7	-4.4	3.0	22.0	-1.0	-4.8	3.0	0.0	-0.1	-5.6	5.8	21.7
Melbourne	Cool	4.1	-1.7	10.3	55.0	4.1	-1.1	9.5	39.8	-	-	-	-	-	-	-	-
	Warm	1.6	-3.5	6.9	57.3	1.6	-4.8	8.4	51.5	-	-	-	-	-	-	-	-
Perth	Cool	3.5	-2.6	10.0	56.0	3.5	-1.2	8.5	39.4	-	-	-	-	-	-	-	-
	Warm	-0.4	-4.2	3.6	43.7	-0.4	-5.5	4.9	37.1	-	-	-	-	-	-	-	-
Sydney	Cool	4.1	-1.8	10.3	56.0	4.3	-0.4	9.3	30.3	1.6	-2.3	5.7	0.0	-1.6	-4.2	1.0	0.0
	Warm	2.1	-2.0	6.3	38.4	2.1	-2.3	6.7	17.2	1.7	-3.9	7.5	49.2	2.4	-2.4	7.4	0.0
Australia only	Cool	1.2	-1.1	3.6	19.7	1.5	-0.7	3.8	4.6	0.8	-2.3	4.0	0.0	1.6	-3.1	6.6	0.6
	Warm	0.6	-2.2	3.6	42.4	1.1	-2.6	5.0	41.2	-0.5	-3.6	2.7	0.0	-1.7	-6.4	3.2	0.0
NZ only	Cool	4.2	-4.9	14.2	59.1	5.9	-0.2	12.3	0.0	-	-	-	-	-1.0	-3.6	1.6	0.0
	Warm	9.5	1.8	17.8	36.5	8.8	2.2	15.8	0.0	-	-	-	-	-0.4	-3.5	2.7	14.7
Overall	Cool	3.2	-1.4	7.9	48.8	3.1	-0.4	6.7	28.1	2.4	-1.1	6.0	0.0	-0.8	-3.6	2.1	8.5
	Warm	0.7	-3.0	4.6	50.0	0.7	-4.2	5.8	41.8	0.5	-3.3	4.6	17.2	0.8	-3.5	5.3	0.0

Table WCL.7 Arrhythmia admissions 15-64 yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-1.2	5.1	11.4
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-7.5	11.5	16.9
Brisbane	Cool	1.1	-1.5	3.8	0.0	1.5	-1.5	4.5	0.0	3.2	-0.3	6.9	0.0	2.9	-0.3	6.1	13.9
	Warm	-0.3	-4.6	4.3	13.5	0.1	-4.8	5.3	23.2	-0.3	-4.5	4.1	0.0	1.8	-5.8	10.1	15.4
Canberra	Cool	1.2	-1.3	3.8	0.0	-	-	-	-	-	-	-	-	2.6	-0.2	5.4	5.6
	Warm	-0.2	-4.2	3.9	7.0	-	-	-	-	-	-	-	-	2.1	-3.6	8.1	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	1.7	-2.0	5.6	0.0	1.5	-1.2	4.3	0.0
	Warm	-	-	-	-	-	-	-	-	-0.5	-4.5	3.7	0.0	1.1	-6.4	9.2	19.5
Melbourne	Cool	1.4	-2.0	4.9	0.0	1.7	-0.8	4.4	0.0	3.9	0.3	7.6	0.0	3.5	0.3	6.7	0.0
	Warm	0.2	-5.5	6.2	12.3	0.9	-4.1	6.1	16.5	0.8	-4.0	5.9	0.0	-0.7	-6.7	5.7	0.0
Perth	Cool	1.0	-1.5	3.5	0.0	1.7	-0.6	4.0	0.0	3.2	-0.1	6.7	0.0	2.4	-0.7	5.6	20.8
	Warm	-1.6	-5.1	2.1	0.0	-1.1	-4.9	2.8	0.0	-1.2	-5.4	3.1	0.0	0.5	-7.3	9.0	19.4
Sydney	Cool	0.3	-2.5	3.1	0.0	1.4	-1.3	4.1	0.0	2.9	-0.9	6.8	0.0	2.0	-1.2	5.3	14.3
	Warm	0.2	-4.3	4.8	6.2	1.1	-4.2	6.7	11.6	-1.6	-6.6	3.6	0.0	0.2	-7.6	8.7	17.0
Australia only	Cool	1.0	-1.5	3.5	0.0	1.6	-0.7	3.9	0.0	0.6	-2.4	3.8	0.0	0.9	-1.9	3.9	0.5
	Warm	-0.6	-4.0	2.9	0.0	-0.1	-3.8	3.6	0.0	-0.0	-3.1	3.2	0.0	0.2	-2.9	3.4	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	4.5	-0.7	10.0	24.3
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-2.2	7.9	0.0
Overall	Cool	1.0	-1.5	3.5	0.0	1.6	-0.7	3.9	0.0	3.0	-0.2	6.3	0.0	2.3	-0.4	5.1	5.1
	Warm	-0.6	-4.0	2.9	0.0	-0.1	-3.8	3.6	0.0	-0.6	-4.5	3.5	0.0	1.2	-4.8	7.5	4.6

Table WCL.7 Arrhythmia admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	4.5	0.3	8.9	0.0	4.9	0.7	9.3	0.0	-	-	-	-	3.4	-4.9	12.4	3.6
	Warm	0.8	-3.3	5.1	0.0	1.6	-3.6	7.1	0.0	-	-	-	-	-3.2	-11.5	5.8	0.0
Brisbane	Cool	3.7	-0.6	8.2	0.0	4.7	0.5	9.1	0.0	4.1	-8.6	18.5	57.5	1.5	-6.7	10.3	51.9
	Warm	1.1	-2.8	5.1	0.0	3.5	-4.3	12.0	40.1	3.0	-6.4	13.3	0.0	2.9	-8.6	15.8	45.6
Canberra	Cool	4.7	0.6	9.0	0.0	5.3	1.3	9.5	0.0	-	-	-	-	-	-	-	-
	Warm	2.2	-1.8	6.3	0.0	5.5	-0.5	12.0	19.7	-	-	-	-	-	-	-	-
Christchurch	Cool	4.3	0.2	8.5	0.0	5.4	1.4	9.6	0.0	-1.0	-7.6	6.0	0.0	-1.9	-7.5	4.1	19.1
	Warm	1.7	-2.1	5.7	0.0	4.5	-3.8	13.6	45.9	-2.2	-8.0	4.0	0.0	-0.4	-10.8	11.1	55.4
Melbourne	Cool	5.5	0.8	10.4	0.0	5.9	1.1	11.0	0.0	-	-	-	-	-	-	-	-
	Warm	1.8	-2.8	6.5	0.0	5.1	-4.3	15.4	45.1	-	-	-	-	-	-	-	-
Perth	Cool	4.6	0.4	8.9	0.0	5.4	1.4	9.7	0.0	-	-	-	-	-	-	-	-
	Warm	1.6	-2.4	5.8	0.0	4.8	-4.1	14.6	45.8	-	-	-	-	-	-	-	-
Sydney	Cool	5.9	1.0	11.1	0.0	7.1	2.1	12.3	0.0	4.4	-6.1	16.1	52.3	-2.8	-6.5	1.0	0.0
	Warm	2.1	-2.4	6.8	0.0	5.8	-3.3	15.8	40.3	-2.1	-8.2	4.3	0.0	4.1	-4.0	12.8	18.7
Australia only	Cool	3.0	-0.3	6.4	0.0	4.1	0.5	7.9	0.0	-2.3	-6.9	2.7	0.0	-0.5	-7.8	7.3	1.0
	Warm	2.6	-0.7	6.0	0.0	4.0	0.1	8.0	0.0	-1.5	-6.3	3.5	0.0	-4.8	-11.9	2.8	0.0
NZ only	Cool	7.0	-0.4	15.0	0.0	13.3	4.4	23.0	0.0	-	-	-	-	2.4	-5.7	11.3	67.4
	Warm	5.2	-2.3	13.3	0.0	13.6	4.4	23.5	0.0	-	-	-	-	1.9	-6.2	10.6	63.6
Overall	Cool	4.7	0.7	8.8	0.0	5.5	1.5	9.6	0.0	2.1	-5.0	9.7	28.7	-0.5	-6.2	5.6	28.6
	Warm	1.6	-2.2	5.6	0.0	4.5	-2.7	12.3	35.1	-1.3	-6.7	4.5	0.0	1.2	-7.3	10.4	37.9

Table WCL.8 Arrhythmia admissions 65+ yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.3	2.1	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-5.7	-11.1	0.2	0.0
Brisbane	Cool	-0.6	-2.6	1.5	0.0	-0.1	-2.3	2.2	0.0	-1.2	-3.9	1.5	0.0	1.5	-0.8	3.8	0.0
	Warm	-0.1	-2.7	2.7	0.0	-0.6	-3.7	2.5	0.0	1.8	-3.7	7.6	46.6	-1.6	-6.4	3.4	5.9
Canberra	Cool	-0.9	-2.8	1.1	0.0	-	-	-	-	-	-	-	-	0.4	-1.7	2.6	6.8
	Warm	0.1	-2.6	2.8	0.0	-	-	-	-	-	-	-	-	-2.9	-8.0	2.5	22.5
Christchurch	Cool	-	-	-	-	-	-	-	-	-0.9	-3.7	2.0	0.0	0.6	-1.8	2.9	11.4
	Warm	-	-	-	-	-	-	-	-	0.2	-3.1	3.7	10.6	-2.9	-7.7	2.2	17.7
Melbourne	Cool	-0.7	-3.3	2.0	0.0	-0.7	-2.7	1.3	0.0	-1.0	-3.7	1.8	0.0	0.4	-2.3	3.1	10.0
	Warm	-0.1	-4.3	4.3	0.0	-0.5	-4.0	3.3	0.0	2.8	-2.2	8.1	31.8	-1.8	-7.2	4.0	12.8
Perth	Cool	-0.8	-2.7	1.2	0.0	-0.8	-2.6	1.1	0.0	-1.6	-4.2	1.0	0.6	0.6	-1.7	2.9	11.2
	Warm	0.4	-2.4	3.2	0.0	-0.1	-3.1	3.1	0.0	-0.4	-3.8	3.2	5.2	-1.1	-5.6	3.7	0.0
Sydney	Cool	-0.4	-2.5	1.8	0.0	-1.2	-3.3	0.9	0.0	-2.8	-5.6	0.2	0.0	0.6	-1.8	3.1	11.1
	Warm	-0.1	-3.1	3.0	0.0	0.7	-3.1	4.6	0.0	2.7	-2.8	8.5	41.2	-3.3	-8.6	2.2	19.3
Australia only	Cool	-0.7	-2.5	1.2	0.0	-0.7	-2.5	1.1	0.0	-0.3	-2.6	2.0	0.0	-1.2	-3.6	1.2	8.6
	Warm	0.1	-2.6	2.8	0.0	-0.2	-3.0	2.8	0.0	-1.0	-3.4	1.4	0.0	-1.4	-3.9	1.2	6.2
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	2.9	-0.7	6.7	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	4.1	-0.3	8.6	0.0
Overall	Cool	-0.7	-2.5	1.2	0.0	-0.7	-2.5	1.1	0.0	-1.5	-3.9	1.0	0.0	0.5	-1.5	2.6	0.0
	Warm	0.1	-2.6	2.8	0.0	-0.2	-3.0	2.8	0.0	1.2	-2.7	5.2	29.7	-2.4	-6.9	2.3	7.0

Table WCL.8 Arrhythmia admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-0.9	-4.0	2.3	0.0	-0.6	-3.7	2.6	0.0	-	-	-	-	3.5	-2.5	10.0	0.0
	Warm	-1.0	-4.5	2.7	12.8	-1.3	-5.2	2.8	0.0	-	-	-	-	-0.8	-7.5	6.4	0.0
Brisbane	Cool	0.4	-3.0	4.0	6.1	-0.1	-3.4	3.4	5.9	3.3	-2.9	9.9	0.0	1.9	-1.4	5.3	0.0
	Warm	-0.5	-4.3	3.5	27.7	-0.9	-5.0	3.3	6.8	3.0	-4.2	10.8	0.0	1.0	-5.5	7.8	0.0
Canberra	Cool	-0.1	-3.5	3.3	12.1	-0.0	-3.2	3.2	5.8	-	-	-	-	-	-	-	-
	Warm	0.4	-2.7	3.7	4.0	-0.2	-4.0	3.8	0.7	-	-	-	-	-	-	-	-
Christchurch	Cool	0.2	-3.1	3.5	8.1	0.4	-2.6	3.5	0.0	-0.0	-5.2	5.5	0.0	1.2	-2.0	4.6	0.0
	Warm	-0.4	-3.8	3.0	15.3	-0.9	-4.7	3.0	0.0	0.2	-4.6	5.3	0.0	2.2	-3.7	8.5	0.0
Melbourne	Cool	-0.1	-4.0	4.0	13.3	-0.4	-4.1	3.6	4.6	-	-	-	-	-	-	-	-
	Warm	-0.4	-5.1	4.6	32.1	-0.7	-6.4	5.5	15.8	-	-	-	-	-	-	-	-
Perth	Cool	0.5	-2.7	3.8	0.0	0.5	-2.6	3.7	0.0	-	-	-	-	-	-	-	-
	Warm	0.7	-3.3	4.8	22.8	0.1	-3.9	4.3	1.3	-	-	-	-	-	-	-	-
Sydney	Cool	-0.0	-4.1	4.2	13.4	-0.2	-4.1	3.8	5.6	0.2	-4.8	5.6	0.0	1.6	-1.6	4.9	0.0
	Warm	0.5	-4.1	5.2	30.5	0.5	-4.5	5.7	9.0	0.3	-4.6	5.4	0.0	1.3	-4.6	7.5	0.0
Australia only	Cool	-0.8	-3.3	1.7	0.0	-0.4	-3.1	2.3	0.0	-0.3	-4.1	3.7	0.0	1.6	-4.3	7.8	0.0
	Warm	-1.2	-3.7	1.3	0.0	-1.1	-3.9	1.8	0.0	-0.4	-4.3	3.6	0.0	0.7	-5.3	7.0	0.0
NZ only	Cool	5.9	-1.8	14.3	24.4	0.9	-10.8	14.1	48.9	-	-	-	-	2.0	-1.2	5.3	0.0
	Warm	8.9	1.8	16.5	0.0	7.0	-0.8	15.3	0.0	-	-	-	-	1.1	-2.1	4.5	0.0
Overall	Cool	-0.0	-3.0	3.1	0.0	0.0	-3.0	3.1	0.0	1.0	-3.5	5.6	0.0	1.7	-1.4	4.9	0.0
	Warm	-0.1	-3.6	3.6	20.9	-0.6	-4.4	3.4	0.9	0.8	-3.6	5.4	0.0	1.0	-4.3	6.7	0.0

Table WCL.9 Cardiac failure admissions 15-64 yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	3.4	-1.0	8.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	5.9	-6.7	20.2	0.0
Brisbane	Cool	4.1	0.0	8.4	0.0	3.1	-1.4	7.7	0.0	0.1	-5.5	6.1	3.7	3.4	-1.1	8.0	0.0
	Warm	7.4	-7.9	25.3	74.7	5.9	-0.8	13.0	0.0	4.9	-2.1	12.4	0.0	9.1	-0.3	19.5	0.0
Canberra	Cool	3.1	-0.7	7.2	0.0	-	-	-	-	-	-	-	-	3.0	-1.1	7.2	0.0
	Warm	9.7	-3.4	24.5	70.8	-	-	-	-	-	-	-	-	9.2	0.0	19.2	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	0.0	-5.8	6.2	8.5	3.6	-0.6	7.9	0.0
	Warm	-	-	-	-	-	-	-	-	3.8	-2.9	10.9	0.0	8.2	-0.9	18.0	0.0
Melbourne	Cool	5.2	-0.4	11.2	0.0	1.1	-3.3	5.6	0.0	-2.8	-8.3	3.1	0.0	4.8	-0.4	10.2	0.0
	Warm	9.5	-7.1	29.0	57.6	8.0	-0.2	17.0	0.0	5.8	-2.9	15.3	0.0	7.4	-2.5	18.4	0.0
Perth	Cool	3.8	-0.2	7.9	0.0	2.0	-1.8	6.0	0.0	0.2	-5.1	5.8	0.0	3.1	-1.0	7.4	0.0
	Warm	1.8	-5.9	10.2	25.0	4.0	-2.6	11.0	0.0	2.4	-4.6	10.0	0.0	9.7	0.3	20.1	0.0
Sydney	Cool	3.4	-0.9	7.9	0.0	0.3	-4.1	4.9	0.0	-1.9	-8.0	4.7	10.3	1.4	-2.9	5.9	0.0
	Warm	4.7	-11.5	23.7	71.3	3.3	-4.5	11.8	0.0	2.0	-5.9	10.6	0.0	7.7	-1.8	18.0	0.0
Australia only	Cool	3.8	-0.0	7.8	0.0	1.6	-2.0	5.4	0.0	0.8	-3.9	5.6	0.0	3.8	-0.6	8.4	0.0
	Warm	6.6	-6.1	20.9	66.6	5.2	-1.1	11.9	0.0	1.6	-3.4	6.8	4.9	2.2	-2.6	7.2	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	3.8	-3.0	11.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	5.5	-2.1	13.8	0.0
Overall	Cool	3.8	-0.0	7.8	0.0	1.6	-2.0	5.4	0.0	-0.7	-5.7	4.5	0.0	3.2	-0.9	7.4	0.0
	Warm	6.6	-6.1	20.9	66.6	5.2	-1.1	11.9	0.0	3.8	-2.8	10.8	0.0	8.4	-0.7	18.2	0.0

Table WCL.9 Cardiac failure admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	6.2	-0.4	13.2	0.0	6.9	0.3	14.0	0.0	-	-	-	-	1.7	-10.9	16.2	0.0
	Warm	1.6	-5.1	8.8	0.0	2.0	-6.4	11.1	0.0	-	-	-	-	-2.5	-17.3	15.0	0.0
Brisbane	Cool	5.0	-1.8	12.2	0.0	7.0	0.3	14.1	0.0	0.3	-12.9	15.6	0.0	1.0	-4.5	6.7	0.0
	Warm	2.4	-4.0	9.1	0.0	2.5	-5.6	11.1	0.0	5.8	-11.5	26.6	0.0	-5.3	-16.8	7.7	0.0
Canberra	Cool	5.2	-1.1	11.9	0.0	7.0	0.7	13.7	0.0	-	-	-	-	-	-	-	-
	Warm	2.7	-3.7	9.5	0.0	2.7	-5.3	11.4	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	4.8	-1.5	11.5	0.0	6.7	0.4	13.3	0.0	2.5	-8.3	14.5	0.0	1.1	-4.3	6.7	0.0
	Warm	2.3	-3.9	9.0	0.0	2.8	-5.1	11.4	0.0	-3.5	-13.8	8.1	0.0	-6.2	-16.6	5.4	0.0
Melbourne	Cool	6.2	-1.3	14.3	0.0	7.0	-0.7	15.2	0.0	-	-	-	-	-	-	-	-
	Warm	3.2	-4.7	11.7	0.0	2.7	-7.5	14.0	0.0	-	-	-	-	-	-	-	-
Perth	Cool	5.8	-0.9	12.9	0.0	7.1	0.7	14.0	0.0	-	-	-	-	-	-	-	-
	Warm	3.1	-3.6	10.3	0.0	3.7	-4.7	12.8	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	3.3	-4.0	11.2	0.0	5.9	-1.6	13.9	0.0	3.3	-7.9	15.8	0.0	1.2	-4.1	6.9	0.0
	Warm	1.7	-5.3	9.3	0.0	1.5	-7.5	11.4	0.0	-3.1	-14.2	9.4	0.0	-6.5	-17.1	5.5	0.0
Australia only	Cool	3.5	-1.6	8.9	0.0	5.0	-0.6	11.0	0.0	-1.0	-9.0	7.8	0.0	-0.9	-12.6	12.3	0.0
	Warm	2.4	-2.8	7.9	0.0	3.9	-2.1	10.3	0.0	-0.5	-8.8	8.6	0.0	-0.5	-12.7	13.4	0.0
NZ only	Cool	4.5	-7.2	17.8	0.0	7.1	-6.1	22.0	0.0	-	-	-	-	-0.1	-5.3	5.4	0.0
	Warm	3.0	-8.8	16.4	0.0	5.6	-7.7	20.7	0.0	-	-	-	-	-0.1	-5.3	5.4	0.0
Overall	Cool	5.2	-1.0	11.9	0.0	6.8	0.6	13.4	0.0	2.3	-7.3	12.8	0.0	1.1	-4.1	6.7	0.0
	Warm	2.4	-3.8	9.0	0.0	2.6	-5.3	11.1	0.0	-1.7	-11.7	9.3	0.0	-5.5	-15.5	5.7	0.0

Table WCL.10 Cardiac failure admissions 65+ yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	6.5	4.3	8.8	31.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-4.5	11.4	52.3
Brisbane	Cool	4.9	3.4	6.5	0.0	5.6	3.8	7.5	11.6	5.5	3.1	7.9	19.8	6.8	4.6	8.9	25.7
	Warm	1.3	-0.9	3.6	0.0	1.4	-1.1	4.1	0.0	-0.1	-2.9	2.7	0.0	3.8	-2.7	10.8	47.2
Canberra	Cool	3.9	1.5	6.4	47.0	-	-	-	-	-	-	-	-	6.0	4.3	7.7	5.4
	Warm	1.4	-0.8	3.6	0.0	-	-	-	-	-	-	-	-	2.0	-5.0	9.5	58.2
Christchurch	Cool	-	-	-	-	-	-	-	-	4.8	1.5	8.3	56.9	6.6	4.4	8.8	31.4
	Warm	-	-	-	-	-	-	-	-	0.2	-2.4	3.0	0.0	2.2	-4.8	9.7	58.1
Melbourne	Cool	4.3	1.0	7.6	55.0	2.9	-0.0	5.9	69.2	3.5	1.4	5.7	0.0	7.1	5.0	9.3	3.3
	Warm	0.4	-3.3	4.3	0.0	2.8	-1.0	6.7	24.7	1.3	-2.1	4.8	0.0	1.0	-6.4	9.0	53.8
Perth	Cool	4.3	1.4	7.3	55.0	4.2	0.6	8.0	85.4	4.5	1.3	7.8	60.5	6.2	4.2	8.3	25.7
	Warm	1.6	-0.6	4.0	0.0	2.5	-0.6	5.7	25.8	0.5	-2.3	3.4	0.0	3.5	-3.3	10.8	51.2
Sydney	Cool	3.7	1.0	6.4	39.9	3.6	-0.1	7.3	84.0	4.1	0.7	7.7	59.3	5.4	3.7	7.2	0.0
	Warm	1.6	-0.8	4.1	0.0	2.9	-0.8	6.7	21.6	0.0	-3.2	3.3	0.0	0.0	-4.3	4.6	0.0
Australia only	Cool	4.3	2.0	6.6	40.0	4.0	1.0	7.0	78.3	3.2	0.2	6.2	60.0	5.6	2.1	9.4	44.8
	Warm	1.4	-0.8	3.6	0.0	2.2	-0.3	4.7	0.0	2.4	-0.6	5.5	57.7	5.8	1.2	10.5	43.7
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	4.1	-0.2	8.5	31.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-1.7	8.4	25.2
Overall	Cool	4.3	2.0	6.6	40.0	4.0	1.0	7.0	78.3	4.5	1.8	7.2	47.6	6.3	4.5	8.2	18.3
	Warm	1.4	-0.8	3.6	0.0	2.2	-0.3	4.7	0.0	0.3	-2.3	3.0	0.0	2.2	-4.1	8.8	49.9

Table WCL.10 Cardiac failure admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	8.0	2.4	14.0	62.1	8.7	0.8	17.3	56.8	-	-	-	-	2.3	-11.7	18.5	88.1
	Warm	4.9	2.1	7.8	0.0	6.5	3.0	10.2	0.0	-	-	-	-	-0.7	-10.1	9.6	52.8
Brisbane	Cool	5.9	-2.5	14.9	74.1	6.5	-2.7	16.6	74.2	2.9	-12.7	21.2	91.0	3.9	-9.2	18.8	86.4
	Warm	4.5	1.8	7.3	0.0	5.8	2.4	9.4	0.0	-0.7	-11.5	11.4	64.6	2.3	-6.5	12.0	40.8
Canberra	Cool	4.4	-2.2	11.5	75.4	5.5	-1.8	13.4	72.6	-	-	-	-	-	-	-	-
	Warm	4.8	2.1	7.6	0.0	6.2	2.8	9.7	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	7.6	1.6	14.0	67.8	9.2	3.8	14.9	56.0	5.3	-6.1	18.0	85.9	4.3	-8.0	18.3	85.9
	Warm	4.6	1.9	7.4	0.0	6.1	2.6	9.6	0.0	0.6	-4.8	6.2	29.8	2.1	-5.3	10.1	40.5
Melbourne	Cool	4.4	-3.3	12.6	74.0	5.6	-3.3	15.4	72.9	-	-	-	-	-	-	-	-
	Warm	6.0	2.5	9.6	0.0	7.4	2.8	12.2	0.0	-	-	-	-	-	-	-	-
Perth	Cool	5.1	-3.2	14.0	77.2	6.1	-2.9	16.0	74.7	-	-	-	-	-	-	-	-
	Warm	5.3	2.4	8.3	0.0	6.5	2.9	10.3	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	4.4	-3.3	12.7	74.7	5.6	-3.3	15.3	72.5	-2.4	-7.0	2.5	24.9	-1.6	-5.3	2.3	33.3
	Warm	3.8	0.7	7.0	0.0	5.5	1.5	9.7	0.0	-2.4	-6.9	2.2	0.0	-1.7	-7.4	4.3	5.1
Australia only	Cool	7.6	4.3	10.9	52.6	9.8	7.3	12.4	12.1	2.9	-4.8	11.1	78.6	2.9	-10.6	18.5	87.1
	Warm	6.8	3.9	9.9	40.6	9.0	6.5	11.4	0.0	-0.1	-3.4	3.3	0.0	-0.6	-8.6	8.0	50.7
NZ only	Cool	-3.2	-11.4	5.8	52.9	-3.8	-11.3	4.3	22.7	-	-	-	-	-0.1	-4.1	4.0	19.4
	Warm	2.6	-10.6	17.6	62.9	0.8	-8.0	10.4	22.6	-	-	-	-	0.5	-2.4	3.6	0.0
Overall	Cool	5.6	-1.3	13.1	72.7	6.8	-0.8	14.9	69.7	1.7	-7.6	11.9	83.4	1.8	-8.1	12.7	82.2
	Warm	4.8	2.1	7.6	0.0	6.2	2.8	9.8	0.0	-0.9	-6.3	4.9	31.7	0.4	-6.3	7.6	37.8

Table WCL.11 Myocardial infarction admissions 15-64 yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Brisbane	Cool	2.7	-0.6	6.1	35.6	3.4	-1.1	8.2	55.6	0.8	-4.6	6.4	59.6	2.6	-0.5	5.8	0.0
	Warm	1.2	-2.1	4.7	0.0	-0.2	-4.1	3.8	0.0	-0.7	-4.8	3.6	0.0	-2.5	-18.0	15.9	68.4
Canberra	Cool	2.7	-0.5	5.9	35.3	-	-	-	-	-	-	-	-	2.4	-0.4	5.3	0.0
	Warm	1.4	-2.0	4.9	0.0	-	-	-	-	-	-	-	-	4.5	-10.3	21.6	68.2
Christchurch	Cool	-	-	-	-	-	-	-	-	2.4	-1.6	6.5	12.7	3.4	0.4	6.5	0.0
	Warm	-	-	-	-	-	-	-	-	-1.1	-5.0	3.0	0.0	0.4	-16.4	20.5	73.5
Melbourne	Cool	5.1	1.5	8.8	0.0	3.5	-0.8	7.9	54.5	1.3	-4.0	7.0	56.5	2.3	-1.4	6.1	0.0
	Warm	-0.7	-5.9	4.8	0.0	-1.9	-6.3	2.8	0.0	-1.2	-6.0	3.8	0.0	0.4	-17.5	22.1	73.2
Perth	Cool	2.2	-0.6	5.2	23.0	1.6	-2.0	5.4	56.1	0.0	-4.8	5.1	55.1	2.4	-0.5	5.3	0.0
	Warm	1.5	-1.9	5.1	0.0	-0.5	-4.3	3.5	0.0	-1.7	-5.8	2.6	0.0	8.6	-4.2	23.1	38.1
Sydney	Cool	1.3	-1.4	4.1	0.0	0.7	-2.4	3.9	20.2	-1.6	-5.0	2.1	0.0	1.7	-1.3	4.9	0.0
	Warm	2.0	-1.8	5.8	0.0	-0.6	-5.2	4.2	0.0	-1.2	-5.9	3.8	0.0	-3.1	-17.8	14.3	63.3
Australia only	Cool	2.5	-0.2	5.2	16.8	2.3	-1.1	5.8	50.3	1.2	-1.7	4.3	0.0	2.2	-4.2	9.0	35.4
	Warm	1.3	-2.0	4.7	0.0	-0.7	-4.3	3.0	0.0	-0.5	-3.5	2.6	0.0	2.9	-5.2	11.6	48.2
Overall	Cool	2.5	-0.2	5.2	16.8	2.3	-1.1	5.8	50.3	0.6	-3.6	5.1	46.1	2.5	-0.3	5.3	0.0
	Warm	1.3	-2.0	4.7	0.0	-0.7	-4.3	3.0	0.0	-1.2	-5.0	2.8	0.0	1.3	-13.1	18.1	66.8

Table WCL.11 Myocardial infarction admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Brisbane	Cool	2.2	-2.5	7.1	7.4	3.2	-1.6	8.2	8.5	7.2	-0.6	15.7	0.0	11.8	-1.5	27.0	37.8
	Warm	2.9	-1.8	7.8	10.7	3.3	-2.3	9.3	5.2	9.4	-0.2	19.9	0.0	13.2	-0.0	28.2	0.0
Canberra	Cool	1.4	-3.3	6.4	21.1	1.9	-2.8	6.9	18.2	-	-	-	-	-	-	-	-
	Warm	3.5	-1.5	8.8	19.6	4.0	-1.3	9.7	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.3	-3.5	6.3	20.7	2.1	-3.0	7.4	24.9	4.2	-8.3	18.5	67.4	8.5	-10.7	31.8	73.0
	Warm	3.2	-1.6	8.2	17.6	3.9	-1.4	9.5	0.7	3.0	-3.9	10.4	21.9	5.7	-14.9	31.3	76.2
Melbourne	Cool	3.7	-1.3	8.9	0.0	4.7	-0.6	10.2	0.0	-	-	-	-	-	-	-	-
	Warm	3.3	-3.2	10.1	21.0	4.4	-3.0	12.3	4.9	-	-	-	-	-	-	-	-
Perth	Cool	0.4	-3.9	4.8	0.0	1.5	-3.2	6.4	12.6	-	-	-	-	-	-	-	-
	Warm	5.3	0.7	10.2	0.0	5.0	-0.6	11.0	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	-0.7	-5.5	4.4	0.0	0.0	-5.0	5.3	0.0	0.7	-5.6	7.5	0.0	2.3	-6.1	11.6	0.0
	Warm	1.7	-3.2	6.9	0.0	0.7	-5.5	7.3	0.0	2.7	-3.9	9.7	13.1	-0.5	-10.8	11.0	15.2
Australia only	Cool	1.3	-2.0	4.7	3.9	1.6	-1.9	5.2	0.0	2.4	-4.5	9.7	38.1	3.6	-9.8	18.9	64.0
	Warm	1.6	-2.0	5.4	15.4	1.8	-2.1	5.9	7.6	1.2	-3.7	6.3	0.0	2.7	-9.6	16.6	54.4
Overall	Cool	1.3	-2.7	5.6	1.4	2.2	-2.3	6.9	11.2	3.7	-3.5	11.4	35.7	7.0	-4.1	19.4	46.0
	Warm	3.4	-0.8	7.8	1.3	3.7	-1.5	9.2	0.0	3.7	-1.8	9.5	0.2	5.5	-7.2	20.0	54.7

Table WCL.12 Myocardial infarction admissions 65+ yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Brisbane	Cool	2.3	0.3	4.4	0.0	2.6	0.3	4.9	0.0	-0.2	-3.3	3.1	38.5	2.6	-0.2	5.4	14.4
	Warm	1.4	-1.8	4.6	11.9	1.6	-1.5	4.8	0.0	0.6	-2.9	4.2	11.0	8.1	1.2	15.4	0.0
Canberra	Cool	1.8	-0.1	3.8	0.0	-	-	-	-	-	-	-	-	2.1	0.0	4.2	0.0
	Warm	1.3	-1.8	4.5	10.5	-	-	-	-	-	-	-	-	7.6	1.4	14.1	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	1.8	-1.0	4.7	0.0	3.0	0.8	5.4	0.0
	Warm	-	-	-	-	-	-	-	-	-0.1	-3.2	3.1	0.0	6.6	0.4	13.2	0.0
Melbourne	Cool	1.9	-0.9	4.7	0.0	2.0	0.0	4.0	0.0	-0.3	-3.4	2.9	34.4	2.2	-0.8	5.2	14.7
	Warm	3.0	-1.3	7.4	0.0	3.0	-0.9	7.1	12.0	1.4	-2.5	5.4	0.0	6.2	-1.4	14.4	0.0
Perth	Cool	2.1	0.2	4.1	0.0	2.3	0.5	4.1	0.0	0.2	-2.9	3.5	44.1	2.3	-0.2	4.9	16.0
	Warm	0.3	-2.5	3.1	0.0	1.6	-1.4	4.8	0.0	0.1	-3.2	3.6	0.7	8.5	1.7	15.6	0.0
Sydney	Cool	1.7	-0.4	3.8	0.0	2.4	0.4	4.5	0.0	-0.6	-3.5	2.5	26.0	1.9	-0.3	4.2	0.0
	Warm	1.5	-2.0	5.2	11.5	3.3	-0.4	7.1	0.0	1.3	-2.5	5.1	0.0	6.5	-0.3	13.7	0.0
Australia only	Cool	2.0	0.1	3.9	0.0	2.3	0.6	4.1	0.0	1.3	-1.0	3.6	0.0	3.3	1.1	5.5	0.0
	Warm	1.1	-1.6	3.8	0.0	2.2	-0.7	5.2	0.0	0.6	-1.7	3.0	0.0	3.2	0.9	5.6	0.0
Overall	Cool	2.0	0.1	3.9	0.0	2.3	0.6	4.1	0.0	0.1	-2.5	2.8	25.4	2.3	0.3	4.4	0.0
	Warm	1.1	-1.6	3.8	0.0	2.2	-0.7	5.2	0.0	0.5	-2.5	3.7	0.0	7.3	1.2	13.8	0.0

Table WCL.12 Myocardial infarction admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Brisbane	Cool	4.6	1.1	8.2	0.0	4.3	0.9	7.9	0.0	3.0	-3.3	9.7	27.7	6.1	-0.8	13.4	0.0
	Warm	4.3	0.9	7.9	0.0	6.2	1.9	10.8	0.0	2.7	-4.0	9.8	0.0	6.4	-2.6	16.3	0.0
Canberra	Cool	3.7	0.5	7.0	0.0	3.8	0.6	7.1	0.0	-	-	-	-	-	-	-	-
	Warm	3.8	0.4	7.3	0.0	5.1	0.8	9.5	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	3.9	0.7	7.3	0.0	3.7	0.4	7.0	0.0	1.6	-8.0	12.2	67.8	4.0	-7.9	17.4	60.1
	Warm	4.2	0.8	7.8	0.0	5.5	1.2	10.0	0.0	4.3	-0.9	9.8	9.4	5.6	-2.4	14.3	0.0
Melbourne	Cool	3.7	-0.0	7.7	0.0	4.5	0.5	8.8	0.0	-	-	-	-	-	-	-	-
	Warm	3.6	-0.8	8.2	0.0	4.3	-1.3	10.2	0.0	-	-	-	-	-	-	-	-
Perth	Cool	3.5	0.2	7.0	0.0	3.4	0.1	6.8	0.0	-	-	-	-	-	-	-	-
	Warm	4.1	0.4	7.9	0.0	5.2	0.7	9.9	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	3.3	-0.4	7.1	0.0	3.7	-0.2	7.7	0.0	-1.2	-5.5	3.3	0.0	1.6	-4.1	7.6	0.0
	Warm	3.7	-0.2	7.8	0.0	5.6	0.6	10.9	0.0	5.6	0.9	10.5	0.0	7.8	0.3	15.8	0.0
Australia only	Cool	4.0	1.4	6.6	0.0	4.3	1.5	7.1	0.0	3.0	-3.1	9.5	61.1	4.6	-2.5	12.3	33.5
	Warm	3.9	1.3	6.5	0.0	4.4	1.5	7.4	0.0	1.2	-4.1	6.8	53.9	2.4	-3.4	8.5	0.0
Overall	Cool	3.8	0.7	7.0	0.0	3.9	0.7	7.1	0.0	0.7	-4.3	5.9	35.7	3.5	-2.8	10.2	22.4
	Warm	4.0	0.6	7.4	0.0	5.4	1.2	9.8	0.0	4.6	0.3	9.0	0.0	6.7	0.1	13.8	0.0

Table WCL.13 Cardiovascular admissions 15-64 yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-0.4	3.3	63.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-1.7	4.5	10.4
Brisbane	Cool	0.7	-0.3	1.7	0.0	0.3	-0.8	1.5	0.0	-0.3	-1.6	1.1	0.0	1.7	-0.1	3.5	63.3
	Warm	-0.4	-1.7	0.9	0.0	-1.1	-2.6	0.4	0.0	-1.7	-3.3	-0.1	0.0	1.1	-1.4	3.7	12.8
Canberra	Cool	0.7	-0.2	1.7	0.0	-	-	-	-	-	-	-	-	1.2	-0.4	2.9	59.3
	Warm	0.4	-2.5	3.4	36.7	-	-	-	-	-	-	-	-	1.1	-1.3	3.6	12.6
Christchurch	Cool	-	-	-	-	-	-	-	-	0.5	-1.0	1.9	0.0	1.7	0.1	3.4	61.0
	Warm	-	-	-	-	-	-	-	-	-1.0	-2.8	0.8	22.0	1.0	-1.3	3.5	12.4
Melbourne	Cool	1.5	0.2	2.8	0.0	0.9	-0.1	1.9	0.0	0.6	-0.8	2.0	0.0	2.0	0.4	3.6	37.2
	Warm	0.8	-2.3	3.9	37.6	-0.8	-2.6	1.0	0.0	-0.4	-2.3	1.5	0.0	0.1	-2.2	2.5	0.0
Perth	Cool	0.8	-0.1	1.7	0.0	0.6	-0.3	1.5	0.0	0.2	-1.2	1.6	12.6	1.3	-0.4	3.0	61.4
	Warm	0.6	-2.2	3.5	38.9	-0.8	-2.3	0.7	0.0	-1.3	-3.3	0.7	27.3	1.6	-0.6	3.9	0.0
Sydney	Cool	0.8	-0.2	1.8	0.0	0.5	-0.5	1.6	0.0	0.1	-1.4	1.7	10.5	0.7	-0.7	2.1	26.7
	Warm	0.8	-1.9	3.6	30.9	-0.7	-2.5	1.2	0.0	-1.2	-3.6	1.3	31.9	1.2	-1.4	3.8	12.2
Australia only	Cool	0.8	-0.1	1.8	0.0	0.6	-0.3	1.5	0.0	-0.1	-1.5	1.4	31.4	1.7	-0.1	3.6	56.0
	Warm	0.2	-1.8	2.1	18.7	-0.9	-2.3	0.5	0.0	-0.3	-1.8	1.1	29.7	1.0	-0.7	2.7	29.8
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-0.9	2.6	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-0.7	3.4	0.0
Overall	Cool	0.8	-0.1	1.8	0.0	0.6	-0.3	1.5	0.0	0.2	-1.0	1.5	0.0	1.4	-0.1	3.0	56.9
	Warm	0.2	-1.8	2.1	18.7	-0.9	-2.3	0.5	0.0	-1.2	-2.8	0.4	11.2	1.1	-1.0	3.3	0.0

Table WCL.13 Cardiovascular admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.9	-0.5	4.3	51.4	2.4	0.2	4.6	36.5	-	-	-	-	1.7	-1.4	4.9	0.0
	Warm	1.3	-0.3	2.9	0.0	1.2	-0.8	3.2	0.0	-	-	-	-	0.3	-5.0	5.9	60.2
Brisbane	Cool	0.9	-1.2	3.1	34.5	2.1	0.1	4.1	26.3	0.9	-2.2	4.2	0.0	0.3	-1.3	1.9	0.0
	Warm	1.2	-0.3	2.7	0.0	1.1	-0.8	3.0	0.0	3.4	-1.0	8.0	29.9	2.1	-1.0	5.3	0.0
Canberra	Cool	1.0	-1.0	2.9	28.3	1.9	0.3	3.5	4.8	-	-	-	-	-	-	-	-
	Warm	1.1	-0.4	2.6	0.0	1.2	-0.7	3.1	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.8	-0.6	4.1	52.6	2.8	0.7	4.9	38.5	1.1	-1.5	3.8	0.0	0.5	-1.1	2.0	0.0
	Warm	1.2	-0.3	2.6	0.0	1.3	-0.6	3.2	0.0	-0.9	-3.4	1.6	13.1	-0.6	-3.8	2.7	31.3
Melbourne	Cool	2.4	0.5	4.4	7.9	3.2	1.4	5.1	0.0	-	-	-	-	-	-	-	-
	Warm	0.7	-1.1	2.5	0.0	0.7	-1.6	3.1	0.0	-	-	-	-	-	-	-	-
Perth	Cool	1.5	-0.9	4.0	51.9	2.6	0.4	4.8	40.2	-	-	-	-	-	-	-	-
	Warm	1.4	-0.2	3.0	0.0	1.6	-0.3	3.6	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	1.8	-1.0	4.7	53.3	3.1	0.4	5.8	41.0	1.1	-1.5	3.8	0.0	0.3	-1.2	1.9	0.0
	Warm	1.5	-0.2	3.2	0.0	1.4	-0.8	3.6	0.0	1.6	-5.4	9.2	82.7	0.7	-4.4	6.1	64.6
Australia only	Cool	1.7	0.2	3.2	28.1	2.0	0.4	3.6	18.5	-0.3	-2.2	1.7	8.9	0.0	-3.9	4.1	49.4
	Warm	1.5	-0.0	3.1	31.1	1.8	0.2	3.6	20.5	-0.2	-2.2	1.9	14.2	-0.6	-4.1	2.9	33.6
NZ only	Cool	0.0	-3.0	3.2	0.0	2.6	-0.8	6.2	0.0	-	-	-	-	0.3	-1.2	1.9	0.0
	Warm	0.3	-2.9	3.6	0.0	2.9	-0.7	6.6	0.0	-	-	-	-	0.9	-1.3	3.1	23.3
Overall	Cool	1.6	-0.5	3.8	43.9	2.5	0.6	4.5	29.9	1.1	-1.2	3.4	0.0	0.5	-1.0	2.0	0.0
	Warm	1.2	-0.3	2.7	0.0	1.2	-0.6	3.1	0.0	1.2	-2.7	5.2	67.4	0.5	-3.2	4.3	46.9

Table WCL.14 Cardiovascular admissions 65+ yrs

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	2.5	1.1	3.9	63.6
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-0.6	3.5	0.0
Brisbane	Cool	2.1	1.2	3.0	28.8	2.5	1.8	3.3	0.0	1.7	0.4	3.1	52.9	2.8	1.5	4.2	55.2
	Warm	0.1	-1.7	1.9	57.5	-0.1	-1.9	1.7	63.0	-1.0	-3.0	0.9	62.4	1.2	-0.5	3.0	0.0
Canberra	Cool	1.8	0.2	3.4	71.5	-	-	-	-	-	-	-	-	2.6	1.3	4.0	63.9
	Warm	0.6	-2.0	3.2	68.3	-	-	-	-	-	-	-	-	1.1	-0.5	2.8	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	1.5	-0.3	3.3	70.0	2.8	1.7	4.0	53.7
	Warm	-	-	-	-	-	-	-	-	-0.3	-2.7	2.1	78.6	1.0	-0.6	2.6	0.0
Melbourne	Cool	1.6	-0.2	3.4	73.0	1.5	-0.3	3.5	85.4	0.8	-0.9	2.5	68.3	2.6	1.2	4.1	63.6
	Warm	1.1	-1.9	4.2	70.5	1.9	-2.4	6.4	91.1	0.4	-2.6	3.6	78.5	0.8	-1.0	2.7	0.0
Perth	Cool	1.4	-0.1	2.9	69.9	1.6	-0.2	3.4	88.1	1.0	-0.7	2.8	75.5	2.3	1.2	3.5	56.8
	Warm	0.9	-1.9	3.8	71.2	1.5	-2.9	6.1	90.8	-0.7	-3.0	1.7	72.4	1.1	-0.5	2.9	0.0
Sydney	Cool	1.2	-0.2	2.6	56.0	1.6	-0.4	3.7	86.6	0.9	-0.9	2.6	70.4	2.1	1.1	3.0	22.8
	Warm	1.2	-0.3	2.8	20.5	2.6	-0.5	5.9	82.3	0.7	-1.6	3.1	62.5	0.7	-1.0	2.5	0.0
Australia only	Cool	1.6	0.3	3.0	64.0	1.8	0.3	3.4	83.6	1.2	-0.4	2.7	72.5	2.4	1.3	3.6	41.7
	Warm	0.8	-1.4	3.0	62.7	1.5	-1.7	4.8	86.7	0.4	-1.5	2.2	80.5	2.0	1.2	2.8	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-0.1	3.0	30.4
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.0	0.2	3.8	11.2
Overall	Cool	1.6	0.3	3.0	64.0	1.8	0.3	3.4	83.6	1.2	-0.3	2.7	69.0	2.6	1.4	3.7	56.9
	Warm	0.8	-1.4	3.0	62.7	1.5	-1.7	4.8	86.7	-0.2	-2.3	2.0	72.7	1.0	-0.6	2.7	0.0

