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Supplemental Material

Ambient Ozone Pollution and Daily Mortality: A Nationwide Study in 272 Chinese Cities

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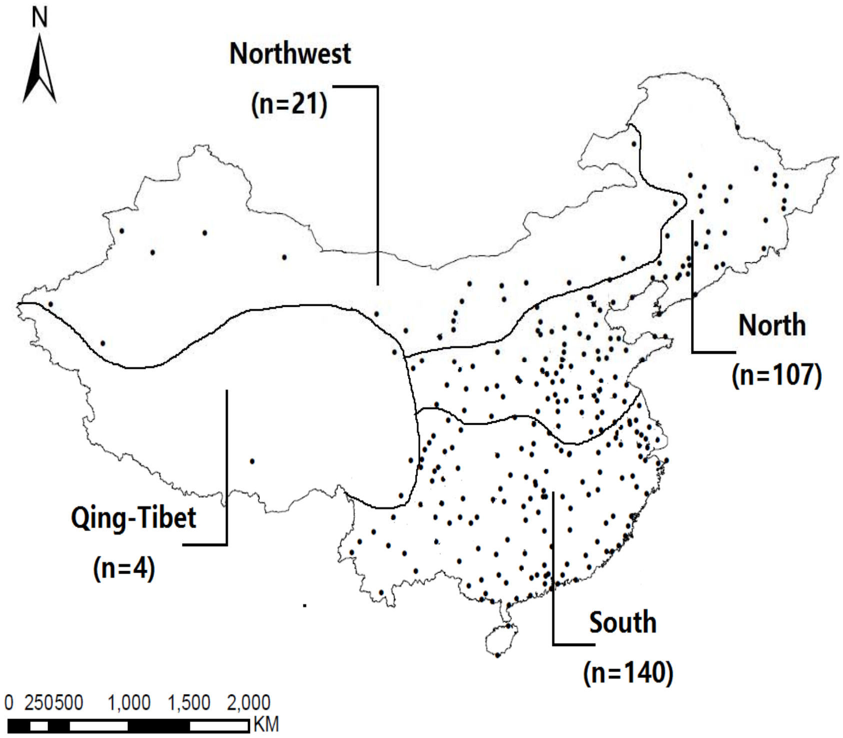


Figure S1. The location of cities in this study (n=272)

Table S1. Summary statistics (mean and standard deviation) of daily non-accidental deaths, co-pollutant concentrations and weather conditions in 272 Chinese cities, 2013-2015*.

Regions	Deaths	$PM_{2.5}$	SO_2	NO_2	CO	Temp	Humidity
Nationwide	16±16	56±20	29±17	31±11	1.2±1.5	16±13	69±16
Northwest	7±3	53±16	29±15	32±11	1.2±0.4	11±5	60±13
North	16±14	57±21	32±19	32±12	1.3±1.7	16±18	68±19
South	17±18	51±19	27±16	30±11	1.1±1.3	16±5	68±8
Qing-Tibet	5±3	78±33	43±26	44±13	1.3±0.4	16±2	68±8

*Data are averaged on the annual level in all studied cities within each region.

Abbreviations: $PM_{2.5}$, particulate matter with an aerodynamic diameter less than or equal to 2.5 μm, $μg/m^3$; SO_2, sulfur dioxide, $μg/m^3$; NO_2, nitrogen dioxide, $μg/m^3$; CO, carbon monoxide, mg/m^3.

Table S2. Summary statistics (mean and standard deviation) of annual-average ozone concentrations (μg/m^3) in 143 Chinese cities of 2 years or more data.

Regions	N	Cool period	Warm period
Nationwide	143	71±15	82±13
Northwest	8	65±15	73±18
North	63	70±13	84±14
South	72	73±14	80±12

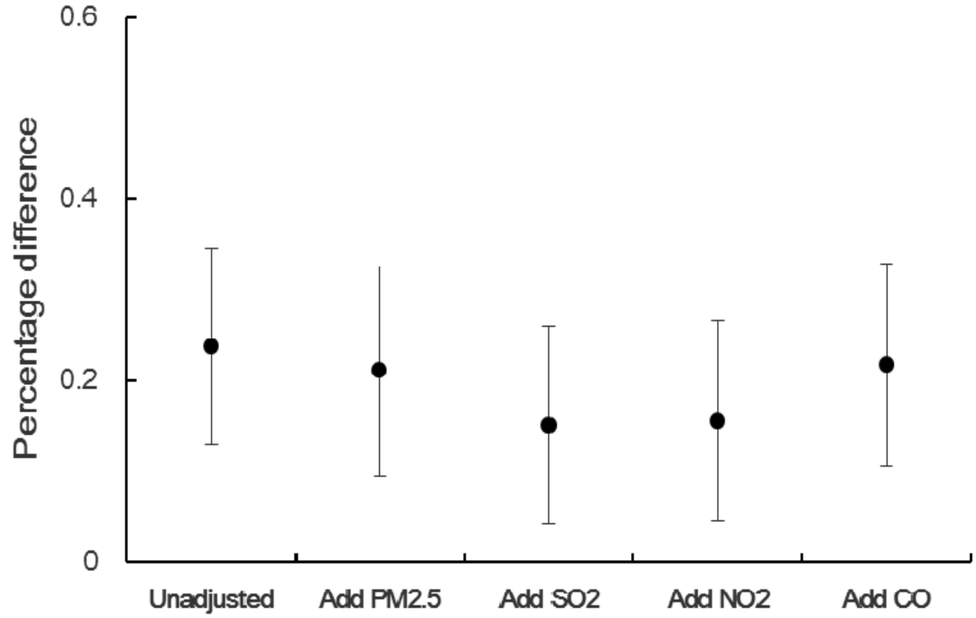
Note: There were few cities with 2 years or more data in the Qing-Tibet region.

