

Supplemental Table 1 Excess risk (ER) and 95% confidence intervals (95% CI) of cancer daily death in the all population associated increase in pollutants' concentrations for different lag days.

Lag	SO ₂		NO ₂		PM ₁₀		PM _{2.5}	
	ER	95% CI	ER	95% CI	ER	95% CI	ER	95% CI
0	0.18	(-1.59, 1.97)	0.54	(0.00, 1.08)	0.00	(-0.23, 0.23)	0.11	(-0.22, 0.45)
1	1.97	(0.36, 3.61)	0.60	(0.06, 1.14)	0.20	(-0.01, 0.42)	0.23	(-0.08, 0.55)
2	2.17	(0.58, 3.78)	0.27	(-0.26, 0.80)	0.26	(0.04, 0.47)	0.26	(-0.06, 0.57)
3	1.26	(-0.33, 2.86)	0.05	(-0.47, 0.58)	0.25	(0.04, 0.46)	0.19	(-0.13, 0.50)
4	0.18	(-1.39, 1.77)	-0.07	(-0.60, 0.45)	0.00	(-0.21, 0.21)	-0.18	(-0.49, 0.14)
5	-0.45	(-2.02, 1.14)	-0.10	(-0.62, 0.42)	-0.17	(-0.38, 0.04)	-0.36	(-0.68, -0.04)
6	-1.02	(-2.58, 0.57)	-0.24	(-0.76, 0.28)	-0.11	(-0.32, 0.10)	-0.30	(-0.61, 0.02)
7	-1.41	(-2.97, 0.17)	-0.44	(-0.95, 0.08)	-0.10	(-0.31, 0.11)	-0.15	(-0.46, 0.17)
01	1.7	(-0.30, 3.74)	0.72	(0.11, 1.34)	0.14	(-0.11, 0.40)	0.24	(-0.13, 0.62)
02	2.74	(0.55, 4.99)	0.74	(0.06, 1.41)	0.27	(-0.01, 0.55)	0.35	(-0.06, 0.77)
03	2.98	(0.63, 5.39)	0.63	(-0.09, 1.36)	0.37	(0.07, 0.67)	0.41	(-0.04, 0.87)
04	2.86	(0.36, 5.43)	0.54	(-0.23, 1.31)	0.34	(0.02, 0.67)	0.30	(-0.19, 0.80)
05	2.50	(-0.13, 5.20)	0.45	(-0.35, 1.26)	0.24	(-0.10, 0.59)	0.10	(-0.43, 0.64)
06	1.63	(-1.12, 4.44)	0.28	(-0.56, 1.12)	0.16	(-0.21, 0.52)	-0.09	(-0.66, 0.49)
07	0.57	(-2.27, 3.48)	0.02	(-0.84, 0.90)	0.07	(-0.32, 0.46)	-0.21	(-0.81, 0.40)

Definition of abbreviations: SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with an aerodynamic diameter <10 mm; PM_{2.5} =

particulate matter with an aerodynamic diameter <2.5 mm.

The bold number indicates the *P* value <0.05.

Supplemental Table 2 Excess risk (ER) and 95% confidence intervals (95% CI) of cancer daily death in the male population associated increase in pollutants' concentrations for different lag days.

Lag	SO ₂		NO ₂		PM ₁₀		PM _{2.5}	
	ER	95% CI	ER	95% CI	ER	95% CI	ER	95% CI
0	-2.24	(-4.31, -0.13)	-0.02	(-0.66, 0.63)	-0.20	(-0.47, 0.08)	-0.19	(-0.58, 0.20)
1	0.74	(-1.19, 2.69)	0.32	(-0.33, 0.97)	0.11	(-0.15, 0.37)	0.12	(-0.27, 0.50)
2	1.74	(-0.16, 3.67)	0.19	(-0.44, 0.83)	0.22	(-0.04, 0.47)	0.16	(-0.22, 0.54)
3	0.16	(-1.73, 2.08)	-0.07	(-0.70, 0.56)	0.17	(-0.09, 0.42)	0.13	(-0.25, 0.51)
4	-0.29	(-2.16, 1.62)	-0.17	(-0.79, 0.46)	0.04	(-0.21, 0.29)	-0.12	(-0.50, 0.26)
01	-0.78	(-3.13, 1.62)	0.17	(-0.55, 0.90)	-0.04	(-0.35, 0.26)	-0.04	(-0.48, 0.41)
02	0.47	(-2.11, 3.11)	0.24	(-0.55, 1.05)	0.10	(-0.24, 0.43)	0.06	(-0.44, 0.55)
03	0.37	(-2.37, 3.20)	0.13	(-0.73, 0.99)	0.16	(-0.19, 0.52)	0.11	(-0.43, 0.65)
04	0.40	(-2.51, 3.40)	0.07	(-0.84, 0.98)	0.18	(-0.20, 0.57)	0.05	(-0.53, 0.64)

Definition of abbreviations: SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with an aerodynamic diameter <10 mm; PM_{2.5} =

particulate matter with an aerodynamic diameter <2.5 mm.