Table WCL.14 Cardiovascular admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.1	1.3	4.9	57.5	3.9	2.2	5.6	46.3	-	-	-	-	4.0	-1.8	10.1	85.0
	Warm	1.8	0.6	2.9	0.0	2.0	0.2	3.9	26.7	-	-	-	-	2.0	-0.4	4.4	0.0
Brisbane	Cool	3.6	1.7	5.4	52.0	3.9	2.2	5.7	45.3	4.3	-0.7	9.6	83.0	3.9	-1.9	10.0	89.3
	Warm	1.9	0.7	3.1	7.1	1.8	0.2	3.4	16.4	2.4	-0.2	4.9	0.0	1.9	-0.4	4.4	0.0
Canberra	Cool	3.1	1.4	4.8	54.2	3.7	2.2	5.2	41.3	-	-	-	-	-	-	-	-
	Warm	2.2	1.1	3.3	0.0	2.2	0.8	3.6	2.6	-	-	-	-	-	-	-	-
Christchurch	Cool	3.9	2.8	5.0	0.0	4.3	3.2	5.4	0.0	3.2	-3.9	10.8	92.7	3.2	-3.0	9.8	89.2
	Warm	1.9	0.8	3.0	0.0	1.9	0.3	3.5	20.0	0.8	-0.9	2.5	0.0	1.6	-0.5	3.8	0.0
Melbourne	Cool	3.1	1.0	5.3	58.3	3.7	1.7	5.7	47.6	-	-	-	-	-	-	-	-
	Warm	2.0	0.5	3.6	16.7	1.4	-0.5	3.2	5.5	-	-	-	-	-	-	-	-
Perth	Cool	3.2	1.3	5.2	58.3	3.6	2.0	5.3	44.9	-	-	-	-	-	-	-	-
	Warm	2.1	0.7	3.4	17.4	1.8	0.1	3.6	22.0	-	-	-	-	-	-	-	-
Sydney	Cool	2.8	1.0	4.7	47.6	3.4	1.6	5.3	39.9	0.5	-1.5	2.6	32.5	0.4	-0.8	1.5	0.0
	Warm	2.4	1.1	3.6	0.0	2.9	1.2	4.5	0.0	1.5	-0.8	3.8	41.9	2.1	0.0	4.3	0.0
Australia only	Cool	3.0	2.0	4.1	24.1	3.9	3.0	4.9	0.0	2.2	-2.1	6.8	86.4	3.9	-2.0	10.1	85.2
	Warm	2.3	1.4	3.3	6.7	3.0	1.7	4.4	35.2	0.3	-1.0	1.7	0.0	0.9	-1.2	3.0	0.0
NZ only	Cool	1.9	-2.6	6.6	72.6	0.9	-2.7	4.7	48.2	-	-	-	-	0.6	-0.6	1.8	0.0
	Warm	4.5	1.9	7.1	0.0	2.9	0.0	5.8	0.0	-	-	-	-	0.6	-0.7	2.0	10.9
Overall	Cool	3.3	1.7	4.9	50.0	3.8	2.4	5.3	37.3	2.6	-1.3	6.8	85.4	2.9	-1.5	7.5	84.3
	Warm	2.0	0.9	3.1	0.9	2.0	0.5	3.5	12.1	1.3	-0.3	2.8	0.0	1.9	-0.0	3.9	0.0

Table WCL.15 Asthma admissions 1-4 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-2.8	3.4	30.4
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	8.9	-6.5	26.8	62.9
Brisbane	Cool	-5.8	-10.2	-1.2	0.0	-6.3	-10.5	-1.8	0.0	-6.7	-11.0	-2.1	0.0	0.6	-3.0	4.3	42.3
	Warm	4.2	1.3	7.2	18.7	2.6	-4.3	10.0	41.3	1.8	-7.2	11.6	51.9	2.6	-13.4	21.4	70.1
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-2.2	4.5	43.4
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	6.6	-10.0	26.3	78.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-2.7	2.4	5.4
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-9.5	9.7	67.5
Melbourne	Cool	-1.4	-5.9	3.3	1.5	-2.2	-6.6	2.5	0.9	-2.8	-8.6	3.3	21.5	1.7	-1.8	5.3	31.2
	Warm	5.0	2.1	8.0	17.7	3.3	-4.2	11.3	44.4	2.9	-6.6	13.3	50.6	6.5	-11.0	27.4	78.7
Perth	Cool	-4.5	-11.4	2.9	53.9	-4.8	-11.4	2.2	51.0	-5.5	-12.8	2.3	46.0	1.4	-1.6	4.4	33.3
	Warm	4.2	1.6	7.0	14.6	4.1	0.5	7.8	38.0	1.7	-6.4	10.5	48.0	4.5	-12.6	24.8	76.9
Sydney	Cool	-3.9	-11.9	4.9	54.9	-4.4	-11.6	3.4	51.8	-5.0	-13.1	3.8	47.8	1.4	-2.1	5.1	40.5
	Warm	4.3	0.1	8.6	25.6	2.9	-4.6	11.0	45.8	2.1	-7.3	12.4	53.6	7.4	-9.8	27.8	78.6
Australia only	Cool	-3.1	-10.9	5.3	64.4	-3.6	-10.9	4.2	60.9	-3.8	-10.0	2.9	49.2	0.0	-3.1	3.3	14.7
	Warm	5.0	2.8	7.2	0.0	5.3	2.9	7.8	0.0	5.5	2.7	8.5	0.0	0.0	-3.7	3.9	19.8
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-12.6	13.5	87.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	12.4	-23.6	65.4	89.7
Overall	Cool	-3.1	-10.9	5.3	64.4	-3.6	-10.9	4.2	60.9	-3.8	-10.0	2.9	49.2	0.9	-2.1	4.0	34.2
	Warm	5.0	2.8	7.2	0.0	5.3	2.9	7.8	0.0	5.5	2.7	8.5	0.0	4.8	-9.5	21.3	74.7

Table WCL.15 Asthma admissions 1-4 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-0.7	-4.1	2.8	0.0	-1.4	-4.8	2.1	0.0	-	-	-	-	6.6	-0.1	13.8	0.0
	Warm	7.7	-0.3	16.3	54.7	11.0	-1.1	24.6	58.4	-	-	-	-	4.4	-4.6	14.3	32.2
Brisbane	Cool	0.1	-4.1	4.5	19.4	-1.3	-4.8	2.3	0.0	6.7	-0.7	14.6	13.7	3.7	-3.4	11.2	50.3
	Warm	2.9	-6.0	12.7	69.6	0.4	-12.9	15.7	78.6	4.4	-15.3	28.7	86.6	-0.3	-8.6	8.7	19.9
Canberra	Cool	-0.5	-3.8	3.0	0.0	-1.1	-4.4	2.4	0.0	-	-	-	-	-	-	-	-
	Warm	6.9	-2.6	17.2	70.8	7.9	-7.9	26.5	82.2	-	-	-	-	-	-	-	-
Christchurch	Cool	-0.7	-4.1	2.8	0.0	-1.0	-4.4	2.5	0.0	-0.1	-5.7	5.8	0.0	0.7	-3.2	4.8	0.0
	Warm	3.4	-4.8	12.4	71.2	3.5	-12.6	22.5	83.7	-0.5	-9.4	9.2	63.3	0.5	-7.1	8.8	30.1
Melbourne	Cool	1.0	-3.1	5.3	5.6	0.0	-4.0	4.2	0.0	-	-	-	-	-	-	-	-
	Warm	5.9	-5.0	18.2	72.5	4.7	-12.7	25.6	83.9	-	-	-	-	-	-	-	-
Perth	Cool	0.7	-3.4	4.9	14.1	-0.6	-4.1	3.0	0.0	-	-	-	-	-	-	-	-
	Warm	3.9	-6.5	15.5	71.8	2.6	-13.7	22.1	82.5	-	-	-	-	-	-	-	-
Sydney	Cool	0.9	-3.9	6.0	18.7	0.0	-4.3	4.5	0.0	3.9	-6.4	15.5	72.7	3.8	-3.0	11.0	51.4
	Warm	4.5	-6.3	16.7	71.4	4.3	-13.0	25.0	83.7	8.6	-2.9	21.5	65.7	4.5	-3.6	13.2	24.3
Australia only	Cool	1.8	-2.8	6.5	44.0	4.3	-3.8	13.1	65.1	1.6	-2.6	6.0	0.0	5.2	-1.4	12.1	0.0
	Warm	3.3	-1.2	8.0	54.4	5.8	-2.2	14.4	63.9	-0.3	-5.3	4.9	31.6	3.0	-3.7	10.3	10.2
NZ only	Cool	2.4	-11.4	18.3	72.9	-5.1	-23.6	18.0	83.8	-	-	-	-	2.4	-5.7	11.2	56.0
	Warm	5.9	-13.9	30.2	77.7	-3.3	-25.5	25.6	84.4	-	-	-	-	0.2	-3.9	4.3	0.0
Overall	Cool	-0.1	-3.5	3.5	4.7	-0.8	-4.2	2.6	0.0	3.3	-3.3	10.3	45.6	2.9	-2.0	8.1	27.5
	Warm	5.0	-3.9	14.8	69.5	4.8	-9.8	21.9	80.7	3.9	-7.5	16.7	73.4	2.3	-4.9	10.0	27.1

Table WCL.15 Asthma admissions 1-4 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	-0.5	-2.7	1.9	0.0	-1.8	-4.2	0.7	0.0	-0.3	-5.2	4.8	67.6
	Warm	3.7	0.5	6.9	0.0	4.4	1.0	7.9	0.0	3.2	-0.4	6.9	0.0
Canberra	Cool	-0.1	-2.3	2.1	0.0	-	-	-	-	-	-	-	-
	Warm	3.2	0.1	6.5	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	-0.3	-5.3	5.0	61.6
	Warm	-	-	-	-	-	-	-	-	2.6	-0.9	6.2	0.0
Melbourne	Cool	-0.9	-3.9	2.2	0.0	-0.4	-3.1	2.4	28.7	1.4	-4.2	7.4	73.9
	Warm	3.3	-1.3	8.0	0.0	3.3	-3.1	10.1	40.3	4.2	0.0	8.5	0.0
Perth	Cool	-0.2	-2.4	2.1	0.0	-0.7	-3.2	1.9	32.1	0.9	-4.6	6.6	74.9
	Warm	3.2	0.0	6.5	0.0	2.8	-0.9	6.7	17.5	2.1	-1.6	5.8	0.0
Sydney	Cool	0.6	-1.9	3.2	0.0	0.4	-2.1	2.9	0.0	3.1	-0.1	6.4	7.5
	Warm	3.4	-0.3	7.3	0.0	2.5	-3.8	9.1	35.1	1.7	-2.8	6.4	0.0
Australia only	Cool	-0.2	-2.3	2.0	0.0	-0.6	-2.6	1.4	0.0	0.3	-3.2	4.0	43.7
	Warm	3.4	0.3	6.6	0.0	3.5	0.0	7.1	12.2	2.3	-0.3	5.0	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	-0.2	-2.3	2.0	0.0	-0.6	-2.6	1.4	0.0	0.9	-3.6	5.6	66.5
	Warm	3.4	0.3	6.6	0.0	3.5	0.0	7.1	12.2	2.8	-0.7	6.3	0.0

Table WCL.16 Asthma admissions 5-14 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.9	-3.7	2.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	8.7	-0.1	18.2	15.2
Brisbane	Cool	-3.4	-15.1	9.9	73.0	-3.8	-15.5	9.4	74.5	-3.7	-15.4	9.7	73.7	2.4	-2.0	7.0	36.2
	Warm	-0.8	-9.7	9.0	85.2	-0.8	-10.1	9.4	82.8	0.5	-9.4	11.4	80.0	5.7	-2.0	14.0	15.7
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-3.4	6.3	55.4
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	7.3	-0.2	15.3	17.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-3.2	6.8	54.5
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	6.7	-1.0	15.1	23.4
Melbourne	Cool	4.1	-1.6	10.2	2.5	3.7	-2.9	10.8	17.8	3.9	-4.3	12.8	23.9	1.5	-3.7	7.0	55.4
	Warm	4.6	-0.1	9.6	46.9	3.5	-3.3	10.7	51.2	4.2	-3.5	12.5	53.2	9.8	2.0	18.2	0.0
Perth	Cool	-4.6	-14.6	6.5	71.5	-4.9	-14.7	6.1	72.3	-4.3	-14.6	7.3	71.3	0.9	-3.8	5.9	53.7
	Warm	-1.7	-9.4	6.7	85.2	-1.8	-10.1	7.4	83.0	-1.0	-9.7	8.5	80.9	6.2	-1.7	14.7	20.4
Sydney	Cool	-5.9	-15.4	4.7	54.2	-5.9	-15.6	5.0	57.7	-4.7	-15.6	7.6	64.5	1.6	-3.4	7.0	55.1
	Warm	-2.6	-10.1	5.5	67.7	-2.7	-10.0	5.1	59.2	-2.6	-9.9	5.4	46.1	3.2	-4.1	11.1	0.0
Australia only	Cool	-1.2	-13.1	12.3	78.0	-0.5	-11.9	12.4	77.6	1.0	-10.5	14.0	75.8	-0.4	-3.3	2.5	0.0
	Warm	1.4	-6.0	9.4	87.5	1.8	-5.7	9.8	84.6	2.3	-6.0	11.5	82.9	2.2	-2.8	7.4	35.7
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	5.0	-4.1	15.0	64.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	9.6	1.7	18.1	10.7
Overall	Cool	-1.2	-13.1	12.3	78.0	-0.5	-11.9	12.4	77.6	1.0	-10.5	14.0	75.8	1.1	-3.0	5.5	46.5
	Warm	1.4	-6.0	9.4	87.5	1.8	-5.7	9.8	84.6	2.3	-6.0	11.5	82.9	6.7	-0.4	14.2	8.9

Table WCL.16 Asthma admissions 5-14 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.0	-4.8	7.2	56.5	3.0	-3.0	9.4	40.1	-	-	-	-	-1.4	-10.3	8.3	27.7
	Warm	8.7	2.2	15.5	58.1	11.4	3.2	20.3	53.7	-	-	-	-	13.0	-4.0	33.1	72.0
Brisbane	Cool	6.0	-3.0	15.8	58.8	10.0	1.1	19.7	52.0	5.9	-11.3	26.3	74.5	0.2	-4.8	5.4	0.0
	Warm	6.8	0.1	13.9	62.4	9.4	1.3	18.0	55.8	12.8	2.8	23.7	0.0	17.8	4.5	33.0	37.0
Canberra	Cool	3.6	-6.1	14.3	73.2	6.3	-3.8	17.6	71.4	-	-	-	-	-	-	-	-
	Warm	8.4	2.3	15.0	58.6	10.9	3.0	19.5	55.0	-	-	-	-	-	-	-	-
Christchurch	Cool	4.7	-4.7	15.0	71.5	7.1	-3.7	19.0	72.2	5.4	-10.9	24.8	81.2	-1.0	-8.2	6.8	30.0
	Warm	7.5	0.9	14.6	62.0	9.8	1.8	18.5	56.8	6.9	-7.6	23.7	77.7	13.0	-3.5	32.4	72.0
Melbourne	Cool	4.6	-5.8	16.1	70.7	8.1	-3.3	20.8	71.9	-	-	-	-	-	-	-	-
	Warm	9.5	1.9	17.6	39.1	16.6	9.4	24.3	0.0	-	-	-	-	-	-	-	-
Perth	Cool	3.6	-6.8	15.2	73.2	8.6	-2.3	20.8	71.1	-	-	-	-	-	-	-	-
	Warm	6.5	-0.9	14.5	62.8	10.0	1.1	19.6	57.7	-	-	-	-	-	-	-	-
Sydney	Cool	1.7	-8.0	12.3	59.6	6.8	-4.6	19.6	70.0	-2.8	-9.0	3.9	0.0	-2.0	-6.6	2.8	0.0
	Warm	3.1	-2.0	8.5	0.0	4.2	-2.4	11.2	0.0	1.3	-5.3	8.4	0.0	5.4	-3.5	15.2	0.0
Australia only	Cool	2.8	-1.9	7.7	40.8	3.6	-1.1	8.4	26.0	3.0	-6.7	13.7	63.7	-0.8	-9.4	8.7	30.3
	Warm	3.9	-1.5	9.7	67.6	5.7	-1.1	12.9	64.5	3.3	-6.6	14.2	68.3	6.6	-13.3	31.0	85.1
NZ only	Cool	6.9	-13.8	32.5	74.5	15.5	-3.7	38.4	63.4	-	-	-	-	0.4	-4.5	5.6	0.0
	Warm	10.3	-9.6	34.5	67.8	18.5	-2.0	43.3	60.7	-	-	-	-	1.8	-4.2	8.2	13.0
Overall	Cool	3.4	-5.1	12.8	67.8	7.0	-2.4	17.3	66.8	2.4	-8.4	14.6	66.0	-1.2	-5.6	3.5	0.0
	Warm	7.5	1.6	13.8	55.6	10.2	2.6	18.4	49.2	6.4	-2.7	16.4	56.5	12.2	-0.1	26.1	58.0

Table WCL.16 Asthma admissions 5-14 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.1	-1.7	4.0	0.0	1.1	-1.9	4.2	0.0	2.7	-1.0	6.5	0.0
	Warm	-2.8	-12.3	7.8	75.2	3.4	-8.7	17.1	89.3	1.3	-8.2	11.8	83.0
Canberra	Cool	0.6	-2.5	3.8	10.9	-	-	-	-	-	-	-	-
	Warm	0.5	-6.2	7.6	63.4	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	2.9	-0.8	6.8	0.0
	Warm	-	-	-	-	-	-	-	-	1.1	-7.7	10.8	82.9
Melbourne	Cool	-0.0	-4.4	4.6	23.2	0.4	-2.7	3.6	18.9	2.6	-1.0	6.5	0.0
	Warm	-1.8	-12.4	10.0	64.3	6.5	-2.6	16.4	61.2	7.7	2.4	13.3	0.0
Perth	Cool	-0.2	-2.9	2.6	0.0	-0.4	-2.9	2.2	0.0	1.8	-1.7	5.5	0.0
	Warm	-2.4	-12.3	8.7	74.7	0.1	-11.5	13.2	90.1	0.4	-8.9	10.8	82.6
Sydney	Cool	-0.1	-4.1	4.0	21.4	-0.7	-3.6	2.3	0.0	2.2	-1.7	6.3	0.0
	Warm	-5.3	-10.2	-0.3	0.0	-2.8	-11.4	6.8	56.0	-2.6	-10.1	5.6	54.7
Australia only	Cool	-1.2	-4.2	1.8	19.9	-0.7	-3.8	2.6	34.3	0.7	-3.8	5.5	51.2
	Warm	-0.8	-5.0	3.6	49.8	1.1	-4.0	6.6	77.1	2.0	-3.1	7.4	67.7
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	0.3	-2.3	3.0	0.0	0.1	-2.4	2.5	0.0	2.5	-0.9	5.9	0.0
	Warm	-2.2	-10.0	6.3	66.9	1.8	-7.6	12.2	85.4	1.3	-6.5	9.8	77.3

Table WCL.17 Asthma admissions 15-64 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-1.9	2.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-10.0	18.3	65.3
Brisbane	Cool	-5.6	-15.4	5.3	48.9	-4.0	-11.6	4.3	44.7	-4.7	-13.7	5.1	48.3	0.8	-1.3	2.9	0.0
	Warm	3.2	-7.3	14.8	72.4	3.0	-7.0	14.0	71.1	4.3	-8.0	18.2	76.2	1.9	-10.8	16.3	64.3
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-1.4	2.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-8.0	9.6	56.2
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-1.4	2.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-9.9	14.0	63.6
Melbourne	Cool	-4.9	-16.1	7.9	62.3	-3.0	-12.0	6.9	57.9	-3.9	-14.8	8.4	60.6	-0.3	-2.5	2.0	0.0
	Warm	5.0	-3.9	14.7	49.8	5.0	-2.3	12.8	43.2	6.7	-2.8	17.2	41.4	0.6	-11.5	14.5	51.9
Perth	Cool	-5.1	-15.7	6.8	61.5	-3.5	-11.6	5.3	55.7	-4.2	-14.5	7.3	60.3	0.6	-1.3	2.5	0.0
	Warm	2.6	-7.4	13.7	71.8	2.5	-7.0	12.9	71.4	3.8	-8.1	17.2	76.5	4.5	-5.2	15.2	54.2
Sydney	Cool	-4.9	-16.4	8.3	61.9	-3.2	-12.4	6.9	57.9	-4.2	-15.1	8.0	60.5	0.3	-1.7	2.4	0.0
	Warm	3.7	-6.6	15.1	74.0	3.7	-6.3	14.8	73.6	4.7	-7.6	18.7	76.1	5.1	-6.3	17.9	49.4
Australia only	Cool	0.7	-3.1	4.6	0.0	0.8	-2.9	4.6	0.0	1.1	-2.8	5.2	0.0	0.5	-4.8	6.1	42.5
	Warm	1.1	-2.7	5.0	65.0	1.3	-3.1	5.9	68.2	1.6	-3.9	7.5	73.1	-0.7	-6.9	6.0	52.9
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-2.5	4.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-1.9	6.8	0.0
Overall	Cool	0.7	-3.1	4.6	0.0	0.8	-2.9	4.6	0.0	1.1	-2.8	5.2	0.0	0.4	-1.5	2.2	0.0
	Warm	1.1	-2.7	5.0	65.0	1.3	-3.1	5.9	68.2	1.6	-3.9	7.5	73.1	2.3	-8.1	13.8	58.6

Table WCL.17 Asthma admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.1	0.1	6.3	0.0	3.5	0.5	6.7	0.0	-	-	-	-	3.8	-1.7	9.7	0.0
	Warm	4.2	-5.7	15.1	56.9	2.9	-1.3	7.3	0.0	-	-	-	-	-0.7	-7.7	6.8	0.0
Brisbane	Cool	1.6	-2.8	6.2	37.0	2.7	-0.8	6.2	10.1	2.5	-3.5	8.9	0.0	-1.5	-5.2	2.4	13.4
	Warm	4.0	-5.6	14.7	57.7	2.6	-1.5	6.9	0.0	1.3	-6.2	9.5	0.0	1.6	-5.4	9.0	0.0
Canberra	Cool	1.6	-2.0	5.3	28.8	2.4	-0.7	5.5	7.3	-	-	-	-	-	-	-	-
	Warm	2.0	-1.3	5.3	0.0	2.1	-1.9	6.3	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.6	-2.3	5.6	35.8	2.3	-0.8	5.6	8.8	1.1	-3.7	6.1	0.0	0.7	-4.7	6.3	54.5
	Warm	4.3	-2.6	11.8	49.2	2.6	-1.4	6.8	0.0	-0.3	-5.3	4.9	0.0	-0.9	-6.9	5.5	0.0
Melbourne	Cool	0.7	-3.2	4.7	17.0	1.3	-2.2	4.8	0.0	-	-	-	-	-	-	-	-
	Warm	3.1	-7.0	14.3	53.7	-0.1	-5.1	5.2	0.0	-	-	-	-	-	-	-	-
Perth	Cool	2.4	-1.5	6.4	29.0	2.7	-0.5	6.0	7.4	-	-	-	-	-	-	-	-
	Warm	3.2	-6.6	14.2	57.7	2.5	-1.7	6.8	0.8	-	-	-	-	-	-	-	-
Sydney	Cool	1.5	-3.2	6.4	37.0	2.0	-1.9	6.1	11.7	0.9	-3.8	5.7	0.0	-0.7	-4.8	3.5	34.2
	Warm	4.4	-5.6	15.4	51.4	4.2	-0.8	9.5	0.0	-1.4	-6.5	4.0	0.0	-1.6	-7.7	5.0	0.0
Australia only	Cool	4.0	0.9	7.2	23.1	4.0	1.2	6.8	0.0	0.1	-3.6	3.9	0.0	2.1	-4.0	8.5	17.9
	Warm	3.6	0.1	7.1	34.0	3.4	0.5	6.4	0.0	-0.0	-3.8	3.8	0.0	1.6	-4.1	7.6	4.5
NZ only	Cool	-2.2	-9.7	5.9	35.3	-3.0	-9.6	4.0	0.0	-	-	-	-	-2.3	-5.2	0.7	0.0
	Warm	-5.3	-12.9	3.0	30.1	-5.0	-11.8	2.4	0.0	-	-	-	-	-2.4	-5.3	0.7	0.0
Overall	Cool	1.9	-1.6	5.5	24.4	2.6	-0.3	5.6	0.0	1.3	-2.8	5.6	0.0	-0.0	-3.9	4.0	33.8
	Warm	3.4	-4.4	11.8	49.9	2.4	-1.6	6.6	0.0	-0.4	-5.0	4.4	0.0	-0.5	-6.1	5.5	0.0

Table WCL.17 Asthma admissions 15-64 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	2.3	0.3	4.3	0.0	2.9	0.8	5.2	0.0	0.2	-2.7	3.2	23.9
	Warm	1.0	-4.4	6.7	27.3	2.7	-0.5	5.9	0.0	1.9	-3.4	7.4	48.9
Canberra	Cool	2.9	1.1	4.9	0.0	-	-	-	-	-	-	-	-
	Warm	-1.0	-5.1	3.3	21.6	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	2.4	-0.3	5.2	0.0
	Warm	-	-	-	-	-	-	-	-	-0.3	-6.0	5.8	64.7
Melbourne	Cool	3.6	1.0	6.3	0.0	1.9	-0.1	3.9	0.0	0.7	-2.8	4.3	45.2
	Warm	-1.3	-11.1	9.4	52.8	0.7	-3.0	4.6	0.0	-2.5	-6.5	1.6	0.0
Perth	Cool	3.0	1.1	4.9	0.0	2.5	0.7	4.3	0.0	1.5	-1.6	4.6	38.9
	Warm	0.3	-8.6	10.1	52.5	1.7	-2.3	5.9	26.5	0.5	-5.7	7.1	65.3
Sydney	Cool	2.7	0.6	4.8	0.0	2.3	0.2	4.4	0.0	0.5	-3.0	4.1	40.7
	Warm	-0.5	-10.3	10.4	54.6	0.9	-4.1	6.2	29.4	1.2	-5.5	8.3	54.1
Australia only	Cool	2.9	1.0	4.7	0.0	2.4	0.7	4.1	0.0	2.2	-0.6	5.1	29.5
	Warm	-0.5	-7.4	6.9	42.8	1.9	-1.1	5.0	0.0	1.0	-2.3	4.4	45.1
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	2.9	1.0	4.7	0.0	2.4	0.7	4.1	0.0	1.0	-1.8	3.9	30.9
	Warm	-0.5	-7.4	6.9	42.8	1.9	-1.1	5.0	0.0	0.3	-4.9	5.7	54.8

Table WCL.18 Asthma admissions 65+ yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-2.6	4.9	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	7.9	-14.8	36.5	59.0
Brisbane	Cool	3.0	-12.1	20.6	49.1	5.2	-12.7	26.6	60.3	6.1	-12.9	29.2	62.2	0.8	-3.1	4.9	0.0
	Warm	0.1	-4.1	4.4	0.0	0.3	-4.3	5.1	0.0	0.8	-4.6	6.5	0.0	-2.2	-25.0	27.5	69.8
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-2.1	5.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-22.7	32.1	74.4
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-2.3	5.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-3.4	-19.8	16.4	68.8
Melbourne	Cool	3.0	-4.8	11.4	8.9	5.7	-7.6	20.9	30.3	7.0	-9.8	26.9	45.0	1.3	-3.2	6.0	0.0
	Warm	-0.4	-4.6	4.0	0.0	-0.5	-5.2	4.4	0.0	-0.3	-5.8	5.5	0.0	-1.4	-25.2	30.1	64.8
Perth	Cool	1.6	-13.0	18.7	48.7	3.9	-13.8	25.1	60.5	4.6	-14.7	28.2	62.9	2.0	-1.7	5.8	0.0
	Warm	0.3	-3.8	4.5	0.0	0.4	-4.1	5.1	0.0	1.1	-4.1	6.7	0.0	7.0	-16.1	36.4	69.6
Sydney	Cool	1.9	-13.6	20.1	46.3	3.9	-14.3	25.9	57.7	4.8	-14.9	29.1	61.6	1.5	-2.5	5.7	0.0
	Warm	2.2	-3.5	8.2	0.0	2.6	-3.6	9.3	0.0	4.4	-3.0	12.3	0.0	4.3	-21.4	38.6	74.5
Australia only	Cool	-1.5	-8.1	5.6	6.6	-3.1	-10.3	4.7	23.2	-4.1	-10.4	2.7	0.0	1.2	-6.0	9.0	29.7
	Warm	-0.1	-4.0	3.9	0.0	0.0	-4.3	4.5	0.0	0.7	-4.4	6.0	0.0	0.5	-7.4	9.1	32.7
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-5.7	-23.1	15.8	73.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	10.5	-39.6	102.1	81.8
Overall	Cool	-1.5	-8.1	5.6	6.6	-3.1	-10.3	4.7	23.2	-4.1	-10.4	2.7	0.0	1.4	-2.2	5.1	0.0
	Warm	-0.1	-4.0	3.9	0.0	0.0	-4.3	4.5	0.0	0.7	-4.4	6.0	0.0	1.4	-19.4	27.5	69.7

Table WCL.18 Asthma admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-0.8	-6.1	4.8	0.0	0.1	-5.1	5.7	0.0	-	-	-	-	-1.7	-12.1	10.0	0.0
	Warm	9.0	-9.3	31.0	72.6	9.0	-16.4	42.0	71.5	-	-	-	-	5.3	-11.9	25.9	26.5
Brisbane	Cool	-1.1	-6.8	5.0	0.0	-0.4	-6.0	5.5	0.0	8.9	-4.2	23.7	0.0	2.0	-6.2	11.0	0.0
	Warm	4.8	-13.2	26.5	71.1	5.8	-21.1	42.0	72.8	2.1	-29.0	46.7	73.4	-2.6	-17.3	14.7	0.0
Canberra	Cool	-0.6	-5.9	5.0	0.0	0.3	-4.9	5.9	0.0	-	-	-	-	-	-	-	-
	Warm	4.2	-13.1	24.8	70.7	2.3	-21.9	33.8	71.1	-	-	-	-	-	-	-	-
Christchurch	Cool	-0.3	-5.6	5.3	0.0	0.4	-4.8	6.0	0.0	3.9	-5.2	13.8	0.0	0.8	-6.7	9.0	0.0
	Warm	1.8	-8.9	13.8	65.1	-1.8	-13.9	11.8	61.5	-0.9	-21.6	25.3	78.8	1.9	-11.7	17.6	15.4
Melbourne	Cool	1.7	-4.6	8.5	0.0	1.7	-4.8	8.7	0.0	-	-	-	-	-	-	-	-
	Warm	6.0	-13.5	29.8	61.5	4.0	-22.8	40.1	52.8	-	-	-	-	-	-	-	-
Perth	Cool	-1.0	-6.6	4.8	0.0	0.3	-5.1	6.0	0.0	-	-	-	-	-	-	-	-
	Warm	9.0	-10.2	32.3	72.9	8.8	-18.1	44.5	72.0	-	-	-	-	-	-	-	-
Sydney	Cool	-2.3	-8.6	4.4	0.0	-2.1	-8.5	4.7	0.0	1.6	-7.9	12.1	0.0	0.9	-6.7	9.2	0.0
	Warm	10.4	-5.6	29.2	41.8	10.1	-15.7	43.8	51.1	12.1	0.7	24.9	0.0	9.0	-5.7	26.1	0.0
Australia only	Cool	2.7	-2.2	7.8	9.6	2.4	-2.4	7.5	0.0	6.4	-0.9	14.3	0.0	2.1	-8.2	13.5	0.0
	Warm	0.4	-6.1	7.4	48.7	-1.0	-7.8	6.3	38.2	0.4	-11.6	14.1	58.7	0.1	-12.3	14.2	24.3
NZ only	Cool	-6.0	-22.1	13.3	0.0	-10.7	-27.1	9.5	0.0	-	-	-	-	2.0	-6.4	11.1	0.0
	Warm	18.2	-28.0	93.9	59.4	23.2	-42.3	162.7	69.1	-	-	-	-	2.9	-5.9	12.6	0.0
Overall	Cool	-0.6	-5.9	4.9	0.0	0.1	-5.1	5.6	0.0	4.1	-4.3	13.2	0.0	0.8	-6.4	8.5	0.0
	Warm	5.9	-9.5	23.8	68.1	4.2	-17.1	30.9	67.6	4.5	-14.6	27.7	66.7	3.7	-8.6	17.7	0.0

Table WCL.18 Asthma admissions 65+ yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	0.8	-2.6	4.3	0.0	0.6	-3.1	4.5	0.0	0.7	-4.2	5.8	0.0
	Warm	1.7	-3.6	7.4	0.0	0.8	-4.9	7.0	0.0	18.0	-19.5	73.1	74.0
Canberra	Cool	0.5	-2.7	3.9	0.0	-	-	-	-	-	-	-	-
	Warm	-5.1	-24.0	18.5	69.5	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	-1.5	-6.2	3.3	0.0
	Warm	-	-	-	-	-	-	-	-	-3.6	-13.9	8.1	55.0
Melbourne	Cool	-1.2	-6.2	4.0	18.7	-0.5	-4.2	3.3	0.0	-1.0	-6.8	5.0	24.2
	Warm	-6.9	-26.0	17.3	67.1	-6.2	-16.0	4.8	38.1	10.7	-29.6	74.3	80.9
Perth	Cool	0.2	-3.7	4.1	13.3	0.3	-2.9	3.7	0.0	0.6	-4.1	5.5	0.0
	Warm	-8.2	-24.4	11.5	63.1	-4.0	-16.7	10.6	68.7	12.7	-27.9	76.0	82.8
Sydney	Cool	-1.0	-4.6	2.7	0.0	-1.2	-5.0	2.8	0.0	-1.7	-7.3	4.2	12.6
	Warm	-5.4	-25.3	19.7	68.2	-3.5	-17.2	12.5	67.3	12.9	-27.8	76.6	82.5
Australia only	Cool	0.1	-3.1	3.4	0.0	-0.1	-3.3	3.1	0.0	-2.3	-7.8	3.5	36.4
	Warm	-4.0	-19.1	13.9	59.4	-2.7	-12.0	7.6	53.2	-2.9	-7.9	2.3	29.5
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	0.1	-3.1	3.4	0.0	-0.1	-3.3	3.1	0.0	-0.5	-4.9	4.0	0.2
	Warm	-4.0	-19.1	13.9	59.4	-2.7	-12.0	7.6	53.2	8.3	-22.7	51.7	77.1

Table WCL.19 COPD admissions 15-64 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-2.7	2.9	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	3.6	-9.4	18.4	39.6
Brisbane	Cool	1.1	-4.5	6.9	0.0	0.3	-5.0	5.9	0.0	-1.7	-7.0	3.9	0.0	-0.0	-2.8	2.8	0.0
	Warm	0.9	-3.2	5.2	18.2	1.2	-3.7	6.4	28.1	1.6	-4.1	7.7	29.2	-1.2	-10.1	8.6	14.3
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-3.0	2.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-9.2	12.9	36.1
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.6	-3.5	2.3	5.6
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-8.9	10.6	27.4
Melbourne	Cool	7.3	-0.8	16.0	38.3	7.4	-1.2	16.8	52.3	6.3	-6.3	20.7	71.3	-1.8	-4.9	1.3	0.0
	Warm	2.3	-1.2	6.0	0.0	2.8	-1.4	7.1	5.4	3.7	-0.9	8.5	0.0	4.5	-6.8	17.3	30.4
Perth	Cool	5.6	-2.9	14.9	53.6	5.7	-3.8	16.1	63.8	5.4	-7.1	19.6	76.1	-0.8	-3.4	1.8	0.0
	Warm	1.4	-2.4	5.3	15.3	1.8	-2.7	6.5	25.5	2.1	-3.2	7.8	28.7	3.1	-5.6	12.6	21.2
Sydney	Cool	5.6	-4.3	16.5	52.5	5.6	-5.1	17.6	63.1	4.0	-9.7	19.7	77.4	-0.4	-3.2	2.5	3.4
	Warm	-0.3	-4.7	4.4	0.4	0.3	-5.2	6.2	17.7	0.6	-5.9	7.5	17.8	1.2	-10.8	14.7	36.9
Australia only	Cool	4.4	-5.5	15.4	66.1	4.2	-7.2	16.9	73.8	3.8	-11.7	22.0	83.3	-0.2	-4.8	4.5	23.1
	Warm	1.2	-2.0	4.4	0.0	1.5	-1.9	5.1	0.0	1.9	-2.2	6.1	0.0	0.6	-4.7	6.3	24.5
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-1.9	-5.9	2.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.1	-8.6	4.9	6.1
Overall	Cool	4.4	-5.5	15.4	66.1	4.2	-7.2	16.9	73.8	3.8	-11.7	22.0	83.3	-0.5	-3.1	2.1	0.0
	Warm	1.2	-2.0	4.4	0.0	1.5	-1.9	5.1	0.0	1.9	-2.2	6.1	0.0	1.8	-7.9	12.6	29.6

Table WCL.19 COPD admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-0.7	-4.8	3.5	0.0	1.6	-3.0	6.3	10.7	-	-	-	-	1.2	-8.3	11.8	44.2
	Warm	2.2	-2.8	7.5	0.0	2.9	-3.4	9.5	0.0	-	-	-	-	4.3	-10.4	21.5	51.4
Brisbane	Cool	-0.2	-4.5	4.2	0.0	1.9	-2.3	6.3	0.1	6.8	-0.1	14.2	0.0	3.4	-0.2	7.1	0.0
	Warm	2.2	-2.5	7.1	0.0	2.6	-3.4	9.0	0.0	12.4	-7.3	36.3	73.2	2.4	-14.2	22.1	68.1
Canberra	Cool	-0.6	-4.5	3.6	0.0	0.9	-3.5	5.6	16.7	-	-	-	-	-	-	-	-
	Warm	2.8	-1.9	7.7	0.0	2.9	-3.0	9.2	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-0.1	-4.2	4.1	0.0	1.2	-3.2	5.8	12.5	3.2	-3.8	10.7	0.0	1.0	-7.2	9.9	43.2
	Warm	2.6	-2.1	7.4	0.0	2.9	-3.0	9.2	0.0	6.8	-19.8	42.3	90.9	0.7	-16.0	20.8	68.7
Melbourne	Cool	-0.7	-5.3	4.1	0.0	-0.4	-5.8	5.4	19.3	-	-	-	-	-	-	-	-
	Warm	4.5	-1.3	10.7	0.0	5.3	-2.3	13.6	0.0	-	-	-	-	-	-	-	-
Perth	Cool	-1.6	-5.7	2.6	0.0	0.3	-3.7	4.4	0.0	-	-	-	-	-	-	-	-
	Warm	3.1	-1.8	8.2	0.0	4.1	-2.1	10.6	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	-2.0	-6.7	2.9	0.0	-0.5	-6.0	5.2	16.5	3.6	-2.4	10.0	0.0	1.1	-5.6	8.2	36.4
	Warm	2.9	-2.5	8.6	0.0	0.9	-5.9	8.3	0.0	-4.0	-12.0	4.7	26.4	-5.8	-13.5	2.6	0.0
Australia only	Cool	0.5	-3.0	4.2	0.0	1.7	-2.1	5.6	0.0	-0.4	-8.1	8.0	53.3	-2.4	-11.9	8.0	30.6
	Warm	0.6	-3.1	4.4	0.0	2.1	-2.1	6.4	0.0	4.2	-11.8	23.1	81.8	1.0	-15.4	20.7	66.9
NZ only	Cool	-1.0	-10.0	8.9	32.5	-2.9	-10.9	5.8	0.0	-	-	-	-	0.5	-7.0	8.7	47.1
	Warm	3.7	-4.7	12.9	0.0	-1.1	-9.9	8.6	0.0	-	-	-	-	-0.4	-7.3	7.0	43.5
Overall	Cool	-0.8	-4.7	3.3	0.0	0.8	-3.4	5.2	9.0	4.5	-0.9	10.2	0.0	2.2	-3.2	7.8	19.3
	Warm	2.8	-1.8	7.6	0.0	3.0	-2.8	9.3	0.0	4.8	-11.4	24.0	81.9	-0.0	-11.9	13.5	53.6

Table WCL.19 COPD admissions 15-64 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.3	-3.3	6.1	29.3	2.2	-1.0	5.5	9.5	2.4	-0.8	5.6	0.0
	Warm	3.7	-4.2	12.4	61.2	5.3	-3.0	14.2	69.7	0.2	-6.4	7.2	38.4
Canberra	Cool	2.7	0.1	5.4	0.0	-	-	-	-	-	-	-	-
	Warm	3.9	-2.2	10.3	53.7	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.4	-2.3	5.4	0.0
	Warm	-	-	-	-	-	-	-	-	1.0	-5.2	7.5	36.0
Melbourne	Cool	1.3	-3.9	6.8	29.3	1.4	-2.4	5.4	29.0	2.0	-1.2	5.3	0.0
	Warm	8.2	1.7	15.0	0.0	8.0	1.8	14.5	16.1	3.5	-2.4	9.8	0.0
Perth	Cool	1.5	-2.1	5.2	20.2	0.8	-1.6	3.3	0.0	2.2	-0.8	5.3	0.0
	Warm	2.3	-5.5	10.8	58.8	3.0	-4.9	11.6	71.5	-1.0	-5.9	4.2	2.8
Sydney	Cool	2.2	-2.8	7.5	27.2	2.0	-2.0	6.2	32.2	2.8	-0.5	6.3	0.0
	Warm	-0.6	-5.3	4.3	0.0	-0.3	-6.0	5.8	0.0	-1.0	-7.8	6.4	23.8
Australia only	Cool	2.0	-1.2	5.3	11.9	1.3	-1.1	3.7	0.3	0.7	-2.6	4.0	0.0
	Warm	3.3	-3.1	10.1	49.1	4.1	-2.5	11.1	59.6	1.4	-2.0	4.9	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	2.0	-1.2	5.3	11.9	1.3	-1.1	3.7	0.3	2.2	-0.7	5.2	0.0
	Warm	3.3	-3.1	10.1	49.1	4.1	-2.5	11.1	59.6	0.4	-5.0	6.0	19.6

Table WCL.20 COPD admissions 65+ yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.2	2.1	35.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.2	-9.2	5.4	35.4
Brisbane	Cool	-5.6	-11.2	0.3	52.2	-5.7	-11.3	0.1	54.6	-5.4	-11.4	0.9	58.3	0.3	-2.5	3.2	50.9
	Warm	-0.8	-3.4	1.9	33.5	-0.7	-3.8	2.5	41.9	0.6	-6.2	7.8	46.0	-3.2	-9.5	3.6	32.5
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-1.4	2.9	41.2
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.3	-6.3	1.9	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-2.0	3.4	43.5
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.9	-8.7	3.3	32.6
Melbourne	Cool	-4.8	-11.8	2.9	70.0	-4.6	-12.0	3.4	72.6	-3.4	-11.8	5.9	75.8	-0.3	-2.8	2.4	37.7
	Warm	1.3	-2.7	5.5	67.8	1.9	-4.1	8.3	70.1	3.1	-4.7	11.5	71.5	-1.2	-7.3	5.4	22.0
Perth	Cool	-2.4	-8.6	4.1	60.0	-2.5	-9.0	4.4	64.3	-1.6	-9.4	6.8	68.1	0.9	-1.3	3.1	37.7
	Warm	1.8	-1.6	5.2	58.4	2.5	-2.4	7.6	62.3	3.4	-2.8	10.0	66.9	-2.3	-8.9	4.7	36.1
Sydney	Cool	-4.4	-11.9	3.6	70.5	-4.4	-12.0	3.8	72.8	-3.5	-12.1	5.9	75.7	0.1	-2.7	3.1	52.6
	Warm	1.1	-3.8	6.3	69.6	1.8	-4.6	8.7	70.1	3.0	-4.7	11.3	70.2	-4.3	-8.6	0.1	0.0
Australia only	Cool	-1.9	-6.4	2.7	59.3	-2.0	-7.3	3.6	62.0	-1.9	-8.0	4.7	68.1	-1.3	-4.2	1.7	43.2
	Warm	0.3	-3.0	3.7	70.3	0.4	-3.1	4.0	67.9	0.5	-3.5	4.7	66.2	-1.5	-5.0	2.2	47.5
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-4.7	4.9	65.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-4.3	7.4	50.8
Overall	Cool	-1.9	-6.4	2.7	59.3	-2.0	-7.3	3.6	62.0	-1.9	-8.0	4.7	68.1	0.4	-1.9	2.7	43.4
	Warm	0.3	-3.0	3.7	70.3	0.4	-3.1	4.0	67.9	0.5	-3.5	4.7	66.2	-2.6	-7.7	2.9	23.8