Table S3. National-average percentage differences (posterior means and 95% posterior intervals) in daily cardiovascular mortality per 10 $\mu g/m^3$ increase in ozone concentrations in 272 Chinese cities, classified by age, sex and educational attainment.

Characteristics	Level	Estimates	p-values*
Age	5-64 yrs	0.21 (-0.12, 0.54)	0.94
	65-74 yrs	0.28 (0.09, 0.47)	
	≥75 yrs	0.35 (0.03, 0.68)	
Sex	Males	0.24 (0.03, 0.45)	0.88
	Females	0.29 (0.07, 0.50)	
Education	≤ 9 years	0.29 (0.11, 0.47)	0.80
	9 years	0.19 (-0.26, 0.64)	

Note: Estimates were generated using over-dispersed generalized linear models and polynomial distributed lag model for cumulative exposures over the same day and 3 days prior, adjusted for calendar day (natural cubic spline with 7 *df*), day of the week, temperature (cross-basis function for temperature lagged for 0–13 days from distributed lag nonlinear model), and humidity (lag 0, natural smooth function, 3 *df*) to estimate city-specific associations that were combined using hierarchical Bayesian models.

* The p-values were calculated by performing a likelihood ratio test between the simple meta-analysis model (overall estimates) and separate meta-regression model with a categorical variable (age, sex, or education).



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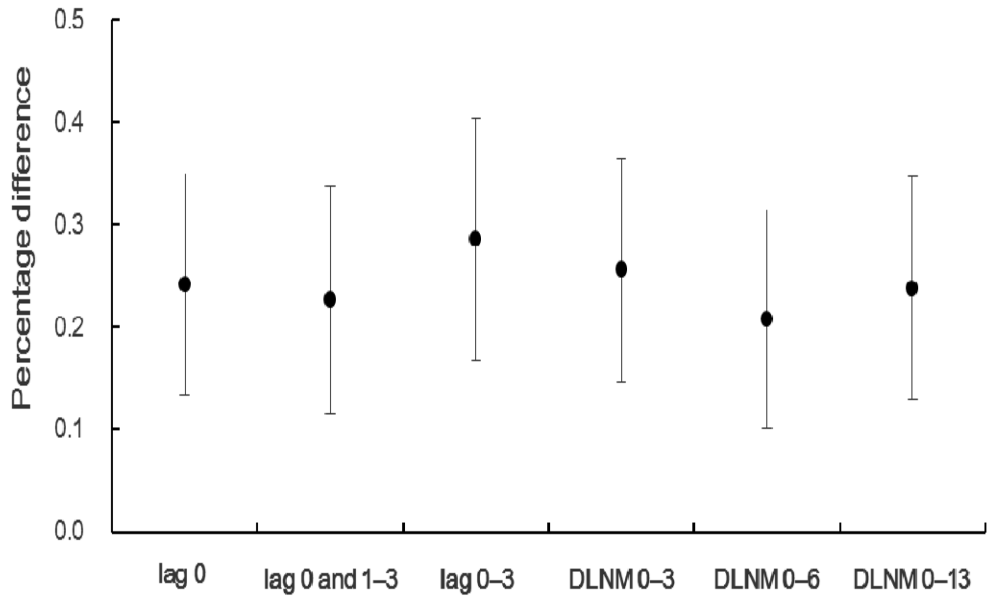

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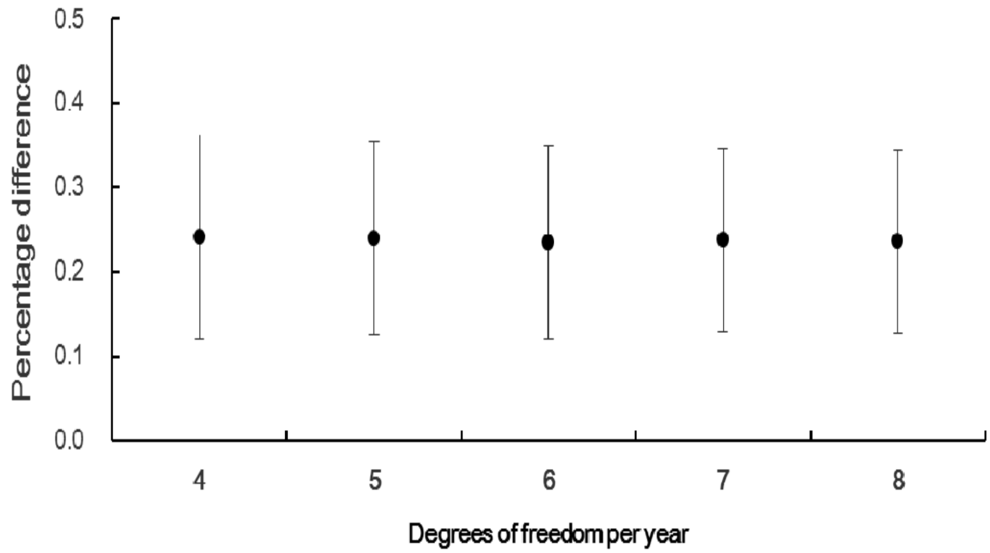

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