The bold number indicates the *P* value <0.05.

Supplemental Table 3 Excess risk (ER) and 95% confidence intervals (95% CI) of cancer daily death in the female population associated increase in pollutants' concentrations for different lag days.

Lag	SO ₂		NO ₂		PM ₁₀		PM _{2.5}	
	ER	95% CI	ER	95% CI	ER	95% CI	ER	95% CI
0	4.63	(2.03, 7.29)	1.79	(0.97, 2.62)	0.53	(0.18, 0.87)	0.93	(0.43, 1.43)
1	4.47	(2.10, 6.90)	1.30	(0.44, 2.17)	0.54	(0.22, 0.87)	0.74	(0.26, 1.23)
2	3.53	(1.22, 5.90)	0.90	(0.11, 1.71)	0.49	(0.17, 0.81)	0.72	(0.23, 1.20)
3	3.74	(1.43, 6.10)	0.68	(-0.11, 1.49)	0.53	(0.21, 0.86)	0.55	(0.07, 1.04)
4	1.87	(-0.43, 4.22)	0.45	(-0.35, 1.25)	0.08	(-0.24, 0.40)	0.00	(-0.49, 0.50)
01	5.94	(3.09, 8.88)	2.02	(1.12, 2.93)	0.67	(0.30, 1.04)	1.06	(0.50, 1.61)
02	6.40	(3.36, 9.52)	2.00	(1.02, 2.98)	0.77	(0.37, 1.18)	1.21	(0.60, 1.82)
03	6.82	(3.63, 10.10)	1.94	(0.90, 2.99)	0.89	(0.46, 1.33)	1.29	(0.64, 1.95)
04	6.45	(3.13, 9.88)	1.84	(0.75, 2.94)	0.83	(0.37, 1.29)	1.17	(0.47, 1.88)

Definition of abbreviations: SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with an aerodynamic diameter <10 mm; PM_{2.5} =

particulate matter with an aerodynamic diameter <2.5 mm.

The bold number indicates the *P* value <0.05.

Supplemental Table 4 Excess risk (ER) and 95% confidence intervals (95% CI) of cancer daily death associated increase in pollutants' concentrations with a new different cumulative lag structure.

	SO ₂ (lag 03)			NO ₂ (lag 02)			PM ₁₀ (lag 03)			PM _{2.5} (lag 03)		
	ER	95% CI	<i>P</i> -value*	ER	95% CI	<i>P</i> -value*	ER	95% CI	<i>P</i> -value*	ER	95% CI	<i>P</i> -value*
Cold season												
Male	-0.24	(-3.65, 3.30)	<0.001	-0.12	(-1.14, 0.92)	0.003	-0.01	(-0.47, 0.45)	0.004	-0.04	(-0.71, 0.63)	0.004
Female	9.43	(5.32, 13.70)		2.13	(0.96, 3.32)		0.93	(0.42, 1.45)		1.35	(0.59, 2.11)	
Warm season												
Male	1.67	(-4.80, 8.58)	0.302	-0.60	(-2.25, 1.07)	0.085	-0.12	(-0.90, 0.66)	0.111	-0.28	(-1.48, 0.92)	0.138
Female	4.25	(-2.58, 11.56)		1.19	(-0.75, 3.17)		0.63	(-0.29, 1.56)		0.77	(-0.69, 2.25)	
≥65 years												
Male	1.01	(-2.38, 4.52)	0.004	0.42	(-0.55, 1.41)	0.027	0.16	(-0.28, 0.60)	0.016	0.12	(-0.54, 0.79)	0.012
Female	8.05	(4.15, 12.09)		1.93	(0.76, 3.12)		0.91	(0.38, 1.43)		1.31	(0.52, 2.11)	
<65 years												
Male	-0.32	(-4.19, 3.71)	0.107	-0.45	(-1.66, 0.77)	0.032	0.04	(-0.51, 0.58)	0.066	-0.03	(-0.87, 0.81)	0.054
Female	3.97	(-1.43, 9.67)		1.43	(-0.31, 3.19)		0.75	(0.00, 1.50)		1.14	(-0.01, 2.30)	
Low-edu												
Male	0.84	(-2.01, 3.78)	0.001	0.03	(-0.80, 0.87)	0.008	0.05	(-0.33, 0.42)	0.002	-0.09	(-0.66, 0.48)	<0.001
Female	8.49	(4.37, 12.78)		1.76	(0.62, 2.91)		0.96	(0.47, 1.46)		1.46	(0.77, 2.15)	
High-edu												
Male	-4.06	(-11.48, 3.98)	0.104	1.55	(-0.66, 3.82)	0.447	0.84	(-0.15, 1.84)	0.178	1.36	(-0.14, 2.88)	0.114
Female	3.93	(-5.50, 14.29)		1.32	(-1.28, 3.98)		0.09	(-1.15, 1.35)		-0.15	(-2.08, 1.81)	