Table WCL.20 COPD admissions 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.4	0.1	4.7	0.0	3.2	0.9	5.5	0.0	-	-	-	-	2.9	-1.4	7.3	0.0
	Warm	-1.1	-5.4	3.4	50.3	-2.8	-8.8	3.7	44.2	-	-	-	-	1.1	-4.8	7.3	0.0
Brisbane	Cool	1.7	-0.7	4.1	0.0	1.4	-2.3	5.2	35.9	1.4	-2.6	5.6	0.0	0.6	-1.9	3.1	0.0
	Warm	-1.6	-5.1	2.1	34.6	-2.8	-8.5	3.3	42.6	2.5	-3.7	9.1	0.0	0.7	-5.2	6.9	0.0
Canberra	Cool	2.2	-0.1	4.6	7.2	2.7	0.0	5.3	20.3	-	-	-	-	-	-	-	-
	Warm	-0.4	-4.2	3.6	43.3	-1.1	-5.3	3.3	27.5	-	-	-	-	-	-	-	-
Christchurch	Cool	1.9	-0.6	4.5	12.6	1.6	-1.7	5.1	34.0	1.6	-2.3	5.6	0.0	0.5	-2.0	3.1	0.0
	Warm	-0.9	-4.8	3.3	50.2	-2.4	-8.2	3.7	44.5	2.6	-1.6	7.0	0.0	1.5	-3.8	7.1	0.0
Melbourne	Cool	1.0	-1.6	3.7	0.0	1.2	-2.8	5.3	32.5	-	-	-	-	-	-	-	-
	Warm	-1.4	-6.3	3.9	49.4	-2.0	-8.9	5.4	46.5	-	-	-	-	-	-	-	-
Perth	Cool	2.6	0.2	5.0	0.0	2.3	-1.4	6.1	37.4	-	-	-	-	-	-	-	-
	Warm	0.9	-2.0	3.8	0.0	-0.2	-3.7	3.4	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	2.6	-0.3	5.5	6.5	1.7	-2.7	6.2	41.3	1.7	-1.9	5.5	0.0	1.0	-1.4	3.5	0.0
	Warm	-1.8	-6.3	2.9	43.4	-3.2	-9.5	3.7	36.0	3.7	-0.7	8.2	0.0	2.7	-2.8	8.4	0.0
Australia only	Cool	0.5	-2.5	3.6	52.4	-0.6	-4.9	4.0	54.8	2.2	-0.8	5.4	0.0	2.6	-2.1	7.4	0.0
	Warm	0.6	-2.5	3.8	52.6	-0.6	-4.9	3.8	54.0	2.3	-1.0	5.6	0.0	2.4	-2.6	7.6	0.0
NZ only	Cool	0.2	-5.1	5.8	0.0	0.9	-7.0	9.4	45.0	-	-	-	-	0.8	-1.7	3.3	0.0
	Warm	-1.5	-7.4	4.7	0.0	-2.1	-8.3	4.5	0.0	-	-	-	-	0.4	-2.3	3.1	0.0
Overall	Cool	2.1	-0.1	4.4	0.0	2.2	-0.6	5.2	29.7	1.6	-1.6	4.8	0.0	0.9	-1.4	3.3	0.0
	Warm	-0.9	-4.6	2.9	40.5	-1.9	-7.0	3.4	36.6	3.0	-0.8	7.0	0.0	1.5	-3.3	6.7	0.0

Table WCL.20 COPD admissions 65+ yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	0.9	-0.5	2.4	0.0	1.2	-0.4	2.8	0.0	-0.5	-2.3	1.3	0.0
	Warm	0.2	-2.1	2.5	0.0	0.9	-1.6	3.5	0.3	0.6	-6.0	7.6	56.6
Canberra	Cool	1.6	0.2	3.0	0.0	-	-	-	-	-	-	-	-
	Warm	0.4	-1.9	2.7	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	0.7	-1.3	2.8	0.0
	Warm	-	-	-	-	-	-	-	-	-1.2	-3.8	1.5	0.0
Melbourne	Cool	1.1	-1.4	3.8	35.1	1.2	-0.3	2.6	0.0	-0.1	-2.1	1.9	10.9
	Warm	1.1	-2.4	4.6	0.0	1.4	-1.6	4.4	0.0	0.8	-6.2	8.3	54.4
Perth	Cool	1.4	-0.7	3.6	30.6	1.5	0.2	2.8	0.0	0.1	-1.7	1.9	0.0
	Warm	0.2	-2.1	2.5	0.0	1.1	-1.4	3.7	0.0	1.0	-4.5	7.0	44.7
Sydney	Cool	1.4	-1.0	3.9	31.4	1.6	0.1	3.1	0.0	-0.5	-2.5	1.4	0.0
	Warm	-0.2	-2.8	2.4	0.0	-0.8	-3.9	2.5	0.0	-0.1	-7.1	7.5	52.1
Australia only	Cool	1.3	-0.3	3.0	13.8	1.4	0.1	2.6	0.0	-0.1	-1.9	1.6	0.0
	Warm	0.2	-2.0	2.5	0.0	0.7	-1.6	3.2	0.0	-0.4	-2.2	1.5	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.3	-0.3	3.0	13.8	1.4	0.1	2.6	0.0	-0.1	-1.8	1.6	0.0
	Warm	0.2	-2.0	2.5	0.0	0.7	-1.6	3.2	0.0	-0.3	-4.7	4.3	42.9

Table WCL.21 Pneumonia + acute bronchitis 0 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-2.1	3.9	26.5
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	9.2	-4.7	25.1	28.7
Brisbane	Cool	-4.1	-9.7	1.9	40.0	-3.8	-10.1	2.9	45.1	-5.1	-13.5	4.1	69.3	0.5	-2.7	3.7	42.7
	Warm	1.1	-2.9	5.4	0.0	1.4	-3.1	6.0	0.0	1.6	-3.5	7.1	0.0	7.2	-4.9	21.0	44.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-2.7	2.8	39.7
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	5.4	-6.4	18.7	45.7
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-3.2	2.9	39.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	6.2	-3.4	16.7	35.0
Melbourne	Cool	-4.2	-9.7	1.7	39.9	-3.9	-10.2	2.9	45.1	-4.4	-13.1	5.2	69.2	-0.2	-3.2	3.0	40.0
	Warm	0.6	-3.3	4.6	0.0	0.7	-3.5	5.1	0.0	0.5	-4.5	5.7	0.0	5.4	-7.3	19.9	45.8
Perth	Cool	-1.5	-5.5	2.7	0.0	-1.4	-5.2	2.6	0.0	-1.3	-5.8	3.5	17.1	0.7	-1.1	2.6	0.0
	Warm	0.6	-3.2	4.6	0.0	1.0	-3.2	5.3	0.0	0.9	-3.9	6.0	0.0	6.6	-5.5	20.2	45.5
Sydney	Cool	-5.3	-11.0	0.9	26.1	-4.5	-10.9	2.3	41.1	-5.0	-13.8	4.6	69.3	-0.2	-3.2	2.8	37.4
	Warm	3.6	-2.2	9.7	0.0	3.3	-3.1	10.0	0.0	3.3	-4.1	11.3	0.0	0.2	-6.6	7.5	0.0
Australia only	Cool	-4.8	-11.2	2.2	50.6	-4.7	-10.1	1.0	45.4	-6.3	-13.2	1.1	57.4	0.9	-1.4	3.2	0.0
	Warm	1.6	-2.1	5.6	0.0	2.0	-2.1	6.4	0.0	2.2	-2.7	7.3	0.0	2.0	-4.1	8.5	44.8
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.3	-3.1	2.7	11.6
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.9	-5.1	1.5	0.0
Overall	Cool	-4.8	-11.2	2.2	50.6	-4.7	-10.1	1.0	45.4	-6.3	-13.2	1.1	57.4	0.3	-2.3	2.9	34.0
	Warm	1.6	-2.1	5.6	0.0	2.0	-2.1	6.4	0.0	2.2	-2.7	7.3	0.0	5.7	-4.6	17.1	35.5

Table WCL.21 Pneumonia + acute bronchitis 0 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.8	-1.2	7.0	26.8	4.3	1.0	7.8	0.0	-	-	-	-	2.9	-2.5	8.7	0.0
	Warm	11.5	4.9	18.6	0.0	11.4	3.3	20.1	0.0	-	-	-	-	7.6	-4.8	21.5	0.0
Brisbane	Cool	1.2	-4.9	7.6	68.8	2.3	-3.4	8.4	64.4	2.5	-3.4	8.8	19.4	-0.4	-6.0	5.5	60.1
	Warm	10.4	4.5	16.6	0.0	10.7	3.2	18.7	0.0	5.9	-7.3	21.1	0.0	6.4	-3.0	16.8	0.0
Canberra	Cool	0.4	-5.6	6.7	69.1	1.4	-3.7	6.8	63.3	-	-	-	-	-	-	-	-
	Warm	9.9	4.1	16.0	0.0	10.3	3.0	18.1	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-0.6	-5.7	4.8	62.4	0.9	-4.1	6.2	59.8	0.8	-4.6	6.6	0.0	-3.0	-5.3	-0.7	0.0
	Warm	9.8	4.1	15.9	0.0	10.0	2.7	17.8	0.0	5.1	-3.3	14.3	0.0	5.7	-3.0	15.0	0.0
Melbourne	Cool	-0.3	-6.1	5.9	65.0	1.1	-4.7	7.2	60.7	-	-	-	-	-	-	-	-
	Warm	8.7	2.4	15.4	0.0	9.8	1.7	18.7	0.0	-	-	-	-	-	-	-	-
Perth	Cool	1.6	-4.1	7.7	65.9	2.2	-3.5	8.3	64.7	-	-	-	-	-	-	-	-
	Warm	9.5	3.5	15.8	0.0	9.9	2.4	17.9	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	-0.0	-6.3	6.7	66.1	1.2	-4.7	7.4	60.6	3.7	-1.1	8.7	0.0	0.1	-5.4	5.9	64.1
	Warm	7.5	0.4	15.1	0.0	6.3	-2.8	16.3	0.0	6.7	-2.3	16.5	0.0	6.8	-2.1	16.5	0.0
Australia only	Cool	3.2	-0.2	6.7	6.4	4.2	0.9	7.6	0.0	2.1	-2.7	7.1	0.0	1.1	-5.5	8.2	0.0
	Warm	4.7	-0.2	9.8	36.1	5.4	1.4	9.5	0.0	3.4	-2.0	9.1	0.0	2.7	-5.0	10.9	0.0
NZ only	Cool	0.8	-11.9	15.4	81.3	0.7	-10.9	13.8	73.4	-	-	-	-	1.2	-5.1	8.0	71.3
	Warm	-4.5	-13.3	5.2	56.3	-5.9	-12.6	1.2	14.2	-	-	-	-	0.3	-7.1	8.2	48.6
Overall	Cool	0.7	-4.5	6.1	63.6	1.9	-3.1	7.0	58.1	2.5	-1.7	6.9	0.0	-0.7	-4.8	3.6	46.2
	Warm	9.7	4.0	15.7	0.0	9.9	2.7	17.7	0.0	5.9	-2.1	14.5	0.0	6.5	-1.9	15.5	0.0

Table WCL.21 Pneumonia + acute bronchitis 0 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.6	-0.5	3.6	0.0	1.4	-0.8	3.7	0.0	1.1	-1.2	3.5	0.0
	Warm	-1.3	-7.0	4.8	0.0	2.8	-3.0	8.9	0.0	2.1	-7.5	12.6	33.9
Canberra	Cool	1.7	-0.3	3.7	0.0	-	-	-	-	-	-	-	-
	Warm	-1.7	-7.7	4.7	2.9	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	0.8	-2.1	3.7	0.0
	Warm	-	-	-	-	-	-	-	-	1.7	-6.4	10.5	28.7
Melbourne	Cool	2.2	-0.4	4.8	0.0	0.8	-1.3	3.0	0.0	0.8	-1.5	3.1	0.0
	Warm	-3.1	-13.3	8.3	23.8	2.9	-3.1	9.2	0.0	2.6	-7.1	13.3	29.1
Perth	Cool	1.9	-0.1	3.9	0.0	1.2	-0.7	3.2	0.0	1.2	-1.1	3.5	0.0
	Warm	-3.4	-9.2	2.7	0.0	1.0	-4.5	6.8	0.0	-1.2	-7.5	5.5	0.0
Sydney	Cool	1.7	-0.5	4.0	0.0	1.0	-1.3	3.5	0.0	1.1	-1.3	3.6	0.0
	Warm	-3.3	-13.3	7.9	23.6	2.4	-5.7	11.3	5.8	0.4	-10.9	13.1	38.9
Australia only	Cool	1.8	-0.1	3.7	0.0	1.1	-0.7	3.0	0.0	0.8	-2.0	3.6	0.0
	Warm	-2.2	-7.7	3.7	0.0	2.2	-3.1	7.8	0.0	1.0	-2.2	4.4	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.8	-0.1	3.7	0.0	1.1	-0.7	3.0	0.0	1.0	-1.1	3.2	0.0
	Warm	-2.2	-7.7	3.7	0.0	2.2	-3.1	7.8	0.0	0.9	-6.5	8.9	19.7

Table WCL.22 Pneumonia + acute bronchitis 1-4 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-1.3	4.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.4	-13.0	9.5	0.0
Brisbane	Cool	-1.5	-8.7	6.3	37.8	-1.1	-7.5	5.8	28.4	-1.1	-6.6	4.7	10.7	0.5	-2.1	3.1	0.0
	Warm	2.0	-2.3	6.4	0.0	2.3	-2.3	7.1	0.0	3.4	-2.0	9.1	0.0	-1.5	-9.4	7.1	0.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-1.5	3.4	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.4	-9.0	6.9	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-1.9	3.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.0	-9.5	6.2	0.0
Melbourne	Cool	-0.9	-7.6	6.4	33.7	-0.3	-6.3	6.1	20.7	-1.5	-7.5	4.9	17.2	0.5	-2.2	3.3	0.0
	Warm	2.6	-1.5	6.9	0.0	3.3	-1.2	8.0	0.0	4.2	-1.1	9.8	0.0	-0.9	-9.1	7.9	0.0
Perth	Cool	-0.7	-7.0	6.1	31.0	0.4	-4.6	5.7	4.6	-0.6	-5.5	4.7	0.0	0.7	-1.7	3.2	0.0
	Warm	2.9	-1.1	7.0	0.0	3.6	-0.8	8.2	0.0	4.8	-0.3	10.2	0.0	-1.7	-9.5	6.7	0.0
Sydney	Cool	-5.0	-11.3	1.7	0.0	-4.9	-11.0	1.7	0.0	-5.7	-11.8	0.9	0.0	0.1	-2.5	2.8	0.0
	Warm	1.6	-4.1	7.6	0.0	2.1	-4.1	8.7	0.0	3.1	-4.2	10.9	0.0	-4.6	-12.5	4.0	0.0
Australia only	Cool	-0.8	-7.1	6.0	30.4	-1.9	-8.4	5.1	38.6	-3.1	-9.6	3.8	34.4	1.0	-1.9	4.0	0.0
	Warm	2.8	-1.1	6.9	0.0	3.6	-0.7	8.1	0.0	5.0	-0.1	10.4	0.0	0.5	-2.9	4.0	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.8	-4.5	3.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.8	-6.2	2.9	0.0
Overall	Cool	-0.8	-7.1	6.0	30.4	-1.9	-8.4	5.1	38.6	-3.1	-9.6	3.8	34.4	0.7	-1.7	3.1	0.0
	Warm	2.8	-1.1	6.9	0.0	3.6	-0.7	8.1	0.0	5.0	-0.1	10.4	0.0	-2.0	-9.5	6.1	0.0

Table WCL.22 Pneumonia + acute bronchitis 1-4 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	4.2	-2.7	11.5	47.1	4.9	0.3	9.7	9.8	-	-	-	-	4.1	-4.1	13.0	20.2
	Warm	7.3	0.9	14.2	0.0	6.2	-1.7	14.8	0.0	-	-	-	-	12.2	-0.9	26.9	0.0
Brisbane	Cool	5.4	-2.1	13.5	52.5	4.0	-0.1	8.2	0.0	4.3	-3.5	12.7	18.2	1.6	-6.2	10.1	43.3
	Warm	5.5	-0.5	11.7	0.0	3.9	-3.5	11.9	0.0	12.9	-1.3	29.2	0.0	2.8	-8.1	15.0	0.0
Canberra	Cool	6.4	2.0	11.1	10.3	4.9	0.9	9.0	0.0	-	-	-	-	-	-	-	-
	Warm	6.7	0.7	13.0	0.0	5.6	-1.9	13.6	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	4.3	-2.3	11.4	48.3	3.9	-0.0	8.0	0.0	7.3	0.3	14.8	0.0	2.7	-4.6	10.7	47.9
	Warm	5.8	-0.1	11.9	0.0	4.9	-2.4	12.8	0.0	9.6	0.7	19.2	0.0	7.2	-3.9	19.5	15.9
Melbourne	Cool	6.7	-0.1	14.0	36.8	5.3	0.6	10.2	4.6	-	-	-	-	-	-	-	-
	Warm	6.7	-0.0	13.9	0.0	6.8	-1.9	16.2	0.0	-	-	-	-	-	-	-	-
Perth	Cool	4.0	-2.6	11.1	44.7	3.9	-0.0	8.1	0.0	-	-	-	-	-	-	-	-
	Warm	5.8	-0.4	12.3	0.0	5.8	-1.9	14.0	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	4.7	-3.1	13.0	51.0	5.6	0.6	10.9	2.7	3.5	-2.7	10.2	0.0	-0.8	-3.9	2.4	0.0
	Warm	2.9	-4.1	10.4	0.0	1.9	-7.1	11.9	0.0	10.3	1.1	20.4	0.0	4.3	-5.8	15.4	0.0
Australia only	Cool	3.7	-0.9	8.4	20.9	3.8	-0.2	7.9	0.0	7.9	2.1	14.1	0.0	9.4	0.7	18.8	0.0
	Warm	4.0	-1.2	9.5	29.5	5.3	0.6	10.3	0.0	7.9	1.6	14.6	0.0	8.6	-0.9	19.2	0.0
NZ only	Cool	8.0	-0.7	17.4	11.5	6.2	-4.7	18.2	25.8	-	-	-	-	-1.1	-4.2	2.1	0.0
	Warm	6.6	-2.3	16.3	0.0	2.7	-5.8	12.1	0.0	-	-	-	-	-1.0	-4.2	2.3	0.0
Overall	Cool	5.2	-0.9	11.8	43.5	4.5	0.6	8.6	0.0	4.9	-0.6	10.8	0.0	1.0	-4.0	6.3	23.4
	Warm	5.9	0.1	12.0	0.0	5.1	-2.2	12.9	0.0	10.4	2.1	19.4	0.0	6.1	-3.3	16.5	0.0

Table WCL.22 Pneumonia + acute bronchitis 1-4 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	2.6	-1.1	6.5	39.5	3.4	0.5	6.4	0.0	1.9	-1.1	5.1	0.0
	Warm	0.5	-6.6	8.2	37.8	0.6	-9.7	12.1	66.8	1.2	-10.0	13.8	67.9
Canberra	Cool	3.2	0.6	5.9	0.6	-	-	-	-	-	-	-	-
	Warm	4.0	-9.4	19.4	64.5	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.9	-1.8	5.8	1.5
	Warm	-	-	-	-	-	-	-	-	3.2	-8.2	16.0	68.1
Melbourne	Cool	2.0	-2.4	6.6	47.4	2.1	-1.2	5.6	37.2	1.0	-2.2	4.3	9.1
	Warm	5.4	-8.5	21.3	47.1	6.4	-4.8	18.9	41.9	5.1	-7.0	18.8	55.1
Perth	Cool	1.8	-1.9	5.7	46.6	1.8	-1.1	4.9	34.9	1.1	-2.1	4.4	11.7
	Warm	5.1	-6.4	18.0	58.5	5.7	-4.3	16.7	60.0	6.9	-1.9	16.6	46.4
Sydney	Cool	0.9	-1.9	3.9	0.0	0.6	-2.4	3.5	0.0	-0.0	-3.3	3.3	0.0
	Warm	0.9	-12.7	16.6	47.4	0.0	-11.8	13.4	54.7	-1.8	-10.0	7.1	5.6
Australia only	Cool	2.2	-0.9	5.4	30.5	2.0	-0.4	4.5	7.1	1.1	-2.6	5.0	12.0
	Warm	2.8	-7.7	14.3	53.8	3.3	-6.1	13.6	58.4	1.9	-4.0	8.2	54.3
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	2.2	-0.9	5.4	30.5	2.0	-0.4	4.5	7.1	1.2	-1.7	4.1	0.0
	Warm	2.8	-7.7	14.3	53.8	3.3	-6.1	13.6	58.4	3.2	-6.4	13.7	58.4

Table WCL.23 Pneumonia + acute bronchitis 15-64 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-1.0	-5.3	3.4	43.7
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-5.6	9.0	0.0
Brisbane	Cool	-6.4	-10.6	-1.9	0.0	-6.0	-10.7	-1.1	15.9	-5.7	-12.1	1.1	38.4	-0.9	-5.1	3.5	42.9
	Warm	1.9	-2.3	6.3	46.8	2.0	-2.4	6.6	42.2	3.0	-3.2	9.7	45.7	1.4	-4.0	7.1	0.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-1.8	2.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-4.4	6.2	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-1.1	-5.2	3.2	43.8
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-4.7	5.8	0.0
Melbourne	Cool	-2.0	-8.7	5.3	63.5	-1.4	-9.3	7.2	68.1	-1.5	-10.8	8.8	69.1	-1.1	-5.4	3.4	43.8
	Warm	3.6	-1.1	8.5	50.8	3.7	-1.2	8.9	46.1	4.9	-1.2	11.4	51.9	1.1	-4.8	7.3	0.0
Perth	Cool	-2.7	-9.2	4.3	62.4	-2.5	-9.8	5.5	66.8	-2.6	-11.4	7.1	68.1	-0.7	-4.6	3.4	41.4
	Warm	0.6	-2.0	3.2	0.0	0.8	-2.0	3.6	0.0	1.4	-2.6	5.5	23.0	1.2	-4.1	6.8	0.0
Sydney	Cool	0.8	-4.9	7.0	13.1	0.6	-5.9	7.5	30.8	-0.3	-7.2	7.2	39.3	-1.3	-4.2	1.6	12.1
	Warm	4.0	-0.7	8.8	37.2	4.1	-0.8	9.3	33.5	5.3	-0.6	11.6	36.9	-0.6	-6.0	5.1	0.0
Australia only	Cool	-1.9	-8.9	5.6	70.0	-2.1	-9.8	6.4	71.8	-3.5	-11.1	4.7	68.9	-0.7	-3.5	2.3	16.2
	Warm	2.4	-1.6	6.7	59.2	2.4	-1.7	6.7	51.8	2.9	-2.1	8.1	55.0	-1.3	-4.2	1.7	5.8
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-3.6	3.4	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-4.1	4.1	0.0
Overall	Cool	-1.9	-8.9	5.6	70.0	-2.1	-9.8	6.4	71.8	-3.5	-11.1	4.7	68.9	-0.7	-3.9	2.7	32.6
	Warm	2.4	-1.6	6.7	59.2	2.4	-1.7	6.7	51.8	2.9	-2.1	8.1	55.0	0.8	-4.4	6.2	0.0

Table WCL.23 Pneumonia + acute bronchitis 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.8	-1.6	5.3	0.0	2.9	-0.5	6.4	0.0	-	-	-	-	0.5	-5.7	7.2	0.0
	Warm	3.7	-5.3	13.6	50.7	3.0	-8.6	16.1	40.3	-	-	-	-	-2.6	-10.9	6.4	0.0
Brisbane	Cool	2.7	-0.9	6.3	0.0	3.6	0.2	7.2	0.0	-0.8	-7.1	6.0	0.0	1.4	-1.5	4.4	0.0
	Warm	3.1	-6.5	13.6	63.5	2.2	-11.2	17.7	66.0	-2.9	-11.8	6.9	0.0	2.0	-5.7	10.4	0.0
Canberra	Cool	2.5	-0.8	6.0	0.0	3.5	0.2	6.8	0.0	-	-	-	-	-	-	-	-
	Warm	-0.6	-9.6	9.2	57.9	-2.3	-15.3	12.6	66.7	-	-	-	-	-	-	-	-
Christchurch	Cool	2.1	-1.2	5.6	0.0	3.1	-0.1	6.5	0.0	0.6	-5.1	6.6	0.0	1.7	-1.2	4.7	0.0
	Warm	-0.6	-7.5	6.7	56.0	-3.4	-12.4	6.5	59.6	-2.2	-8.0	3.9	0.0	1.5	-5.4	8.8	0.0
Melbourne	Cool	1.9	-2.0	5.9	0.0	2.8	-1.2	6.8	0.0	-	-	-	-	-	-	-	-
	Warm	2.5	-8.6	15.0	66.6	0.3	-14.8	18.2	70.1	-	-	-	-	-	-	-	-
Perth	Cool	1.9	-1.5	5.5	0.0	3.3	-0.0	6.7	0.0	-	-	-	-	-	-	-	-
	Warm	0.6	-10.0	12.5	62.3	-0.3	-15.1	17.1	69.8	-	-	-	-	-	-	-	-
Sydney	Cool	2.9	-0.9	6.9	0.0	2.8	-1.1	6.8	0.0	0.3	-5.0	6.0	0.0	1.1	-1.8	4.0	0.0
	Warm	1.8	-9.2	14.3	66.5	-0.3	-15.3	17.4	68.5	-0.6	-6.7	5.9	0.0	0.7	-6.2	8.2	0.0
Australia only	Cool	1.2	-1.7	4.1	3.8	1.9	-1.0	5.0	0.0	-0.1	-4.4	4.5	0.0	1.1	-5.4	8.2	0.0
	Warm	1.3	-1.6	4.3	3.4	1.3	-1.9	4.6	0.0	-0.8	-5.3	3.9	0.0	-0.7	-7.5	6.6	0.0
NZ only	Cool	-0.6	-11.9	12.2	70.0	-3.9	-18.7	13.7	79.7	-	-	-	-	1.4	-1.4	4.4	0.0
	Warm	5.7	-16.7	34.1	80.1	5.2	-25.6	48.8	85.7	-	-	-	-	1.6	-1.3	4.6	0.0
Overall	Cool	2.3	-1.0	5.6	0.0	3.2	-0.0	6.5	0.0	0.1	-4.6	5.1	0.0	1.3	-1.5	4.2	0.0
	Warm	1.3	-7.5	10.9	60.7	-0.4	-12.5	13.5	64.4	-1.7	-7.1	4.0	0.0	0.6	-5.8	7.5	0.0

Table WCL.23 Pneumonia + acute bronchitis 15-64 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.0	-1.7	3.9	16.2	1.2	-1.3	3.7	0.0	1.9	-0.9	4.9	0.0
	Warm	4.0	-2.2	10.6	71.3	2.6	-4.5	10.3	62.7	8.6	-7.6	27.7	77.2
Canberra	Cool	1.7	-0.4	3.8	0.0	-	-	-	-	-	-	-	-
	Warm	-0.0	-12.3	13.9	81.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	-0.1	-3.1	3.1	0.0
	Warm	-	-	-	-	-	-	-	-	-1.6	-8.4	5.6	57.2
Melbourne	Cool	1.1	-2.2	4.5	16.4	0.1	-2.2	2.4	0.0	1.5	-1.6	4.7	8.2
	Warm	1.9	-10.8	16.5	70.7	1.5	-9.3	13.5	73.4	6.7	-12.2	29.7	82.3
Perth	Cool	1.1	-1.5	3.7	15.9	0.3	-1.7	2.3	0.0	0.9	-2.2	4.0	23.3
	Warm	-1.6	-11.5	9.5	71.6	-2.0	-7.9	4.2	56.8	4.0	-14.9	27.2	81.7
Sydney	Cool	0.7	-1.5	3.0	0.0	0.1	-2.2	2.5	0.0	0.4	-2.8	3.6	11.2
	Warm	-0.5	-12.6	13.3	76.9	-0.5	-11.2	11.4	73.6	5.6	-13.7	29.3	83.3
Australia only	Cool	1.2	-0.8	3.2	0.0	0.4	-1.6	2.3	0.0	-1.0	-4.2	2.3	35.8
	Warm	1.1	-8.5	11.8	75.4	0.3	-7.2	8.4	66.8	-1.4	-4.4	1.7	22.5
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.2	-0.8	3.2	0.0	0.4	-1.6	2.3	0.0	1.0	-1.6	3.7	0.0
	Warm	1.1	-8.5	11.8	75.4	0.3	-7.2	8.4	66.8	4.2	-10.5	21.3	78.2

Table WCL.24 Pneumonia + acute bronchitis 65+ yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-1.4	3.1	23.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-7.7	10.3	41.4
Brisbane	Cool	-0.9	-4.3	2.5	0.0	-1.0	-4.2	2.3	0.0	-1.2	-4.4	2.1	0.0	-0.1	-3.1	2.9	52.3
	Warm	-1.2	-3.2	0.9	0.0	-1.1	-3.3	1.2	0.0	-1.0	-3.6	1.7	0.0	-0.0	-7.4	8.0	36.6
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-2.2	2.7	44.8
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-5.3	8.6	36.8
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-3.3	2.4	52.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-5.1	5.3	18.8
Melbourne	Cool	1.0	-3.9	6.2	40.3	1.1	-3.6	6.1	35.5	0.1	-3.7	4.0	5.9	-0.5	-3.5	2.6	52.4
	Warm	-1.2	-3.4	1.1	0.0	-1.2	-3.7	1.3	0.0	-1.0	-3.9	1.9	0.0	2.8	-4.2	10.4	17.4
Perth	Cool	1.0	-3.5	5.7	39.8	0.7	-3.5	5.0	36.1	-0.5	-3.7	2.7	0.0	0.1	-2.5	2.8	49.2
	Warm	-0.9	-2.9	1.1	0.0	-0.9	-3.0	1.4	0.0	-0.9	-3.4	1.7	0.0	1.9	-4.9	9.3	34.8
Sydney	Cool	1.9	-3.2	7.3	27.0	1.9	-2.9	6.9	19.7	1.5	-2.6	5.8	0.0	-0.7	-2.7	1.4	17.0
	Warm	-0.9	-3.5	1.8	0.0	-0.6	-3.4	2.4	0.0	-0.5	-3.8	3.0	0.0	-0.8	-7.3	6.2	24.4
Australia only	Cool	0.5	-2.7	3.9	5.0	0.2	-2.9	3.4	2.3	0.0	-3.4	3.6	12.5	-0.1	-2.6	2.5	27.5
	Warm	-1.1	-3.0	0.9	0.0	-1.0	-3.1	1.1	0.0	-1.0	-3.5	1.5	0.0	-0.5	-2.7	1.8	7.7
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.8	-4.6	3.1	40.2
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-11.8	18.4	57.2
Overall	Cool	0.5	-2.7	3.9	5.0	0.2	-2.9	3.4	2.3	0.0	-3.4	3.6	12.5	-0.1	-2.5	2.4	44.1
	Warm	-1.1	-3.0	0.9	0.0	-1.0	-3.1	1.1	0.0	-1.0	-3.5	1.5	0.0	0.8	-5.5	7.5	30.9

Table WCL.24 Pneumonia + acute bronchitis 65+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.5	-2.1	5.1	40.6	1.4	-4.8	8.0	57.6	-	-	-	-	7.0	-2.3	17.2	68.2
	Warm	-1.6	-5.1	2.0	20.1	-2.2	-6.0	1.7	5.8	-	-	-	-	-3.7	-11.2	4.3	15.8
Brisbane	Cool	0.3	-3.4	4.2	42.2	0.2	-5.6	6.3	58.9	5.8	0.5	11.4	7.8	6.8	-1.7	16.1	76.0
	Warm	-1.6	-4.5	1.5	5.5	-1.7	-6.9	3.9	16.7	-0.6	-7.7	7.2	0.0	-5.2	-11.2	1.2	0.0
Canberra	Cool	2.0	-0.7	4.8	12.3	3.1	0.0	6.3	27.6	-	-	-	-	-	-	-	-
	Warm	-0.6	-3.4	2.3	0.0	-1.2	-4.7	2.4	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.0	-2.7	4.7	46.3	0.6	-5.1	6.6	60.8	5.4	-0.1	11.1	28.0	5.2	-4.5	15.9	76.2
	Warm	-1.1	-4.5	2.5	25.8	-2.0	-5.4	1.5	0.0	2.0	-3.0	7.3	0.0	-2.3	-8.0	3.6	0.0
Melbourne	Cool	0.8	-3.5	5.3	44.3	0.8	-5.7	7.7	58.8	-	-	-	-	-	-	-	-
	Warm	-0.9	-5.5	4.0	25.5	-1.4	-7.6	5.3	14.4	-	-	-	-	-	-	-	-
Perth	Cool	1.7	-1.8	5.3	36.3	1.8	-4.1	8.0	55.5	-	-	-	-	-	-	-	-
	Warm	-1.2	-4.9	2.7	26.8	-1.5	-6.9	4.1	16.0	-	-	-	-	-	-	-	-
Sydney	Cool	-0.1	-3.1	3.1	6.1	-0.1	-5.5	5.6	40.5	3.1	-1.3	7.7	0.0	1.6	-1.2	4.4	0.0
	Warm	-1.4	-5.5	2.9	26.1	-2.2	-8.1	4.0	13.8	0.6	-4.6	6.1	0.0	-4.6	-10.5	1.7	5.9
Australia only	Cool	-0.3	-4.2	3.8	54.4	-1.3	-6.5	4.2	62.2	4.0	0.3	7.9	4.3	5.2	-5.4	16.8	73.4
	Warm	-0.9	-3.6	2.0	31.9	-1.9	-6.1	2.6	40.5	2.4	-1.4	6.4	0.0	-0.3	-5.9	5.6	0.0
NZ only	Cool	0.0	-5.8	6.2	0.0	1.0	-5.2	7.7	0.0	-	-	-	-	1.0	-3.2	5.4	23.6
	Warm	-0.5	-6.7	6.2	0.0	0.8	-5.8	8.0	0.0	-	-	-	-	-3.2	-10.4	4.6	59.7
Overall	Cool	1.1	-2.2	4.5	35.7	1.3	-3.7	6.6	53.6	4.6	0.8	8.6	0.0	5.0	-1.8	12.3	66.1
	Warm	-1.2	-4.3	2.0	12.3	-1.8	-5.2	1.8	0.2	1.0	-3.6	5.7	0.0	-3.9	-9.0	1.6	0.0

Table WCL.24 Pneumonia + acute bronchitis 65+ yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.4	-0.2	3.0	0.0	1.9	-0.6	4.5	46.4	2.1	-1.5	5.8	64.2
	Warm	-1.7	-4.1	0.6	0.0	-0.9	-3.6	1.8	0.0	-1.3	-4.2	1.7	0.0
Canberra	Cool	1.4	-0.1	2.9	0.0	-	-	-	-	-	-	-	-
	Warm	-1.9	-4.2	0.5	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	2.6	-1.2	6.5	61.1
	Warm	-	-	-	-	-	-	-	-	-1.7	-4.5	1.2	0.0
Melbourne	Cool	2.2	-0.0	4.5	0.0	2.7	0.8	4.7	20.1	2.4	-1.3	6.3	63.3
	Warm	-0.5	-4.4	3.6	0.0	0.8	-2.6	4.4	0.0	-1.8	-5.6	2.1	0.0
Perth	Cool	1.5	0.0	3.1	0.0	2.5	0.9	4.1	14.3	3.3	0.7	5.9	34.3
	Warm	-2.1	-4.5	0.3	0.0	-0.6	-3.4	2.3	8.5	-1.7	-4.6	1.3	0.0
Sydney	Cool	1.1	-0.6	2.8	0.0	1.6	-0.1	3.3	0.0	1.3	-1.0	3.6	0.0
	Warm	-1.7	-4.3	1.0	0.0	0.6	-3.6	4.9	30.1	-0.7	-4.1	2.8	0.0
Australia only	Cool	1.4	-0.0	2.9	0.0	2.2	0.6	3.9	20.8	1.4	-1.4	4.4	49.6
	Warm	-1.8	-4.0	0.6	0.0	-0.4	-2.9	2.3	0.0	-0.2	-2.2	1.9	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.4	-0.0	2.9	0.0	2.2	0.6	3.9	20.8	2.4	-0.5	5.4	52.6
	Warm	-1.8	-4.0	0.6	0.0	-0.4	-2.9	2.3	0.0	-1.4	-4.2	1.4	0.0

Table WCL.25 Respiratory admissions 0 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-0.7	3.0	3.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-11.8	14.5	62.5
Brisbane	Cool	-3.7	-8.6	1.5	40.5	-3.1	-8.1	2.2	47.4	-4.3	-11.6	3.5	68.2	0.6	-1.4	2.7	18.0
	Warm	1.2	-2.4	4.8	19.7	1.3	-3.3	6.0	37.1	1.9	-3.0	7.1	29.7	2.1	-8.8	14.3	62.2
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-1.1	2.6	15.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.8	-11.9	11.7	66.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-1.4	2.6	17.5
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-7.9	11.8	61.7
Melbourne	Cool	-3.0	-8.0	2.3	45.9	-2.6	-8.4	3.7	50.5	-3.4	-11.2	5.1	70.6	0.5	-1.5	2.6	16.7
	Warm	-0.5	-3.2	2.3	0.0	-1.0	-4.6	2.8	19.6	-1.1	-5.5	3.6	23.3	-0.8	-12.6	12.6	66.9
Perth	Cool	-1.2	-4.6	2.3	0.0	-1.3	-4.5	2.1	0.0	-1.2	-6.4	4.3	51.1	1.0	-0.6	2.7	0.0
	Warm	0.5	-3.3	4.5	35.4	0.1	-5.7	6.3	49.8	0.2	-6.3	7.1	49.8	0.2	-11.5	13.5	66.7
Sydney	Cool	-3.3	-9.2	3.0	45.7	-2.3	-8.4	4.1	49.8	-3.0	-10.6	5.4	69.0	0.1	-1.6	1.9	0.0
	Warm	-0.4	-5.5	5.0	36.4	-1.0	-7.3	5.8	49.3	-1.2	-8.3	6.4	47.0	-3.8	-9.0	1.7	0.0
Australia only	Cool	-3.8	-8.6	1.3	47.5	-3.7	-7.9	0.7	34.5	-5.0	-9.7	-0.2	44.2	1.0	-1.0	2.9	0.0
	Warm	0.7	-2.7	4.2	33.4	0.9	-3.1	5.0	40.5	1.2	-3.6	6.2	43.5	0.5	-4.9	6.2	47.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-2.8	2.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.2	-7.5	3.4	15.9
Overall	Cool	-3.8	-8.6	1.3	47.5	-3.7	-7.9	0.7	34.5	-5.0	-9.7	-0.2	44.2	0.7	-0.8	2.3	1.6
	Warm	0.7	-2.7	4.2	33.4	0.9	-3.1	5.0	40.5	1.2	-3.6	6.2	43.5	-0.1	-9.9	10.8	60.4

Table WCL.25 Respiratory admissions 0 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.6	-1.2	6.5	40.7	4.4	1.6	7.3	0.0	-	-	-	-	3.4	-1.2	8.2	0.0
	Warm	7.7	2.9	12.6	7.1	8.1	2.6	13.9	0.0	-	-	-	-	4.7	-4.8	15.1	24.8
Brisbane	Cool	0.3	-4.5	5.5	65.3	1.7	-2.8	6.4	57.9	2.8	-1.6	7.4	0.0	-0.2	-5.3	5.0	66.4
	Warm	4.9	-1.3	11.4	49.6	5.5	-1.0	12.4	29.2	4.6	-3.8	13.7	0.0	6.0	-1.2	13.8	0.0
Canberra	Cool	1.3	-3.3	6.0	65.4	2.6	-1.7	7.0	59.8	-	-	-	-	-	-	-	-
	Warm	3.5	-3.0	10.6	58.2	4.1	-3.0	11.7	43.2	-	-	-	-	-	-	-	-
Christchurch	Cool	0.0	-4.3	4.6	60.9	1.6	-2.5	5.9	54.6	3.4	-1.3	8.3	0.0	-1.0	-5.6	3.7	51.0
	Warm	4.0	-2.3	10.8	56.2	3.6	-3.5	11.3	44.3	1.6	-4.4	8.0	0.0	1.9	-4.7	9.0	0.0
Melbourne	Cool	0.6	-4.5	6.0	66.4	2.4	-2.7	7.6	60.6	-	-	-	-	-	-	-	-
	Warm	2.2	-3.4	8.2	44.0	2.3	-5.1	10.3	38.5	-	-	-	-	-	-	-	-
Perth	Cool	2.1	-2.1	6.6	53.6	3.0	-1.4	7.5	56.8	-	-	-	-	-	-	-	-
	Warm	3.4	-3.7	11.0	57.9	3.7	-3.8	11.7	44.3	-	-	-	-	-	-	-	-
Sydney	Cool	-0.2	-4.9	4.7	55.1	1.2	-3.2	5.9	45.5	3.6	-0.3	7.8	0.0	-0.3	-5.0	4.7	67.7
	Warm	2.1	-4.0	8.7	48.5	1.7	-5.0	9.0	20.7	2.5	-3.5	8.8	0.0	4.4	-3.9	13.4	25.2
Australia only	Cool	2.9	-0.6	6.6	38.1	4.3	1.6	7.1	0.0	2.7	-1.2	6.8	0.0	2.1	-3.5	8.0	0.0
	Warm	3.3	-0.9	7.6	48.4	4.3	1.0	7.7	4.7	3.0	-1.3	7.4	0.0	1.7	-4.4	8.2	0.0
NZ only	Cool	-2.0	-11.1	8.1	72.5	-1.6	-11.9	10.0	68.9	-	-	-	-	-0.2	-5.1	5.0	67.7
	Warm	-6.8	-12.0	-1.2	0.0	-5.6	-10.8	-0.2	0.0	-	-	-	-	2.6	-6.9	13.0	73.0
Overall	Cool	1.0	-3.2	5.3	59.8	2.4	-1.6	6.5	52.9	3.3	-0.3	7.0	0.0	-0.1	-4.0	4.1	60.6
	Warm	3.7	-2.3	10.1	50.0	4.3	-2.0	11.0	33.2	2.6	-2.8	8.2	0.0	4.0	-2.2	10.6	0.0

Table WCL.25 Respiratory admissions 0 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.6	-0.1	3.4	0.0	1.7	-0.2	3.6	0.0	0.6	-1.4	2.6	0.0
	Warm	1.2	-2.6	5.1	0.0	4.0	-0.0	8.2	0.0	1.8	-2.6	6.4	0.0
Canberra	Cool	2.4	0.1	4.7	33.4	-	-	-	-	-	-	-	-
	Warm	0.4	-3.4	4.4	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.7	-0.8	4.2	0.0
	Warm	-	-	-	-	-	-	-	-	0.7	-3.5	5.0	0.0
Melbourne	Cool	3.4	1.2	5.6	0.0	1.9	0.2	3.7	0.0	0.7	-1.2	2.7	0.0
	Warm	0.9	-4.1	6.3	0.0	2.0	-2.9	7.3	19.8	1.3	-3.5	6.3	0.0
Perth	Cool	2.6	0.5	4.8	31.9	1.9	0.3	3.5	0.0	0.9	-1.1	2.8	0.0
	Warm	0.9	-2.9	4.9	0.0	2.3	-2.5	7.4	23.1	0.9	-3.5	5.5	0.0
Sydney	Cool	2.4	-0.1	5.0	33.3	1.5	-0.4	3.5	0.0	0.3	-1.7	2.5	0.0
	Warm	-0.3	-4.7	4.4	0.0	1.4	-4.1	7.1	7.0	-1.1	-6.4	4.6	0.0
Australia only	Cool	2.3	0.5	4.2	14.0	1.8	0.2	3.4	0.0	1.2	-1.1	3.5	0.0
	Warm	0.7	-3.0	4.5	0.0	2.8	-0.9	6.7	0.0	1.1	-1.5	3.7	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	2.3	0.5	4.2	14.0	1.8	0.2	3.4	0.0	0.8	-1.0	2.7	0.0
	Warm	0.7	-3.0	4.5	0.0	2.8	-0.9	6.7	0.0	0.8	-3.2	5.1	0.0

Table WCL.26 Respiratory admissions 1-4 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-0.5	2.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-2.8	5.8	0.0
Brisbane	Cool	-4.8	-9.2	-0.3	51.4	-4.8	-8.7	-0.6	46.4	-4.6	-8.0	-1.1	29.6	0.7	-0.8	2.1	0.0
	Warm	3.3	1.1	5.5	27.7	3.5	0.7	6.3	41.4	2.6	-3.1	8.6	50.5	-0.9	-4.5	2.8	1.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-0.4	2.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.8	-4.2	2.8	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-0.4	2.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.0	-4.4	2.5	0.0
Melbourne	Cool	-0.9	-3.5	1.9	0.0	-1.0	-3.7	1.7	0.0	-1.4	-4.2	1.5	0.0	1.0	-0.6	2.5	0.0
	Warm	3.6	1.4	5.7	25.2	3.6	0.9	6.5	42.1	2.8	-3.0	8.9	51.1	-2.5	-6.2	1.4	0.0
Perth	Cool	-3.6	-8.3	1.4	64.0	-3.2	-7.8	1.7	64.6	-3.1	-7.7	1.7	60.8	0.9	-0.4	2.3	0.0
	Warm	3.2	1.3	5.2	20.1	3.4	0.9	6.0	38.6	2.6	-2.6	8.0	48.2	-1.2	-4.7	2.4	0.0
Sydney	Cool	-4.5	-9.1	0.5	58.7	-4.1	-8.8	0.7	61.3	-3.9	-9.4	1.8	58.3	0.5	-1.0	1.9	0.0
	Warm	2.9	0.2	5.8	24.5	3.1	-0.4	6.8	41.6	2.7	-2.9	8.6	50.2	-0.8	-4.6	3.1	1.4
Australia only	Cool	-2.9	-7.8	2.1	70.7	-3.2	-8.2	2.0	73.4	-3.1	-8.0	2.0	69.7	1.2	-0.3	2.7	0.0
	Warm	3.8	2.3	5.4	0.0	4.3	2.7	6.1	0.0	5.3	3.3	7.3	0.0	0.7	-1.0	2.4	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.9	-3.9	2.2	32.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.2	-5.1	2.8	33.2
Overall	Cool	-2.9	-7.8	2.1	70.7	-3.2	-8.2	2.0	73.4	-3.1	-8.0	2.0	69.7	0.8	-0.5	2.2	0.0
	Warm	3.8	2.3	5.4	0.0	4.3	2.7	6.1	0.0	5.3	3.3	7.3	0.0	-0.9	-4.3	2.6	0.0

