

Supplemental Material

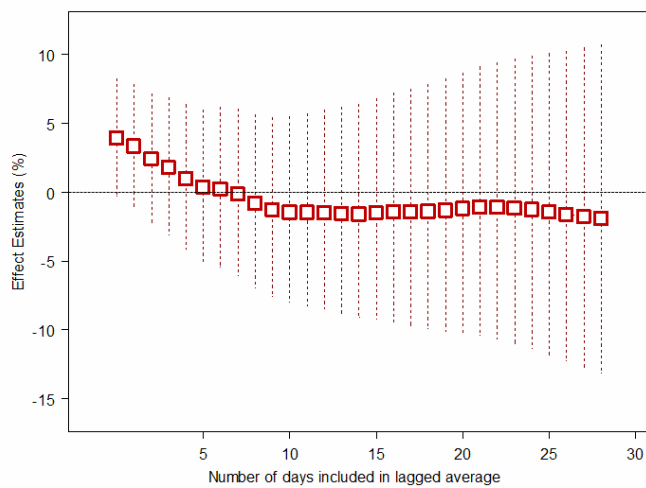
Vulnerability to temperature-related mortality in Seoul, Korea

Ji-Young Son, Jong-Tae Lee, G. Brooke Anderson, and Michelle L. Bell

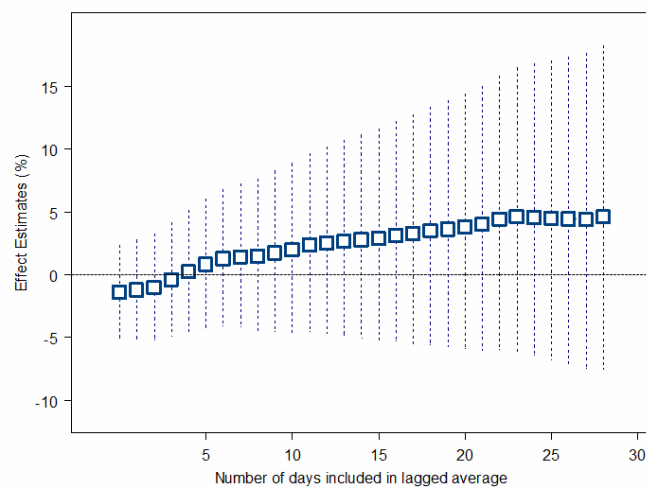
Environmental Research Letters

Supplemental Figure 1. Risk of mortality for (A) heat (comparison of 99th vs. 90th percentile of mean temperature) and (B) cold (comparison of 1st vs. 10th percentile of mean temperature) for different lag structures.

Note: Lag 0 represents exposure on the same day. Other lags represent exposure averaged across the same day and previous days.



(A)



(B)

Supplemental Table 1. Summary statistics of the study population, by sex

	Male	Female	Total
	N (% of male subjects)	N (% of female subjects)	N (% of total subjects)
All observations	145,902	126,003	272,040
Cause of death			
Respiratory	9,017 (6.2%)	6,809 (5.4%)	15,840 (5.8%)
Cardiovascular	37,280 (25.6%)	37,326 (29.6%)	74,629 (27.4%)
Other non-accidental	99,605 (68.3%)	81,868 (65.0%)	181,571 (66.7%)
Age			
0-14	2,406 (1.7%)	1,943 (1.5%)	4,349 (1.6%)
15-64	64,113 (43.9%)	26,841 (21.3%)	90,954 (33.4%)
65-74	36,796 (25.2%)	23,171 (18.4%)	59,967 (22.0%)
≥75	42,587 (29.2%)	74,048 (58.8%)	116,770 (42.9%)
Education (for those ≥ 20 years)			
None	12,800 (8.9%)	52,311 (42.3%)	65,213 (24.4%)
≤12 years	101,975 (71.3%)	65,198 (52.7%)	167,204 (62.6%)
>12 years	27,240 (19.0%)	5,317 (4.3%)	32,557 (12.2%)
Unknown	1,112 (0.8%)	990 (0.8%)	2,104 (0.8%)
Place of death			
Out of hospital	59,551 (40.9%)	62,747 (49.9%)	122,407 (45.1%)
In hospital	86,106 (59.1%)	63,036 (50.1%)	149,168 (54.9%)

Supplemental Table 2. Summary statistics of the study population, by age

	0-14 N (% of subjects 0- 14y)	15-64 N (% of subjects 15- 64y)	65-74 N (% of subjects 65- 74y)	≥ 75 N (% of subjects ≥ 75 y)	Total N (% of total subjects)
All observations	4,349 (1.6%)	90,954 (33.4%)	59,967 (22.0%)	116,770 (42.9%)	272,040 (100%)
Cause of death					
Respiratory	171 (3.9%)	2,490 (2.7%)	3,369 (5.6%)	9,810 (8.4%)	15,840 (5.8%)
Cardiovascular	185 (4.3%)	20,059 (22.1%)	18,643 (31.1%)	35,742 (30.6%)	74,629 (27.4%)
Other non-accidental	3,993 (91.8%)	68,405 (75.2%)	37,955 (63.3%)	71,218 (61.0%)	181,571 (66.7%)
Sex					
Male	2,406 (55.3%)	64,113 (70.5%)	36,796 (61.4%)	42,587 (36.5%)	145,902 (53.6%)
Female	1,943 (44.7%)	26,841 (29.5%)	23,171 (38.6%)	74,048 (63.4%)	126,003 (46.3%)
Education (% of those ≥ 20 yrs)					
None	-	3,930 (4.3%)	9,565 (16.0%)	51,788 (44.4%)	65,213 (24.4%)
≤ 12 years	-	69,744 (76.6%)	41,724 (69.6%)	56,269 (48.2%)	167,204 (62.6%)
> 12 years	-	16,688 (18.3%)	8,227 (13.7%)	7,652 (6.6%)	32,557 (12.2%)
Unknown	-	592 (0.7%)	451 (0.8%)	1,061 (0.9%)	2,104 (0.8%)
Place of death					
Out of hospital	913 (21.8%)	28,714 (31.6%)	24,250 (40.5%)	68,530 (58.8%)	122,407 (45.1%)
In hospital	3,278 (78.2%)	62,131 (68.4%)	35,647 (59.5%)	48,112 (41.3%)	149,168 (54.9%)