Definition of abbreviations: SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with an aerodynamic diameter <10 mm; PM_{2.5} = particulate matter with an aerodynamic diameter <2.5 mm.

The bold number indicates the *P* value <0.05. *P*-values* indicate differences between effect values by sex.

Supplemental Table 5 Excess risk (ER) and 95% confidence intervals (95% CI) of cancer daily death associated increase in pollutants' concentrations with a new different cumulative lag structure.

Lag	SO ₂		NO ₂		PM ₁₀		PM _{2.5}	
	ER	95% CI	ER	95% CI	ER	95% CI	ER	95% CI
All subjects								
01	1.88	(-0.10, 3.90)	0.71	(0.11, 1.32)	0.16	(-0.09, 0.41)	0.27	(-0.10, 0.64)
02	2.90	(0.73, 5.12)	0.73	(0.07, 1.39)	0.28	(0.01, 0.56)	0.37	(-0.04, 0.78)
03	3.15	(0.83, 5.52)	0.62	(-0.08, 1.33)	0.38	(0.08, 0.67)	0.44	(-0.01, 0.88)
04	3.05	(0.60, 5.57)	0.52	(-0.22, 1.28)	0.35	(0.04, 0.67)	0.33	(-0.15, 0.82)
Male								
01	-0.63	(-2.96, 1.76)	0.18	(-0.54, 0.90)	-0.04	(-0.34, 0.26)	-0.04	(-0.48, 0.41)
02	0.59	(-1.97, 3.21)	0.25	(-0.54, 1.04)	0.09	(-0.24, 0.42)	0.05	(-0.44, 0.54)
03	0.50	(-2.22, 3.29)	0.13	(-0.71, 0.99)	0.15	(-0.20, 0.51)	0.10	(-0.43, 0.64)
04	0.54	(-2.33, 3.50)	0.07	(-0.82, 0.97)	0.17	(-0.21, 0.55)	0.04	(-0.53, 0.62)
Female								
01	5.87	(3.02, 8.79)	1.83	(0.94, 2.72)	0.64	(0.27, 1.01)	1.02	(0.47, 1.58)
02	6.29	(3.26, 9.40)	1.78	(0.83, 2.74)	0.73	(0.33, 1.13)	1.16	(0.56, 1.77)
03	6.69	(3.52, 9.96)	1.71	(0.70, 2.72)	0.84	(0.42, 1.27)	1.24	(0.59, 1.90)
04	6.29	(2.99, 9.70)	1.59	(0.53, 2.66)	0.78	(0.33, 1.23)	1.12	(0.42, 1.82)

Definition of abbreviations: SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with an aerodynamic diameter <10 mm; PM_{2.5} =

particulate matter with an aerodynamic diameter <2.5 mm.

The bold number means that the *P* value <0.05.

Degrees of freedom: 6 for years, 3 for daily average temperature, and 3 for relative humidity.

Supplemental Table 6 Excess risk (ER) and 95% confidence intervals (95% CI) of cancer daily death associated increase in pollutants' concentrations with a new different cumulative lag structure.