Table WCL.26 Respiratory admissions 1-4 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.4	0.3	4.5	0.0	2.3	0.1	4.5	0.0	-	-	-	-	2.6	-1.1	6.4	0.0
	Warm	5.6	2.3	9.1	36.0	6.2	-0.2	12.9	41.2	-	-	-	-	3.4	-1.7	8.9	8.8
Brisbane	Cool	2.6	0.4	4.8	0.0	1.8	-0.3	4.0	0.0	3.8	0.2	7.5	0.0	0.7	-2.5	4.0	38.9
	Warm	2.4	-2.1	7.2	69.7	0.2	-7.3	8.4	73.2	3.5	-9.2	18.0	86.0	0.8	-5.8	7.8	43.4
Canberra	Cool	2.9	0.8	5.0	0.0	2.3	0.2	4.4	0.0	-	-	-	-	-	-	-	-
	Warm	4.2	-1.2	10.0	70.3	3.9	-5.2	13.8	76.4	-	-	-	-	-	-	-	-
Christchurch	Cool	2.8	0.7	5.0	0.0	2.3	0.2	4.4	0.0	3.2	-0.3	6.9	0.0	0.0	-2.7	2.9	21.5
	Warm	3.4	-2.2	9.4	73.5	3.0	-6.4	13.3	78.6	0.1	-4.4	4.8	38.4	0.0	-4.4	4.7	0.0
Melbourne	Cool	3.6	1.2	6.0	0.0	2.5	0.1	4.9	0.0	-	-	-	-	-	-	-	-
	Warm	3.4	-2.7	9.9	72.4	1.7	-8.1	12.6	78.9	-	-	-	-	-	-	-	-
Perth	Cool	2.9	0.7	5.1	0.0	2.2	0.1	4.4	0.0	-	-	-	-	-	-	-	-
	Warm	2.6	-3.2	8.7	72.2	1.1	-8.2	11.3	77.8	-	-	-	-	-	-	-	-
Sydney	Cool	1.9	-0.6	4.5	0.0	2.3	-0.3	4.9	0.0	2.4	-0.7	5.6	0.0	-0.4	-2.4	1.6	0.0
	Warm	2.3	-3.4	8.3	64.4	1.6	-8.2	12.4	78.5	5.6	-2.5	14.5	73.6	2.6	-3.5	9.2	42.5
Australia only	Cool	3.1	1.1	5.1	14.6	3.9	0.9	7.1	35.0	2.7	-0.0	5.5	0.0	3.1	-1.0	7.4	0.0
	Warm	3.8	1.1	6.4	44.2	4.7	1.5	7.9	33.9	1.1	-1.7	3.9	0.0	1.4	-2.8	5.8	0.0
NZ only	Cool	0.3	-8.2	9.5	74.0	-3.7	-13.6	7.4	75.8	-	-	-	-	-0.7	-2.7	1.3	0.0
	Warm	0.2	-8.7	9.9	73.9	-5.3	-15.1	5.6	74.0	-	-	-	-	0.4	-5.2	6.4	47.4
Overall	Cool	2.7	0.7	4.8	0.0	2.2	0.2	4.3	0.0	3.1	0.3	5.9	0.0	0.2	-2.0	2.4	12.3
	Warm	3.4	-1.6	8.6	68.3	2.4	-5.8	11.4	74.8	2.8	-4.4	10.6	72.4	1.6	-3.2	6.7	26.7

Table WCL.26 Respiratory admissions 1-4 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	2.3	1.0	3.7	0.0	1.7	0.2	3.2	0.0	0.4	-1.2	2.0	0.0
	Warm	1.7	-0.4	3.9	0.0	3.4	1.1	5.7	0.0	3.0	-0.5	6.7	45.4
Canberra	Cool	2.3	1.0	3.7	0.0	-	-	-	-	-	-	-	-
	Warm	1.7	-0.5	3.8	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.3	-0.6	3.3	0.0
	Warm	-	-	-	-	-	-	-	-	3.3	0.2	6.5	36.7
Melbourne	Cool	2.1	0.4	3.9	0.0	0.9	-0.5	2.2	0.0	0.4	-1.2	2.0	0.0
	Warm	2.4	-0.6	5.5	0.0	3.8	1.2	6.4	0.0	4.8	2.0	7.7	0.0
Perth	Cool	2.3	1.0	3.7	0.0	1.1	-0.1	2.4	0.0	0.7	-0.8	2.3	0.0
	Warm	1.6	-0.5	3.8	0.0	2.6	0.0	5.3	22.2	2.6	-0.9	6.2	43.2
Sydney	Cool	2.0	0.5	3.5	0.0	0.7	-0.8	2.2	0.0	0.6	-1.1	2.3	0.0
	Warm	0.7	-1.7	3.2	0.0	1.5	-1.4	4.6	0.0	1.3	-1.7	4.4	0.0
Australia only	Cool	2.2	0.9	3.5	0.0	1.1	-0.1	2.3	0.0	1.4	-0.3	3.0	0.0
	Warm	1.6	-0.5	3.7	0.0	3.0	0.8	5.2	0.0	2.6	0.8	4.4	7.4
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	2.2	0.9	3.5	0.0	1.1	-0.1	2.3	0.0	0.6	-0.8	2.1	0.0
	Warm	1.6	-0.5	3.7	0.0	3.0	0.8	5.2	0.0	3.1	0.2	6.0	27.5

Table WCL.27 Respiratory admissions 5-14 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-1.1	-3.4	1.3	18.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-2.3	15.9	45.0
Brisbane	Cool	-5.0	-13.0	3.7	66.2	-4.8	-11.9	2.9	64.8	-5.0	-12.3	2.9	65.8	0.8	-3.1	4.8	63.0
	Warm	0.6	-4.0	5.4	69.3	0.4	-4.4	5.6	67.9	1.6	-3.5	7.0	60.4	0.7	-4.4	6.0	0.6
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.0	-3.8	3.9	66.7
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	5.0	-3.6	14.4	53.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-1.9	4.5	47.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-3.7	10.8	42.5
Melbourne	Cool	-1.5	-5.5	2.6	0.0	-1.5	-5.5	2.6	0.0	-1.1	-5.3	3.4	0.0	-0.0	-4.1	4.2	66.0
	Warm	4.6	2.3	6.9	0.0	4.0	0.6	7.5	30.7	5.2	1.8	8.7	13.5	6.5	-1.4	15.1	39.4
Perth	Cool	-5.9	-12.3	1.0	60.7	-5.8	-11.8	0.5	55.7	-5.8	-12.1	1.0	57.8	0.3	-3.5	4.4	67.2
	Warm	1.2	-3.3	5.9	70.5	1.2	-3.6	6.2	69.2	2.1	-2.9	7.3	60.9	5.2	-3.6	14.8	53.0
Sydney	Cool	-4.7	-12.8	4.2	66.9	-4.5	-12.1	3.8	64.9	-4.0	-12.1	4.8	69.1	0.3	-3.7	4.5	67.2
	Warm	0.1	-4.5	4.8	48.5	-0.1	-5.0	5.0	46.7	0.5	-4.0	5.2	18.4	4.0	-4.9	13.8	48.3
Australia only	Cool	-4.7	-13.6	5.0	75.2	-4.2	-12.5	4.9	73.8	-3.1	-12.0	6.6	76.1	0.3	-2.6	3.2	16.9
	Warm	2.4	-1.9	6.8	73.4	2.8	-1.3	7.1	65.5	3.6	-0.7	8.2	56.6	1.3	-2.4	5.1	28.4
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-8.1	9.4	84.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	6.0	-5.7	19.2	63.2
Overall	Cool	-4.7	-13.6	5.0	75.2	-4.2	-12.5	4.9	73.8	-3.1	-12.0	6.6	76.1	0.2	-3.2	3.7	60.8
	Warm	2.4	-1.9	6.8	73.4	2.8	-1.3	7.1	65.5	3.6	-0.7	8.2	56.6	4.4	-3.0	12.3	43.6

Table WCL.27 Respiratory admissions 5-14 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.5	-1.4	6.7	35.3	3.6	-0.3	7.6	25.7	-	-	-	-	-2.5	-9.3	4.9	32.7
	Warm	8.8	2.6	15.3	49.8	10.1	2.3	18.4	47.8	-	-	-	-	6.8	-1.7	16.0	28.8
Brisbane	Cool	7.6	-0.7	16.7	71.2	7.8	0.8	15.2	61.1	1.9	-11.9	17.9	84.1	-2.2	-7.4	3.3	24.7
	Warm	7.7	4.4	11.1	0.0	8.1	3.9	12.5	0.0	11.9	4.3	20.1	0.0	6.8	-1.9	16.3	29.1
Canberra	Cool	4.9	-4.0	14.7	76.6	5.2	-2.1	13.0	70.1	-	-	-	-	-	-	-	-
	Warm	8.8	2.7	15.2	49.8	10.2	2.6	18.4	47.2	-	-	-	-	-	-	-	-
Christchurch	Cool	6.9	-1.8	16.3	77.3	6.3	-1.4	14.6	71.6	3.8	-6.6	15.3	73.5	-2.3	-7.5	3.3	26.3
	Warm	9.0	4.3	13.9	44.7	10.0	2.7	17.9	47.4	5.1	-8.5	20.9	84.2	5.2	-3.7	15.0	42.7
Melbourne	Cool	6.4	-2.9	16.6	77.9	6.0	-2.0	14.8	71.7	-	-	-	-	-	-	-	-
	Warm	9.7	3.5	16.3	39.1	11.4	3.7	19.8	29.2	-	-	-	-	-	-	-	-
Perth	Cool	6.9	-2.1	16.7	76.9	7.4	0.3	15.1	66.7	-	-	-	-	-	-	-	-
	Warm	9.6	4.7	14.9	39.9	10.8	3.6	18.5	43.2	-	-	-	-	-	-	-	-
Sydney	Cool	5.8	-3.6	16.0	77.3	6.1	-2.1	14.8	71.7	-2.8	-7.3	2.0	0.0	-3.8	-6.9	-0.6	0.0
	Warm	7.7	1.6	14.1	35.5	8.5	0.6	17.1	33.3	2.9	-7.4	14.4	66.8	1.8	-4.8	8.9	0.0
Australia only	Cool	5.0	0.6	9.6	49.9	5.4	-0.2	11.2	46.5	1.6	-5.0	8.6	57.9	-0.3	-6.8	6.7	25.3
	Warm	6.0	1.1	11.2	62.9	6.6	0.5	13.0	60.0	2.7	-5.9	12.0	72.2	2.9	-8.5	15.6	71.1
NZ only	Cool	12.3	-5.4	33.2	81.9	13.0	0.6	27.0	59.2	-	-	-	-	-3.2	-6.4	0.1	0.0
	Warm	13.5	-5.1	35.8	75.7	16.2	4.3	29.5	37.1	-	-	-	-	-2.4	-5.7	1.1	0.0
Overall	Cool	5.7	-1.9	14.0	73.7	6.0	-0.7	13.0	66.0	0.7	-7.5	9.5	69.4	-3.1	-6.1	-0.1	0.0
	Warm	8.6	4.0	13.3	39.8	9.6	3.3	16.3	37.6	6.2	-2.8	15.9	73.6	5.0	-1.6	11.9	14.1

Table WCL.27 Respiratory admissions 5-14 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.8	-0.2	3.9	0.0	1.7	-0.6	3.9	0.0	1.9	-0.7	4.5	0.0
	Warm	-0.3	-4.0	3.6	32.8	3.0	-3.6	10.0	78.0	1.2	-3.6	6.1	59.2
Canberra	Cool	1.3	-0.7	3.4	0.0	-	-	-	-	-	-	-	-
	Warm	1.5	-3.0	6.2	41.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	3.3	0.4	6.2	0.0
	Warm	-	-	-	-	-	-	-	-	1.9	-3.7	7.9	63.3
Melbourne	Cool	0.4	-2.0	3.0	0.0	0.3	-1.8	2.4	0.0	1.5	-1.1	4.2	0.0
	Warm	1.9	-4.1	8.3	36.0	6.5	2.8	10.4	0.0	5.1	1.0	9.3	0.0
Perth	Cool	1.4	-0.6	3.3	0.0	0.7	-1.2	2.6	0.0	1.9	-0.6	4.4	0.0
	Warm	0.5	-5.5	7.0	54.8	2.4	-3.9	9.1	77.8	2.0	-3.4	7.7	63.3
Sydney	Cool	1.5	-0.7	3.6	0.0	0.6	-1.6	2.9	0.0	2.5	-0.4	5.3	3.5
	Warm	-0.7	-6.3	5.1	25.2	0.2	-4.9	5.6	29.3	-0.2	-5.3	5.2	27.4
Australia only	Cool	1.4	-0.5	3.3	0.0	0.8	-1.0	2.6	0.0	2.1	-0.7	4.9	24.6
	Warm	0.5	-4.0	5.2	40.6	3.0	-1.9	8.1	67.1	3.0	-0.1	6.3	36.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.4	-0.5	3.3	0.0	0.8	-1.0	2.6	0.0	2.1	-0.2	4.6	0.0
	Warm	0.5	-4.0	5.2	40.6	3.0	-1.9	8.1	67.1	1.9	-2.4	6.4	51.1

Table WCL.28 Respiratory admissions 15-64 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-1.6	0.6	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-6.1	5.3	47.2
Brisbane	Cool	-0.7	-2.9	1.6	0.0	-1.0	-3.3	1.4	8.0	-1.5	-3.7	0.7	0.0	-0.1	-1.3	1.0	2.2
	Warm	0.7	-1.7	3.1	62.0	0.8	-1.8	3.6	62.9	1.4	-1.8	4.7	65.6	-1.0	-5.9	4.2	43.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-1.1	1.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.6	-5.6	4.7	47.5
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.0	-1.1	1.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.7	-5.0	3.7	40.6
Melbourne	Cool	0.7	-3.6	5.1	68.3	0.8	-3.7	5.4	71.7	0.3	-4.4	5.2	72.1	-0.3	-1.6	1.0	3.9
	Warm	2.2	0.1	4.3	47.5	2.6	0.2	5.1	50.9	3.4	0.6	6.3	50.3	-0.5	-5.9	5.2	48.0
Perth	Cool	0.8	-3.1	4.9	68.1	0.7	-3.5	5.0	72.5	0.4	-3.9	4.8	72.2	-0.3	-1.3	0.8	1.4
	Warm	1.0	-1.6	3.6	69.7	1.4	-1.5	4.4	72.5	2.2	-1.3	5.8	74.7	1.0	-1.6	3.6	0.0
Sydney	Cool	0.6	-4.2	5.7	66.9	0.5	-4.6	6.0	72.1	-0.1	-5.4	5.5	73.6	-0.3	-1.4	0.8	0.0
	Warm	2.1	-1.3	5.6	72.1	2.5	-1.3	6.5	73.4	3.3	-1.2	8.1	75.0	0.0	-5.4	5.7	47.1
Australia only	Cool	1.7	-1.9	5.4	63.5	1.4	-2.3	5.3	67.2	0.8	-3.4	5.1	71.7	-0.7	-2.9	1.6	28.2
	Warm	0.7	-1.7	3.2	74.5	0.8	-1.8	3.5	73.4	1.1	-1.9	4.2	72.6	-0.9	-3.2	1.4	26.5
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.7	2.0	7.7
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-0.9	3.3	0.0
Overall	Cool	1.7	-1.9	5.4	63.5	1.4	-2.3	5.3	67.2	0.8	-3.4	5.1	71.7	-0.2	-1.2	0.8	0.0
	Warm	0.7	-1.7	3.2	74.5	0.8	-1.8	3.5	73.4	1.1	-1.9	4.2	72.6	-0.3	-4.6	4.2	38.2

Table WCL.28 Respiratory admissions 15-64 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.1	0.4	3.8	0.0	2.6	0.8	4.4	7.4	-	-	-	-	3.0	-0.4	6.5	17.6
	Warm	1.6	-0.2	3.5	0.0	1.1	-1.2	3.4	0.0	-	-	-	-	-2.1	-6.0	1.9	0.0
Brisbane	Cool	1.0	-1.3	3.4	38.5	0.7	-2.4	3.9	65.5	3.9	0.7	7.1	0.0	2.2	-1.7	6.4	63.4
	Warm	1.5	-0.3	3.3	0.0	0.9	-1.3	3.2	0.0	-0.6	-4.7	3.8	0.0	-0.5	-4.1	3.2	0.0
Canberra	Cool	1.4	-0.7	3.6	37.0	1.1	-1.8	4.0	65.0	-	-	-	-	-	-	-	-
	Warm	1.1	-0.7	2.9	0.0	0.6	-1.6	2.9	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.5	-0.5	3.6	33.0	1.4	-1.4	4.2	61.2	2.4	-1.4	6.3	43.8	1.6	-2.3	5.7	56.1
	Warm	1.4	-0.3	3.1	0.0	0.8	-1.4	3.0	0.0	-1.9	-4.7	0.9	0.0	-1.9	-5.1	1.4	0.0
Melbourne	Cool	0.5	-1.3	2.4	0.0	0.0	-2.5	2.7	37.6	-	-	-	-	-	-	-	-
	Warm	1.5	-0.6	3.7	0.0	0.4	-2.4	3.2	0.0	-	-	-	-	-	-	-	-
Perth	Cool	1.1	-1.2	3.4	38.9	0.7	-2.3	3.7	65.0	-	-	-	-	-	-	-	-
	Warm	1.5	-0.3	3.4	0.0	1.4	-0.9	3.7	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	1.3	-1.1	3.9	36.3	0.7	-2.8	4.2	65.5	1.7	-0.9	4.4	0.0	0.1	-1.4	1.6	0.0
	Warm	1.6	-0.4	3.7	0.0	0.8	-1.8	3.4	0.0	-1.6	-4.4	1.3	0.0	-1.8	-5.1	1.6	0.0
Australia only	Cool	2.1	0.7	3.5	0.0	2.4	0.9	3.9	0.0	0.8	-2.7	4.4	63.3	1.0	-5.1	7.4	69.1
	Warm	2.2	0.8	3.6	0.0	2.4	0.8	4.1	0.8	-0.8	-3.0	1.4	0.0	-1.2	-4.4	2.1	0.0
NZ only	Cool	-1.3	-4.5	1.9	0.0	-3.6	-6.9	-0.1	0.0	-	-	-	-	-0.0	-1.5	1.4	0.0
	Warm	-0.9	-4.5	2.9	11.0	-3.1	-6.7	0.5	0.0	-	-	-	-	-0.3	-1.8	1.2	0.0
Overall	Cool	1.3	-0.6	3.3	27.4	1.0	-1.6	3.7	58.6	2.4	0.1	4.8	0.0	1.5	-1.2	4.4	45.1
	Warm	1.5	-0.3	3.2	0.0	0.9	-1.3	3.1	0.0	-1.5	-4.1	1.0	0.0	-1.6	-4.6	1.5	0.0

Table WCL.28 Respiratory admissions 15-64 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.3	-0.1	2.7	21.5	1.7	0.5	2.9	0.0	1.3	-0.1	2.7	0.0
	Warm	0.5	-1.5	2.7	41.9	1.1	-1.3	3.5	41.3	0.8	-1.9	3.6	46.2
Canberra	Cool	2.1	1.1	3.2	0.0	-	-	-	-	-	-	-	-
	Warm	-0.5	-5.4	4.6	68.8	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.7	0.2	3.2	0.0
	Warm	-	-	-	-	-	-	-	-	-0.6	-2.9	1.8	37.8
Melbourne	Cool	1.8	-0.5	4.2	59.4	1.0	-0.1	2.2	0.0	1.6	0.2	3.0	0.0
	Warm	0.1	-5.0	5.4	56.7	0.0	-5.3	5.7	77.4	1.0	-3.8	5.9	61.7
Perth	Cool	1.7	-0.4	3.8	59.7	1.2	0.2	2.2	0.0	1.8	0.5	3.1	0.0
	Warm	-1.0	-5.1	3.4	62.6	-1.2	-5.2	3.0	75.0	-0.8	-3.5	2.0	45.0
Sydney	Cool	1.7	-0.6	4.0	60.0	1.2	0.1	2.4	0.0	1.5	0.0	2.9	0.0
	Warm	-1.0	-5.6	3.9	53.6	-1.1	-5.9	4.1	69.6	0.8	-4.0	5.9	63.1
Australia only	Cool	1.8	0.1	3.5	46.9	1.3	0.3	2.2	0.0	0.8	-0.8	2.5	37.2
	Warm	-0.1	-3.8	3.6	58.9	-0.2	-3.8	3.6	69.5	0.4	-1.3	2.1	36.6
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.8	0.1	3.5	46.9	1.3	0.3	2.2	0.0	1.5	0.3	2.8	0.0
	Warm	-0.1	-3.8	3.6	58.9	-0.2	-3.8	3.6	69.5	0.0	-2.7	2.8	51.0

Table WCL.29 Respiratory admissions 65 + yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-1.0	-3.8	1.8	69.8
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.5	-11.5	9.6	71.5
Brisbane	Cool	-3.1	-7.8	1.9	62.2	-2.9	-7.3	1.6	58.5	-2.8	-5.7	0.2	49.0	-0.8	-3.7	2.1	67.4
	Warm	-0.8	-2.1	0.6	15.5	-0.7	-2.5	1.1	33.7	-0.5	-2.8	1.8	43.2	-2.6	-12.1	8.0	68.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.6	1.8	49.3
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.0	-4.7	4.9	52.8
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-1.1	-3.8	1.8	69.8
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-3.1	-10.2	4.6	65.1
Melbourne	Cool	-1.7	-7.7	4.8	77.7	-1.3	-7.2	5.1	76.4	-0.6	-6.5	5.7	75.3	-1.2	-3.9	1.5	64.2
	Warm	0.5	-2.1	3.2	69.5	0.7	-2.4	3.8	71.8	1.3	-3.5	6.3	73.1	-0.9	-10.8	10.1	66.9
Perth	Cool	-0.5	-5.4	4.7	68.6	-0.4	-5.3	4.8	69.6	0.0	-5.0	5.3	70.3	-0.0	-2.1	2.1	52.1
	Warm	0.8	-1.5	3.2	65.3	1.0	-1.7	3.7	69.3	1.5	-2.9	6.1	72.3	-1.3	-11.2	9.7	71.5
Sydney	Cool	-1.6	-8.0	5.2	77.7	-1.4	-7.6	5.3	76.6	-0.7	-6.9	5.8	75.9	-1.2	-3.8	1.4	66.3
	Warm	0.8	-2.2	3.8	64.3	1.1	-2.2	4.4	64.9	1.6	-3.1	6.6	65.5	-2.8	-12.2	7.6	63.1
Australia only	Cool	-1.2	-4.7	2.3	71.8	-1.2	-4.5	2.2	69.9	-1.1	-4.6	2.6	71.8	-2.8	-6.8	1.4	73.8
	Warm	0.1	-2.0	2.2	68.5	0.2	-2.0	2.5	67.7	0.4	-2.1	3.0	65.7	-2.7	-7.1	1.9	73.3
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-2.0	1.7	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.5	-7.5	11.3	49.4
Overall	Cool	-1.2	-4.7	2.3	71.8	-1.2	-4.5	2.2	69.9	-1.1	-4.6	2.6	71.8	-0.7	-3.0	1.6	63.8
	Warm	0.1	-2.0	2.2	68.5	0.2	-2.0	2.5	67.7	0.4	-2.1	3.0	65.7	-1.6	-9.6	7.2	66.1

Table WCL.29 Respiratory admissions 65 + yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.4	-0.5	3.4	35.2	0.9	-3.5	5.5	65.0	-	-	-	-	3.8	0.2	7.6	37.4
	Warm	-1.3	-5.4	3.1	59.2	-2.1	-9.9	6.3	63.1	-	-	-	-	-1.2	-5.9	3.8	36.9
Brisbane	Cool	0.9	-1.3	3.2	41.9	-0.0	-4.6	4.8	71.0	3.6	0.7	6.5	0.0	3.3	-0.5	7.1	66.3
	Warm	-1.7	-3.9	0.6	32.9	-2.4	-9.9	5.8	62.0	0.7	-3.4	4.9	0.0	-3.1	-6.8	0.7	0.0
Canberra	Cool	1.7	0.1	3.3	13.9	1.7	-1.0	4.4	52.2	-	-	-	-	-	-	-	-
	Warm	-0.5	-2.2	1.2	0.0	-0.9	-3.3	1.5	15.8	-	-	-	-	-	-	-	-
Christchurch	Cool	1.0	-1.0	3.1	40.9	-0.2	-4.0	3.8	68.1	3.4	0.8	6.0	0.0	2.3	-1.6	6.3	58.8
	Warm	-1.3	-5.1	2.6	59.0	-2.9	-8.1	2.6	51.3	1.5	-1.5	4.6	11.2	-1.4	-5.8	3.2	39.7
Melbourne	Cool	0.7	-1.6	3.0	36.6	-0.1	-4.7	4.8	70.3	-	-	-	-	-	-	-	-
	Warm	-1.4	-5.9	3.3	58.7	-1.7	-9.6	7.0	64.2	-	-	-	-	-	-	-	-
Perth	Cool	2.1	0.6	3.7	0.0	1.2	-2.9	5.5	60.4	-	-	-	-	-	-	-	-
	Warm	-1.0	-5.1	3.4	57.3	-1.0	-8.8	7.5	60.7	-	-	-	-	-	-	-	-
Sydney	Cool	0.6	-1.6	2.9	31.5	-0.2	-4.7	4.5	66.8	2.5	-0.0	5.0	0.0	1.1	-0.5	2.7	0.0
	Warm	-1.4	-5.8	3.3	59.0	-1.8	-9.7	6.7	63.6	2.6	-0.3	5.6	0.0	-0.4	-3.8	3.2	0.0
Australia only	Cool	-0.0	-2.3	2.3	66.8	-2.0	-6.3	2.5	74.8	3.0	1.0	5.1	0.0	3.3	-0.5	7.3	37.2
	Warm	-0.6	-2.8	1.7	61.9	-2.5	-6.4	1.7	69.5	1.9	-0.2	4.1	0.0	-0.2	-4.6	4.3	36.3
NZ only	Cool	-0.1	-3.6	3.5	0.0	1.2	-4.1	6.8	46.9	-	-	-	-	0.9	-2.0	3.9	37.3
	Warm	-1.0	-4.8	3.0	0.0	2.0	-6.7	11.4	48.2	-	-	-	-	0.3	-1.4	2.0	0.0
Overall	Cool	1.2	-0.6	3.1	30.6	0.5	-3.3	4.5	65.3	3.1	1.0	5.3	0.0	2.5	-0.3	5.4	50.8
	Warm	-1.1	-3.7	1.6	51.0	-1.7	-8.1	5.2	57.1	1.8	-0.8	4.4	0.0	-1.4	-4.7	2.0	10.9

Table WCL.29 Respiratory admissions 65 + yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	0.5	-1.1	2.2	40.6	1.2	-0.4	2.9	55.7	0.7	-1.6	3.1	72.2
	Warm	0.1	-1.3	1.5	0.0	0.4	-1.2	2.0	0.0	-0.1	-2.3	2.2	33.6
Canberra	Cool	1.4	0.5	2.3	0.0	-	-	-	-	-	-	-	-
	Warm	0.3	-1.1	1.7	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.0	-1.4	3.5	69.1
	Warm	-	-	-	-	-	-	-	-	-0.6	-2.2	1.1	0.0
Melbourne	Cool	0.6	-1.4	2.6	48.8	1.2	-0.3	2.6	53.8	0.6	-1.8	3.1	71.9
	Warm	1.1	-1.2	3.3	0.0	1.4	-0.5	3.4	0.0	0.1	-2.7	2.9	33.2
Perth	Cool	1.1	-0.5	2.7	33.6	1.7	0.9	2.6	0.0	1.6	0.3	3.0	26.1
	Warm	0.1	-1.4	1.5	0.0	0.8	-0.9	2.6	13.7	0.1	-2.1	2.3	26.6
Sydney	Cool	0.5	-1.3	2.4	46.1	1.1	-0.4	2.6	50.2	0.2	-1.6	2.1	47.7
	Warm	0.1	-1.5	1.7	0.0	0.5	-1.6	2.7	7.8	-0.0	-2.7	2.8	33.8
Australia only	Cool	0.9	-0.5	2.3	32.7	1.4	0.4	2.5	33.6	0.5	-1.3	2.2	54.3
	Warm	0.2	-1.1	1.6	0.0	0.7	-0.8	2.3	0.0	-0.1	-1.3	1.2	11.1
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	0.9	-0.5	2.3	32.7	1.4	0.4	2.5	33.6	0.9	-1.0	2.8	63.1
	Warm	0.2	-1.1	1.6	0.0	0.7	-0.8	2.3	0.0	-0.2	-2.0	1.6	11.7

Table WCL.30 Cardiovascular mortality 0-74 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-3.0	2.3	25.6
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.5	-7.6	5.0	0.0
Brisbane	Cool	0.1	-4.5	4.9	0.0	0.0	-4.4	4.6	0.0	1.1	-3.5	5.8	0.0	1.1	-1.2	3.5	0.0
	Warm	0.8	-1.7	3.3	0.0	0.8	-1.9	3.6	0.0	0.8	-2.3	4.1	0.0	0.3	-4.7	5.6	0.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.6	2.4	22.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-5.5	4.8	4.2
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-2.8	2.5	24.7
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-5.5	4.8	4.5
Melbourne	Cool	-1.0	-5.4	3.7	0.0	-1.0	-5.5	3.6	0.0	-0.0	-4.8	5.0	0.0	-1.5	-4.1	1.3	0.0
	Warm	0.8	-1.8	3.4	0.0	0.6	-2.2	3.5	0.0	0.5	-2.8	3.8	0.0	-1.7	-7.1	3.9	0.0
Perth	Cool	-0.9	-5.1	3.4	0.0	-1.2	-5.3	3.1	0.0	-0.5	-4.8	4.0	0.0	-0.3	-2.9	2.2	25.7
	Warm	0.0	-2.3	2.5	0.0	-0.1	-2.6	2.6	0.0	-0.1	-3.1	3.0	0.0	1.0	-4.0	6.2	0.0
Sydney	Cool	-0.6	-6.1	5.3	0.0	-0.4	-5.8	5.3	0.0	1.1	-4.5	7.1	0.0	-0.5	-3.2	2.2	23.4
	Warm	1.7	-1.4	4.9	0.0	1.7	-1.7	5.3	0.0	1.8	-2.1	5.9	0.0	-0.9	-5.9	4.5	1.1
Australia only	Cool	-0.1	-4.4	4.2	0.0	-0.2	-4.3	4.2	0.0	0.9	-3.5	5.5	0.0	-0.9	-4.0	2.3	31.1
	Warm	0.4	-1.8	2.8	0.0	0.4	-2.1	2.9	0.0	0.3	-2.6	3.3	0.0	-1.2	-4.5	2.2	30.2
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-3.7	4.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-4.0	5.8	0.0
Overall	Cool	-0.1	-4.4	4.2	0.0	-0.2	-4.3	4.2	0.0	0.9	-3.5	5.5	0.0	-0.2	-2.4	2.1	11.3
	Warm	0.4	-1.8	2.8	0.0	0.4	-2.1	2.9	0.0	0.3	-2.6	3.3	0.0	-0.4	-5.1	4.6	0.0

Table WCL.30 Cardiovascular mortality 0-74 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.6	-1.8	5.1	0.0	0.2	-3.6	4.2	14.9	-	-	-	-	-3.2	-9.4	3.5	0.0
	Warm	-0.6	-4.1	3.0	0.0	-1.7	-6.0	2.8	0.0	-	-	-	-	0.8	-6.7	8.9	0.0
Brisbane	Cool	2.5	-1.1	6.3	0.0	1.1	-2.4	4.7	0.0	-3.1	-10.6	4.9	29.6	1.1	-4.0	6.5	21.9
	Warm	-0.4	-3.8	3.1	0.0	-1.5	-5.7	2.8	0.0	1.4	-6.5	10.0	0.0	-2.8	-9.7	4.6	0.0
Canberra	Cool	1.8	-1.6	5.3	0.0	0.4	-2.8	3.8	0.0	-	-	-	-	-	-	-	-
	Warm	-0.3	-3.7	3.2	0.0	-1.5	-5.6	2.8	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.7	-1.7	5.2	0.0	-0.6	-4.6	3.6	26.5	-1.5	-7.2	4.5	0.0	1.9	-1.7	5.7	0.0
	Warm	-0.2	-3.6	3.2	0.0	-1.8	-5.9	2.5	0.0	2.0	-3.5	7.7	0.0	-0.6	-7.0	6.2	0.0
Melbourne	Cool	0.6	-3.3	4.7	0.0	-1.5	-5.9	3.2	20.3	-	-	-	-	-	-	-	-
	Warm	-2.1	-6.3	2.4	0.0	-4.5	-9.8	1.1	0.0	-	-	-	-	-	-	-	-
Perth	Cool	1.9	-1.6	5.5	0.0	-0.7	-4.8	3.7	26.9	-	-	-	-	-	-	-	-
	Warm	-0.7	-4.2	3.0	0.0	-1.4	-5.7	3.1	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	0.5	-3.5	4.6	0.0	-1.6	-5.5	2.5	0.0	-4.5	-9.8	1.1	0.0	-0.7	-6.2	5.1	42.8
	Warm	1.2	-2.7	5.3	0.0	-0.4	-5.3	4.7	0.0	0.7	-4.8	6.5	0.0	-1.9	-8.2	4.9	0.0
Australia only	Cool	1.6	-1.1	4.4	0.0	0.4	-2.5	3.4	0.0	-0.2	-4.4	4.2	0.0	0.1	-6.3	6.8	0.0
	Warm	-0.0	-2.8	2.8	0.0	-1.4	-4.4	1.8	0.0	0.2	-4.1	4.7	0.0	-0.3	-6.8	6.6	0.0
NZ only	Cool	0.9	-6.3	8.7	0.0	-3.7	-11.2	4.5	0.0	-	-	-	-	-0.9	-6.5	5.0	46.4
	Warm	0.5	-7.2	8.8	0.0	-3.6	-11.6	5.0	0.0	-	-	-	-	1.0	-3.2	5.4	11.7
Overall	Cool	1.6	-1.7	5.0	0.0	-0.3	-3.9	3.4	12.4	-3.1	-7.8	1.8	0.0	0.5	-3.7	4.9	17.3
	Warm	-0.4	-3.7	3.0	0.0	-1.7	-5.8	2.5	0.0	1.3	-3.6	6.5	0.0	-1.2	-7.0	5.0	0.0

Table WCL.30 Cardiovascular mortality 0-74 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.2	-0.9	3.5	0.0	1.5	-1.0	3.9	0.0	1.3	-2.9	5.8	52.5
	Warm	-0.0	-3.0	3.1	0.0	-0.2	-3.7	3.3	0.0	-1.3	-4.8	2.4	0.0
Canberra	Cool	1.5	-0.6	3.6	0.0	-	-	-	-	-	-	-	-
	Warm	0.0	-3.0	3.1	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.6	-2.5	6.0	42.9
	Warm	-	-	-	-	-	-	-	-	-1.3	-4.7	2.2	0.0
Melbourne	Cool	0.8	-2.3	3.9	0.0	0.2	-2.0	2.4	0.0	-0.7	-4.7	3.4	41.5
	Warm	-0.5	-5.8	5.1	0.0	-0.8	-5.1	3.6	0.0	-2.3	-6.6	2.2	0.0
Perth	Cool	1.3	-0.7	3.5	0.0	0.9	-1.0	2.9	0.0	0.9	-3.4	5.4	59.2
	Warm	0.1	-2.9	3.3	0.0	0.7	-2.7	4.2	0.0	-0.4	-4.0	3.3	0.0
Sydney	Cool	0.8	-1.5	3.1	0.0	0.4	-1.9	2.7	0.0	-0.7	-4.9	3.7	45.4
	Warm	0.8	-2.4	4.2	0.0	1.2	-2.8	5.4	0.0	-0.1	-4.2	4.2	0.0
Australia only	Cool	1.2	-0.8	3.2	0.0	0.7	-1.2	2.7	0.0	1.0	-1.8	3.9	19.6
	Warm	0.2	-2.8	3.2	0.0	0.2	-3.0	3.6	0.0	-0.4	-3.2	2.4	10.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.2	-0.8	3.2	0.0	0.7	-1.2	2.7	0.0	0.5	-3.3	4.4	49.8
	Warm	0.2	-2.8	3.2	0.0	0.2	-3.0	3.6	0.0	-1.1	-4.4	2.4	0.0

Table WCL.31 Cardiovascular mortality 75+ yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-1.0	1.7	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.3	-5.1	2.6	0.0
Brisbane	Cool	-0.0	-3.4	3.4	23.2	-0.3	-3.7	3.1	29.1	0.1	-2.5	2.8	0.0	0.3	-1.1	1.7	0.0
	Warm	1.1	-1.2	3.6	45.7	-0.4	-6.4	6.1	55.5	-0.5	-8.0	7.6	60.5	-0.5	-3.7	2.8	0.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.1	1.4	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-3.4	2.8	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-0.9	1.8	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-3.1	3.2	0.0
Melbourne	Cool	2.0	-0.7	4.7	0.0	1.6	-1.1	4.3	0.0	1.2	-1.6	4.1	0.0	0.2	-1.4	1.8	0.0
	Warm	0.5	-2.1	3.1	49.6	-0.8	-6.7	5.5	56.5	-0.9	-8.2	7.0	60.2	0.2	-3.3	3.9	0.0
Perth	Cool	0.7	-2.2	3.8	21.0	0.3	-2.7	3.5	26.7	0.5	-2.0	3.1	0.0	0.4	-0.9	1.6	0.0
	Warm	1.2	-1.0	3.5	45.2	1.3	-1.3	4.0	52.7	-0.0	-7.7	8.3	55.8	0.0	-3.1	3.3	0.0
Sydney	Cool	-1.1	-4.3	2.2	0.0	-1.4	-4.6	1.8	0.0	-1.2	-4.4	2.2	0.0	0.2	-1.2	1.6	0.0
	Warm	0.2	-2.5	2.9	39.7	-0.7	-6.1	5.0	52.2	-1.0	-8.4	7.0	57.7	-0.6	-3.8	2.8	0.0
Australia only	Cool	0.8	-2.4	4.0	34.3	0.6	-2.2	3.6	23.3	0.7	-1.8	3.3	0.0	0.3	-1.0	1.7	0.0
	Warm	1.5	0.1	2.9	0.0	1.7	0.1	3.3	0.0	2.2	0.4	4.0	0.0	0.3	-1.2	1.7	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-2.6	2.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.5	-9.6	7.2	31.1
Overall	Cool	0.8	-2.4	4.0	34.3	0.6	-2.2	3.6	23.3	0.7	-1.8	3.3	0.0	0.3	-1.0	1.5	0.0
	Warm	1.5	0.1	2.9	0.0	1.7	0.1	3.3	0.0	2.2	0.4	4.0	0.0	-0.3	-3.4	2.8	0.0

Table WCL.31 Cardiovascular mortality 75+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	2.0	-0.0	4.0	0.0	2.1	0.1	4.1	0.0	-	-	-	-	5.0	1.1	9.1	3.7
	Warm	0.9	-1.5	3.3	10.5	0.4	-2.6	3.4	9.9	-	-	-	-	0.7	-3.8	5.5	0.0
Brisbane	Cool	1.6	-0.5	3.7	0.0	1.5	-0.5	3.6	0.0	4.0	-2.1	10.6	61.9	2.2	-2.8	7.4	59.4
	Warm	0.2	-1.9	2.3	0.0	-0.4	-3.0	2.2	0.0	2.9	-1.9	8.0	0.0	-2.9	-7.2	1.6	0.0
Canberra	Cool	1.8	-0.2	3.8	0.0	1.7	-0.3	3.6	0.7	-	-	-	-	-	-	-	-
	Warm	0.8	-1.5	3.1	10.2	-0.1	-2.7	2.5	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.8	-0.2	3.8	0.0	1.7	-0.3	3.8	5.6	4.9	1.1	8.9	17.6	3.7	-1.7	9.4	73.6
	Warm	0.8	-1.4	3.2	10.6	0.2	-2.3	2.9	0.0	1.6	-1.8	5.0	0.0	-1.5	-5.9	3.2	21.2
Melbourne	Cool	1.9	-0.5	4.3	0.0	1.7	-0.8	4.3	5.4	-	-	-	-	-	-	-	-
	Warm	2.0	-0.8	4.8	0.0	1.7	-1.8	5.3	0.0	-	-	-	-	-	-	-	-
Perth	Cool	2.4	0.3	4.4	0.0	2.0	0.1	4.1	0.0	-	-	-	-	-	-	-	-
	Warm	0.7	-1.7	3.1	7.9	0.1	-2.8	3.2	9.6	-	-	-	-	-	-	-	-
Sydney	Cool	0.9	-1.4	3.3	0.0	0.9	-1.4	3.3	0.0	2.4	-0.9	5.7	0.0	1.5	-2.1	5.2	47.4
	Warm	0.8	-1.8	3.6	10.2	-0.3	-3.5	3.0	4.5	1.5	-1.8	4.9	0.0	-1.6	-5.9	3.0	19.5
Australia only	Cool	1.5	-0.4	3.5	21.8	1.5	-0.3	3.4	9.5	3.4	0.2	6.7	35.9	5.3	1.3	9.4	0.0
	Warm	0.9	-0.8	2.7	4.6	0.9	-0.9	2.8	0.0	2.2	-0.4	4.9	0.0	3.4	-0.7	7.6	0.0
NZ only	Cool	0.1	-4.5	4.9	0.0	-1.9	-6.7	3.3	0.0	-	-	-	-	-1.1	-4.1	2.1	22.7
	Warm	-0.2	-5.2	5.0	0.0	-3.1	-8.2	2.4	0.0	-	-	-	-	-1.2	-3.4	1.1	0.0
Overall	Cool	1.8	-0.1	3.8	0.0	1.7	-0.2	3.7	0.0	3.7	0.4	7.1	24.6	2.9	-1.1	7.1	60.4
	Warm	0.7	-1.4	2.8	0.0	0.1	-2.5	2.7	0.0	1.8	-1.2	4.9	0.0	-1.4	-5.0	2.4	0.0

Table WCL.31 Cardiovascular mortality 75+ yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.2	0.0	2.5	0.0	1.8	0.4	3.2	0.0	1.7	0.1	3.4	0.0
	Warm	-0.3	-2.2	1.6	0.0	0.5	-1.6	2.7	0.0	-0.1	-2.6	2.5	19.5
Canberra	Cool	1.5	0.3	2.7	0.0	-	-	-	-	-	-	-	-
	Warm	0.0	-1.8	1.9	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	3.0	1.2	4.9	0.0
	Warm	-	-	-	-	-	-	-	-	-0.6	-2.7	1.6	0.0
Melbourne	Cool	1.2	-0.6	3.0	0.0	1.3	0.0	2.6	0.0	2.2	0.0	4.4	32.1
	Warm	0.1	-3.2	3.5	0.0	1.6	-1.0	4.3	0.0	1.1	-1.7	3.9	0.0
Perth	Cool	1.4	0.3	2.6	0.0	1.7	0.5	2.8	0.0	2.4	0.5	4.3	29.6
	Warm	-0.2	-2.1	1.7	0.0	0.6	-1.5	2.8	0.0	-0.3	-2.8	2.3	16.1
Sydney	Cool	1.6	0.3	3.0	0.0	1.7	0.4	3.1	0.0	2.0	-0.1	4.2	27.3
	Warm	-0.4	-2.4	1.6	0.0	0.1	-2.3	2.6	0.0	-0.6	-3.2	2.2	9.7
Australia only	Cool	1.4	0.3	2.6	0.0	1.6	0.5	2.7	0.0	1.6	-0.3	3.6	35.9
	Warm	-0.2	-2.0	1.7	0.0	0.7	-1.3	2.7	0.0	1.2	-0.7	3.1	29.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.4	0.3	2.6	0.0	1.6	0.5	2.7	0.0	2.2	0.6	3.9	10.5
	Warm	-0.2	-2.0	1.7	0.0	0.7	-1.3	2.7	0.0	-0.3	-2.3	1.8	0.0

Table WCL.32 Cardiovascular mortality all ages

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-0.9	1.4	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.4	-4.6	1.9	0.0
Brisbane	Cool	0.4	-2.0	2.9	3.4	-0.0	-2.6	2.7	16.8	0.4	-1.9	2.7	0.0	0.5	-0.7	1.7	0.0
	Warm	1.4	0.1	2.7	0.0	1.4	-0.3	3.2	21.6	1.6	-0.8	4.1	38.3	-0.5	-3.4	2.6	7.1
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-1.0	1.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.6	-3.4	2.4	7.6
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-0.8	1.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.7	2.5	0.0
Melbourne	Cool	1.2	-1.1	3.6	0.0	0.9	-1.4	3.3	0.0	0.9	-1.6	3.4	0.0	-0.2	-1.6	1.2	0.0
	Warm	1.0	-0.4	2.4	5.1	0.9	-1.0	2.9	27.2	1.0	-1.5	3.7	39.1	-0.6	-3.9	2.8	7.7
Perth	Cool	0.5	-1.7	2.8	3.0	0.0	-2.4	2.5	16.7	0.3	-1.9	2.5	0.0	0.2	-0.9	1.3	0.0
	Warm	1.1	-0.2	2.5	7.4	1.1	-0.7	3.0	30.1	1.5	-0.9	3.8	41.3	0.3	-2.4	3.0	0.0
Sydney	Cool	-1.0	-3.8	1.9	0.0	-1.2	-3.9	1.6	0.0	-0.6	-3.4	2.3	0.0	0.0	-1.1	1.2	0.0
	Warm	0.8	-0.8	2.5	0.2	0.9	-1.4	3.2	28.2	1.1	-1.9	4.1	40.9	-0.7	-3.5	2.2	2.0
Australia only	Cool	0.8	-1.3	3.0	0.0	0.6	-1.5	2.7	0.0	0.7	-1.5	3.0	0.0	0.2	-1.0	1.3	0.0
	Warm	1.2	-0.0	2.4	0.0	1.3	-0.0	2.6	0.0	1.6	0.1	3.2	0.0	0.1	-1.2	1.3	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.1	2.0	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-5.6	5.1	19.6
Overall	Cool	0.8	-1.3	3.0	0.0	0.6	-1.5	2.7	0.0	0.7	-1.5	3.0	0.0	0.2	-0.9	1.3	0.0
	Warm	1.2	-0.0	2.4	0.0	1.3	-0.0	2.6	0.0	1.6	0.1	3.2	0.0	-0.4	-2.9	2.3	0.0

Table WCL.32 Cardiovascular mortality all ages (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.9	0.1	3.6	0.0	1.7	0.0	3.5	0.0	-	-	-	-	3.1	-1.2	7.5	37.2
	Warm	0.3	-1.5	2.2	0.0	-0.4	-2.6	2.0	0.0	-	-	-	-	0.7	-3.2	4.8	0.0
Brisbane	Cool	1.7	-0.2	3.7	5.2	0.9	-1.3	3.2	25.6	2.4	-4.2	9.3	75.2	1.7	-2.5	6.2	50.2
	Warm	-0.0	-1.8	1.8	0.0	-0.8	-3.0	1.5	0.0	2.5	-1.7	6.8	0.0	-2.9	-6.5	1.0	0.0
Canberra	Cool	1.7	0.0	3.5	3.0	1.0	-1.1	3.1	25.1	-	-	-	-	-	-	-	-
	Warm	0.4	-1.4	2.2	0.0	-0.5	-2.7	1.7	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.7	-0.0	3.5	4.6	0.9	-1.1	3.1	26.1	3.5	-0.5	7.5	41.2	2.6	-1.1	6.5	54.7
	Warm	0.4	-1.4	2.2	0.0	-0.3	-2.5	1.9	0.0	1.6	-1.2	4.6	0.0	-1.1	-5.5	3.5	42.6
Melbourne	Cool	1.5	-0.6	3.6	4.4	0.4	-2.1	3.1	25.8	-	-	-	-	-	-	-	-
	Warm	0.8	-1.5	3.1	0.0	-0.1	-3.0	2.9	0.0	-	-	-	-	-	-	-	-
Perth	Cool	2.2	0.5	4.0	0.0	1.5	-0.2	3.3	2.7	-	-	-	-	-	-	-	-
	Warm	0.2	-1.7	2.1	0.0	-0.5	-2.7	1.9	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	0.8	-1.2	2.9	0.0	0.2	-1.8	2.3	0.0	0.6	-2.1	3.5	0.0	0.6	-1.2	2.5	0.0
	Warm	0.7	-1.3	2.8	0.0	-0.4	-3.0	2.2	0.0	1.3	-1.6	4.2	0.0	-1.6	-5.8	2.7	37.9
Australia only	Cool	1.5	-0.0	3.0	9.6	1.2	-0.2	2.7	0.0	2.4	-0.1	5.0	21.1	3.9	0.5	7.4	0.0
	Warm	0.6	-0.8	2.1	0.0	0.3	-1.3	1.9	0.0	1.7	-0.6	4.0	0.0	2.4	-1.1	5.9	0.0
NZ only	Cool	0.2	-3.7	4.3	0.0	-2.4	-6.6	1.9	0.0	-	-	-	-	-1.1	-4.0	2.0	41.5
	Warm	-0.1	-4.3	4.3	0.0	-3.3	-7.7	1.3	0.0	-	-	-	-	-1.3	-4.4	1.9	43.0
Overall	Cool	1.7	0.0	3.4	0.0	1.1	-0.7	3.0	11.9	2.0	-1.4	5.7	50.6	1.8	-1.1	4.9	37.5
	Warm	0.4	-1.4	2.2	0.0	-0.5	-2.6	1.8	0.0	1.6	-0.9	4.3	0.0	-1.3	-4.6	2.1	14.1

Table WCL.32 Cardiovascular mortality all ages (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.2	0.2	2.3	0.0	1.7	0.5	2.9	0.0	1.6	-0.6	3.8	53.4
	Warm	-0.3	-1.8	1.3	0.0	0.3	-1.5	2.1	0.0	-0.6	-2.5	1.4	3.0
Canberra	Cool	1.5	0.5	2.5	0.0	-	-	-	-	-	-	-	-
	Warm	-0.0	-1.6	1.6	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	2.8	1.2	4.4	0.0
	Warm	-	-	-	-	-	-	-	-	-0.8	-2.6	1.0	0.0
Melbourne	Cool	1.1	-0.4	2.6	0.0	1.0	-0.1	2.1	0.0	1.5	-0.7	3.6	48.4
	Warm	-0.2	-3.0	2.7	0.0	0.9	-1.3	3.2	0.0	0.1	-2.2	2.5	0.0
Perth	Cool	1.4	0.4	2.5	0.0	1.5	0.5	2.5	0.0	2.1	0.1	4.1	51.8
	Warm	-0.1	-1.7	1.5	0.0	0.6	-1.2	2.4	0.0	-0.4	-2.4	1.5	4.4
Sydney	Cool	1.4	0.3	2.6	0.0	1.4	0.2	2.6	3.2	1.4	-0.7	3.5	42.6
	Warm	-0.1	-1.8	1.7	0.0	0.4	-1.7	2.6	0.0	-0.5	-2.7	1.8	4.7
Australia only	Cool	1.4	0.4	2.4	0.0	1.4	0.4	2.3	0.0	1.4	-0.2	3.1	36.3
	Warm	-0.1	-1.7	1.5	0.0	0.5	-1.2	2.3	0.0	0.7	-0.8	2.3	22.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.4	0.4	2.4	0.0	1.4	0.4	2.3	0.0	1.8	0.1	3.6	41.9
	Warm	-0.1	-1.7	1.5	0.0	0.5	-1.2	2.3	0.0	-0.5	-2.3	1.3	0.0

Table WCL.33 Respiratory mortality 0-74 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	2.6	-1.9	7.4	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	13.3	-1.9	30.9	0.0
Brisbane	Cool	4.6	-4.7	14.8	0.0	3.3	-5.6	13.0	0.0	3.4	-5.6	13.3	0.0	1.9	-2.9	6.8	0.0
	Warm	-0.9	-6.2	4.7	0.0	-0.9	-6.7	5.3	0.0	-1.5	-8.2	5.7	0.0	5.4	-7.5	20.1	5.8
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-1.4	7.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	5.1	-6.0	17.4	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	3.5	-1.1	8.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	9.6	-5.3	26.7	21.3
Melbourne	Cool	5.6	-3.5	15.5	0.0	4.6	-4.4	14.4	0.0	3.9	-5.6	14.3	0.0	3.5	-1.9	9.2	0.0
	Warm	-2.1	-7.6	3.7	0.0	-2.3	-8.4	4.1	0.0	-3.0	-10.0	4.5	0.0	11.5	-4.0	29.6	16.5
Perth	Cool	6.1	-2.6	15.5	0.0	5.1	-3.3	14.2	0.0	5.2	-3.6	14.9	0.0	3.3	-1.1	7.9	0.0
	Warm	-1.6	-6.7	3.7	0.0	-1.9	-7.4	4.0	0.0	-2.3	-8.7	4.5	0.0	9.1	-6.4	27.2	20.1
Sydney	Cool	2.0	-8.9	14.2	0.0	0.2	-10.4	12.0	0.0	0.4	-10.4	12.5	0.0	3.5	-1.3	8.4	0.0
	Warm	-5.8	-12.1	1.0	0.0	-5.6	-12.6	1.9	0.0	-5.8	-13.8	2.9	0.0	8.5	-7.1	26.7	18.0
Australia only	Cool	6.3	-2.3	15.6	0.0	5.4	-3.0	14.6	0.0	5.2	-3.5	14.8	0.0	3.8	-0.9	8.8	0.0
	Warm	-2.4	-7.3	2.7	1.5	-2.8	-8.1	2.8	0.0	-3.6	-9.7	3.0	0.0	4.9	-0.4	10.4	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-6.1	10.1	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-6.6	14.1	0.0
Overall	Cool	6.3	-2.3	15.6	0.0	5.4	-3.0	14.6	0.0	5.2	-3.5	14.8	0.0	3.0	-1.3	7.5	0.0
	Warm	-2.4	-7.3	2.7	1.5	-2.8	-8.1	2.8	0.0	-3.6	-9.7	3.0	0.0	7.5	-4.5	21.1	6.3

Table WCL.33 Respiratory mortality 0-74 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.4	-3.5	10.7	0.0	3.7	-3.1	11.1	0.0	-	-	-	-	-2.3	-23.2	24.4	72.2
	Warm	-3.1	-10.6	5.0	0.0	-3.2	-12.4	7.0	0.0	-	-	-	-	-7.7	-33.7	28.4	71.6
Brisbane	Cool	2.0	-5.1	9.7	0.0	2.2	-4.7	9.6	0.0	-2.2	-14.0	11.2	0.0	-4.1	-16.0	9.5	49.7
	Warm	-3.5	-10.9	4.4	0.0	-3.8	-12.8	6.2	0.0	-11.4	-27.6	8.6	0.0	-18.4	-31.6	-2.6	0.0
Canberra	Cool	6.8	-2.3	16.8	35.7	4.1	-2.5	11.2	0.0	-	-	-	-	-	-	-	-
	Warm	-3.9	-11.2	3.9	0.0	-4.0	-12.9	5.8	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	6.2	-3.0	16.3	35.9	3.8	-2.9	10.9	0.0	5.4	-10.7	24.4	49.4	3.0	-16.7	27.4	65.4
	Warm	-3.3	-10.6	4.4	0.0	-3.3	-12.3	6.5	0.0	4.9	-9.0	20.9	20.9	-4.8	-27.6	25.1	70.3
Melbourne	Cool	8.4	-1.2	19.0	27.2	4.2	-3.9	12.9	0.0	-	-	-	-	-	-	-	-
	Warm	-4.3	-13.6	6.1	0.0	-1.7	-13.7	12.0	0.0	-	-	-	-	-	-	-	-
Perth	Cool	6.9	-2.7	17.6	36.5	4.6	-2.2	11.9	0.0	-	-	-	-	-	-	-	-
	Warm	-1.3	-9.1	7.2	0.0	-2.1	-11.5	8.3	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	9.1	-0.7	19.9	18.8	8.3	-0.1	17.5	0.0	7.3	-5.1	21.2	23.3	4.8	-10.8	23.2	54.9
	Warm	-4.0	-12.3	5.0	0.0	-3.7	-14.1	7.9	0.0	-2.5	-28.2	32.5	64.2	-4.9	-29.0	27.3	69.5
Australia only	Cool	0.6	-5.2	6.9	6.7	1.4	-4.5	7.7	0.0	8.1	-1.0	18.0	3.0	8.5	-16.2	40.5	70.6
	Warm	0.9	-5.2	7.4	5.7	2.5	-4.1	9.6	0.0	8.9	-0.5	19.1	0.0	8.4	-18.4	44.0	65.3
NZ only	Cool	11.3	-8.8	35.8	32.7	8.9	-8.2	29.2	0.0	-	-	-	-	-2.8	-13.3	9.0	41.9
	Warm	10.5	-12.2	39.1	34.7	6.0	-12.0	27.7	0.0	-	-	-	-	-6.0	-20.9	11.7	53.6
Overall	Cool	6.0	-2.2	15.0	23.9	4.2	-2.4	11.3	0.0	4.2	-6.1	15.7	18.0	0.1	-15.0	17.8	59.6
	Warm	-3.3	-10.5	4.4	0.0	-3.2	-12.1	6.6	0.0	-1.2	-16.8	17.2	43.1	-8.7	-27.5	15.1	63.2

Table WCL.33 Respiratory mortality 0-74 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	0.3	-3.9	4.8	0.0	0.5	-4.3	5.5	0.0	2.0	-4.0	8.2	14.1
	Warm	-3.3	-10.0	3.9	0.0	-4.7	-12.2	3.3	0.0	-7.4	-21.0	8.6	58.2
Canberra	Cool	1.3	-2.8	5.6	0.0	-	-	-	-	-	-	-	-
	Warm	-3.3	-10.0	3.8	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	3.0	-4.9	11.5	30.2
	Warm	-	-	-	-	-	-	-	-	-6.2	-19.0	8.7	61.9
Melbourne	Cool	-1.1	-6.8	5.0	0.0	-0.3	-4.6	4.3	0.0	1.9	-4.1	8.2	13.6
	Warm	0.8	-11.0	14.1	0.0	4.6	-15.2	29.0	68.6	-1.4	-17.6	17.9	55.9
Perth	Cool	1.3	-2.8	5.5	0.0	1.3	-2.6	5.4	0.0	4.4	-0.9	9.9	0.0
	Warm	-2.6	-9.5	4.7	0.0	4.6	-12.8	25.6	73.7	-1.1	-11.5	10.5	40.4
Sydney	Cool	1.6	-2.9	6.4	0.0	2.2	-2.4	7.1	0.0	3.5	-3.9	11.5	26.8
	Warm	-3.2	-10.4	4.6	0.0	0.7	-19.9	26.7	77.1	-7.1	-22.2	10.9	52.4
Australia only	Cool	0.9	-3.1	5.0	0.0	1.0	-2.8	4.9	0.0	-2.5	-11.2	7.2	60.9
	Warm	-2.8	-9.4	4.3	0.0	0.8	-13.8	17.9	66.4	-2.2	-11.2	7.9	61.6
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	0.9	-3.1	5.0	0.0	1.0	-2.8	4.9	0.0	3.1	-2.1	8.7	7.4
	Warm	-2.8	-9.4	4.3	0.0	0.8	-13.8	17.9	66.4	-4.6	-16.8	9.4	55.0

Table WCL.34 Respiratory mortality 75+ yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-3.0	4.1	33.8
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-3.7	-13.0	6.7	2.0
Brisbane	Cool	3.6	-2.2	9.7	0.0	2.5	-3.0	8.3	0.0	0.2	-6.5	7.3	22.0	-0.2	-4.0	3.7	41.8
	Warm	0.3	-3.2	4.0	0.0	0.5	-3.3	4.5	0.0	0.8	-3.6	5.5	0.0	-7.7	-17.6	3.4	21.1
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.0	-3.5	3.6	40.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-6.8	-17.0	4.6	26.1
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-2.9	4.1	32.1
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-6.3	-12.9	0.8	0.0
Melbourne	Cool	2.1	-3.8	8.4	4.5	1.6	-4.1	7.5	0.0	-0.9	-8.3	7.2	26.1	-2.4	-5.8	1.1	0.0
	Warm	2.9	-1.8	8.0	24.7	3.2	-1.6	8.2	13.4	4.2	-1.2	10.0	10.6	-8.0	-18.5	3.9	18.6
Perth	Cool	3.0	-2.4	8.6	0.0	2.1	-3.1	7.6	0.0	0.5	-5.7	7.2	18.1	-0.3	-3.8	3.2	40.4
	Warm	1.0	-3.3	5.5	26.1	1.3	-3.0	5.8	16.3	1.9	-3.1	7.1	14.3	-7.0	-17.7	5.1	25.8
Sydney	Cool	-0.8	-7.7	6.8	0.0	-1.9	-8.7	5.3	0.0	-3.6	-10.4	3.6	0.0	1.2	-2.2	4.7	18.6
	Warm	2.4	-3.7	8.8	35.3	2.7	-3.5	9.2	27.0	4.0	-3.1	11.6	25.1	-7.9	-17.7	3.0	19.3
Australia only	Cool	3.1	-2.2	8.7	0.0	2.4	-2.8	7.8	0.0	1.9	-3.5	7.6	0.0	1.4	-1.5	4.5	0.0
	Warm	2.3	-1.7	6.5	28.7	2.5	-1.7	6.9	22.4	3.5	-2.0	9.3	36.3	2.8	-0.5	6.3	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-5.7	-10.6	-0.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-19.4	-45.3	18.9	67.4
Overall	Cool	3.1	-2.2	8.7	0.0	2.4	-2.8	7.8	0.0	1.9	-3.5	7.6	0.0	0.0	-3.1	3.3	30.3
	Warm	2.3	-1.7	6.5	28.7	2.5	-1.7	6.9	22.4	3.5	-2.0	9.3	36.3	-6.7	-14.4	1.6	11.3

Table WCL.34 Respiratory mortality 75+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.7	-0.7	8.3	0.0	1.7	-2.6	6.1	0.0	-	-	-	-	0.2	-8.0	9.1	0.0
	Warm	4.7	-0.9	10.6	7.5	2.4	-3.9	9.0	0.0	-	-	-	-	-1.4	-18.6	19.3	61.6
Brisbane	Cool	4.0	-0.5	8.8	0.0	2.1	-2.2	6.6	0.0	-6.2	-13.8	2.1	0.0	2.3	-2.5	7.2	0.0
	Warm	2.2	-2.8	7.4	0.0	-0.8	-8.2	7.1	19.4	-7.4	-17.8	4.4	0.0	-13.1	-24.9	0.7	39.2
Canberra	Cool	4.3	-0.0	8.8	0.0	2.4	-1.7	6.7	0.0	-	-	-	-	-	-	-	-
	Warm	4.4	-3.0	12.3	31.0	0.1	-9.2	10.4	37.4	-	-	-	-	-	-	-	-
Christchurch	Cool	4.3	-0.1	8.8	0.0	2.5	-1.7	6.8	0.0	2.3	-14.1	21.9	80.1	3.5	-1.3	8.5	0.0
	Warm	4.2	-3.2	12.1	31.8	0.8	-8.5	11.0	36.7	4.5	-8.5	19.4	55.1	-2.7	-19.4	17.4	76.0
Melbourne	Cool	3.6	-1.5	9.1	0.0	2.2	-2.9	7.6	0.0	-	-	-	-	-	-	-	-
	Warm	5.4	-3.4	15.0	25.7	1.5	-9.5	13.8	33.2	-	-	-	-	-	-	-	-
Perth	Cool	3.9	-0.6	8.6	0.0	2.3	-1.9	6.7	0.0	-	-	-	-	-	-	-	-
	Warm	3.2	-4.5	11.6	26.8	-0.3	-10.2	10.6	36.5	-	-	-	-	-	-	-	-
Sydney	Cool	5.0	-0.2	10.6	0.0	3.5	-1.7	8.9	0.0	2.9	-12.5	21.0	78.8	3.5	-1.2	8.5	0.0
	Warm	4.1	-4.6	13.5	31.2	-1.8	-11.3	8.7	22.5	0.2	-19.2	24.2	78.2	-9.3	-26.5	12.0	78.2
Australia only	Cool	4.1	0.4	7.9	0.0	1.6	-2.2	5.5	0.0	5.3	-5.7	17.5	66.3	4.8	-4.6	15.1	9.6
	Warm	4.6	0.8	8.6	0.0	2.7	-1.5	7.1	0.0	7.8	-0.2	16.5	26.4	8.1	-1.7	19.0	0.0
NZ only	Cool	0.6	-10.4	12.9	12.0	-3.8	-20.6	16.7	67.0	-	-	-	-	-5.1	-17.3	8.9	79.0
	Warm	0.9	-11.4	14.8	12.0	-4.9	-23.1	17.5	67.6	-	-	-	-	-9.8	-23.8	6.7	84.4
Overall	Cool	4.1	-0.2	8.6	0.0	2.3	-1.8	6.6	0.0	-0.2	-11.0	12.0	71.5	2.8	-1.7	7.6	0.0
	Warm	3.7	-2.1	9.9	18.2	0.4	-7.5	9.1	25.7	-0.3	-12.4	13.6	64.5	-6.6	-20.6	9.8	70.4

Table WCL.34 Respiratory mortality 75+ yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.5	-1.2	4.3	0.0	2.0	-1.0	5.1	0.0	0.5	-2.9	4.1	0.0
	Warm	-3.2	-11.4	5.8	28.7	-0.9	-7.1	5.7	31.6	-12.0	-30.5	11.3	79.5
Canberra	Cool	2.2	-0.4	4.8	0.0	-	-	-	-	-	-	-	-
	Warm	0.4	-8.9	10.7	38.1	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.4	-2.8	5.7	14.0
	Warm	-	-	-	-	-	-	-	-	0.3	-6.9	8.2	41.3
Melbourne	Cool	3.1	-0.6	7.1	0.0	1.9	-0.8	4.7	0.0	1.1	-2.8	5.1	11.3
	Warm	-2.3	-18.4	17.0	57.5	-0.1	-7.5	7.8	26.6	-9.8	-31.1	18.0	82.8
Perth	Cool	2.3	-0.3	5.0	0.0	2.6	0.2	5.1	0.0	2.1	-1.3	5.6	0.0
	Warm	1.1	-12.8	17.3	42.2	0.8	-4.0	5.7	0.0	-7.5	-29.4	21.1	80.5
Sydney	Cool	2.3	-0.6	5.3	0.0	3.0	0.2	5.9	0.0	1.8	-2.2	5.9	9.2
	Warm	-3.2	-18.6	15.2	55.1	-2.5	-7.9	3.2	0.0	-10.9	-31.3	15.6	81.3
Australia only	Cool	2.2	-0.3	4.8	0.0	2.4	0.0	4.8	0.0	0.5	-3.4	4.6	28.8
	Warm	-1.4	-12.6	11.2	43.4	-0.3	-4.8	4.3	0.0	1.0	-3.2	5.5	30.8
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	2.2	-0.3	4.8	0.0	2.4	0.0	4.8	0.0	1.4	-1.8	4.7	0.0
	Warm	-1.4	-12.6	11.2	43.4	-0.3	-4.8	4.3	0.0	-7.6	-24.6	13.3	77.1

Table WCL.35 Respiratory mortality all ages

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-1.5	4.1	18.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-11.2	15.5	19.9
Brisbane	Cool	3.7	-1.5	9.1	4.3	1.8	-3.7	7.7	17.8	-0.2	-6.9	6.9	40.0	0.7	-2.1	3.5	19.8
	Warm	-0.0	-2.9	3.0	0.0	0.1	-3.1	3.4	0.0	0.1	-3.6	4.0	0.0	-2.9	-15.2	11.1	37.4
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-1.6	3.7	22.9
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-2.7	-11.3	6.8	32.9
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-0.7	4.3	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.9	-8.4	5.2	17.4
Melbourne	Cool	2.8	-2.5	8.4	9.4	1.3	-4.5	7.5	20.1	-0.8	-8.0	6.9	40.5	-0.7	-3.6	2.3	0.0
	Warm	1.2	-1.9	4.4	0.0	1.4	-2.0	4.9	0.0	1.9	-2.2	6.1	0.0	-1.1	-15.0	15.0	46.6
Perth	Cool	3.9	-0.7	8.7	0.0	2.9	-1.5	7.6	0.0	1.4	-4.3	7.5	26.0	0.9	-1.7	3.7	23.4
	Warm	0.2	-2.7	3.1	0.0	0.3	-2.8	3.5	0.0	0.6	-3.1	4.3	0.0	-1.4	-14.9	14.2	46.5
Sydney	Cool	0.1	-5.9	6.4	0.0	-1.3	-7.0	4.8	0.0	-2.5	-8.2	3.7	0.0	2.1	-0.4	4.8	0.0
	Warm	-0.0	-3.7	3.8	0.0	0.1	-3.9	4.3	0.0	0.8	-3.9	5.7	0.0	-2.4	-15.5	12.7	41.6
Australia only	Cool	4.0	-0.6	8.8	0.0	3.2	-1.2	7.9	0.0	2.9	-1.8	7.7	0.0	2.1	-0.4	4.7	0.0
	Warm	0.7	-2.1	3.5	0.0	0.7	-2.3	3.8	0.0	0.9	-2.6	4.6	0.0	3.4	0.6	6.3	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-3.8	-8.4	1.1	15.3
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-11.7	-31.7	14.2	64.1
Overall	Cool	4.0	-0.6	8.8	0.0	3.2	-1.2	7.9	0.0	2.9	-1.8	7.7	0.0	1.2	-1.2	3.6	8.1
	Warm	0.7	-2.1	3.5	0.0	0.7	-2.3	3.8	0.0	0.9	-2.6	4.6	0.0	-1.4	-11.3	9.7	36.5

Table WCL.35 Respiratory mortality all ages (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	3.6	-0.1	7.4	0.0	2.2	-1.4	6.0	0.0	-	-	-	-	-0.6	-12.7	13.2	70.7
	Warm	2.3	-2.0	6.8	0.0	0.8	-4.4	6.3	0.0	-	-	-	-	-3.9	-22.3	18.9	79.1
Brisbane	Cool	3.4	-0.5	7.5	0.0	2.1	-1.6	5.9	0.0	-5.0	-11.4	2.0	0.0	-1.4	-8.8	6.6	57.4
	Warm	0.5	-3.7	4.8	0.0	-1.6	-7.1	4.3	10.7	-8.4	-17.4	1.5	0.0	-15.0	-22.4	-6.9	0.0
Canberra	Cool	4.5	0.8	8.3	0.0	2.9	-0.7	6.5	0.0	-	-	-	-	-	-	-	-
	Warm	1.4	-3.2	6.2	12.0	-1.0	-7.8	6.3	26.8	-	-	-	-	-	-	-	-
Christchurch	Cool	4.4	0.6	8.2	0.0	2.8	-0.8	6.5	0.0	2.9	-13.6	22.6	86.0	2.8	-8.1	15.1	63.2
	Warm	1.6	-3.1	6.4	14.0	-0.1	-7.9	8.4	34.9	3.5	-9.8	18.8	69.7	-3.3	-19.9	16.6	83.6
Melbourne	Cool	4.6	0.2	9.2	0.0	2.7	-1.6	7.3	0.0	-	-	-	-	-	-	-	-
	Warm	2.5	-3.4	8.8	9.5	0.9	-8.2	10.9	28.8	-	-	-	-	-	-	-	-
Perth	Cool	4.2	0.4	8.2	0.0	2.9	-0.7	6.7	0.0	-	-	-	-	-	-	-	-
	Warm	1.7	-3.4	7.0	13.9	-0.2	-8.7	9.1	35.3	-	-	-	-	-	-	-	-
Sydney	Cool	5.8	1.3	10.5	0.0	4.7	0.3	9.4	0.0	4.0	-10.6	21.0	83.5	3.6	-5.3	13.4	54.2
	Warm	1.1	-4.2	6.8	11.6	-1.9	-10.1	7.0	21.4	-1.5	-22.2	24.7	85.9	-8.5	-27.3	15.2	86.9
Australia only	Cool	3.1	0.0	6.2	0.0	1.5	-1.7	4.8	0.0	5.5	-5.3	17.5	74.8	5.9	-8.3	22.3	71.6
	Warm	3.5	0.3	6.9	0.0	2.6	-1.0	6.3	0.0	7.0	-2.3	17.2	54.4	9.0	-2.1	21.2	34.1
NZ only	Cool	3.5	-10.0	19.1	60.6	-0.7	-16.0	17.4	67.4	-	-	-	-	-5.6	-16.8	7.2	83.8
	Warm	3.4	-11.5	20.8	60.7	-2.7	-18.6	16.4	67.5	-	-	-	-	-10.3	-24.2	6.2	88.0
Overall	Cool	4.3	0.7	8.1	0.0	2.8	-0.7	6.5	0.0	0.7	-9.8	12.6	79.1	1.0	-7.6	10.4	60.1
	Warm	1.4	-2.7	5.7	0.0	-0.4	-7.0	6.6	22.4	-1.9	-14.7	12.8	77.1	-7.5	-21.6	9.1	80.4

Table WCL.35 Respiratory mortality all ages (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.2	-1.1	3.6	0.0	1.5	-1.6	4.7	27.1	0.7	-3.0	4.5	34.7
	Warm	-2.0	-5.5	1.6	0.0	-2.5	-9.3	4.8	55.9	-9.3	-21.3	4.6	76.8
Canberra	Cool	1.9	-0.3	4.2	0.0	-	-	-	-	-	-	-	-
	Warm	-0.1	-8.2	8.7	40.9	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.4	-4.3	7.5	57.5
	Warm	-	-	-	-	-	-	-	-	-1.4	-10.9	9.0	73.3
Melbourne	Cool	1.9	-1.2	5.2	0.0	1.3	-1.0	3.7	0.0	0.9	-4.4	6.4	53.8
	Warm	-0.4	-11.0	11.5	44.7	0.7	-9.6	12.1	64.2	-6.7	-22.6	12.5	82.3
Perth	Cool	2.0	-0.2	4.3	0.0	2.3	0.2	4.4	0.0	2.7	-0.1	5.7	0.0
	Warm	0.6	-6.3	8.1	27.1	1.6	-4.7	8.2	51.8	-3.8	-19.1	14.4	76.4
Sydney	Cool	2.1	-0.4	4.6	0.0	2.8	0.4	5.3	0.0	1.8	-3.8	7.7	55.4
	Warm	-1.7	-11.6	9.4	41.7	-1.9	-11.7	8.9	63.7	-8.5	-23.0	8.6	78.7
Australia only	Cool	1.8	-0.3	4.0	0.0	2.0	-0.0	4.1	0.0	-0.6	-6.4	5.6	69.1
	Warm	-1.0	-7.8	6.4	28.8	-0.5	-7.6	7.2	58.6	-0.2	-6.3	6.3	70.1
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.8	-0.3	4.0	0.0	2.0	-0.0	4.1	0.0	1.7	-2.0	5.5	43.5
	Warm	-1.0	-7.8	6.4	28.8	-0.5	-7.6	7.2	58.6	-5.8	-18.0	8.3	77.3

Table WCL.36 Total mortality all ages

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-0.2	1.4	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-2.1	2.2	0.0
Brisbane	Cool	0.2	-1.4	1.8	2.5	-0.2	-1.6	1.3	0.0	-0.3	-1.8	1.2	0.0	0.4	-0.3	1.2	0.0
	Warm	0.6	-0.2	1.5	0.0	0.7	-0.2	1.6	0.0	0.8	-0.2	1.9	0.0	-0.7	-2.5	1.1	0.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.2	1.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-2.2	1.2	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-0.3	1.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-2.2	1.2	0.0
Melbourne	Cool	1.0	-0.5	2.6	0.0	0.6	-0.9	2.1	0.0	0.2	-1.4	1.9	0.0	0.6	-0.3	1.5	0.0
	Warm	1.1	0.2	1.9	0.0	1.1	0.2	2.1	0.0	1.3	0.2	2.5	0.0	-0.4	-2.3	1.5	0.0
Perth	Cool	0.5	-1.2	2.3	24.1	0.1	-1.5	1.8	20.1	0.1	-1.4	1.6	0.0	0.5	-0.2	1.3	0.0
	Warm	0.8	0.0	1.6	0.0	0.9	0.0	1.8	0.0	1.1	0.1	2.1	0.0	-0.4	-2.1	1.4	0.0
Sydney	Cool	0.0	-2.1	2.1	15.4	-0.4	-2.3	1.5	5.9	-0.2	-2.0	1.7	0.0	0.3	-0.5	1.1	0.0
	Warm	0.5	-0.5	1.5	0.0	0.6	-0.6	1.7	0.0	0.6	-0.7	1.9	0.0	-0.7	-2.4	1.1	0.0
Australia only	Cool	0.8	-0.6	2.2	0.0	0.5	-0.9	1.9	0.0	0.3	-1.1	1.8	0.0	0.5	-0.3	1.2	0.0
	Warm	0.8	0.1	1.6	0.0	0.9	0.1	1.8	0.0	1.1	0.1	2.1	0.0	0.3	-0.6	1.1	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-1.6	1.2	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.8	-2.5	0.9	0.0
Overall	Cool	0.8	-0.6	2.2	0.0	0.5	-0.9	1.9	0.0	0.3	-1.1	1.8	0.0	0.5	-0.2	1.2	0.0
	Warm	0.8	0.1	1.6	0.0	0.9	0.1	1.8	0.0	1.1	0.1	2.1	0.0	-0.5	-2.1	1.2	0.0

Table WCL.36 Total mortality all ages (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.5	0.2	2.9	21.6	1.1	-0.4	2.6	30.5	-	-	-	-	3.1	0.9	5.4	0.0
	Warm	1.1	-0.6	2.9	41.9	0.5	-2.5	3.6	50.4	-	-	-	-	2.8	-0.5	6.1	33.1
Brisbane	Cool	1.2	-0.1	2.5	11.9	0.6	-0.8	2.1	25.0	1.8	-1.2	5.0	47.3	1.6	0.3	2.9	0.0
	Warm	0.5	-0.6	1.7	0.0	-0.3	-1.7	1.2	0.0	1.6	-1.2	4.4	0.0	-2.2	-8.9	5.0	88.0
Canberra	Cool	1.5	0.1	2.8	24.8	0.9	-0.6	2.4	38.4	-	-	-	-	-	-	-	-
	Warm	1.3	-0.3	3.0	41.8	0.6	-1.5	2.8	45.2	-	-	-	-	-	-	-	-
Christchurch	Cool	1.4	0.0	2.7	22.3	0.8	-0.7	2.4	37.6	3.0	1.0	5.0	0.0	2.5	0.5	4.5	40.1
	Warm	1.3	-0.4	2.9	41.9	0.6	-1.4	2.7	42.3	2.7	0.8	4.5	0.0	-0.3	-8.3	8.5	93.5
Melbourne	Cool	1.8	0.4	3.3	9.0	1.4	-0.2	3.0	16.8	-	-	-	-	-	-	-	-
	Warm	1.8	-0.0	3.6	20.6	0.9	-2.3	4.2	39.5	-	-	-	-	-	-	-	-
Perth	Cool	1.8	0.7	3.0	0.0	1.2	-0.0	2.5	13.3	-	-	-	-	-	-	-	-
	Warm	1.2	-0.6	3.0	42.9	0.4	-2.6	3.6	50.2	-	-	-	-	-	-	-	-
Sydney	Cool	0.9	-0.4	2.2	0.0	0.2	-1.1	1.6	0.0	1.7	-0.5	3.9	27.0	1.7	0.4	3.0	5.2
	Warm	1.3	-0.7	3.3	43.0	0.3	-2.9	3.7	48.0	2.4	0.5	4.3	0.0	-1.7	-8.9	6.0	92.5
Australia only	Cool	1.3	-0.0	2.7	47.4	0.9	-0.7	2.4	51.7	2.9	1.4	4.4	0.0	4.4	2.2	6.7	0.0
	Warm	1.0	-0.2	2.2	32.9	0.5	-1.0	1.9	36.7	2.7	1.2	4.2	0.0	4.2	1.9	6.6	0.0
NZ only	Cool	1.5	-1.0	4.2	0.0	0.0	-2.8	2.9	0.0	-	-	-	-	-2.0	-8.1	4.5	92.8
	Warm	0.9	-1.9	3.8	0.0	-0.9	-3.8	2.2	0.0	-	-	-	-	-2.7	-8.3	3.4	92.7
Overall	Cool	1.5	0.3	2.7	10.3	0.9	-0.4	2.3	26.1	2.2	0.4	3.9	8.7	2.0	0.6	3.4	16.2
	Warm	1.1	-0.4	2.7	32.2	0.4	-1.6	2.5	40.5	2.3	0.7	4.1	0.0	-0.5	-6.3	5.7	90.2

Table WCL.36 Total mortality all ages (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	0.6	-0.5	1.8	27.7	1.0	0.2	1.9	10.7	1.2	-0.0	2.4	36.1
	Warm	-1.4	-2.4	-0.4	0.0	-0.8	-2.5	1.0	52.9	-1.1	-2.6	0.5	34.5
Canberra	Cool	1.1	0.4	1.7	0.0	-	-	-	-	-	-	-	-
	Warm	-0.1	-3.5	3.4	63.0	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	1.6	-0.1	3.3	61.9
	Warm	-	-	-	-	-	-	-	-	0.3	-2.3	2.9	79.3
Melbourne	Cool	0.8	-0.7	2.3	41.5	1.0	0.2	1.7	9.2	1.6	-0.0	3.3	61.4
	Warm	-0.1	-3.8	3.8	61.6	0.9	-1.5	3.3	60.2	0.8	-1.9	3.5	63.3
Perth	Cool	1.0	0.0	2.1	25.9	1.1	0.5	1.8	0.0	1.9	1.0	2.9	2.2
	Warm	0.1	-3.3	3.6	61.0	0.6	-2.0	3.2	78.7	0.3	-2.5	3.3	79.5
Sydney	Cool	0.6	-0.7	1.9	29.8	0.9	0.2	1.6	0.0	1.3	-0.3	3.0	59.8
	Warm	-0.2	-3.9	3.7	63.5	-0.1	-3.4	3.2	76.7	-0.2	-3.2	2.9	77.4
Australia only	Cool	0.9	-0.1	1.9	24.1	1.0	0.4	1.7	0.0	0.9	-1.0	2.8	79.9
	Warm	-0.5	-3.2	2.3	51.4	0.1	-2.0	2.2	71.0	0.7	-1.2	2.5	77.5
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	0.9	-0.1	1.9	24.1	1.0	0.4	1.7	0.0	1.6	0.3	2.8	50.0
	Warm	-0.5	-3.2	2.3	51.4	0.1	-2.0	2.2	71.0	-0.0	-2.3	2.4	73.2

Table WCL.37 Total mortality 0-74 yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-0.7	1.8	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-2.5	4.4	0.0
Brisbane	Cool	1.7	-0.8	4.3	0.0	1.3	-1.1	3.8	0.0	1.1	-1.4	3.7	0.0	0.3	-0.9	1.7	0.0
	Warm	0.2	-1.1	1.6	0.0	0.2	-1.2	1.6	0.0	0.0	-1.6	1.7	0.0	0.0	-2.8	2.8	0.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-0.9	1.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-2.6	2.8	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-1.0	1.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-2.8	2.6	0.0
Melbourne	Cool	1.8	-0.7	4.4	0.0	1.5	-1.0	4.1	0.0	1.2	-1.5	4.0	0.0	0.3	-1.3	1.8	0.0
	Warm	0.5	-0.9	1.9	0.0	0.5	-1.0	2.0	0.0	0.5	-1.3	2.3	0.0	-0.6	-3.6	2.5	0.0
Perth	Cool	2.2	-0.2	4.6	0.0	1.8	-0.5	4.2	0.0	1.5	-1.0	3.9	0.0	0.5	-0.7	1.7	0.0
	Warm	0.2	-1.1	1.5	0.0	0.1	-1.2	1.5	0.0	0.0	-1.6	1.7	0.0	0.4	-2.3	3.3	0.0
Sydney	Cool	3.3	0.1	6.5	0.0	2.8	-0.3	5.9	0.0	2.8	-0.3	6.1	0.0	0.0	-1.3	1.3	0.0
	Warm	0.8	-0.9	2.4	0.0	0.8	-1.0	2.6	0.0	0.6	-1.5	2.7	0.0	-0.1	-2.9	2.8	0.0
Australia only	Cool	2.2	-0.2	4.6	0.0	1.9	-0.4	4.2	0.0	1.6	-0.8	4.1	0.0	0.5	-0.8	1.8	0.0
	Warm	0.4	-0.8	1.7	0.0	0.4	-0.9	1.8	0.0	0.3	-1.2	1.9	0.0	0.2	-1.2	1.6	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	-0.6	-2.7	1.7	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-1.1	-3.8	1.6	0.0
Overall	Cool	2.2	-0.2	4.6	0.0	1.9	-0.4	4.2	0.0	1.6	-0.8	4.1	0.0	0.3	-0.8	1.5	0.0
	Warm	0.4	-0.8	1.7	0.0	0.4	-0.9	1.8	0.0	0.3	-1.2	1.9	0.0	0.1	-2.6	2.8	0.0

Table WCL.37 Total mortality 0-74 yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.5	-0.4	3.4	0.0	0.8	-1.0	2.7	0.0	-	-	-	-	0.9	-2.7	4.7	0.0
	Warm	0.6	-1.2	2.6	0.0	-0.1	-2.5	2.2	0.0	-	-	-	-	1.0	-3.2	5.3	0.0
Brisbane	Cool	1.2	-0.8	3.1	0.0	0.5	-1.4	2.4	0.0	0.2	-4.6	5.2	41.4	2.4	0.3	4.5	0.0
	Warm	0.8	-1.0	2.7	0.0	-0.1	-2.4	2.2	0.0	-0.3	-4.7	4.3	0.0	-2.7	-9.1	4.1	65.1
Canberra	Cool	1.5	-0.3	3.4	0.0	0.7	-1.1	2.6	0.0	-	-	-	-	-	-	-	-
	Warm	1.0	-0.8	2.9	0.0	0.3	-1.9	2.7	0.0	-	-	-	-	-	-	-	-
Christchurch	Cool	1.4	-0.5	3.2	0.0	0.6	-1.2	2.4	0.0	1.2	-2.1	4.5	0.0	2.7	0.7	4.8	0.0
	Warm	1.1	-0.8	2.9	0.0	0.2	-2.0	2.5	0.0	0.3	-2.6	3.2	0.0	-2.8	-8.6	3.2	67.8
Melbourne	Cool	2.0	-0.3	4.2	0.0	1.0	-1.2	3.4	0.0	-	-	-	-	-	-	-	-
	Warm	0.8	-1.6	3.2	0.0	-0.2	-3.2	2.9	0.0	-	-	-	-	-	-	-	-
Perth	Cool	1.8	-0.1	3.8	0.0	0.9	-1.0	2.7	0.0	-	-	-	-	-	-	-	-
	Warm	0.8	-1.1	2.8	0.0	0.1	-2.2	2.5	0.0	-	-	-	-	-	-	-	-
Sydney	Cool	1.1	-1.1	3.3	0.0	0.2	-2.0	2.4	0.0	-0.7	-3.8	2.5	0.0	2.2	0.2	4.3	0.0
	Warm	1.0	-1.0	3.2	0.0	0.4	-2.3	3.1	0.0	0.4	-2.6	3.4	0.0	-2.3	-8.7	4.5	71.5
Australia only	Cool	1.2	-0.2	2.7	0.0	0.6	-1.0	2.2	0.0	0.8	-1.5	3.2	0.0	1.8	-1.8	5.5	0.0
	Warm	0.8	-0.6	2.3	0.0	0.1	-1.6	1.8	0.0	0.3	-2.1	2.6	0.0	1.0	-2.6	4.8	0.0
NZ only	Cool	2.8	-1.3	7.1	0.0	1.2	-3.3	5.8	0.0	-	-	-	-	-2.2	-8.4	4.5	87.0
	Warm	-0.0	-6.6	7.1	38.2	-0.0	-4.7	4.8	0.0	-	-	-	-	-1.2	-8.2	6.3	86.3
Overall	Cool	1.5	-0.3	3.3	0.0	0.7	-1.1	2.5	0.0	0.2	-2.5	3.0	0.0	2.3	0.4	4.3	0.0
	Warm	0.9	-0.9	2.7	0.0	0.1	-2.1	2.4	0.0	0.2	-2.5	2.9	0.0	-1.9	-6.7	3.2	60.5

Table WCL.37 Total mortality 0-74 yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	-0.9	-3.6	1.9	60.8	-0.5	-3.7	2.8	69.9	0.2	-2.6	3.0	67.0
	Warm	-1.3	-2.9	0.4	0.0	-1.0	-2.9	0.8	0.0	-1.3	-3.2	0.7	0.0
Canberra	Cool	0.3	-2.1	2.8	51.5	-	-	-	-	-	-	-	-
	Warm	-1.2	-3.3	0.9	7.2	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	0.4	-2.6	3.6	69.3
	Warm	-	-	-	-	-	-	-	-	-0.4	-2.8	2.2	40.6
Melbourne	Cool	-0.6	-3.8	2.7	65.9	-0.3	-3.5	3.0	69.4	0.4	-2.6	3.5	69.3
	Warm	-0.6	-4.3	3.2	27.1	0.2	-4.1	4.8	61.4	0.4	-2.4	3.2	17.3
Perth	Cool	0.5	-1.6	2.5	41.7	0.8	-0.3	1.8	0.0	1.7	0.2	3.3	0.0
	Warm	-0.6	-2.9	1.7	10.7	0.5	-2.4	3.6	48.4	-0.1	-2.6	2.5	33.9
Sydney	Cool	-1.0	-3.7	1.9	56.0	-0.7	-3.3	2.0	59.8	0.1	-2.8	3.0	64.4
	Warm	-0.4	-3.3	2.6	17.7	-0.0	-4.4	4.6	63.6	-0.9	-3.7	2.1	33.8
Australia only	Cool	-0.3	-2.7	2.1	55.0	0.0	-2.0	2.1	55.3	0.1	-2.2	2.4	63.4
	Warm	-1.0	-2.8	0.8	2.8	-0.2	-3.0	2.7	45.5	-0.3	-2.4	1.9	56.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	-0.3	-2.7	2.1	55.0	0.0	-2.0	2.1	55.3	0.7	-1.6	3.0	59.1
	Warm	-1.0	-2.8	0.8	2.8	-0.2	-3.0	2.7	45.5	-0.5	-2.7	1.7	23.3