Lag	SO ₂		NO ₂		PM ₁₀		PM _{2.5}	
	ER	95% CI	ER	95% CI	ER	95% CI	ER	95% CI
All subjects								
01	1.84	(-0.14, 3.85)	0.71	(0.10, 1.31)	0.15	(-0.10, 0.41)	0.25	(-0.12, 0.62)
02	2.87	(0.71, 5.09)	0.72	(0.06, 1.38)	0.28	(0.00, 0.55)	0.36	(-0.05, 0.77)
03	3.12	(0.80, 5.49)	0.62	(-0.09, 1.33)	0.37	(0.08, 0.67)	0.43	(-0.02, 0.87)
04	3.03	(0.57, 5.54)	0.52	(-0.23, 1.27)	0.35	(0.04, 0.67)	0.32	(-0.16, 0.81)
Male								
01	-0.65	(-2.98, 1.74)	0.17	(-0.55, 0.89)	-0.04	(-0.34, 0.26)	-0.04	(-0.49, 0.40)
02	0.57	(-1.98, 3.19)	0.24	(-0.54, 1.03)	0.09	(-0.24, 0.42)	0.05	(-0.44, 0.54)
03	0.48	(-2.23, 3.28)	0.13	(-0.72, 0.98)	0.15	(-0.20, 0.51)	0.09	(-0.44, 0.63)
04	0.53	(-2.34, 3.49)	0.07	(-0.82, 0.97)	0.17	(-0.21, 0.55)	0.04	(-0.54, 0.62)
Female								
01	5.85	(3.00, 8.77)	1.85	(0.97, 2.74)	0.63	(0.26, 1.00)	1.01	(0.46, 1.57)
02	6.29	(3.26, 9.40)	1.80	(0.85, 2.76)	0.72	(0.33, 1.12)	1.16	(0.56, 1.76)
03	6.68	(3.51, 9.95)	1.72	(0.71, 2.74)	0.84	(0.41, 1.27)	1.24	(0.59, 1.89)
04	6.27	(2.97, 9.69)	1.60	(0.55, 2.67)	0.77	(0.32, 1.23)	1.11	(0.42, 1.82)

Definition of abbreviations: SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with an aerodynamic diameter <10 mm; PM_{2.5} =

particulate matter with an aerodynamic diameter <2.5 mm.

The bold number means that the *P* value <0.05.

Degrees of freedom: 6 for years, 3 for daily average temperature, and 4 for relative humidity.

Supplemental Table 7 Excess risk (ER) and 95% confidence intervals (95% CI) of cancer daily death associated increase in pollutants' concentrations in two-pollutant models.

Models	SO ₂ (lag 03) ER (95% CI)	NO ₂ (lag 02) ER (95% CI)	PM ₁₀ (lag 03) ER (95% CI)	PM _{2.5} (lag 03) ER (95% CI)
All subjects				
Control for SO ₂	-	0.83(0.09, 1.58)	0.40(0.09, 0.72)	0.45(-0.03, 0.93)
Control for NO ₂	2.51(-0.09, 5.18)	-	0.31(-0.03, 0.64)	0.31(-0.19, 0.80)
Control for PM ₁₀	3.41(0.85, 6.03)	1.02(0.20, 1.84)	-	-
Control for PM _{2.5}	3.05(0.51, 5.65)	0.80(0.02, 1.60)	-	-
Male				
Control for SO ₂	-	0.71(-0.17, 1.59)	0.32(-0.06, 0.70)	0.31(-0.26, 0.88)
Control for NO ₂	0.58(-2.49, 3.75)	-	0.21(-0.19, 0.61)	0.15(-0.44, 0.74)
Control for PM ₁₀	1.22(-1.79, 4.33)	0.78(-0.19, 1.75)	-	-
Control for PM _{2.5}	0.95(-2.03, 4.03)	0.58(-0.36, 1.52)	-	-
Female				
Control for SO ₂	-	1.54(0.47, 2.62)	0.74(0.29, 1.19)	1.05(0.36, 1.74)
Control for NO ₂	4.89(1.43, 8.46)	-	0.60(0.11, 1.10)	0.86(0.13, 1.60)
Control for PM ₁₀	5.92(2.54, 9.40)	1.75(0.54, 2.98)	-	-
Control for PM _{2.5}	5.46(2.07, 8.97)	1.46(0.30, 2.64)	-	-

Definition of abbreviations: SO₂ = sulfur dioxide; NO₂ = nitrogen dioxide; PM₁₀ = particulate matter with an aerodynamic diameter <10 mm; PM_{2.5} = particulate matter with an aerodynamic diameter <2.5 mm.

The bold number indicates the *P* value <0.05.