Table WCL.38 Total mortality 75+ yrs

City-Left-Out		1-hour O ₃				4-hour O ₃				8-hour O ₃				8-hour CO			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-0.3	1.6	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-3.1	2.3	0.0
Brisbane	Cool	-1.5	-4.6	1.6	50.7	-1.8	-4.6	1.0	44.7	-1.3	-3.3	0.8	12.6	0.5	-0.5	1.5	0.0
	Warm	0.7	-0.7	2.1	29.2	0.7	-1.0	2.4	39.9	0.9	-1.3	3.0	46.3	-1.2	-3.4	1.1	0.0
Canberra	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-0.3	1.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.9	-3.0	1.3	0.0
Christchurch	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-0.4	1.5	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.7	-2.8	1.5	0.0
Melbourne	Cool	0.3	-1.9	2.7	17.8	-0.3	-2.6	2.1	22.3	-0.5	-2.7	1.8	9.8	0.8	-0.4	2.0	0.0
	Warm	1.4	0.3	2.6	3.0	1.3	-0.4	3.0	30.5	1.5	-0.6	3.7	39.5	-0.3	-2.8	2.3	0.0
Perth	Cool	-0.9	-3.8	2.1	54.1	-1.2	-3.9	1.5	48.5	-0.8	-3.0	1.3	20.0	0.6	-0.3	1.5	0.0
	Warm	1.2	-0.0	2.4	17.6	1.3	-0.1	2.8	26.3	1.7	-0.1	3.4	30.7	-0.8	-3.1	1.4	0.0
Sydney	Cool	-1.9	-4.8	1.1	30.3	-2.2	-4.6	0.3	11.5	-1.9	-4.1	0.5	0.0	0.4	-0.6	1.4	0.0
	Warm	0.3	-1.0	1.6	0.0	0.4	-1.2	2.1	16.2	0.5	-1.5	2.6	24.7	-1.0	-3.3	1.3	0.0
Australia only	Cool	-0.3	-2.7	2.2	43.1	-0.5	-2.6	1.7	32.3	-0.4	-2.2	1.4	0.0	0.5	-0.5	1.4	0.0
	Warm	1.0	-0.2	2.2	30.5	1.2	-0.1	2.5	28.4	1.4	-0.1	3.0	29.2	0.3	-0.7	1.3	0.0
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-1.7	1.8	0.0
	Warm	-	-	-	-	-	-	-	-	-	-	-	-	-0.5	-2.7	1.7	0.0
Overall	Cool	-0.3	-2.7	2.2	43.1	-0.5	-2.6	1.7	32.3	-0.4	-2.2	1.4	0.0	0.6	-0.3	1.5	0.0
	Warm	1.0	-0.2	2.2	30.5	1.2	-0.1	2.5	28.4	1.4	-0.1	3.0	29.2	-0.8	-2.9	1.4	0.0

Table WCL.38 Total mortality 75+ yrs (Continued)

City-Left-Out		1-hour NO ₂				24-hour NO ₂				1-hour SO ₂				24-hour SO ₂			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	1.6	0.2	3.0	0.0	1.3	-0.4	3.0	19.5	-	-	-	-	4.3	1.5	7.2	0.0
	Warm	1.9	-0.8	4.7	58.0	1.3	-2.3	5.1	53.6	-	-	-	-	3.7	-2.3	10.1	67.2
Brisbane	Cool	1.3	-0.2	2.8	0.0	0.8	-0.8	2.4	10.4	2.7	-0.1	5.5	0.0	1.6	-0.8	4.0	31.9
	Warm	0.3	-1.1	1.8	0.0	-0.4	-2.2	1.5	0.0	2.7	-0.8	6.3	0.0	-2.1	-9.9	6.4	84.4
Canberra	Cool	1.5	0.1	2.9	0.0	1.1	-0.6	2.8	26.5	-	-	-	-	-	-	-	-
	Warm	1.7	-0.8	4.3	57.9	1.0	-2.5	4.7	54.5	-	-	-	-	-	-	-	-
Christchurch	Cool	1.5	0.1	2.9	0.0	1.1	-0.6	2.9	27.0	4.0	1.5	6.6	0.0	2.9	-0.5	6.5	67.0
	Warm	1.6	-0.8	4.1	57.0	1.2	-2.0	4.6	51.4	4.3	1.9	6.8	0.0	1.3	-8.4	12.0	92.3
Melbourne	Cool	1.9	0.2	3.6	0.0	1.9	0.2	3.7	0.0	-	-	-	-	-	-	-	-
	Warm	2.6	0.1	5.1	30.3	1.9	-1.7	5.6	30.7	-	-	-	-	-	-	-	-
Perth	Cool	1.8	0.4	3.3	0.0	1.4	-0.0	2.8	2.5	-	-	-	-	-	-	-	-
	Warm	1.9	-0.9	4.7	57.8	0.9	-2.9	4.9	54.1	-	-	-	-	-	-	-	-
Sydney	Cool	0.8	-0.9	2.4	0.0	0.3	-1.4	1.9	0.0	3.1	0.7	5.5	0.0	2.2	-0.7	5.2	56.6
	Warm	1.9	-1.0	4.9	56.6	0.7	-3.3	4.8	47.7	3.7	1.2	6.2	4.3	-1.4	-10.0	8.0	91.3
Australia only	Cool	1.5	-0.3	3.3	50.5	1.1	-0.8	3.2	51.2	4.2	2.3	6.1	0.0	6.1	3.2	9.1	0.0
	Warm	1.1	-0.5	2.8	41.1	0.8	-1.1	2.8	40.5	4.2	2.3	6.2	0.0	6.3	3.3	9.4	0.0
NZ only	Cool	0.7	-2.6	4.2	0.0	-0.7	-4.2	3.0	0.0	-	-	-	-	-1.8	-8.2	4.9	87.1
	Warm	0.7	-2.9	4.4	0.0	-1.4	-5.2	2.5	0.0	-	-	-	-	-3.4	-8.5	2.0	85.4
Overall	Cool	1.5	0.1	2.9	0.0	1.1	-0.4	2.7	12.5	3.3	1.2	5.4	0.0	2.5	0.1	5.1	52.0
	Warm	1.6	-0.6	4.0	49.6	0.8	-2.0	3.6	45.4	3.7	1.6	6.0	0.0	0.3	-6.9	8.0	88.8

Table WCL.38 Total mortality 75+ yrs (Continued)

City-Left-Out		24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀			
		I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Brisbane	Cool	1.3	0.4	2.1	0.0	1.5	0.5	2.5	0.0	1.6	0.4	2.8	0.0
	Warm	-1.4	-2.7	-0.1	0.0	-0.4	-2.9	2.1	62.1	-1.0	-2.6	0.6	9.5
Canberra	Cool	1.4	0.5	2.2	0.0	-	-	-	-	-	-	-	-
	Warm	-0.0	-3.2	3.2	48.9	-	-	-	-	-	-	-	-
Christchurch	Cool	-	-	-	-	-	-	-	-	2.1	0.8	3.4	0.0
	Warm	-	-	-	-	-	-	-	-	0.4	-2.3	3.3	69.9
Melbourne	Cool	1.5	0.2	2.8	0.0	1.2	0.3	2.1	0.0	2.2	0.9	3.4	0.0
	Warm	-0.3	-5.0	4.7	55.6	1.4	-0.5	3.3	0.0	1.2	-1.4	3.8	37.8
Perth	Cool	1.3	0.5	2.2	0.0	1.3	0.5	2.1	0.0	2.1	0.9	3.2	0.0
	Warm	-0.3	-4.8	4.5	59.9	0.4	-2.4	3.3	72.8	0.4	-2.7	3.5	70.7
Sydney	Cool	1.3	0.4	2.2	0.0	1.4	0.5	2.3	0.0	1.9	0.7	3.2	0.6
	Warm	-0.7	-5.4	4.2	57.9	-0.5	-3.1	2.2	53.8	-0.0	-3.2	3.3	67.3
Australia only	Cool	1.3	0.5	2.2	0.0	1.3	0.6	2.1	0.0	1.4	-0.5	3.3	67.8
	Warm	-0.6	-4.0	2.8	47.1	0.2	-2.1	2.5	59.5	1.2	-0.7	3.1	66.3
NZ only	Cool	-	-	-	-	-	-	-	-	-	-	-	-
	Warm	-	-	-	-	-	-	-	-	-	-	-	-
Overall	Cool	1.3	0.5	2.2	0.0	1.3	0.6	2.1	0.0	2.0	0.9	3.1	0.0
	Warm	-0.6	-4.0	2.8	47.1	0.2	-2.1	2.5	59.5	0.1	-2.3	2.7	61.0

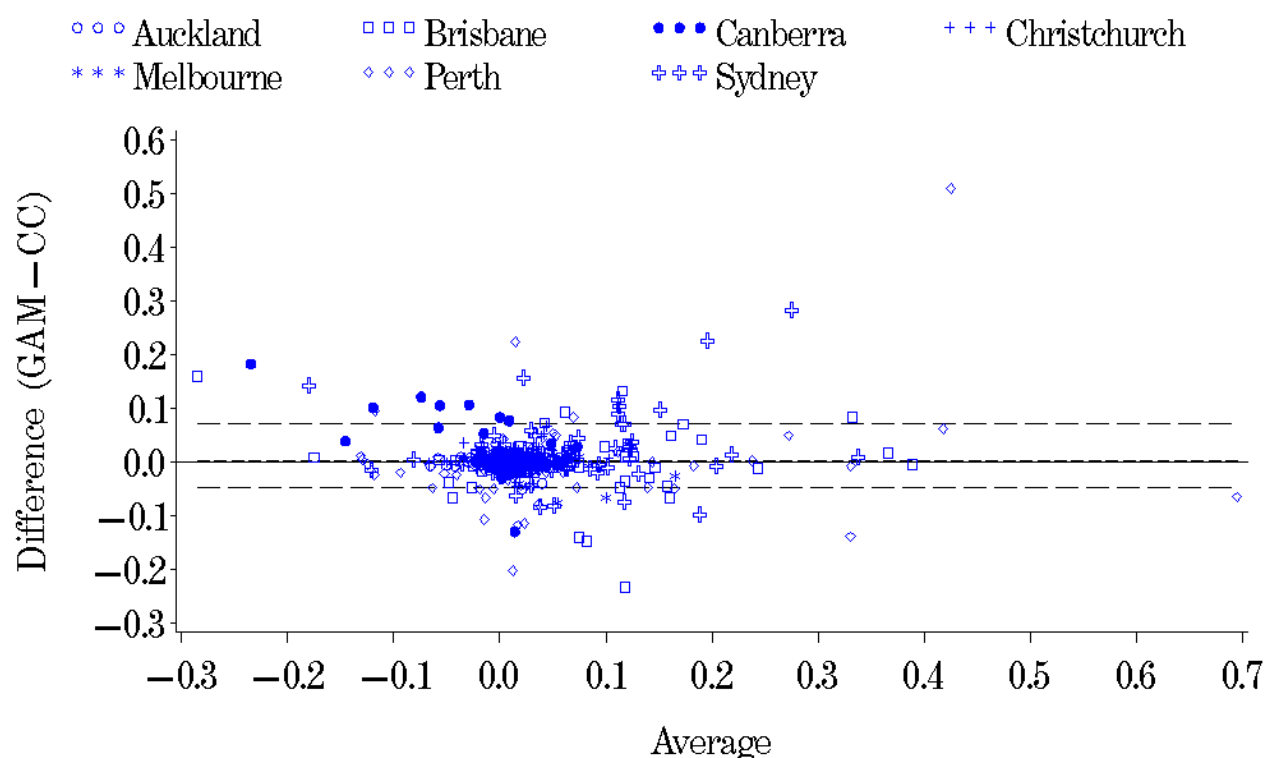
Appendix 4: GAM (lag 0-1) results and comparison to case-crossover results

Every model controlled for long-term trend, season, average temperature, average temperature difference (current minus previous day), average humidity, average pressure, extremes of hot and cold (coldest and warmest 1% of days), flu epidemics, day of the week and public holiday (yes/no). Models of admission variables also included an indicator variable for the day after a public holiday. Models in Canberra included an indicator for the 15th of the month. Pollutants effects are the average over lagged days 0 and 1.

A random effects meta-analysis was used to combine the effects across cities (using R function `met_uni_R`). We used a test of heterogeneity to find differences across cities and used the related I-squared which is interpretable as the proportion of total variation in the relative risks that is due to heterogeneity between cities (Higgins and Thompson, 2002).

All results are shown to a one-unit increase, although the tabulated meta-analysis results are shown to both a one-unit increase and a one-IQR increase.

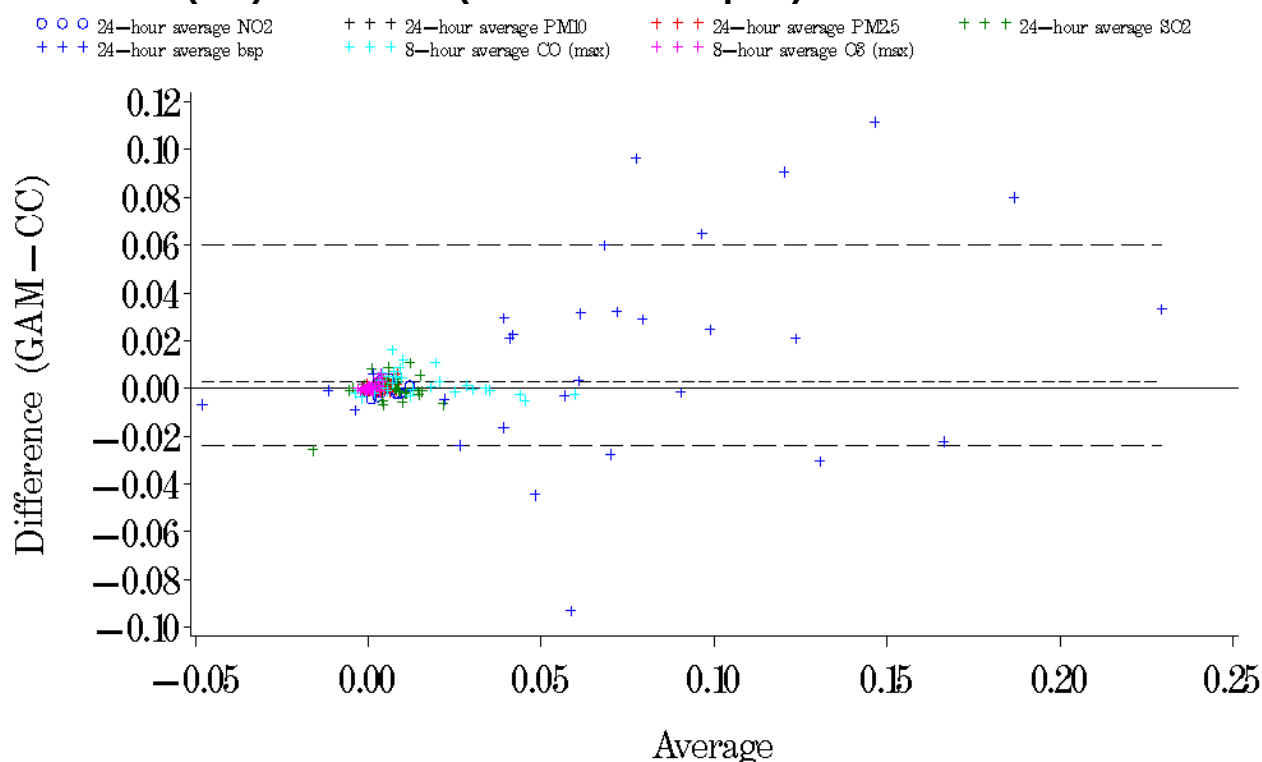
Figure GM.1: Agreement between city-level GAM and case-crossover (CC) estimates (Bland-Altman plot)



Long dotted lines show central 95th percentile, short dotted lines show mean, solid line at zero (perfect agreement).

The plot is based on $n=1012$ estimates. Average difference between methods=0.014, t-statistic=8.04, p-value<0.0001. Some evidence that GAM estimates are, on average, greater than case-crossover estimates, but the difference is small. The biggest difference is in Perth for Cardiac failure admissions 65+ yrs and 24-hour bsp, GAM=0.68, CC=0.17.

Figure GM.2: Agreement between meta-analysis GAM and case-crossover (CC) estimates (Bland-Altman plot)



Long dotted lines show central 95th percentile, short dotted lines show mean, solid line at zero (perfect agreement).

Based on $n=210$ estimates. Biggest differences for bsp. Average difference between methods=0.0028, t-statistic=2.33, p-value=0.02. So some evidence that GAM estimates are, on average, greater than case-crossover estimates, but the difference is very small.

Table GM.1.1: Cardiovascular mortality all ages

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.5	-1.4,0.5					-0.3	-1.4,0.9	1.0	-2.2,4.2	0.5	-0.3,1.3
Brisbane	13.6	-1.5,31.0	-0.0	-0.8,0.8	0.2	-0.1,0.6	0.3	-0.0,0.7	0.5	-1.5,2.5	-1.8	-4.6,1.1	-0.0	-0.3,0.3
Canberra	-0.3	-18.2,22	0.2	-1.6,2.1							6.8	-1.2,15.6	-0.9	-1.9,0.2
Christchurch			-0.3	-1.8,1.1	-0.0	-0.3,0.3			0.3	-2.2,2.8	-0.0	-3.6,3.7		
Melbourne	5.7	-0.1,11.9	0.1	-0.2,0.5	0.1	-0.2,0.3	0.3	-0.0,0.7			1.2	-0.6,3.1	0.1	-0.2,0.3
Perth	8.1	-11.1,31	0.3	-0.6,1.2	0.0	-0.5,0.5	0.3	-0.6,1.2			1.2	-4.4,7.1	0.2	-0.3,0.6
Sydney	18.0	7.3,29.8	0.7	0.4,1.1	0.4	0.2,0.7	0.7	0.3,1.1	4.0	1.1,7.0	3.5	0.7,6.4	0.3	0.1,0.5
Meta-analysis	9.2	3.8,14.9	0.2	-0.1,0.6	0.2	-0.0,0.4	0.4	0.2,0.7	0.9	-0.9,2.6	1.1	-0.4,2.7	0.1	-0.0,0.3
Meta-analysis IQR	1.7	0.7,2.7	1.2	-0.6,3.2	1.6	-0.1,3.4	2.1	1.1,3.1	1.3	-1.3,4.0	1.0	-0.4,2.4	1.2	-0.4,2.9
I-squared (%)	18.4		38.9		44.2		0.0		60.3		33.5		30.2	

Table GM.1.2: Cardiovascular mortality 0-74 yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.7	-2.3,0.9					1.2	-0.7,3.2	-0.6	-5.9,5.0	0.8	-0.4,2.1
Brisbane	12.0	-13.9,46	-1.3	-2.8,0.1	-0.2	-0.9,0.4	0.2	-0.5,0.9	0.0	-3.5,3.7	-5.3	-10.3,-0.1	-0.1	-0.7,0.4
Canberra	-6.6	-34.3,33	-2.1	-5.3,1.2							1.2	-12.4,17	0.7	-1.0,2.5
Christchurch			1.0	-1.8,3.9	-0.3	-0.9,0.3			-2.9	-7.5,2.0	2.2	-4.7,9.5		
Melbourne	2.7	-8.0,14.6	0.3	-0.4,1.0	0.3	-0.2,0.7	0.3	-0.4,1.1			2.9	-0.6,6.6	0.2	-0.3,0.7
Perth	-2.9	-33.7,42	-0.2	-1.9,1.5	-0.7	-1.6,0.2	-0.7	-2.4,0.9			-3.0	-13.1,8.1	0.7	-0.1,1.6
Sydney	16.6	-3.2,40.5	0.3	-0.5,1.0	0.3	-0.2,0.8	0.5	-0.3,1.2	3.2	-2.3,8.9	2.8	-2.5,8.4	-0.0	-0.4,0.3
Meta-analysis	5.5	-3.0,14.7	-0.0	-0.6,0.5	-0.0	-0.4,0.3	0.3	-0.1,0.7	0.7	-0.9,2.4	0.5	-2.0,3.0	0.1	-0.1,0.4
Meta-analysis IQR	1.0	-0.6,2.7	-0.2	-3.1,2.7	-0.2	-3.4,3.1	1.3	-0.6,3.1	1.1	-1.4,3.6	0.4	-1.8,2.8	1.1	-1.3,3.6
I-squared (%)	0.0		18.1		40.4		0.0		6.5		24.6		5.7	

Table GM.1.3: Cardiovascular mortality 75+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.4	-1.5,0.7					-0.9	-2.2,0.5	1.6	-2.1,5.4	0.3	-0.6,1.3
Brisbane	14.5	-3.4,35.8	0.5	-0.5,1.4	0.4	0.0,0.9	0.4	-0.0,0.8	0.7	-1.7,3.1	-0.2	-3.5,3.3	0.0	-0.4,0.4
Canberra	2.5	-19.2,30	1.3	-0.9,3.6							9.2	-0.5,19.7	-1.6	-2.9,-0.2
Christchurch			-0.6	-2.3,1.1	0.1	-0.3,0.4			1.5	-1.4,4.5	-0.6	-4.8,3.8		
Melbourne	6.9	0.2,13.9	0.1	-0.3,0.5	0.0	-0.2,0.3	0.4	-0.1,0.8			0.7	-1.3,2.8	0.0	-0.3,0.3
Perth	11.8	-10.4,40	0.4	-0.6,1.5	0.3	-0.3,0.8	0.6	-0.3,1.6			2.6	-3.9,9.5	-0.0	-0.5,0.5
Sydney	18.6	6.0,32.6	0.9	0.5,1.4	0.5	0.2,0.8	0.8	0.3,1.2	4.3	0.9,7.8	3.7	0.4,7.1	0.4	0.2,0.6
Meta-analysis	9.8	4.4,15.5	0.4	-0.1,0.8	0.2	0.0,0.4	0.5	0.3,0.8	1.0	-1.0,3.1	1.3	-0.1,2.8	0.1	-0.2,0.4
Meta-analysis IQR	1.8	0.8,2.8	2.0	-0.3,4.4	2.3	0.3,4.3	2.4	1.2,3.5	1.5	-1.5,4.7	1.2	-0.1,2.5	0.8	-1.8,3.4
I-squared (%)	0.0		45.4		37.8		0.0		66.8		7.0		59.9	

Table GM.1.4: Respiratory mortality 0-74 yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			0.1	-3.4,3.6							0.3	-10.6,13	0.1	-2.7,2.9
Brisbane	45.4	-12.5,142	1.9	-1.2,5.0	1.3	-0.0,2.6	0.8	-0.4,2.1	9.4	1.6,17.8	14.4	2.9,27.3	0.1	-1.1,1.4
Canberra	-13.3	-57.8,78	-0.7	-7.4,6.4							-4.9	-29.8,29	-0.0	-4.1,4.1
Christchurch			1.5	-4.7,8.1	1.0	-0.1,2.0			-6.6	-16.3,4.2	6.2	-7.7,22.3		
Melbourne	1.1	-19.1,26	-0.1	-1.5,1.4	-0.4	-1.4,0.6	-0.1	-1.6,1.4			1.9	-5.1,9.5	-0.1	-1.1,0.9
Perth	-11.8	-58.7,88	-0.9	-4.4,2.7	-1.7	-3.5,0.1	-1.3	-4.5,2.1			1.5	-18.6,27	0.1	-1.6,1.9
Sydney	10.8	-24.7,63	0.1	-1.5,1.6	0.3	-0.7,1.4	-0.1	-1.6,1.5	-11.9	-21.4,-1.2	4.4	-6.3,16.3	0.1	-0.7,0.9
Meta-analysis	5.6	-11.0,25	0.1	-0.8,1.0	0.2	-0.7,1.2	0.2	-0.6,1.0	-2.8	-15,10.5	4.3	-0.1,9.0	0.0	-0.5,0.6
Meta-analysis IQR	1.1	-2.2,4.5	0.7	-4.3,5.9	1.9	-6.8,11.5	0.9	-2.7,4.7	-4.2	-21,16.2	4.0	-0.1,8.2	0.3	-4.5,5.4
I-squared (%)	0.0		0.0		60.8		0.0		83.1		0.0		0.0	

Table GM.1.5: Respiratory mortality 75+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.8	-3.0,1.6					0.7	-2.0,3.4	-6.6	-13.6,1.0	-1.1	-2.9,0.8
Brisbane	47.2	4.9,106.6	0.7	-1.5,2.9	1.0	0.1,1.9	0.7	-0.1,1.6	5.6	0.1,11.3	1.9	-5.5,9.9	0.6	-0.3,1.5
Canberra	4.3	-39.2,79	2.8	-2.3,8.1							-0.8	-20.2,23	-0.3	-3.2,2.7
Christchurch			-0.6	-4.4,3.3	0.1	-0.7,0.9			-4.7	-10.9,2.0	-1.1	-10.1,8.8		
Melbourne	-0.6	-13.8,15	0.4	-0.5,1.4	-0.2	-0.8,0.5	0.2	-0.8,1.1			4.9	0.2,9.8	0.2	-0.5,0.9
Perth	-11.8	-46.0,44	1.5	-0.8,3.9	-0.9	-2.0,0.3	-0.5	-2.6,1.7			8.2	-6.2,24.7	0.7	-0.5,1.9
Sydney	51.8	18.7,94.0	1.6	0.6,2.6	0.8	0.1,1.4	1.6	0.6,2.6	6.2	-1.5,14.5	2.0	-5.0,9.5	0.5	-0.1,1.0
Meta-analysis	18.0	-4.5,46.0	0.8	0.2,1.4	0.2	-0.3,0.8	0.7	-0.0,1.4	1.8	-2.8,6.5	1.5	-1.8,4.9	0.4	0.0,0.7
Meta-analysis IQR	3.3	-0.9,7.6	4.8	1.4,8.4	2.1	-3.1,7.5	3.3	-0.1,6.8	2.7	-4.1,10.0	1.4	-1.6,4.5	3.6	0.3,7.1
I-squared (%)	66.8		1.3		59.0		43.2		57.8		18.3		0.0	

Table GM.1.6: Respiratory mortality all ages

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.5	-2.4,1.5					0.5	-1.9,2.8	-4.4	-10.6,2.2	-0.9	-2.5,0.7
Brisbane	45.5	9.1,94.0	1.0	-0.8,2.9	1.1	0.3,1.9	0.8	0.1,1.5	7.3	2.7,12.1	5.9	-0.5,12.6	0.4	-0.3,1.1
Canberra	-1.3	-35.5,51	1.7	-2.4,6.0							-1.3	-17.3,18	-0.2	-2.6,2.2
Christchurch			-0.1	-3.3,3.3	0.4	-0.2,1.0			-4.9	-10.2,0.7	1.2	-6.5,9.6		
Melbourne	-0.1	-11.5,12	0.3	-0.5,1.1	-0.2	-0.8,0.3	0.1	-0.7,0.9			4.0	0.1,8.2	0.1	-0.5,0.7
Perth	-11.9	-41,32.5	0.8	-1.1,2.7	-1.1	-2.1,-0.1	-0.7	-2.5,1.1			6.3	-5.6,19.6	0.5	-0.5,1.5
Sydney	36.2	10.5,67.8	1.0	0.2,1.9	0.6	0.0,1.2	1.0	0.2,1.9	0.0	-6.1,6.6	2.2	-3.7,8.5	0.3	-0.1,0.8
Meta-analysis	13.8	-5.5,36.9	0.6	0.1,1.1	0.2	-0.5,0.9	0.5	-0.1,1.1	0.9	-3.9,5.8	2.5	-0.1,5.2	0.2	-0.0,0.5
Meta-analysis IQR	2.5	-1.1,6.3	3.4	0.6,6.3	1.8	-4.8,8.7	2.5	-0.2,5.2	1.3	-5.8,8.9	2.3	-0.1,4.7	2.4	-0.5,5.2
I-squared (%)	65.2		0.0		76.0		38.6		74.9		6.2		0.0	

Table GM.1.7: Cardiac admissions 65+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			0.3	-0.3,1.0					-0.2	-1.0,0.6	2.0	-0.3,4.3	-0.0	-0.5,0.5
Brisbane	2.6	-7.4,13.7	0.7	0.1,1.3	0.0	-0.2,0.3	0.2	-0.1,0.4	0.1	-1.3,1.5	0.9	-1.1,3.0	0.1	-0.2,0.3
Christchurch			-0.3	-1.3,0.8	0.1	-0.2,0.3			2.1	0.3,3.9	3.6	1.0,6.3		
Melbourne	8.3	3.7,13.2	0.8	0.5,1.1	0.1	-0.1,0.3	0.6	0.3,0.9			2.9	1.4,4.4	-0.1	-0.3,0.1
Perth	19.7	5.9,35.4	0.8	0.2,1.4	0.3	-0.0,0.6	0.7	0.2,1.3			4.3	0.5,8.2	0.2	-0.1,0.5
Sydney	10.4	5.4,15.5	0.9	0.6,1.2	0.3	0.1,0.4	0.5	0.3,0.7	4.3	2.0,6.7	7.5	5.2,9.8	-0.0	-0.2,0.1
Meta-analysis	9.4	4.7,14.3	0.7	0.5,0.9	0.1	0.0,0.2	0.4	0.2,0.6	1.4	-0.6,3.4	3.4	1.6,5.3	0.0	-0.1,0.1
Meta-analysis IQR	1.8	0.9,2.6	4.1	2.9,5.4	1.3	0.3,2.4	2.0	1.0,3.0	2.1	-0.8,5.2	3.1	1.5,4.8	0.0	-0.9,0.9
I-squared (%)	22.9		19.2		24.1		51.7		82.1		75.4		0.0	

Table GM.1.8: IHD admissions 15-64 yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.1	-1.2,1.0					0.7	-0.6,2.1	1.8	-1.8,5.5	-0.2	-1.0,0.5
Brisbane	15.2	-3.6,37.7	0.4	-0.6,1.4	0.3	-0.1,0.8	0.1	-0.4,0.6	-0.6	-3.0,1.8	2.9	-0.9,6.9	0.1	-0.3,0.5
Christchurch			0.2	-2.0,2.4	-0.1	-0.6,0.3			2.2	-1.4,5.8	-1.5	-6.8,4.1		
Melbourne	4.4	-3.5,13.1	0.3	-0.2,0.8	-0.1	-0.5,0.2	0.1	-0.5,0.6			1.3	-1.4,4.0	-0.1	-0.5,0.2
Perth	-4.3	-25.6,23	-0.6	-1.8,0.6	-0.2	-0.7,0.4	-0.4	-1.5,0.7			0.2	-7.0,8.1	-0.2	-0.8,0.4
Sydney	-0.2	-8.7,9.1	0.1	-0.4,0.7	-0.0	-0.3,0.3	-0.1	-0.5,0.3	1.0	-3.0,5.2	4.4	0.2,8.7	-0.3	-0.6,-0.1
Meta-analysis	3.2	-2.3,9.0	0.1	-0.2,0.5	-0.0	-0.2,0.2	-0.0	-0.3,0.2	0.6	-0.5,1.7	1.9	0.3,3.5	-0.2	-0.3,-0.0
Meta-analysis IQR	0.6	-0.5,1.7	0.8	-1.0,2.6	-0.2	-1.8,1.5	-0.1	-1.3,1.1	0.9	-0.7,2.5	1.7	0.2,3.2	-1.7	-3.3,-0.0
I-squared (%)	0.0		0.0		0.0		0.0		0.0		0.0		0.0	

Table GM.1.9: IHD admissions 65+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			0.1	-0.8,1.0					-0.4	-1.5,0.8	2.0	-1.1,5.2	-0.2	-0.9,0.5
Brisbane	2.5	-11,18.1	0.2	-0.6,1.0	-0.1	-0.4,0.3	0.2	-0.2,0.5	1.2	-0.6,3.1	0.8	-2.0,3.7	-0.0	-0.4,0.3
Christchurch			-0.2	-1.6,1.2	-0.0	-0.3,0.3			3.1	0.7,5.5	2.9	-0.7,6.5		
Melbourne	8.4	2.0,15.2	0.6	0.2,1.0	0.0	-0.2,0.3	0.6	0.1,1.0			2.8	0.7,4.9	0.0	-0.3,0.3
Perth	27.1	6.6,51.5	0.8	-0.0,1.7	0.3	-0.2,0.7	0.8	0.1,1.6			3.5	-1.9,9.1	0.3	-0.1,0.7
Sydney	14.9	7.8,22.4	0.6	0.1,1.0	0.3	0.1,0.6	0.6	0.3,0.9	3.7	0.4,7.1	6.7	3.4,10.1	0.1	-0.2,0.3
Meta-analysis	11.8	4.2,19.8	0.5	0.3,0.8	0.1	-0.1,0.3	0.5	0.2,0.7	1.5	-0.3,3.3	3.0	1.4,4.6	0.0	-0.1,0.2
Meta-analysis IQR	2.2	0.8,3.6	2.9	1.5,4.4	1.1	-0.5,2.8	2.3	1.1,3.4	2.3	-0.4,5.1	2.7	1.3,4.2	0.4	-0.9,1.7
I-squared (%)	41.9		0.0		39.2		34.5		71.4		34.1		0.0	

Table GM.1.10: Stroke admissions 15-64 yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.7	-2.6,1.1					0.3	-1.9,2.6	-0.9	-7.0,5.6	0.2	-1.2,1.6
Brisbane	13.6	-25.5,73	3.1	0.7,5.5	0.4	-0.6,1.5	0.5	-0.5,1.5	1.4	-4.1,7.2	1.5	-6.7,10.4	0.1	-0.8,1.0
Christchurch			1.2	-2.4,4.8	-0.3	-1.1,0.5			0.1	-5.6,6.2	0.6	-8.2,10.3		
Melbourne	4.4	-8.6,19.3	0.2	-0.7,1.1	-0.0	-0.6,0.6	0.1	-0.8,1.0			1.8	-2.6,6.5	0.0	-0.6,0.6
Perth	-3.3	-39.6,55	-1.1	-3.3,1.1	-0.4	-1.5,0.8	-0.6	-2.6,1.5			-9.8	-21.5,3.7	-1.0	-2.0,0.1
Sydney	-10.2	-24.0,6.2	-0.3	-1.3,0.7	-0.4	-0.9,0.1	-0.5	-1.2,0.3	-3.6	-10.3,3.7	0.1	-6.9,7.6	-0.4	-0.9,0.1
Meta-analysis	-0.8	-10.2,9.5	0.2	-0.9,1.2	-0.2	-0.5,0.1	-0.1	-0.6,0.4	0.2	-1.7,2.1	0.4	-2.4,3.2	-0.3	-0.6,0.1
Meta-analysis IQR	-0.2	-2.1,1.8	1.0	-4.8,7.2	-1.7	-4.7,1.3	-0.4	-2.6,1.8	0.2	-2.6,3.2	0.3	-2.2,3.0	-2.4	-5.3,0.6
I-squared (%)	0.0		43.4		0.0		0.0		0.0		0.0		0.0	

Table GM.1.11: Stroke admissions 65+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			1.1	-0.1,2.3					-0.8	-2.3,0.7	0.5	-3.6,4.8	-0.3	-1.3,0.6
Brisbane	-15.6	-32.1,4.8	0.4	-0.8,1.5	-0.3	-0.8,0.2	-0.4	-1.0,0.2	-0.9	-3.7,1.9	-0.3	-4.5,4.0	0.0	-0.5,0.5
Christchurch			0.6	-1.3,2.6	0.1	-0.3,0.5			0.1	-3.1,3.4	-1.8	-6.5,3.1		
Melbourne	-1.1	-8.7,7.1	0.1	-0.5,0.6	-0.0	-0.4,0.3	-0.1	-0.6,0.4			-0.2	-2.8,2.5	-0.1	-0.4,0.3
Perth	12.9	-	0.8	-0.4,2.0	0.0	-0.6,0.6	0.8	-0.3,1.9			3.7	-3.6,11.6	-0.1	-0.7,0.5
		12.0,44.7												
Sydney	-0.0	-8.8,9.6	-0.1	-0.7,0.5	-0.3	-0.6,0.0	-0.2	-0.6,0.3	1.1	-3.1,5.4	1.0	-3.1,5.2	-0.2	-0.5,0.1
Meta-analysis	-1.2	-7.5,5.6	0.2	-0.1,0.5	-0.1	-0.3,0.1	-0.1	-0.4,0.2	-0.6	-1.8,0.6	0.1	-1.5,1.7	-0.1	-0.3,0.1
Meta-analysis IQR	-0.2	-1.5,1.1	1.1	-0.8,3.1	-1.1	-2.8,0.6	-0.6	-2.0,0.8	-0.9	-2.6,0.9	0.1	-1.4,1.6	-1.2	-3.0,0.5
I-squared (%)	6.1		0.0		0.0		15.8		0.0		0.0		0.0	

Table GM.1.12: Arrhythmia admissions 15-64 yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			1.6	0.0,3.3					-0.7	-2.7,1.3	0.7	-4.8,6.6	-0.9	-2.2,0.4
Brisbane	8.2	-22.3,51	2.2	0.3,4.1	0.2	-0.6,1.0	0.5	-0.2,1.3	-1.5	-5.8,3.1	0.0	-6.4,6.9	0.3	-0.4,1.0
Christchurch			0.5	-3.6,4.7	0.7	0.0,1.5			5.3	-1.6,12.6	11.2	1.5,21.9		
Melbourne	0.5	-13.4,17	0.6	-0.3,1.6	-0.3	-0.9,0.4	0.1	-0.9,1.1			1.6	-3.4,6.9	0.0	-0.7,0.7
Perth	34.5	-12.9,108	0.5	-1.6,2.7	0.1	-0.9,1.2	0.9	-1.1,2.9			2.9	-10,17.5	-0.5	-1.5,0.5
Sydney	-1.5	-14,12.6	0.3	-0.6,1.2	0.0	-0.4,0.5	-0.1	-0.7,0.5	-0.5	-6.8,6.2	7.0	0.3,14.2	-0.1	-0.6,0.3
Meta-analysis	1.5	-7.6,11.4	0.8	0.2,1.3	0.1	-0.2,0.4	0.2	-0.2,0.6	-0.4	-2.1,1.3	3.0	0.0,6.1	-0.1	-0.4,0.2
Meta-analysis IQR	0.3	-1.5,2.1	4.4	1.2,7.7	1.2	-1.6,4.2	0.8	-1.1,2.8	-0.7	-3.2,2.0	2.8	0.0,5.6	-0.9	-3.7,1.9
I-squared (%)	0.0		0.0		3.8		0.0		0.0		11.6		0.0	

Table GM.1.13: Arrhythmia admissions 65+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			0.8	-0.6,2.2					-0.0	-1.7,1.7	3.1	-1.7,8.0	-0.4	-1.5,0.7
Brisbane	-4.8	-27,23.8	0.8	-0.7,2.3	-0.1	-0.8,0.5	-0.3	-0.9,0.4	0.2	-3.3,3.8	-3.9	-8.9,1.3	-0.1	-0.6,0.5
Christchurch			-0.8	-3.5,2.0	-0.3	-0.9,0.3			1.5	-3.0,6.2	0.4	-6.3,7.5		
Melbourne	-2.7	-12.9,8.7	0.3	-0.5,1.0	-0.3	-0.8,0.2	-0.1	-0.8,0.7			0.1	-3.6,3.9	0.1	-0.4,0.6
Perth	-2.2	-27.8,32	-0.9	-2.3,0.6	0.5	-0.2,1.2	0.1	-1.2,1.4			-3.0	-11.4,6.2	0.1	-0.6,0.8
Sydney	-7.4	-16.8,3.0	-0.3	-1.0,0.4	-0.2	-0.6,0.1	-0.3	-0.8,0.1	-1.0	-5.9,4.1	-1.5	-6.3,3.6	-0.2	-0.5,0.1
Meta-analysis	-5.0	-11.6,2.1	0.1	-0.4,0.5	-0.2	-0.4,0.1	-0.2	-0.6,0.1	0.1	-1.3,1.5	-0.4	-2.5,1.7	-0.1	-0.3,0.1
Meta-analysis IQR	-1.0	-2.4,0.4	0.3	-2.2,2.8	-1.5	-3.6,0.6	-1.1	-2.6,0.4	0.1	-2.0,2.3	-0.4	-2.3,1.6	-0.8	-2.9,1.4
I-squared (%)	0.0		4.5		0.0		0.0		0.0		0.0		0.0	

Table GM.1.14: Cardiac failure admissions 15-64 yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			-0.6	-2.9,1.8					-0.3	-3.1,2.5	2.1	-5.7,10.6	1.2	-0.6,3.0
Brisbane	20.0	-27.6,99	1.7	-1.2,4.8	-0.0	-1.4,1.3	0.1	-1.3,1.5	0.0	-7.0,7.6	4.1	-6.2,15.6	-0.9	-2.2,0.3
Christchurch			2.3	-4.6,9.7	0.1	-1.3,1.4			4.0	-7.4,16.8	7.0	-9.5,26.5		
Melbourne	6.9	-13.1,32	0.9	-0.4,2.3	0.5	-0.4,1.4	0.6	-0.8,2.0			2.0	-4.6,9.2	-0.3	-1.3,0.7
Perth	93.9	5.3,257	-0.6	-3.7,2.5	0.3	-1.3,1.9	1.1	-1.8,4.0			-0.8	-18.4,21	-1.5	-3.1,0.1
Sydney	40.9	14.5,73.3	0.9	-0.6,2.4	0.9	0.1,1.6	1.4	0.5,2.4	0.9	-9.4,12.4	14.6	3.5,26.8	0.1	-0.7,0.8
Meta-analysis	27.9	4.1,57.2	0.7	-0.1,1.6	0.5	0.0,1.0	0.9	0.3,1.6	-0.0	-2.5,2.5	4.4	0.3,8.6	-0.3	-1.0,0.4
Meta-analysis IQR	4.9	0.8,9.2	4.0	-0.8,9.1	4.8	0.2,9.6	4.4	1.2,7.6	-0.0	-3.7,3.8	4.0	0.3,7.9	-2.9	-9.5,4.2
I-squared (%)	45.1		0.0		0.0		0.0		0.0		0.0		42.8	

Table GM.1.15: Cardiac failure admissions 65+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			0.1	-1.3,1.5					0.2	-1.4,1.9	3.2	-1.6,8.2	0.5	-0.5,1.5
Brisbane	11.5	-8.6,36.1	2.1	1.0,3.3	0.4	-0.1,0.9	0.5	-0.0,1.0	-2.7	-5.6,0.2	4.0	-0.0,8.2	0.7	0.2,1.2
Christchurch			-0.4	-2.9,2.2	0.3	-0.2,0.8			-3.0	-7.1,1.3	6.2	0.1,12.6		
Melbourne	16.6	7.7,26.1	1.5	0.9,2.0	0.4	0.1,0.8	1.1	0.6,1.7			4.3	1.6,7.1	-0.4	-0.8,-0.0
Perth	97.4	9.2,256.9	-0.5	-3.5,2.6	0.3	-1.2,1.9	1.2	-1.6,4.0			-0.3	-17.6,21	-1.3	-2.7,0.2
Sydney	15.0	5.1,26.0	2.1	1.5,2.7	0.5	0.2,0.8	0.7	0.4,1.1	9.7	5.1,14.4	13.5	9.2,18.0	0.0	-0.3,0.3
Meta-analysis	16.8	5.4,29.5	1.3	0.5,2.1	0.4	0.2,0.6	0.8	0.5,1.0	0.8	-4.6,6.5	6.0	2.7,9.5	0.0	-0.5,0.6
Meta-analysis IQR	3.1	1.0,5.1	7.4	2.6,12.5	4.0	2.1,5.9	3.6	2.3,4.9	1.3	-6.8,10.0	5.5	2.5,8.6	0.2	-4.9,5.7
I-squared (%)	8.9		60.0		0.0		0.0		87.2		68.6		74.3	

Table GM.1.16: Cardiovascular admissions 15-64 yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			0.1	-0.6,0.7					0.1	-0.7,0.9	0.6	-1.7,2.8	-0.2	-0.7,0.3
Brisbane	13.1	-0.7,28.8	0.8	0.0,1.5	0.3	-0.0,0.6	0.3	-0.1,0.6	-0.7	-2.4,1.1	0.8	-1.9,3.5	0.1	-0.2,0.3
Christchurch			0.5	-1.0,1.9	-0.0	-0.3,0.3			1.9	-0.5,4.3	2.0	-1.6,5.6		
Melbourne	1.8	-3.5,7.3	0.3	-0.1,0.6	-0.2	-0.4,0.1	-0.0	-0.4,0.3			0.6	-1.1,2.5	-0.0	-0.2,0.2
Perth	5.1	-10.9,24	-0.0	-0.8,0.7	-0.1	-0.5,0.3	-0.0	-0.8,0.7			0.4	-4.4,5.4	-0.2	-0.5,0.2
Sydney	-0.6	-5.9,5.1	0.2	-0.1,0.6	-0.1	-0.2,0.1	-0.0	-0.3,0.2	1.1	-1.5,3.7	3.9	1.3,6.6	-0.2	-0.4,-0.0
Meta-analysis	2.0	-2.1,6.3	0.2	0.0,0.5	-0.0	-0.2,0.1	0.0	-0.1,0.2	0.2	-0.5,1.0	1.3	0.2,2.3	-0.1	-0.2,0.0
Meta-analysis IQR	0.4	-0.4,1.2	1.4	0.2,2.6	-0.3	-1.5,1.0	0.2	-0.6,0.9	0.3	-0.8,1.5	1.2	0.2,2.1	-1.0	-2.0,0.1
I-squared (%)	10.0		0.0		18.5		0.0		9.6		1.2		0.0	

Table GM.1.17: Cardiovascular admissions 65+ yrs

City	24-hour bsp		24-hour NO ₂		24-hour PM ₁₀		24-hour PM _{2.5}		24-hour SO ₂		8-hour CO		8-hour O ₃	
	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI	I	95%CI
Auckland			0.5	-0.1,1.0					-0.3	-1.0,0.4	1.6	-0.3,3.6	-0.2	-0.6,0.3
Brisbane	0.2	-8.4,9.7	0.6	0.1,1.1	-0.0	-0.3,0.2	0.1	-0.2,0.3	0.1	-1.1,1.3	0.9	-0.9,2.7	0.0	-0.2,0.2
Christchurch			-0.1	-1.0,0.7	-0.0	-0.2,0.2			1.3	-0.2,2.8	1.6	-0.6,3.8		
Melbourne	6.1	2.3,10.0	0.6	0.3,0.8	0.0	-0.1,0.2	0.4	0.2,0.7			2.1	0.9,3.4	-0.1	-0.3,0.1
Perth	15.5	3.8,28.6	0.8	0.3,1.3	0.2	-0.0,0.5	0.6	0.2,1.1			4.1	0.8,7.5	0.1	-0.1,0.4
Sydney	6.7	2.5,11.0	0.6	0.3,0.9	0.1	-0.0,0.2	0.3	0.1,0.5	3.4	1.5,5.4	5.4	3.5,7.3	-0.1	-0.2,0.1
Meta-analysis	6.4	2.2,10.9	0.6	0.4,0.7	0.1	-0.0,0.1	0.3	0.1,0.5	1.0	-0.6,2.5	2.5	1.1,3.9	-0.0	-0.1,0.1
Meta-analysis IQR	1.2	0.4,2.0	3.3	2.4,4.1	0.5	-0.2,1.3	1.4	0.5,2.3	1.4	-0.9,3.8	2.3	1.0,3.5	-0.3	-1.1,0.5
I-squared (%)	24.8		0.0		0.0		56.6		79.4		65.7		0.0	

Appendix 5: Distributed lag results

Appendix A5.1: Harvesting meta-analysis results

In this analysis we used an unconstrained distributed lag over 0 to 40 days to look at the longer-term effects of air pollution. The advantages of this method (above a polynomial method) are that the total sum is an unbiased estimate of the overall risk, and it is straightforward to combine estimates across cities using a random effects meta-analysis. The main disadvantage of this method is that there is no pictorial estimate of the overall shape.

Every model controlled for long-term trend, season, average temperature, average temperature difference (current minus previous day), average humidity, average pressure, extremes of hot and cold (coldest and warmest 1% of days), day of the week and public holiday (yes/no). Models of admission variables also included an indicator variable for the day after a public holiday. Models in Canberra included an indicator for the 15th of the month. In every city but Canberra we also controlled for flu epidemics. We used penalised splines for the covariates of: trend/season (4df per year) temperature (3 df), temperature difference (3 df), humidity (3 df), pressure (3 df) and flu epidemics (4 df).

A random effects meta-analysis was used to combine the effects across cities (using the R function `met_uni_R`). We used a test of heterogeneity to find differences across cities and used the related I-squared which is interpretable as the proportion of total variation in the relative risks that is due to heterogeneity between cities (Higgins and Thompson, 2002).

All results are shown to a one-unit increase, although the tabulated meta-analysis results are shown to both a one-unit increase and a one-IQR increase (using the mean IQR across cities).

The increase in respiratory admissions 5-14 yrs in Melbourne due to NO₂ is much higher than other cities. The increase in respiratory admissions 65+ yrs in Melbourne due to PM₁₀ is very much higher than in other cities. Both results have been highlighted in the tables in red text.

Distributed lag single city and meta-analysis results

Table DL.1 Cardiovascular admissions 15-64 yrs

City	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	0.6	-0.8	1.9	0.7	-7.7	9.9	0.4	-1.9	2.7	-0.6	-6.0	5.2
Brisbane	-0.1	-1.0	0.9	2.3	-10.5	17.0	0.8	-1.8	3.5	3.5	-3.6	11.1
Christchurch	-	-	-	4.8	-6.1	17.0	1.8	-2.2	6.0	-2.9	-10.9	5.7
Melbourne	-3.1	-8.9	3.0	2.5	-4.4	9.9	2.7	-4.0	9.9	-	-	-
Perth	-0.5	-1.9	1.0	-1.9	-21.5	22.4	-0.1	-3.4	3.2	-	-	-
Sydney	-0.2	-0.7	0.3	2.4	-7.4	13.3	0.9	-0.6	2.4	-2.3	-12.8	9.4
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-0.1	-0.5	0.2	2.2	-1.9	6.5	0.8	-0.2	1.8	-0.1	-3.8	3.6
Meta-analysis IQR	-1.2	-4.6	2.1	1.9	-1.6	5.6	4.0	-1.2	9.3	-0.2	-6.4	6.2

(continued)

City	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-
Brisbane	-29.9	-58.4	18.2	-0.4	-1.8	1.0	-0.3	-1.5	0.9
Christchurch	-	-	-	-	-	-	0.3	-17.6	22.0
Melbourne	0.7	-5.3	7.2	1.4	-5.2	8.4	-5.4	-11.5	1.1
Perth	-8.7	-52.0	73.9	-1.3	-4.4	2.0	-1.1	-2.7	0.6
Sydney	12.1	-22.0	61.0	0.3	-1.3	2.0	-0.2	-1.1	0.7
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-
Meta-analysis	0.5	-5.4	6.7	-0.2	-1.2	0.8	-0.4	-1.1	0.2
Meta-analysis IQR	0.1	-1.0	1.2	-0.7	-4.5	3.0	-3.2	-8.3	1.8

Table DL.2 Cardiovascular admissions 65+ yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	0.3	-0.8	1.5	4.6	-3.0	12.7	1.3	-0.6	3.3	-3.9	-8.7	1.0
Brisbane	0.1	-0.6	0.7	4.5	-4.3	14.2	1.7	-0.0	3.5	0.8	-4.0	5.9
Christchurch	-	-	-	4.7	-2.0	11.8	1.1	-1.4	3.6	0.2	-4.9	5.5
Melbourne	-5.6	-9.6	-1.4	7.3	2.2	12.7	6.6	1.7	11.8	-	-	-
Perth	0.2	-0.8	1.1	12.4	-2.8	29.9	2.0	-0.2	4.2	-	-	-
Sydney	-0.3	-0.6	0.0	4.6	-2.6	12.4	1.0	-0.1	2.0	-0.7	-8.5	7.8
I-squared (%)	53.6	-	-	0.0	-	-	7.3	-	-	0.0	-	-
Meta-analysis	-0.5	-2.0	1.2	5.8	2.8	9.0	1.4	0.7	2.2	-1.0	-3.6	1.8
Meta-analysis IQR	-4.1	-18.1	10.2	5.0	2.4	7.7	7.4	3.4	11.4	-1.6	-6.2	3.1
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	2.6	-27.8	45.7	0.0	-0.9	0.9	0.0	-0.8	0.8			
Christchurch	-	-	-	-	-	-	4.3	-6.6	16.4			
Melbourne	0.6	-3.6	5.1	0.4	-4.2	5.1	-3.6	-8.0	1.1			
Perth	24.1	-18.5	89.1	0.7	-1.4	2.9	-0.2	-1.3	0.9			
Sydney	-20.5	-38.7	3.0	-1.0	-2.2	0.2	-1.0	-1.7	-0.4			
I-squared (%)	27.1	-	-	0.0	-	-	39.5	-	-			
Meta-analysis	-1.7	-13.8	12.1	-0.2	-0.9	0.4	-0.5	-1.2	0.2			
Meta-analysis IQR	-0.3	-2.5	2.2	-0.9	-3.4	1.7	-3.9	-9.1	1.2			

Table DL.3 Respiratory admissions 0 yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	0.6	-1.9	3.2	30.9	11.5	53.7	1.0	-3.2	5.5	-16.1	-24.9	-6.3
Brisbane	-0.6	-2.6	1.6	-11.9	-32.9	15.5	7.3	1.7	13.1	-1.2	-14.8	14.7
Christchurch	-	-	-	49.7	27.4	75.8	17.5	10.2	25.3	41.3	21.5	64.4
Melbourne	-35.4	-44.9	-24.1	54.0	30.9	81.2	47.6	25.4	73.9	-	-	-
Perth	-5.8	-8.7	-2.8	121.3	45.7	236.1	3.3	-3.1	10.2	-	-	-
Sydney	-3.4	-4.4	-2.4	177.6	128.8	236.8	10.0	6.6	13.5	49.3	17.9	89.1
I-squared (%)	90.5	-	-	91.5	-	-	84.8	-	-	92.5	-	-
Meta-analysis	-9.0	-21.9	6.2	58.4	15.1	117.9	11.9	1.2	23.8	13.9	-13.3	49.7
Meta-analysis IQR	-79.1	-193.6	54.5	50.2	13.0	101.5	61.4	6.2	122.5	23.6	-22.7	84.4
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-33.9	-78.1	99.3	-1.9	-4.8	1.0	-0.5	-3.1	2.1			
Christchurch	-	-	-	-	-	-	79.0	33.7	139.6			
Melbourne	3.8	-10.2	20.0	-5.2	-19.3	11.4	-25.2	-36.7	-11.6			
Perth	186.7	-14.9	865.9	-4.8	-10.7	1.5	-0.1	-3.7	3.6			
Sydney	527.3	202.7	1200.0	5.4	1.7	9.1	-1.8	-3.8	0.3			
I-squared (%)	88.3	-	-	76.4	-	-	85.5	-	-			
Meta-analysis	86.6	-30.8	403.5	-0.5	-5.2	4.4	3.7	-20.3	34.9			
Meta-analysis IQR	15.8	-5.6	73.8	-1.8	-19.5	16.7	27.7	-153.1	263.0			

Table DL.4 Respiratory admissions 1-4 yrs

City	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-2.8	-5.1	-0.4	40.9	20.9	64.3	1.8	-2.2	6.0	3.3	-7.4	15.2
Brisbane	-1.2	-2.7	0.3	24.7	1.8	52.6	1.6	-2.3	5.8	21.0	8.1	35.3
Christchurch	-	-	-	28.4	13.7	44.9	9.8	4.7	15.1	26.6	13.7	40.9
Melbourne	11.7	-0.3	25.0	25.4	10.5	42.4	40.2	23.9	58.6	-	-	-
Perth	-2.0	-4.1	0.1	67.2	24.3	124.8	9.0	4.2	14.0	-	-	-
Sydney	-1.3	-2.0	-0.5	37.9	17.7	61.5	-0.0	-2.4	2.4	23.5	2.8	48.2
I-squared (%)	38.5	-	-	0.0	-	-	88.5	-	-	61.0	-	-
Meta-analysis	-1.2	-3.9	1.6	32.4	24.3	41.1	8.6	-1.2	19.4	17.6	7.2	29.2
Meta-analysis IQR	-10.2	-34.3	14.5	27.9	20.9	35.3	44.3	-6.0	99.6	30.0	12.2	49.5

(continued)

City	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-
Brisbane	-40.8	-74.2	36.0	-2.2	-4.3	-0.0	-1.0	-2.9	1.0
Christchurch	-	-	-	-	-	-	26.9	1.9	58.1
Melbourne	1.8	-8.9	13.8	6.3	-5.8	20.0	16.0	2.7	31.1
Perth	124.4	-6.2	437.1	4.0	-0.6	8.8	0.9	-1.5	3.3
Sydney	164.1	47.1	374.0	-3.2	-5.8	-0.5	-1.4	-2.9	0.2
I-squared (%)	79.4	-	-	66.9	-	-	70.4	-	-
Meta-analysis	36.5	-29.5	164.3	-0.3	-4.1	3.7	4.3	-4.0	13.2
Meta-analysis IQR	6.7	-5.4	30.1	-1.1	-15.6	13.9	32.2	-29.7	99.4

Table DL.5 Respiratory admissions 5-14 yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-2.6	-5.9	0.9	15.8	-7.1	44.5	1.0	-4.7	7.1	4.7	-10.6	22.6
Brisbane	-0.9	-3.0	1.3	-4.3	-28.3	27.5	-7.7	-12.7	-2.4	32.0	13.0	54.1
Christchurch	-	-	-	13.4	-6.9	38.1	3.2	-4.3	11.3	5.7	-10.6	25.0
Melbourne	6.6	-9.0	25.0	41.3	17.9	69.3	66.3	39.7	98.0	-	-	-
Perth	-0.9	-3.8	2.1	30.5	-13.9	97.8	4.9	-1.6	11.8	-	-	-
Sydney	-1.5	-2.6	-0.4	-9.4	-28.4	14.6	-5.5	-8.7	-2.1	-14.2	-34.3	12.2
I-squared (%)	0.0	-	-	54.1	-	-	90.2	-	-	67.2	-	-
Meta-analysis	-1.4	-2.3	-0.5	13.5	-1.2	30.4	6.8	-9.5	26.1	7.8	-8.6	27.2
Meta-analysis IQR	-12.4	-20.2	-4.5	11.6	-1.0	26.1	35.1	-48.7	134.1	13.3	-14.6	46.1
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-61.4	-88.7	32.2	-1.3	-4.5	2.1	-1.2	-4.0	1.6			
Christchurch	-	-	-	-	-	-	-10.9	-38.6	29.3			
Melbourne	29.5	10.9	51.2	32.6	12.2	56.9	15.2	-2.9	36.6			
Perth	24.7	-63.5	326.4	3.4	-3.0	10.3	-3.2	-6.4	0.1			
Sydney	176.5	15.0	564.5	-9.7	-13.3	-5.9	-3.1	-5.4	-0.9			
I-squared (%)	54.5	-	-	90.0	-	-	22.7	-	-			
Meta-analysis	24.3	-39.8	156.7	3.7	-11.0	20.7	-2.2	-4.9	0.7			
Meta-analysis IQR	4.5	-7.3	28.7	13.8	-41.7	78.5	-16.2	-36.7	4.9			

Table DL.6 Respiratory admissions 15-64 yrs

City	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-0.8	-2.3	0.7	22.6	11.1	35.1	0.0	-2.6	2.7	4.7	-2.2	12.1
Brisbane	-0.8	-1.9	0.3	23.8	6.7	43.6	2.9	-0.1	5.9	-1.5	-9.3	7.1
Christchurch	-	-	-	15.6	3.5	29.1	2.0	-2.2	6.4	9.0	-0.7	19.7
Melbourne	-8.8	-15.2	-1.9	23.8	14.1	34.4	15.3	6.5	24.8	-	-	-
Perth	-0.2	-2.0	1.5	20.9	-6.0	55.5	4.0	0.1	8.1	-	-	-
Sydney	-1.4	-2.0	-0.9	44.6	28.6	62.6	1.1	-0.7	2.9	6.4	-7.0	21.8
I-squared (%)	44.0	-	-	38.9	-	-	62.7	-	-	0.0	-	-
Meta-analysis	-1.3	-3.1	0.5	25.1	17.6	33.1	3.2	-0.3	6.7	4.0	-0.4	8.7
Meta-analysis IQR	-11.4	-27.2	4.8	21.6	15.2	28.5	16.3	-1.5	34.6	6.9	-0.7	14.7

(continued)

City	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-
Brisbane	10.0	-39.8	101.0	-1.5	-3.1	0.0	-1.6	-3.0	-0.2
Christchurch	-	-	-	-	-	-	22.0	0.1	48.7
Melbourne	6.4	-1.0	14.4	4.6	-3.2	13.1	-4.8	-12.0	3.0
Perth	-1.5	-52.7	105.4	-0.8	-4.4	3.1	-1.8	-3.8	0.2
Sydney	103.3	33.7	209.2	0.2	-1.7	2.2	-1.2	-2.3	-0.1
I-squared (%)	66.5	-	-	19.0	-	-	28.8	-	-
Meta-analysis	24.9	-9.6	72.7	-0.6	-2.0	0.7	-1.1	-5.6	3.7
Meta-analysis IQR	4.6	-1.8	13.3	-2.4	-7.5	2.8	-7.9	-41.8	27.6

Table DL.7 Respiratory admissions 65 + yrs

City	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-0.2	-1.9	1.5	22.4	9.8	36.3	1.6	-1.3	4.6	4.4	-3.0	12.4
Brisbane	-1.5	-2.6	-0.4	24.0	7.4	43.1	5.5	2.6	8.5	-1.7	-9.6	6.8
Christchurch	-	-	-	26.0	13.2	40.2	7.3	3.0	11.8	4.8	-4.4	14.8
Melbourne	-14.6	-19.7	-9.2	29.2	20.7	38.3	17.3	9.7	25.4	-	-	-
Perth	-0.3	-1.8	1.3	36.7	10.0	69.7	4.3	0.9	7.8	-	-	-
Sydney	-1.7	-2.2	-1.2	65.1	48.6	83.4	3.6	2.0	5.3	23.7	9.3	39.9
I-squared (%)	84.9	-	-	76.3	-	-	72.1	-	-	67.6	-	-
Meta-analysis	-3.4	-8.5	2.1	33.1	21.3	46.0	5.8	2.1	9.7	6.5	-2.8	16.8
Meta-analysis IQR	-29.7	-75.1	18.2	28.5	18.3	39.6	30.0	10.7	50.1	11.1	-4.7	28.5

(continued)

City	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-
Brisbane	13.6	-35.7	100.7	-1.3	-2.7	0.2	-1.2	-2.6	0.1
Christchurch	-	-	-	-	-	-	60.7	32.8	94.4
Melbourne	9.6	3.1	16.5	4.6	-2.1	11.8	-5.1	-11.3	1.4
Perth	96.5	4.1	270.6	1.3	-2.0	4.6	-0.4	-2.2	1.3
Sydney	95.0	33.3	185.3	2.1	0.3	3.9	-1.3	-2.3	-0.3
I-squared (%)	74.3	-	-	71.4	-	-	85.3	-	-
Meta-analysis	40.3	2.2	92.6	0.9	-1.2	3.0	6.6	-11.2	28.0
Meta-analysis IQR	7.4	0.4	16.9	3.3	-4.5	11.2	49.6	-84.6	210.7

Table DL.8 Cardiovascular mortality 0-74 yrs

City	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	0.9	-2.3	4.1	-4.8	-23.1	17.8	3.0	-2.6	8.9	-1.5	-14.8	13.9
Brisbane	-0.9	-2.9	1.1	25.5	-4.3	64.5	-0.6	-5.7	4.8	6.7	-8.2	24.0
Canberra	-4.0	-11.5	4.0	6.3	-39.5	86.5	-3.4	-15.1	10.0	-	-	-
Christchurch	-	-	-	-0.3	-20.3	24.5	2.1	-5.9	10.9	-2.7	-18.5	16.3
Melbourne	-4.4	-15.9	8.7	-5.3	-18.2	9.7	0.8	-12.5	16.1	-	-	-
Perth	1.9	-1.5	5.4	-9.1	-44.7	49.6	-0.0	-7.3	7.9	-	-	-
Sydney	-0.7	-1.8	0.4	23.9	-1.3	55.6	1.1	-2.3	4.6	3.1	-20.7	33.9
I-squared (%)	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-0.5	-1.4	0.3	3.1	-6.2	13.3	0.9	-1.3	3.2	1.3	-7.0	10.3
Meta-analysis IQR	-4.6	-12.2	3.1	2.6	-5.3	11.4	4.8	-6.7	16.6	2.2	-11.9	17.4

(continued)

City	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀		
	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-	-	-	-	-	-	-	-	-
Brisbane	-49.0	-83.1	53.6	-2.4	-5.2	0.6	-2.0	-4.5	0.6
Canberra	-32.3	-75.7	88.3	-	-	-	-	-	-
Christchurch	-	-	-	-	-	-	-6.4	-36.8	38.5
Melbourne	-3.7	-15.5	9.7	-0.9	-13.7	13.9	4.9	-8.8	20.6
Perth	-18.5	-81.5	259.8	-0.2	-7.4	7.7	-0.4	-4.2	3.5
Sydney	10.8	-55.6	176.5	0.2	-3.8	4.4	-0.4	-2.6	1.8
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-4.9	-16.2	8.0	-1.4	-3.6	0.9	-0.9	-2.4	0.6
Meta-analysis IQR	-0.9	-3.0	1.5	-5.2	-13.5	3.3	-6.8	-18.1	4.6

Table DL.9 Cardiovascular mortality 15-64 yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	2.9	-1.8	7.9	-7.3	-32.0	26.5	4.4	-3.7	13.2	-4.6	-22.9	18.0
Brisbane	-0.8	-4.1	2.6	12.1	-28.3	75.4	0.8	-8.0	10.4	18.4	-7.7	51.8
Christchurch	-	-	-	-13.7	-41.6	27.4	0.8	-12.0	15.5	-9.2	-32.4	22.0
Melbourne	-1.1	-19.9	22.0	-4.6	-24.7	20.7	1.6	-19.2	27.7	-	-	-
Perth	4.0	-1.2	9.6	26.8	-41.3	174.2	-1.4	-12.3	10.8	-	-	-
Sydney	-0.8	-2.5	1.0	18.6	-19.0	73.5	0.2	-5.3	5.9	8.4	-29.2	65.9
I-squared (%)	13.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
Meta-analysis	0.1	-1.6	1.8	-1.0	-14.2	14.3	1.1	-2.6	4.8	1.9	-11.0	16.5
Meta-analysis IQR	1.0	-13.8	16.1	-0.8	-12.2	12.3	5.4	-13.3	24.9	3.1	-18.6	28.1
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-19.9	-87.4	409.0	0.1	-4.5	5.0	-0.5	-4.7	3.9			
Christchurch	-	-	-	-	-	-	-14.7	-55.7	64.3			
Melbourne	-0.9	-19.6	22.0	0.3	-19.8	25.4	9.5	-12.7	37.3			
Perth	19.7	-87.8	1073.4	4.8	-6.7	17.6	1.4	-4.5	7.7			
Sydney	-53.5	-89.5	105.8	-0.7	-7.1	6.1	-0.3	-3.8	3.3			
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-			
Meta-analysis	-2.5	-20.5	19.7	0.3	-3.2	4.0	0.0	-2.4	2.5			
Meta-analysis IQR	-0.4	-3.7	3.6	1.2	-12.3	15.1	0.0	-18.4	18.9			

Table DL.10 Cardiovascular mortality 65+ yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-1.2	-3.3	0.9	10.7	-3.4	26.8	0.9	-2.7	4.6	3.7	-5.5	13.7
Brisbane	-0.6	-1.8	0.7	8.2	-8.2	27.6	3.7	0.4	7.2	-0.4	-9.1	9.0
Christchurch	-	-	-	7.3	-5.2	21.3	1.9	-2.6	6.7	0.3	-9.1	10.6
Melbourne	-6.1	-12.8	1.2	1.8	-6.4	10.6	1.3	-6.4	9.8	-	-	-
Perth	0.5	-1.4	2.5	9.6	-17.5	45.7	4.0	-0.4	8.6	-	-	-
Sydney	-0.8	-1.4	-0.2	26.3	11.1	43.7	2.3	0.3	4.3	2.0	-11.7	17.7
I-squared (%)	0.0	-	-	35.6	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-0.7	-1.2	-0.2	9.5	2.7	16.7	2.4	1.1	3.8	1.3	-3.7	6.5
Meta-analysis IQR	-6.5	-10.9	-2.1	8.1	2.3	14.4	12.5	5.5	19.6	2.2	-6.3	11.1
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-13.0	-54.8	67.5	-1.0	-2.8	0.7	-1.1	-2.6	0.4			
Christchurch	-	-	-	-	-	-	7.5	-14.0	34.3			
Melbourne	-0.6	-7.5	6.8	0.2	-7.3	8.3	-3.2	-10.4	4.7			
Perth	-1.6	-57.0	125.5	0.8	-3.4	5.1	-0.5	-2.6	1.7			
Sydney	22.4	-25.8	102.0	-0.5	-2.7	1.7	-1.2	-2.4	0.0			
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-			
Meta-analysis	-0.4	-7.1	6.9	-0.7	-1.9	0.6	-1.1	-1.9	-0.2			
Meta-analysis IQR	-0.1	-1.3	1.3	-2.5	-7.3	2.4	-8.1	-14.5	-1.6			

Table DL.11 Cardiovascular mortality 75+ yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-1.3	-3.5	0.9	14.8	-0.8	32.9	0.8	-3.0	4.7	4.2	-5.6	15.1
Brisbane	-0.5	-1.8	0.9	3.5	-13.3	23.5	4.9	1.3	8.6	-0.6	-10.0	9.8
Canberra	-0.8	-6.4	5.1	10.2	-25.9	63.9	-1.0	-9.0	7.8	-	-	-
Christchurch	-	-	-	8.3	-5.2	23.7	2.0	-2.9	7.2	0.1	-10.0	11.4
Melbourne	-6.1	-13.2	1.6	3.7	-5.0	13.2	2.0	-6.3	11.0	-	-	-
Perth	0.5	-1.5	2.6	20.9	-10.6	63.4	4.9	0.2	9.8	-	-	-
Sydney	-0.9	-1.5	-0.2	27.6	11.2	46.3	2.6	0.6	4.8	3.5	-11.4	20.9
I-squared (%)	0.0	-	-	19.0	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-0.8	-1.3	-0.2	10.7	4.1	17.7	2.8	1.3	4.2	1.5	-3.9	7.3
Meta-analysis IQR	-6.7	-11.5	-2.0	9.2	3.5	15.2	14.3	6.9	21.8	2.6	-6.6	12.4
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	6.8	-47.1	115.4	-0.3	-2.2	1.6	-0.7	-2.4	0.9			
Canberra	4.9	-49.0	115.8	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	11.0	-12.7	41.1			
Melbourne	0.6	-6.8	8.7	0.8	-7.2	9.5	-4.4	-12.0	4.0			
Perth	7.6	-55.4	159.5	1.8	-2.7	6.4	-0.2	-2.5	2.1			
Sydney	19.4	-30.9	106.4	-0.5	-2.9	2.0	-1.4	-2.7	-0.0			
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-			
Meta-analysis	1.1	-6.2	9.0	-0.1	-1.5	1.3	-1.0	-1.9	-0.1			
Meta-analysis IQR	0.2	-1.1	1.6	-0.5	-5.7	4.8	-7.5	-14.5	-0.4			

Table DL.12 Cardiovascular mortality all ages

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-0.6	-2.6	1.3	8.2	-4.7	22.8	1.4	-1.9	4.9	2.7	-5.4	11.5
Brisbane	-0.6	-1.7	0.6	8.8	-6.5	26.6	3.4	0.3	6.5	1.4	-6.8	10.2
Canberra	-1.9	-6.3	2.8	12.5	-17.8	53.9	-1.8	-8.9	5.8	-	-	-
Christchurch	-	-	-	6.6	-4.8	19.4	2.2	-2.0	6.5	-0.2	-8.9	9.3
Melbourne	-5.6	-11.9	1.2	1.4	-6.2	9.7	1.6	-5.8	9.5	-	-	-
Perth	0.9	-0.9	2.8	12.2	-13.8	46.1	3.6	-0.5	7.8	-	-	-
Sydney	-0.8	-1.4	-0.3	26.6	12.6	42.4	2.2	0.4	4.0	3.4	-9.5	18.0
I-squared (%)	9.0	-	-	38.5	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-0.7	-1.2	-0.1	9.3	3.0	16.1	2.3	1.1	3.5	1.6	-3.0	6.4
Meta-analysis IQR	-5.8	-10.4	-1.2	8.0	2.6	13.8	11.8	5.5	18.2	2.7	-5.1	10.9
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-8.5	-50.1	67.5	-0.6	-2.2	1.0	-1.0	-2.4	0.4			
Canberra	-3.6	-45.5	70.4	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	7.1	-12.8	31.5			
Melbourne	-0.4	-6.9	6.7	0.4	-6.7	8.1	-2.0	-9.0	5.5			
Perth	3.2	-52.5	124.2	1.3	-2.6	5.4	-0.2	-2.2	1.8			
Sydney	16.8	-26.5	85.7	-0.3	-2.4	1.8	-1.1	-2.2	0.0			
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-			
Meta-analysis	-0.2	-6.6	6.7	-0.3	-1.5	0.9	-0.9	-1.7	-0.1			
Meta-analysis IQR	-0.0	-1.2	1.2	-1.1	-5.6	3.4	-7.0	-12.9	-0.9			

Table DL.13 Respiratory mortality 0-74 yrs

City	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-6.0	-12.6	1.1	27.4	-19.8	102.3	5.5	-7.0	19.7	-6.8	-37.6	39.2
Brisbane	-0.2	-4.4	4.3	28.1	-28.3	128.8	3.8	-7.5	16.4	17.5	-14.1	60.8
Canberra	5.6	-10.0	24.0	-72.8	-92.3	-3.3	-4.2	-28.5	28.4	-	-	-
Christchurch	-	-	-	19.0	-28.3	97.3	12.7	-7.1	36.6	-5.3	-38.2	45.1
Melbourne	-19.0	-38.0	5.8	24.0	-8.1	67.3	7.6	-19.5	43.8	-	-	-
Perth	-1.7	-8.5	5.6	77.9	-36.1	395.7	9.6	-6.2	28.2	-	-	-
Sydney	-1.3	-3.6	1.0	59.7	-1.4	158.5	1.0	-6.0	8.5	0.0	-42.0	72.5
I-squared (%)	0.0	-	-	14.8	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-1.5	-3.3	0.4	24.9	-3.9	62.4	3.7	-1.2	8.9	3.6	-15.1	26.5
Meta-analysis IQR	-12.9	-29.0	3.6	21.4	-3.4	53.7	19.1	-6.2	45.7	6.2	-25.6	45.0
(continued)												
City	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-27.7	-93.5	698.8	-3.2	-9.5	3.5	-1.4	-6.7	4.2			
Canberra	-94.4	-99.4	-50.6	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	70.6	-28.5	307.2			
Melbourne	9.5	-15.7	42.3	2.6	-22.9	36.4	-4.2	-28.1	27.7			
Perth	42.6	-92.9	2746.8	-3.1	-17.0	13.1	-0.7	-8.3	7.6			
Sydney	213.8	-52.6	1978.7	5.2	-3.4	14.6	0.9	-3.7	5.6			
I-squared (%)	52.7	-	-	0.0	-	-	0.0	-	-			
Meta-analysis	-22.1	-78.1	177.3	-0.3	-5.1	4.7	-0.2	-3.3	3.1			
Meta-analysis IQR	-4.0	-14.3	32.4	-1.2	-19.2	17.8	-1.2	-25.0	23.4			

Table DL.14 Respiratory mortality 15-64 yrs

City	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-0.5	-11.9	12.3	-38.9	-72.0	33.2	-1.8	-21.0	22.0	-20.4	-54.9	40.3
Brisbane	-2.2	-9.7	5.9	27.2	-56.0	267.9	1.6	-17.8	25.5	-19.7	-55.2	43.8
Christchurch	-	-	-	-11.1	-64.4	122.0	31.9	-13.2	100.5	78.5	-31.4	364.5
Melbourne	-20.9	-52.5	31.7	67.0	-6.0	196.7	64.2	-6.0	186.9	-	-	-
Perth	-0.2	-12.4	13.6	-16.0	-87.4	458.7	-3.0	-26.9	28.8	-	-	-
Sydney	0.2	-3.9	4.4	40.9	-41.4	239.1	-6.9	-18.0	5.7	-17.7	-69.8	124.3
I-squared (%)	0.0	-	-	0.0	-	-	15.8	-	-	0.0	-	-
Meta-analysis	-0.4	-3.8	3.0	15.7	-18.2	63.5	0.7	-10.1	12.8	-10.7	-37.1	26.8
Meta-analysis IQR	-4.0	-33.2	26.3	13.5	-15.7	54.7	3.6	-51.8	65.7	-18.1	-63.0	45.6
(continued)												
City	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-89.1	-99.9	719.7	-15.6	-25.9	-3.8	-5.5	-14.6	4.5			
Christchurch	-	-	-	-	-	-	24.6	-69.2	404.6			
Melbourne	11.2	-32.8	83.9	9.1	-36.8	88.2	17.3	-32.1	102.7			
Perth	-92.1	-100.0	1748.0	-20.4	-40.4	6.3	-5.9	-19.0	9.2			
Sydney	1656.7	-45.7	56757.0	7.1	-8.5	25.3	3.0	-5.3	12.1			
I-squared (%)	32.3	-	-	54.4	-	-	0.0	-	-			
Meta-analysis	2.9	-86.4	676.6	-7.6	-20.2	6.9	-1.2	-6.9	4.8			
Meta-analysis IQR	0.5	-15.8	123.8	-28.9	-76.5	26.1	-9.1	-51.8	36.1			

Table DL.15 Respiratory mortality 65+ years

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-2.0	-6.4	2.6	9.6	-18.1	46.8	4.3	-3.5	12.7	13.5	-7.2	38.7
Brisbane	-2.0	-4.6	0.6	72.2	21.7	143.6	8.6	1.0	16.7	7.0	-11.9	29.9
Christchurch	-	-	-	23.4	-7.0	63.6	-0.1	-10.2	11.1	-12.0	-30.1	10.8
Melbourne	-13.8	-26.7	1.4	20.8	0.9	44.7	6.7	-10.5	27.3	-	-	-
Perth	-1.0	-5.1	3.2	52.3	-15.6	174.8	7.4	-1.9	17.6	-	-	-
Sydney	-1.3	-2.6	0.1	57.4	17.2	111.3	5.5	1.0	10.2	41.6	2.2	96.1
I-squared (%)	0.0	-	-	22.8	-	-	0.0	-	-	49.3	-	-
Meta-analysis	-1.5	-2.6	-0.4	31.8	15.1	51.0	5.6	2.5	8.8	8.8	-8.8	29.7
Meta-analysis IQR	-13.3	-23.2	-3.3	27.4	13.0	43.9	28.9	12.9	45.4	14.9	-14.9	50.5
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-42.5	-86.0	135.5	-4.7	-8.3	-1.1	-1.7	-4.9	1.6			
Christchurch	-	-	-	-	-	-	44.3	-11.8	136.0			
Melbourne	8.3	-7.3	26.5	10.3	-6.9	30.6	-10.3	-24.2	6.2			
Perth	297.3	-28.8	2117.1	7.3	-1.8	17.1	2.1	-2.5	6.9			
Sydney	138.2	-22.7	633.6	5.0	-0.2	10.5	-0.6	-3.3	2.2			
I-squared (%)	37.6	-	-	77.8	-	-	25.7	-	-			
Meta-analysis	34.6	-30.5	160.6	2.5	-3.8	9.1	-0.5	-4.3	3.5			
Meta-analysis IQR	6.3	-5.6	29.4	9.3	-14.3	34.5	-3.9	-32.7	26.0			

Table DL.16 Respiratory mortality 75+ yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	0.3	-4.3	5.2	-4.0	-29.8	31.2	3.4	-4.7	12.3	18.4	-3.9	46.0
Brisbane	-2.9	-5.7	-0.0	84.7	26.3	170.1	10.0	1.8	18.8	-3.2	-22.2	20.5
Canberra	-5.3	-17.9	9.1	43.8	-45.3	277.8	-2.7	-20.4	19.0	-	-	-
Christchurch	-	-	-	24.1	-8.5	68.1	-1.9	-12.5	9.9	-8.2	-28.6	17.9
Melbourne	-12.5	-26.3	3.8	24.3	2.8	50.5	13.2	-6.1	36.6	-	-	-
Perth	-0.7	-5.2	4.1	39.9	-26.8	167.5	6.3	-3.8	17.5	-	-	-
Sydney	-1.2	-2.7	0.3	57.2	14.8	115.4	5.9	1.0	11.0	58.3	10.3	127.2
I-squared (%)	0.0	-	-	31.0	-	-	0.0	-	-	60.7	-	-
Meta-analysis	-1.5	-2.7	-0.2	31.4	12.3	53.7	5.6	2.3	9.0	11.0	-11.4	38.9
Meta-analysis IQR	-12.9	-23.6	-2.0	27.0	10.6	46.3	28.8	11.9	46.2	18.6	-19.3	66.1
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-53.5	-89.9	113.6	-5.9	-9.7	-2.0	-2.3	-5.8	1.3			
Canberra	18.2	-81.4	651.8	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	35.4	-20.7	131.4			
Melbourne	8.6	-8.3	28.5	13.4	-5.6	36.2	-11.1	-26.0	6.7			
Perth	273.4	-44.7	2423.4	7.9	-2.2	19.1	2.1	-3.1	7.5			
Sydney	203.7	-12.3	952.0	5.7	-0.1	11.8	-0.9	-3.9	2.2			
I-squared (%)	25.7	-	-	81.2	-	-	11.4	-	-			
Meta-analysis	28.2	-27.4	126.2	3.0	-4.6	11.2	-0.9	-3.5	1.7			
Meta-analysis IQR	5.2	-5.0	23.1	11.2	-17.5	42.2	-6.9	-26.1	12.9			

Table DL.17 Respiratory mortality all ages

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-1.6	-5.6	2.4	5.1	-19.5	37.4	4.0	-3.1	11.5	10.6	-7.3	31.9
Brisbane	-1.9	-4.3	0.5	67.1	21.4	130.1	8.0	1.3	15.2	3.3	-13.7	23.6
Canberra	-1.6	-11.6	9.5	10.9	-45.4	125.3	-2.0	-17.1	16.0	-	-	-
Christchurch	-	-	-	26.9	-1.9	64.1	1.9	-7.5	12.3	-5.9	-24.1	16.8
Melbourne	-16.8	-24.4	-8.5	25.2	6.5	47.1	11.7	-4.6	30.9	-	-	-
Perth	-0.9	-4.6	2.9	52.8	-10.5	160.7	7.4	-1.1	16.6	-	-	-
Sydney	-1.2	-2.4	0.0	59.7	23.0	107.4	4.4	0.4	8.6	38.6	3.0	86.5
I-squared (%)	60.3	-	-	24.4	-	-	0.0	-	-	34.2	-	-
Meta-analysis	-3.4	-7.8	1.3	32.4	16.9	50.0	5.1	2.4	7.9	8.1	-6.1	24.3
Meta-analysis IQR	-29.6	-69.3	11.9	27.9	14.6	43.0	26.3	12.2	40.7	13.7	-10.3	41.3
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-37.3	-82.5	125.1	-4.5	-7.7	-1.1	-1.9	-4.8	1.1			
Canberra	-44.9	-86.3	121.1	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	51.0	-4.3	138.3			
Melbourne	17.9	5.9	31.2	10.9	-5.0	29.5	-9.0	-22.1	6.2			
Perth	234.9	-30.7	1519.3	5.3	-3.0	14.2	1.5	-2.7	5.9			
Sydney	224.1	15.7	807.8	5.7	0.9	10.8	-0.3	-2.8	2.3			
I-squared (%)	46.4	-	-	80.3	-	-	35.6	-	-			
Meta-analysis	32.9	-32.2	160.4	2.5	-3.5	8.9	-0.5	-6.7	6.0			
Meta-analysis IQR	6.0	-5.9	29.4	9.5	-13.3	33.7	-4.0	-50.3	45.4			

Table DL.18 Total mortality all ages

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-1.0	-2.2	0.3	4.7	-4.4	14.6	1.7	-0.5	4.0	5.1	-1.9	12.7
Brisbane	-0.5	-1.2	0.2	13.5	2.4	25.8	2.7	0.7	4.7	1.5	-3.8	7.1
Canberra	1.6	-2.1	5.5	-5.0	-25.9	21.8	-3.0	-7.9	2.1	-	-	-
Christchurch	-	-	-	14.3	5.3	24.0	1.9	-1.2	5.0	1.9	-4.6	8.7
Melbourne	-6.1	-10.0	-2.0	5.4	0.2	10.8	1.1	-3.6	6.1	-	-	-
Perth	0.6	-0.5	1.8	15.4	-2.2	36.3	3.0	0.5	5.6	-	-	-
Sydney	-0.6	-1.0	-0.3	21.6	12.4	31.6	1.3	0.1	2.5	0.7	-7.9	10.1
I-squared (%)	61.1	-	-	54.0	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-0.7	-2.3	1.0	11.0	5.6	16.7	1.7	0.9	2.5	2.3	-1.0	5.7
Meta-analysis IQR	-6.2	-20.7	8.6	9.4	4.8	14.3	8.8	4.6	13.0	3.9	-1.8	9.7
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-15.4	-42.6	24.7	0.1	-0.5	0.8	-0.8	-1.7	0.1			
Canberra	-8.4	-40.5	41.1	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	18.9	-0.9	42.8			
Melbourne	1.4	-2.8	5.8	1.2	-3.5	6.1	-2.4	-6.9	2.4			
Perth	34.3	-17.6	118.8	2.0	-0.5	4.5	0.1	-1.2	1.3			
Sydney	17.2	-14.4	60.5	0.3	-1.1	1.7	-0.8	-1.6	-0.0			
I-squared (%)	0.0	-	-	0.0	-	-	29.6	-	-			
Meta-analysis	1.6	-2.6	5.9	0.3	-0.3	0.9	-0.5	-2.4	1.4			
Meta-analysis IQR	0.3	-0.5	1.1	1.0	-1.2	3.3	-4.0	-18.4	10.6			

Table DL.19 Total mortality 0-74 yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-1.3	-3.1	0.6	1.4	-10.8	15.3	2.0	-1.2	5.4	5.7	-3.1	15.3
Brisbane	0.1	-1.1	1.3	16.9	-1.0	38.0	0.1	-3.0	3.4	3.6	-5.1	13.1
Canberra	0.5	-3.6	4.7	-5.2	-29.2	26.9	-2.2	-8.7	4.7	-	-	-
Christchurch	-	-	-	10.0	-3.5	25.3	2.5	-2.4	7.6	7.7	-3.0	19.5
Melbourne	-4.2	-10.6	2.6	0.5	-7.1	8.7	-0.6	-7.8	7.1	-	-	-
Perth	1.5	-0.3	3.4	3.7	-20.3	35.1	1.8	-2.1	5.9	-	-	-
Sydney	-0.5	-1.1	0.1	13.9	0.3	29.3	0.3	-1.6	2.2	-3.4	-16.2	11.3
I-squared (%)	32.3	-	-	0.0	-	-	0.0	-	-	0.0	-	-
Meta-analysis	-0.2	-1.0	0.6	5.3	0.2	10.6	0.7	-0.5	2.0	4.3	-0.8	9.6
Meta-analysis IQR	-1.6	-8.8	5.5	4.5	0.1	9.1	3.7	-2.8	10.3	7.3	-1.3	16.3
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-40.9	-69.0	12.7	-1.6	-3.3	0.1	-1.3	-2.8	0.2			
Canberra	-27.5	-58.3	25.9	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	8.1	-14.2	36.4			
Melbourne	-1.6	-8.2	5.4	-1.8	-8.8	5.7	0.5	-6.7	8.3			
Perth	2.5	-52.8	122.6	0.8	-3.1	4.8	0.2	-1.8	2.2			
Sydney	-1.6	-40.6	63.1	0.2	-2.0	2.5	-0.4	-1.6	0.8			
I-squared (%)	0.0	-	-	0.0	-	-	0.0	-	-			
Meta-analysis	-2.6	-8.9	4.2	-0.8	-2.0	0.5	-0.6	-1.4	0.3			
Meta-analysis IQR	-0.5	-1.6	0.8	-3.0	-7.7	1.9	-4.2	-10.5	2.2			

Table DL.20 Total mortality 75+ yrs

	8-hour O ₃			8-hour CO			24-hour NO ₂			24-hour SO ₂		
City	I	95%	CI	I	95%	CI	I	95%	CI	I	95%	CI
Auckland	-0.7	-2.3	0.9	9.0	-2.2	21.5	1.5	-1.3	4.4	3.3	-3.9	11.1
Brisbane	-0.9	-1.8	0.1	11.7	-1.8	27.0	4.2	1.7	6.9	0.4	-6.5	7.7
Canberra	0.9	-2.9	4.8	-2.4	-25.1	27.2	-3.3	-9.2	3.0	-	-	-
Christchurch	-	-	-	16.0	5.1	28.2	1.5	-2.1	5.3	-1.1	-8.7	7.1
Melbourne	-7.2	-12.1	-2.0	8.3	1.9	15.2	2.4	-3.4	8.6	-	-	-
Perth	0.1	-1.4	1.5	22.7	-0.3	51.0	3.7	0.5	7.1	-	-	-
Sydney	-0.7	-1.2	-0.2	26.7	14.9	39.6	2.0	0.5	3.5	3.4	-7.5	15.5
I-squared (%)	35.0	-	-	37.7	-	-	8.9	-	-	0.0	-	-
Meta-analysis	-0.8	-2.3	0.7	13.6	7.8	19.7	2.3	1.2	3.4	1.3	-2.7	5.4
Meta-analysis IQR	-7.2	-20.1	5.8	11.7	6.7	16.9	11.9	6.2	17.7	2.1	-4.6	9.1
(continued)												
	24-hour bsp			24-hour PM _{2.5}			24-hour PM ₁₀					
City	I	95%	CI	I	95%	CI	I	95%	CI			
Auckland	-	-	-	-	-	-	-	-	-			
Brisbane	-0.7	-39.9	64.2	-0.9	-2.2	0.5	-0.5	-1.7	0.6			
Canberra	7.0	-35.2	76.5	-	-	-	-	-	-			
Christchurch	-	-	-	-	-	-	20.8	0.6	44.9			
Melbourne	2.9	-2.5	8.6	3.1	-2.7	9.3	-4.1	-9.6	1.6			
Perth	53.0	-16.5	180.5	2.6	-0.5	5.8	-0.0	-1.6	1.6			
Sydney	29.9	-12.0	91.7	0.3	-1.4	2.1	-1.1	-2.0	-0.1			
I-squared (%)	0.0	-	-	45.9	-	-	44.0	-	-			
Meta-analysis	3.6	-1.7	9.2	0.4	-1.2	2.1	-0.3	-4.7	4.3			
Meta-analysis IQR	0.7	-0.3	1.7	1.7	-4.4	7.8	-2.0	-35.0	32.6			

Appendix A5.2: Distributed lag Leave-one-city-out sensitivity analyses

Tables show meta-analyses of distributed lag results after leaving out each city in turn. Tables also show the results of only using Australian or New Zealand cities. Results are increases in events, shown for a one-IQR increase in pollutant.

Table DLL.1 Cardiovascular admissions 15-64 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-1.8	-5.2	1.7	0.0	2.3	-1.7	6.5	0.0	4.6	-1.3	10.9	0.0	0.4	-7.7	9.1	0.0
Brisbane	-1.4	-4.9	2.3	0.0	1.9	-1.8	5.8	0.0	4.1	-1.7	10.1	0.0	-2.4	-9.4	5.0	0.0
Christchurch	-	-	-	-	1.6	-2.2	5.5	0.0	3.7	-1.7	9.5	0.0	0.9	-5.9	8.2	0.0
Melbourne	-1.1	-4.4	2.3	0.0	1.8	-2.6	6.3	0.0	3.9	-1.5	9.5	0.0	-	-	-	-
Perth	-1.0	-4.4	2.5	0.0	2.0	-1.6	5.8	0.0	4.6	-1.0	10.5	0.0	-	-	-	-
Sydney	-0.2	-6.0	6.1	0.0	1.9	-2.0	5.9	0.0	3.6	-3.6	11.3	0.0	0.2	-6.2	7.1	0.0
Aust. Only	-1.8	-5.2	1.7	0.0	1.9	-2.5	6.5	0.0	4.2	-1.9	10.7	0.0	3.1	-7.0	14.2	0.0
NZ Only	-	-	-	-	1.9	-3.9	8.1	0.0	3.8	-6.3	15.0	0.0	-2.2	-9.7	6.0	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	0.2	-0.9	1.3	0.0	0.2	-5.2	5.8	0.0	-3.7	-9.6	2.5	2.5				
Christchurch	-	-	-	-	-	-	-	-	-3.3	-8.2	1.9	4.5				
Melbourne	-0.9	-5.9	4.2	5.4	-0.9	-4.6	3.0	0.0	-2.8	-7.6	2.3	0.0				
Perth	-0.0	-2.5	2.5	8.3	-0.3	-4.2	3.7	0.0	-2.2	-7.5	3.3	0.0				
Sydney	0.0	-1.1	1.2	0.0	-1.8	-6.4	2.9	0.0	-5.0	-11.6	2.2	0.0				
Aust. Only	0.1	-1.0	1.2	0.0	-0.7	-4.4	3.1	0.0	-3.3	-8.2	1.9	4.5				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.2 Cardiovascular admissions 65+ yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-7.1	-23.8	13.2	61.5	5.2	2.4	8.1	0.0	8.7	2.5	15.4	25.8	0.6	-4.9	6.3	0.0
Brisbane	-6.9	-24.2	14.5	62.3	5.1	2.4	8.0	0.0	8.4	1.9	15.3	23.7	-3.0	-8.3	2.7	0.0
Christchurch	-	-	-	-	5.3	2.4	8.2	0.0	8.8	2.9	15.0	24.9	-2.4	-7.6	3.2	0.0
Melbourne	-1.5	-3.9	1.0	0.0	4.4	1.2	7.6	0.0	6.7	2.8	10.9	0.0	-	-	-	-
Perth	-7.0	-24.0	14.0	63.0	4.8	2.2	7.5	0.0	8.1	1.9	14.6	21.8	-	-	-	-
Sydney	-6.2	-24.1	16.0	58.1	5.2	2.4	8.1	0.0	9.5	3.9	15.4	5.4	-1.7	-6.5	3.5	5.0
Aust. Only	-7.1	-23.8	13.2	61.5	5.6	2.4	8.9	0.0	10.7	1.3	21.0	43.6	0.7	-6.2	8.2	0.0
NZ Only	-	-	-	-	4.0	-0.3	8.5	0.0	6.6	-1.4	15.2	0.0	-3.3	-9.8	3.7	22.7
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-0.5	-4.3	3.4	51.2	-2.0	-5.7	1.8	0.0	-6.0	-10.8	-1.0	17.2				
Christchurch	-	-	-	-	-	-	-	-	-4.0	-9.1	1.3	49.1				
Melbourne	-0.7	-5.2	4.0	43.1	-0.9	-3.9	2.1	21.0	-3.5	-8.1	1.4	39.3				
Perth	-0.6	-3.0	1.7	35.8	-1.3	-3.9	1.5	0.0	-4.7	-11.9	3.1	51.7				
Sydney	0.2	-0.6	0.9	0.0	0.5	-2.6	3.7	0.0	-0.9	-5.7	4.1	0.0				
Aust. Only	-0.3	-2.7	2.1	27.1	-0.9	-3.4	1.7	0.0	-4.0	-9.1	1.3	49.1				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.3 Respiratory admissions 0 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-66.0	-93.7	82.4	91.2	53.9	10.8	113.7	92.4	100.7	11.9	260.0	80.9	49.4	-3.1	130.5	85.8
Brisbane	-65.2	-93.7	91.1	91.8	63.0	28.6	106.6	90.0	89.8	0.1	259.9	87.8	36.1	-26.6	152.1	94.9
Christchurch	-	-	-	-	50.2	7.1	110.6	93.1	72.2	-9.1	226.0	84.5	10.3	-37.1	93.6	89.6
Melbourne	-18.4	-36.3	4.5	82.3	49.4	6.5	109.6	93.2	45.4	12.2	88.4	78.7	-	-	-	-
Perth	-60.9	-93.4	130.5	92.1	41.7	4.1	92.8	92.9	96.2	6.5	261.5	87.1	-	-	-	-
Sydney	-63.0	-93.6	112.9	92.1	33.8	5.8	69.0	78.3	85.1	-3.5	254.9	87.1	8.8	-34.8	81.7	93.3
Aust. Only	-66.0	-93.7	82.4	91.2	57.4	3.1	140.4	94.0	98.3	-8.4	329.3	81.9	36.7	-31.2	171.4	88.1
NZ Only	-	-	-	-	33.5	19.3	49.5	24.7	53.8	-28.1	229.0	93.1	15.0	-51.7	173.9	96.6
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	18.2	-2.8	43.8	91.9	-0.5	-23.9	30.2	76.2	48.2	-89.1	1911.3	88.9				
Christchurch	-	-	-	-	-	-	-	-	-36.3	-74.9	61.7	74.1				
Melbourne	17.3	-7.6	48.9	82.0	-0.8	-20.4	23.7	83.7	131.5	-69.3	1646.7	82.0				
Perth	9.7	-14.0	39.9	91.4	3.5	-15.9	27.2	79.8	47.0	-89.2	1898.0	88.9				
Sydney	2.7	-9.6	16.6	39.8	-9.1	-17.8	0.4	0.0	51.9	-88.7	1948.5	88.8				
Aust. Only	12.1	-6.5	34.4	88.3	-1.8	-18.1	17.7	76.4	-36.3	-74.9	61.7	74.1				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.4 Respiratory admissions 1-4 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-2.7	-32.7	40.9	40.6	25.9	18.6	33.7	0.0	65.1	-7.5	194.6	90.7	43.7	27.3	62.2	0.0
Brisbane	-4.9	-37.1	43.8	53.7	28.2	20.8	36.1	4.5	65.4	-7.2	194.7	90.7	29.9	4.1	61.9	72.6
Christchurch	-	-	-	-	28.7	20.4	37.6	5.2	52.9	-16.4	179.8	88.9	25.6	3.8	51.9	59.1
Melbourne	-11.8	-16.5	-6.9	0.0	29.3	21.4	37.7	0.0	22.8	1.0	49.3	79.6	-	-	-	-
Perth	-3.6	-35.3	43.7	51.1	26.1	19.2	33.3	0.0	54.1	-15.8	182.2	89.3	-	-	-	-
Sydney	-4.9	-37.2	44.1	51.2	26.7	18.9	34.9	6.1	68.3	-4.1	195.1	87.2	29.7	5.6	59.2	72.8
Aust. Only	-2.7	-32.7	40.9	40.6	27.7	16.9	39.4	18.3	68.4	-21.2	260.2	91.7	39.5	18.6	64.0	0.0
NZ Only	-	-	-	-	27.9	17.8	38.8	0.0	32.5	-9.3	93.5	82.3	25.7	-10.4	76.1	85.2
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	9.8	-1.9	22.8	84.3	3.5	-15.8	27.3	76.5	61.6	-26.7	255.9	77.5				
Christchurch	-	-	-	-	-	-	-	-	12.4	-28.5	76.4	65.8				
Melbourne	8.4	-8.4	28.4	77.1	-3.2	-17.3	13.3	73.1	14.5	-37.8	110.9	59.0				
Perth	3.3	-11.2	20.2	82.8	-8.4	-16.7	0.8	13.8	57.2	-31.5	260.8	74.2				
Sydney	1.4	-10.5	14.9	58.2	4.2	-12.8	24.5	71.8	62.4	-25.4	253.6	74.3				
Aust. Only	5.9	-6.2	19.5	79.4	-1.1	-14.7	14.6	66.9	12.4	-28.5	76.4	65.8				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.5 Respiratory admissions 5-14 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-11.1	-18.1	-3.4	0.0	10.9	-4.3	28.4	63.3	50.8	-47.0	329.0	92.0	14.2	-23.8	71.2	76.4
Brisbane	-12.6	-19.9	-4.6	0.0	14.2	0.3	30.0	56.0	65.0	-38.3	340.9	91.1	3.3	-13.7	23.5	0.0
Christchurch	-	-	-	-	11.3	-4.1	29.1	63.2	47.5	-48.4	321.8	91.8	13.5	-24.3	70.1	77.2
Melbourne	-11.9	-18.7	-4.6	0.0	5.8	-4.0	16.7	5.0	-6.8	-27.6	19.9	73.8	-	-	-	-
Perth	-12.1	-19.2	-4.4	0.0	10.1	-3.8	25.9	62.0	45.1	-49.4	316.5	91.3	-	-	-	-
Sydney	-9.8	-21.4	3.5	0.0	16.6	4.5	30.2	34.2	61.4	-41.0	341.5	90.7	24.3	-3.5	60.1	62.3
Aust. Only	-11.1	-18.1	-3.4	0.0	10.5	-8.9	34.0	72.4	63.2	-57.8	531.6	93.7	13.9	-44.2	132.6	86.5
NZ Only	-	-	-	-	12.3	-1.0	27.5	0.0	9.8	-13.3	39.2	0.0	8.9	-10.4	32.4	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	7.1	-0.2	14.9	28.4	25.0	-44.7	182.7	92.8	-11.2	-45.0	43.4	27.5				
Christchurch	-	-	-	-	-	-	-	-	-10.9	-37.2	26.3	39.4				
Melbourne	3.0	-16.3	26.6	69.5	-10.5	-33.3	19.9	87.8	-17.8	-27.0	-7.4	0.0				
Perth	3.4	-14.5	25.2	69.6	17.6	-49.0	171.6	92.1	-6.8	-39.6	43.7	39.0				
Sydney	0.2	-11.3	13.1	45.3	37.9	-27.8	163.3	83.9	-6.5	-39.6	44.8	32.9				
Aust. Only	4.1	-8.9	18.8	54.5	14.5	-35.7	104.0	90.0	-10.9	-37.2	26.3	39.4				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.6 Respiratory admissions 15-64 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-14.5	-34.4	11.3	56.2	21.9	14.1	30.3	49.9	22.2	-0.3	49.8	64.7	6.6	-4.5	19.0	25.7
Brisbane	-14.6	-34.5	11.5	54.1	21.5	13.9	29.6	51.0	19.0	-5.0	49.2	68.8	10.7	1.6	20.8	0.0
Christchurch	-	-	-	-	23.1	16.5	30.1	31.8	19.9	-3.9	49.6	70.2	4.6	-3.7	13.7	0.0
Melbourne	-10.1	-13.6	-6.4	0.0	21.7	13.6	30.3	50.7	8.0	1.6	14.8	0.0	-	-	-	-
Perth	-15.1	-33.6	8.5	48.8	21.6	14.3	29.2	50.7	17.6	-6.0	47.2	67.0	-	-	-	-
Sydney	-13.5	-34.3	14.0	45.8	18.4	13.4	23.6	0.0	21.3	-2.3	50.8	67.5	6.5	-2.8	16.7	23.7
Aust. Only	-14.5	-34.4	11.3	56.2	24.7	16.2	33.7	41.8	26.7	-2.8	65.2	73.5	1.1	-10.3	14.0	0.0
NZ Only	-	-	-	-	16.5	9.4	24.1	0.0	3.0	-8.2	15.6	0.0	10.7	0.8	21.5	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	4.9	-3.2	13.6	77.6	0.9	-5.4	7.5	0.0	0.2	-45.5	84.1	45.6				
Christchurch	-	-	-	-	-	-	-	-	-10.3	-15.5	-4.8	0.0				
Melbourne	6.3	-2.2	15.7	53.4	-3.1	-7.3	1.3	0.0	2.2	-38.5	69.8	38.3				
Perth	5.1	-2.5	13.3	77.5	-1.4	-9.1	7.1	46.0	0.6	-45.1	84.1	44.7				
Sydney	1.1	-0.2	2.5	0.0	-3.7	-10.7	3.8	13.2	-0.7	-46.3	83.5	42.7				
Aust. Only	4.2	-1.8	10.5	66.5	-2.4	-7.3	2.8	19.0	-10.3	-15.5	-4.8	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.7 Respiratory admissions 65 + yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-31.9	-62.8	24.7	87.5	29.9	18.6	42.3	78.4	40.0	14.2	71.6	72.0	13.4	-9.3	41.8	78.3
Brisbane	-30.2	-62.6	30.5	88.6	29.3	17.8	41.9	80.1	35.4	7.0	71.2	76.8	16.9	-2.1	39.6	65.8
Christchurch	-	-	-	-	29.2	17.5	42.1	80.0	33.0	5.6	67.5	75.0	13.1	-9.5	41.2	78.4
Melbourne	-10.8	-15.8	-5.4	45.2	28.7	16.6	42.0	80.1	23.1	13.7	33.3	31.8	-	-	-	-
Perth	-31.9	-62.9	24.8	87.2	27.5	16.1	40.1	81.0	36.9	8.7	72.4	77.7	-	-	-	-
Sydney	-29.8	-62.6	31.7	87.9	22.9	18.0	27.9	0.0	38.1	9.9	73.4	76.0	4.2	-3.8	12.9	0.0
Aust. Only	-31.9	-62.8	24.7	87.5	32.1	18.3	47.7	82.1	40.7	7.3	84.4	76.7	17.1	-20.1	71.6	89.1
NZ Only	-	-	-	-	20.5	12.8	28.6	0.0	23.6	-6.0	62.5	77.9	7.9	-2.1	18.9	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	7.7	0.1	15.9	82.8	8.1	2.1	14.4	0.0	93.3	-67.1	1034.7	89.0				
Christchurch	-	-	-	-	-	-	-	-	-8.7	-13.6	-3.5	0.0				
Melbourne	10.0	3.4	17.0	23.8	2.1	-5.8	10.6	77.7	106.7	-62.6	1040.8	88.4				
Perth	5.2	-1.5	12.5	76.8	3.6	-7.3	15.9	80.3	90.4	-67.8	1027.7	88.7				
Sydney	3.6	-1.8	9.4	38.1	1.3	-8.8	12.6	54.3	93.7	-67.0	1035.7	88.9				
Aust. Only	6.4	0.4	12.7	74.3	3.3	-4.4	11.7	71.4	-8.7	-13.6	-3.5	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.8 Cardiovascular mortality 0-74 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-5.4	-12.7	2.4	0.0	4.4	-4.9	14.6	17.8	2.8	-9.4	16.6	0.0	4.7	-12.4	25.2	0.0
Brisbane	-3.8	-11.6	4.8	0.0	0.2	-7.5	8.6	0.0	6.7	-6.0	21.2	0.0	-2.1	-17.8	16.7	0.0
Canberra	-4.1	-11.3	3.6	0.0	3.0	-6.0	12.9	24.9	5.6	-6.0	18.7	0.0	-	-	-	-
Christchurch	-	-	-	-	3.7	-5.9	14.4	24.1	4.4	-7.4	17.7	0.0	4.2	-11.6	22.9	0.0
Melbourne	-4.4	-11.4	3.3	0.0	6.3	-3.3	16.9	0.0	4.9	-6.6	17.9	0.0	-	-	-	-
Perth	-5.9	-13.1	1.9	0.0	3.5	-5.4	13.2	22.3	5.4	-6.6	18.9	0.0	-	-	-	-
Sydney	-1.3	-13.5	12.6	0.0	-0.6	-8.5	7.9	0.0	4.2	-10.6	21.6	0.0	1.8	-12.6	18.6	0.0
Aust. Only	-5.4	-12.7	2.4	0.0	6.3	-5.3	19.2	32.1	2.0	-10.6	16.4	0.0	10.1	-11.8	37.3	0.0
NZ Only	-	-	-	-	-2.3	-14.5	11.5	0.0	14.9	-9.3	45.6	0.0	-3.3	-20.2	17.0	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-0.8	-3.0	1.6	0.0	0.2	-12.2	14.4	0.0	-2.3	-15.3	12.7	0.0				
Canberra	-0.8	-3.1	1.5	0.0	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-6.5	-16.7	4.8	0.0				
Melbourne	-4.7	-13.6	5.2	0.0	-5.1	-13.0	3.5	0.0	-7.1	-17.2	4.2	0.0				
Perth	-0.9	-3.2	1.4	0.0	-5.5	-13.6	3.3	0.0	-7.2	-18.1	5.1	0.0				
Sydney	-1.0	-3.3	1.4	0.0	-7.4	-16.4	2.5	0.0	-9.9	-23.1	5.5	0.0				
Aust. Only	-0.9	-3.2	1.4	0.0	-5.1	-12.8	3.4	0.0	-6.5	-16.7	4.8	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.9 Cardiovascular mortality 15-64 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-3.5	-15.2	10.0	0.0	0.7	-12.4	15.8	0.0	1.0	-18.3	24.9	0.0	11.1	-17.3	49.3	0.0
Brisbane	6.2	-13.2	30.0	32.6	-2.0	-14.0	11.6	0.0	5.8	-13.9	30.1	0.0	-7.2	-29.3	21.8	0.0
Christchurch	-	-	-	-	1.1	-11.5	15.4	0.0	5.7	-13.2	28.6	0.0	8.6	-16.0	40.4	0.0
Melbourne	4.0	-14.1	26.0	35.2	1.1	-13.5	18.2	0.0	5.5	-12.9	27.7	0.0	-	-	-	-
Perth	-3.7	-15.4	9.5	0.0	-1.6	-13.2	11.6	0.0	7.0	-12.3	30.6	0.0	-	-	-	-
Sydney	11.1	-10.2	37.5	0.0	-3.3	-15.4	10.5	0.0	9.3	-15.0	40.5	0.0	2.0	-21.6	32.7	14.6
Aust. Only	-3.5	-15.2	10.0	0.0	3.6	-11.1	20.7	0.0	0.7	-19.4	25.8	0.0	28.2	-11.0	84.7	0.0
NZ Only	-	-	-	-	-8.5	-25.8	12.7	0.0	19.3	-16.6	70.5	0.0	-10.4	-33.1	20.2	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-0.4	-4.1	3.4	0.0	2.2	-17.2	26.3	0.0	2.0	-18.8	28.2	0.0				
Christchurch	-	-	-	-	-	-	-	-	0.2	-16.8	20.8	0.0				
Melbourne	-7.1	-23.1	12.3	0.0	1.2	-11.9	16.2	0.0	-0.8	-17.8	19.7	0.0				
Perth	-0.5	-4.2	3.3	0.0	-0.6	-13.9	14.8	0.0	-2.1	-20.2	20.2	0.0				
Sydney	-0.2	-3.9	3.6	0.0	2.9	-12.5	21.0	0.0	2.2	-21.1	32.5	0.0				
Aust. Only	-0.5	-4.1	3.3	0.0	1.2	-11.7	16.0	0.0	0.2	-16.8	20.8	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.10 Cardiovascular mortality 65+ yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-5.7	-10.9	-0.2	20.6	8.2	1.1	15.7	47.9	14.6	6.4	23.4	0.0	0.4	-9.4	11.3	0.0
Brisbane	-6.2	-15.0	3.6	23.0	8.5	1.6	15.9	48.5	11.7	3.6	20.5	0.0	3.5	-6.7	14.8	0.0
Christchurch	-	-	-	-	8.8	1.7	16.4	48.2	13.5	5.6	21.9	0.0	2.8	-7.0	13.7	0.0
Melbourne	-6.1	-10.2	-1.8	0.0	11.2	5.0	17.7	0.0	13.4	5.7	21.6	0.0	-	-	-	-
Perth	-7.0	-11.2	-2.7	0.0	8.3	1.7	15.4	48.5	12.2	4.4	20.7	0.0	-	-	-	-
Sydney	-5.1	-15.1	6.1	19.6	4.7	-0.3	9.9	0.0	14.0	3.6	25.5	0.0	2.0	-7.0	11.8	0.0
Aust. Only	-5.7	-10.9	-0.2	20.6	9.0	-0.0	18.9	60.8	15.1	6.4	24.5	0.0	0.4	-11.9	14.4	0.0
NZ Only	-	-	-	-	7.5	-0.6	16.3	0.0	6.8	-7.7	23.6	0.0	3.6	-7.6	16.1	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-0.0	-1.3	1.3	0.0	-0.8	-7.7	6.7	0.0	-7.6	-14.6	0.0	0.0				
Christchurch	-	-	-	-	-	-	-	-	-7.9	-13.7	-1.7	0.0				
Melbourne	1.1	-5.3	7.9	0.0	-2.6	-7.3	2.4	0.0	-7.6	-13.5	-1.3	0.0				
Perth	-0.1	-1.3	1.2	0.0	-3.0	-7.9	2.1	0.0	-8.6	-14.9	-1.8	0.0				
Sydney	-0.1	-1.4	1.2	0.0	-2.7	-8.4	3.3	0.0	-6.9	-15.1	2.2	0.0				
Aust. Only	-0.1	-1.3	1.2	0.0	-2.5	-7.1	2.4	0.0	-7.9	-13.7	-1.7	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.11 Cardiovascular mortality 75+ yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-6.2	-10.8	-1.5	0.0	8.8	2.2	15.7	29.0	17.0	8.3	26.5	0.0	0.7	-10.0	12.6	0.0
Brisbane	-7.0	-11.7	-2.0	0.0	10.1	3.8	16.7	27.3	12.9	4.3	22.2	0.0	4.3	-6.7	16.6	0.0
Canberra	-6.5	-10.9	-1.9	0.0	9.4	3.2	16.0	32.5	15.8	7.6	24.6	0.0	-	-	-	-
Christchurch	-	-	-	-	9.9	3.1	17.1	31.8	15.6	7.2	24.6	0.0	3.5	-7.2	15.4	0.0
Melbourne	-6.3	-10.7	-1.7	0.0	12.3	5.7	19.2	0.0	15.3	7.1	24.1	0.0	-	-	-	-
Perth	-7.3	-11.8	-2.6	0.0	9.0	2.9	15.4	28.9	13.9	5.6	22.9	0.0	-	-	-	-
Sydney	-4.4	-12.3	4.3	0.0	6.1	0.8	11.7	0.0	15.9	5.0	28.1	0.0	2.2	-7.5	12.9	0.0
Aust. Only	-6.2	-10.8	-1.5	0.0	9.6	1.4	18.5	43.0	17.7	8.4	27.7	0.0	0.9	-12.5	16.4	0.0
NZ Only	-	-	-	-	9.6	0.7	19.3	0.0	6.6	-8.7	24.4	0.0	3.9	-8.1	17.6	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	0.2	-1.2	1.6	0.0	0.3	-7.3	8.6	0.0	-8.2	-15.8	0.1	0.0				
Canberra	0.2	-1.2	1.6	0.0	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-7.4	-13.7	-0.5	0.0				
Melbourne	2.0	-4.2	8.5	0.0	-0.6	-5.8	4.8	0.0	-6.9	-13.4	-0.0	0.0				
Perth	0.2	-1.2	1.6	0.0	-1.3	-6.6	4.4	0.0	-8.3	-15.2	-0.9	0.0				
Sydney	0.1	-1.2	1.5	0.0	0.1	-6.1	6.7	0.0	-4.6	-13.7	5.5	0.0				
Aust. Only	0.2	-1.2	1.6	0.0	-0.5	-5.6	4.9	0.0	-7.4	-13.7	-0.5	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.12 Cardiovascular mortality all ages

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-4.9	-12.1	3.0	27.2	8.4	2.0	15.2	48.7	13.1	5.8	20.9	0.0	1.9	-7.3	12.0	0.0
Brisbane	-4.9	-12.9	3.9	26.8	8.2	2.0	14.9	48.7	11.1	3.8	19.0	0.0	2.9	-6.3	13.1	0.0
Canberra	-5.2	-10.1	-0.0	23.6	8.1	2.1	14.4	48.5	13.0	6.1	20.3	0.0	-	-	-	-
Christchurch	-	-	-	-	8.7	2.3	15.5	48.2	12.4	5.3	20.0	0.0	3.9	-5.2	13.8	0.0
Melbourne	-5.7	-9.4	-1.7	0.0	10.8	5.1	16.8	6.5	12.4	5.6	19.8	0.0	-	-	-	-
Perth	-6.8	-10.6	-2.8	0.0	8.0	2.0	14.4	48.4	11.6	4.6	19.1	0.0	-	-	-	-
Sydney	-3.5	-12.1	5.9	17.3	4.4	-0.1	9.2	0.0	12.9	3.6	23.0	0.0	2.3	-5.9	11.3	0.0
Aust. Only	-4.9	-12.1	3.0	27.2	9.4	1.5	17.8	58.5	13.2	5.6	21.5	0.0	3.3	-8.4	16.5	0.0
NZ Only	-	-	-	-	6.2	-1.2	14.2	0.0	9.2	-4.5	24.8	0.0	2.3	-7.7	13.5	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-0.0	-1.2	1.2	0.0	0.3	-6.3	7.3	0.0	-6.4	-13.1	0.7	0.0				
Canberra	-0.0	-1.2	1.2	0.0	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-6.8	-12.3	-1.0	0.0				
Melbourne	0.6	-4.5	6.1	0.0	-1.2	-5.7	3.4	0.0	-6.7	-12.2	-0.8	0.0				
Perth	-0.0	-1.2	1.2	0.0	-1.7	-6.3	3.1	0.0	-7.7	-13.6	-1.4	0.0				
Sydney	-0.1	-1.3	1.1	0.0	-1.1	-6.5	4.5	0.0	-5.6	-13.4	2.9	0.0				
Aust. Only	-0.0	-1.2	1.2	0.0	-1.1	-5.5	3.5	0.0	-6.8	-12.3	-1.0	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.13 Respiratory mortality 0-74 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-9.5	-23.8	7.4	0.0	18.3	-14.2	63.1	29.0	18.8	-9.4	55.8	0.0	12.7	-23.7	66.4	0.0
Brisbane	-16.8	-35.7	7.6	8.5	18.4	-13.7	62.3	28.9	20.6	-8.5	58.8	0.0	-8.0	-40.6	42.5	0.0
Canberra	-13.0	-26.5	3.0	1.1	26.0	7.1	48.3	0.0	22.0	-5.3	57.2	0.0	-	-	-	-
Christchurch	-	-	-	-	19.7	-13.0	64.7	28.3	17.2	-9.5	51.7	0.0	10.9	-24.3	62.5	0.0
Melbourne	-11.4	-25.0	4.6	0.0	18.8	-14.6	65.2	28.7	20.0	-6.9	54.6	0.0	-	-	-	-
Perth	-14.6	-36.8	15.3	16.3	17.2	-10.9	54.2	24.2	17.0	-10.1	52.2	0.0	-	-	-	-
Sydney	-16.7	-41.7	18.9	15.6	15.0	-12.8	51.8	16.3	35.2	-3.7	89.9	0.0	7.2	-25.4	54.2	0.0
Aust. Only	-9.5	-23.8	7.4	0.0	15.7	-26.2	81.3	42.7	14.7	-13.4	52.0	0.0	22.9	-22.6	95.0	0.0
NZ Only	-	-	-	-	19.9	-10.6	60.8	0.0	45.6	-15.4	150.7	0.0	-10.2	-45.4	47.6	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-4.8	-29.7	28.8	64.1	12.6	-14.3	47.9	0.0	3.7	-23.1	39.8	0.0				
Canberra	2.0	-2.7	6.9	0.0	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-1.7	-22.9	25.3	0.0				
Melbourne	-7.7	-33.3	27.7	61.5	-1.1	-19.8	22.0	17.5	-0.8	-22.2	26.7	0.0				
Perth	-6.6	-30.2	24.8	64.4	0.6	-18.6	24.3	13.8	-0.4	-23.6	29.8	0.0				
Sydney	-10.1	-30.1	15.6	58.2	-10.7	-28.9	12.1	0.0	-7.8	-34.2	29.1	0.0				
Aust. Only	-4.5	-24.3	20.5	52.7	-1.2	-17.9	19.0	0.0	-1.7	-22.9	25.3	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.14 Respiratory mortality 15-64 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-3.8	-29.5	31.2	0.0	29.8	-7.0	81.0	0.0	21.2	-46.5	174.6	32.6	-6.1	-56.8	104.0	3.2
Brisbane	-0.5	-28.4	38.4	0.0	10.5	-21.6	55.8	16.1	17.4	-49.3	171.6	31.6	-7.2	-57.4	102.4	5.7
Christchurch	-	-	-	-	16.8	-16.8	63.9	9.7	-12.7	-45.4	39.4	0.2	-31.2	-63.7	30.5	0.0
Melbourne	-3.0	-28.1	30.8	0.0	-5.4	-34.9	37.5	0.0	-12.6	-45.0	38.8	0.0	-	-	-	-
Perth	-4.0	-29.5	30.7	0.0	13.2	-18.4	56.9	14.7	20.2	-45.5	165.2	32.4	-	-	-	-
Sydney	-14.2	-49.0	44.5	0.0	8.4	-23.2	53.1	12.5	30.0	-36.5	166.0	8.2	-13.1	-57.7	78.6	12.9
Aust. Only	-3.8	-29.5	31.2	0.0	40.4	-2.8	102.7	0.0	2.4	-55.6	135.8	25.0	-30.4	-70.4	63.8	0.0
NZ Only	-	-	-	-	-25.0	-55.0	24.9	0.0	45.4	-63.1	473.8	33.4	14.5	-69.0	322.6	50.6
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	8.6	-29.3	66.8	39.5	-6.9	-54.8	91.4	37.6	8.6	-37.2	87.9	0.0				
Christchurch	-	-	-	-	-	-	-	-	-9.1	-41.7	41.9	0.0				
Melbourne	-4.3	-50.1	83.6	54.8	-29.8	-63.9	36.4	67.7	-10.2	-42.6	40.5	0.0				
Perth	6.7	-31.0	64.8	43.2	-16.0	-55.3	58.0	63.7	-2.3	-39.8	58.6	0.0				
Sydney	1.0	-7.8	10.6	0.0	-46.9	-65.8	-17.5	0.0	-32.6	-63.8	25.5	0.0				
Aust. Only	0.5	-30.5	45.5	32.3	-26.0	-57.5	28.7	54.4	-9.1	-41.7	41.9	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.15 Respiratory mortality 65+ years

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-12.3	-20.9	-2.7	0.0	30.3	15.5	46.9	18.6	34.0	13.4	58.3	0.0	13.8	-26.6	76.3	63.8
Brisbane	-11.6	-20.9	-1.2	0.0	21.9	9.9	35.1	0.0	28.7	8.7	52.4	0.0	18.2	-24.1	83.9	66.2
Christchurch	-	-	-	-	29.3	12.0	49.3	36.6	35.8	15.7	59.5	0.0	26.2	0.5	58.6	5.1
Melbourne	-12.0	-20.5	-2.7	0.0	31.5	13.6	52.2	26.0	32.3	13.2	54.7	0.0	-	-	-	-
Perth	-12.8	-21.5	-3.2	0.0	26.6	10.7	44.8	35.4	31.1	11.4	54.3	0.0	-	-	-	-
Sydney	-16.2	-29.8	0.0	0.0	22.7	8.8	38.4	13.1	33.2	8.0	64.3	0.0	5.6	-17.4	35.0	29.0
Aust. Only	-12.3	-20.9	-2.7	0.0	34.3	16.0	55.4	33.3	38.2	16.0	64.7	0.0	34.8	-14.4	112.4	52.3
NZ Only	-	-	-	-	14.1	-4.2	35.8	0.0	15.0	-16.7	58.6	0.0	1.0	-33.8	54.0	62.3
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	8.1	-4.4	22.2	49.7	24.0	5.5	45.6	0.0	-1.2	-50.2	95.7	35.9				
Christchurch	-	-	-	-	-	-	-	-	-4.8	-18.3	11.0	5.5				
Melbourne	10.2	-9.7	34.6	43.7	6.6	-18.9	40.3	83.5	-1.3	-22.0	24.8	24.1				
Perth	2.6	-7.3	13.7	24.6	5.2	-22.1	42.0	81.2	-11.8	-50.5	57.1	21.5				
Sydney	3.0	-11.9	20.6	32.6	7.4	-23.5	50.8	74.9	-4.6	-52.7	92.4	44.3				
Aust. Only	5.6	-6.4	19.2	37.6	9.6	-13.6	39.1	77.8	-4.8	-18.3	11.0	5.5				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.16 Respiratory mortality 75+ yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-13.2	-22.5	-2.7	0.0	30.8	16.9	46.3	0.0	34.8	13.0	60.8	0.0	16.3	-33.1	102.2	69.5
Brisbane	-9.6	-19.9	2.1	0.0	20.8	8.3	34.8	0.0	26.8	6.1	51.6	0.0	31.2	-20.6	117.0	67.6
Canberra	-11.9	-21.1	-1.6	0.0	26.7	8.8	47.6	42.2	33.7	13.4	57.7	0.0	-	-	-	-
Christchurch	-	-	-	-	28.4	9.0	51.3	41.9	36.6	15.3	61.7	0.0	33.4	-15.0	109.1	63.3
Melbourne	-11.7	-20.9	-1.4	0.0	29.3	8.8	53.5	40.4	30.9	11.0	54.4	0.0	-	-	-	-
Perth	-12.6	-22.1	-2.1	0.0	26.6	8.5	47.8	42.1	31.8	11.0	56.4	0.0	-	-	-	-
Sydney	-16.3	-30.8	1.3	0.0	22.7	5.8	42.2	28.6	30.8	5.0	62.9	0.0	4.7	-19.4	35.9	29.6
Aust. Only	-13.2	-22.5	-2.7	0.0	33.4	17.7	51.1	1.2	40.2	16.6	68.7	0.0	38.4	-38.7	212.8	80.8
NZ Only	-	-	-	-	8.0	-13.0	34.1	25.0	8.4	-23.0	52.6	0.0	9.2	-28.5	66.7	57.4
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	5.5	-3.4	15.2	27.4	27.7	6.8	52.8	0.0	-1.3	-31.3	41.6	19.3				
Canberra	6.1	-8.4	22.8	44.3	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-7.3	-21.9	10.0	6.2				
Melbourne	8.9	-8.5	29.5	31.9	6.5	-22.8	46.9	85.6	-5.8	-20.5	11.6	4.9				
Perth	2.8	-7.0	13.8	21.4	7.4	-26.6	57.2	84.6	-11.3	-25.5	5.7	0.0				
Sydney	1.5	-1.5	4.7	0.0	9.9	-27.6	66.6	78.6	-6.9	-39.3	42.9	33.5				
Aust. Only	4.6	-5.7	16.1	25.7	11.7	-16.4	49.2	81.2	-7.3	-21.9	10.0	6.2				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.17 Respiratory mortality all ages

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-29.9	-58.8	19.3	68.2	30.5	18.8	43.4	0.0	30.4	12.6	51.0	0.0	14.1	-20.6	64.0	54.3
Brisbane	-29.7	-58.9	20.4	67.9	23.6	11.9	36.6	9.0	25.5	8.2	45.7	0.0	19.2	-16.0	69.2	53.7
Canberra	-28.8	-57.4	19.0	68.2	28.4	14.0	44.5	35.2	30.4	13.6	49.6	0.0	-	-	-	-
Christchurch	-	-	-	-	28.8	13.0	46.7	36.3	30.9	13.6	50.7	0.0	22.4	-5.1	57.8	27.8
Melbourne	-11.3	-19.0	-2.8	0.0	30.2	13.6	49.2	32.3	28.0	11.6	47.0	0.0	-	-	-	-
Perth	-30.8	-59.0	16.8	68.0	26.8	12.4	42.9	34.3	27.6	10.6	47.3	0.0	-	-	-	-
Sydney	-30.8	-59.3	17.6	65.9	22.9	10.9	36.1	7.1	32.9	10.5	59.9	0.0	6.1	-11.8	27.6	0.0
Aust. Only	-29.9	-58.8	19.3	68.2	33.2	19.0	49.0	10.8	32.5	13.7	54.5	0.0	30.1	-19.7	110.7	63.8
NZ Only	-	-	-	-	13.6	-3.2	33.2	0.0	17.9	-12.0	57.8	0.0	5.7	-18.9	37.8	22.4
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	8.2	-5.7	24.1	53.8	24.4	7.2	44.3	0.0	7.4	-60.3	190.0	40.8				
Canberra	8.2	-5.0	23.1	52.3	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-4.9	-16.7	8.6	0.0				
Melbourne	6.5	-10.9	27.3	56.7	6.1	-17.7	36.8	85.2	5.2	-38.7	80.5	39.3				
Perth	2.9	-9.7	17.3	48.2	8.2	-20.8	48.0	85.2	-1.4	-63.9	169.7	41.3				
Sydney	1.6	-8.1	12.3	20.4	6.0	-22.8	45.5	72.9	3.4	-62.6	185.8	50.8				
Aust. Only	5.3	-6.9	19.1	46.4	9.9	-12.6	38.1	80.3	-4.9	-16.7	8.6	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.18 Total mortality all ages

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-6.2	-23.0	14.3	67.8	10.4	5.3	15.7	57.1	9.3	3.9	15.0	13.3	2.5	-3.8	9.3	0.0
Brisbane	-7.1	-23.9	13.4	68.8	9.0	3.6	14.7	60.5	8.0	3.2	13.0	0.0	4.8	-2.4	12.5	0.0
Canberra	-8.4	-22.3	7.8	65.4	9.9	5.3	14.6	57.1	9.8	5.3	14.4	0.0	-	-	-	-
Christchurch	-	-	-	-	8.8	3.4	14.5	58.7	9.2	4.0	14.6	13.1	4.2	-2.4	11.2	0.0
Melbourne	-3.9	-7.5	-0.2	31.3	11.0	5.9	16.4	37.9	9.4	4.4	14.6	12.4	-	-	-	-
Perth	-8.9	-24.1	9.2	53.1	9.1	3.9	14.5	60.7	8.3	3.6	13.1	0.0	-	-	-	-
Sydney	-6.9	-23.7	13.7	67.5	7.1	3.5	10.8	13.3	11.0	4.9	17.5	0.0	4.4	-1.7	10.9	0.0
Aust. Only	-6.2	-23.0	14.3	67.8	10.0	3.7	16.7	63.7	9.1	1.4	17.4	30.4	2.2	-5.5	10.5	0.0
NZ Only	-	-	-	-	8.2	0.5	16.6	50.0	9.5	-0.2	20.0	0.0	5.8	-2.4	14.7	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	0.3	-0.4	1.1	0.0	2.8	-1.7	7.5	0.0	2.0	-31.4	51.6	46.0				
Canberra	0.3	-0.5	1.1	0.0	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-4.9	-8.6	-1.1	0.0				
Melbourne	0.9	-2.7	4.6	0.7	1.0	-1.2	3.3	0.0	2.1	-25.2	39.4	41.8				
Perth	0.2	-0.5	1.0	0.0	0.7	-1.6	3.0	0.0	0.1	-33.1	49.7	28.9				
Sydney	0.2	-0.5	1.0	0.0	1.1	-1.5	3.7	4.3	2.0	-31.3	51.7	44.6				
Aust. Only	0.3	-0.5	1.1	0.0	1.1	-1.2	3.3	0.0	-4.9	-8.6	-1.1	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.19 Total mortality 0-74 yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-0.1	-7.6	8.0	37.2	5.2	0.3	10.3	4.4	2.5	-4.5	10.0	0.0	6.2	-4.2	17.8	0.0
Brisbane	-2.1	-11.9	8.7	41.5	3.6	-0.9	8.3	0.0	4.3	-2.8	12.0	0.0	8.0	-2.6	19.7	0.0
Canberra	-1.7	-10.3	7.7	44.7	4.8	0.3	9.5	2.1	4.3	-2.4	11.4	0.0	-	-	-	-
Christchurch	-	-	-	-	3.9	-0.9	8.9	2.0	3.1	-3.6	10.2	0.0	5.7	-4.0	16.4	0.0
Melbourne	-1.3	-7.8	5.8	34.5	7.3	1.6	13.4	0.0	4.0	-2.7	11.0	0.0	-	-	-	-
Perth	-4.1	-8.3	0.2	0.0	4.8	0.0	9.8	10.8	3.1	-3.7	10.4	0.0	-	-	-	-
Sydney	0.2	-10.0	11.7	33.8	3.2	-1.4	8.1	0.0	5.7	-3.3	15.4	0.0	9.4	-0.1	19.7	0.0
Aust. Only	-0.1	-7.6	8.0	37.2	4.9	-1.0	11.2	17.5	1.6	-5.6	9.4	0.0	2.7	-9.5	16.7	0.0
NZ Only	-	-	-	-	4.7	-3.2	13.3	0.0	11.7	-2.8	28.3	0.0	11.3	-0.7	24.7	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	-0.4	-1.6	0.9	0.0	0.8	-6.2	8.3	0.0	-1.6	-8.9	6.3	0.0				
Canberra	-0.4	-1.6	0.8	0.0	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-4.2	-10.1	2.1	0.0				
Melbourne	-3.7	-8.8	1.7	0.0	-2.7	-7.6	2.5	9.0	-4.2	-10.2	2.1	0.0				
Perth	-1.1	-3.8	1.6	14.0	-3.6	-8.4	1.4	0.0	-5.3	-11.7	1.6	0.0				
Sydney	-1.2	-3.9	1.7	14.4	-4.6	-10.0	1.1	0.0	-5.2	-13.3	3.6	0.0				
Aust. Only	-0.5	-1.7	0.8	0.0	-2.9	-7.5	1.9	0.0	-4.2	-10.1	2.1	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				

Table DLL.20 Total mortality 75+ yrs

	8-hour O ₃				8-hour CO				24-hour NO ₂				24-hour SO ₂			
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²
Auckland	-8.4	-24.2	10.7	48.0	12.4	6.7	18.4	45.4	13.3	5.5	21.7	19.8	0.6	-7.2	9.1	0.0
Brisbane	-8.2	-24.3	11.4	47.0	11.9	6.1	18.1	47.9	10.4	4.4	16.8	0.0	2.9	-5.2	11.7	0.0
Canberra	-9.2	-22.6	6.5	43.1	12.1	7.2	17.3	40.7	13.3	7.5	19.3	0.0	-	-	-	-
Christchurch	-	-	-	-	11.2	5.3	17.5	46.1	13.0	5.1	21.4	22.1	3.5	-4.3	11.9	0.0
Melbourne	-5.7	-8.8	-2.4	0.0	13.4	7.7	19.4	24.8	12.4	4.6	20.7	24.1	-	-	-	-
Perth	-9.6	-24.4	8.1	38.9	11.2	5.8	16.8	44.4	11.4	4.5	18.8	12.7	-	-	-	-
Sydney	-8.5	-24.6	11.0	47.9	8.9	5.0	13.0	0.0	13.3	4.1	23.2	20.1	1.6	-5.5	9.3	0.0
Aust. Only	-8.4	-24.2	10.7	48.0	12.2	4.9	19.9	55.2	13.9	3.6	25.3	33.4	2.1	-7.8	12.9	0.0
NZ Only	-	-	-	-	10.9	4.1	18.1	0.0	8.0	-3.6	21.1	0.0	2.2	-6.7	11.9	0.0
(continued)																
	24-hour bsp				24-hour PM _{2.5}				24-hour PM ₁₀							
City-Left-Out	I	95%	CI	I ²	I	95%	CI	I ²	I	95%	CI	I ²				
Auckland	-	-	-	-	-	-	-	-	-	-	-	-				
Brisbane	0.7	-0.3	1.6	0.0	4.0	-1.7	10.1	1.7	4.7	-40.4	84.0	57.1				
Canberra	0.6	-0.3	1.6	0.0	-	-	-	-	-	-	-	-				
Christchurch	-	-	-	-	-	-	-	-	-5.6	-10.2	-0.7	0.0				
Melbourne	3.4	-1.1	8.0	0.0	1.1	-5.4	8.1	54.9	7.7	-31.2	68.6	48.0				
Perth	0.6	-0.4	1.6	0.0	-0.9	-5.4	3.8	19.9	3.6	-41.2	82.5	51.9				
Sydney	0.6	-0.4	1.6	0.0	3.1	-6.2	13.3	62.4	5.8	-39.4	84.7	51.6				
Aust. Only	0.7	-0.3	1.6	0.0	1.7	-4.3	8.0	45.9	-5.6	-10.2	-0.7	0.0				
NZ Only	-	-	-	-	-	-	-	-	-	-	-	-				