

## **Supporting Information**

### **Modification effects of temperature on the ozone-mortality relationship: a nationwide multicounty study in China**

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**Table S1.** Description of the air pollution monitoring station within each county,

No.	Province	City	County	Number of stations	Station location
1	Beijing	Beijing	Dongcheng	1	0
2	Beijing	Beijing	Xicheng	1	0
3	Beijing	Beijing	Chaoyang	3	0
4	Beijing	Beijing	Mentougou	1	1
5	Beijing	Beijing	Miyun	2	1
6	Beijing	Beijing	Yanqing	2	1
7	Tianjin	Tianjin	Hexi	1	0
8	Tianjin	Tianjin	Nankai	1	0
9	Tianjin	Tianjin	Hongqiao	1	0
10	Hebei	Shijiazhuang	Changan	2	0
11	Hebei	Shijiazhuang	Qiaoxi	1	0
12	Hebei	Shijiazhuang	Xinhua	1	0
13	Hebei	Shijiazhuang	Xinji	1	1
14	Hebei	Xingtai	Qiaodong	2	0
15	Hebei	Xingtai	Xingtai	1	0
16	Hebei	Baoding	Wangdu	1	1
17	Hebei	Cangzhou	Xinhua	2	0
18	Hebei	Cangzhou	Yunhe	1	0
19	Hebei	Langfang	Xianghe	1	1
20	Shanxi	Taiyuan	Xinghualing	2	0
21	Shanxi	Yangquan	Chengqu	2	0
22	Shanxi	Yangquan	Pingding	1	0
23	Shanxi	Jincheng	Chengqu	6	0
24	Shanxi	Jincheng	Zezhou	6	0
25	Shanxi	Jinzhong	Yuci	4	0
26	Inner Mongolia	Huhehaote	Huimin	2	0
27	Inner Mongolia	Bayannaoer	Linhe	3	0
28	Liaoning	Shenyang	Shenhe	1	0
29	Liaoning	Dalian	Shahekou	1	0
30	Liaoning	Anshan	Tiexi	2	0
31	Liaoning	Benxi	Mingshan	3	0
32	Liaoning	Jinzhou	Linghe	2	0
33	Liaoning	Fuxin	Haizhou	1	0
34	Liaoning	Tieling	Yinzhou	3	0
35	Jilin	Jilin	Fengman	2	0
36	Jilin	Siping	Tiedong	2	0
37	Jilin	Yanbian	Yanji	2	0

38	Heilongjiang	Harbin	Nangang	3	0
39	Heilongjiang	Harbin	Daowai	1	0
40	Heilongjiang	Daqing	Datong	1	0
41	Heilongjiang	Suihua	Beilin	2	0
42	Shanghai	Shanghai	Putuo	2	0
43	Jiangsu	Jiangyin	Jiangyin	3	0
44	Jiangsu	Xuzhou	Yunlong	1	0
45	Jiangsu	Liyang	Liyang	2	0
46	Jiangsu	Zhangjiagang	Zhangjiagang	2	0
47	Jiangsu	Lianyungang	Donghai	1	0
48	Jiangsu	Yangzhou	yHanjiang	1	0
49	Jiangsu	Taizhou	Gaochang	1	0
50	Zhejiang	Zhuji	Zhuji	2	0
51	Zhejiang	Jinhua	Wucheng	2	0
52	Anhui	Wuhu	Jinghu	1	0
53	Anhui	Bengbu	Longzihu	1	0
54	Anhui	Ma'anshan	Yushan	2	0
55	Anhui	Tongling	Tongguanshan	3	0
56	Anhui	Anqing	Huaining	1	0
57	Anhui	Huangshan	Huangshan	1	0
58	Anhui	Fuyang	Yingzhou	3	0
59	Anhui	Suzhou	Yongqiao	3	0
60	Fujian	Putian	pHanjiang	1	0
61	Fujian	Nanping	Yanping	4	0
62	Fujian	Ningde	Jiaocheng	2	0
63	Jiangxi	Xinyu	Yushui	5	0
64	Jiangxi	Ganzhou	Zhanggong	5	0
65	Shandong	Jinan	Lixia	2	0
66	Shandong	Jinan	Shizhong	1	0
67	Shandong	Jinan	Huaiyin	2	0
68	Shandong	Jinan	Tianqiao	1	0
69	Shandong	Jinan	Licheng	1	0
70	Shandong	Jinan	Zhangqiu	2	0
71	Shandong	Zibo	Linzi	1	0
72	Shandong	Zaozhuang	Xuecheng	1	0
73	Shandong	Yantai	Laizhou	2	0
74	Shandong	Yantai	Penlai	2	0
75	Shandong	Shouguang	Shouguang	2	0
76	Shandong	Rushan	Rushan	2	0
77	Shandong	Laiwu	Laicheng	3	0

78	Shandong	Dezhou	Decheng	3	0
79	Shandong	Dezhou	Lingcheng	1	1
80	Shandong	Binzhou	Bincheng	3	0
81	Shandong	Binzhou	Zhanhua	1	1
82	Shandong	Heze	Mudan	3	0
83	Shandong	Heze	Dingtao	1	0
84	Henan	Zhengzhou	Zhongyuan	2	0
85	Henan	Zhengzhou	Erqi	1	0
86	Henan	Zhengzhou	Jinshui	2	0
87	Henan	Kaifeng	Longting	1	0
88	Henan	Kaifeng	Kaifeng	1	1
89	Henan	Anyang	Anyang	1	0
90	Henan	Xinxian	Hongqi	1	0
91	Henan	Xinxian	Muye	1	0
92	Henan	Jiaozuo	Jiefang	2	0
93	Henan	Jiaozuo	Mengzhou	1	1
94	Hubei	Wuhan	Jiang'an	2	0
95	Hubei	Wuhan	Caidian	2	0
96	Hubei	Enshi	Enshi	2	0
97	Hunan	Changsha	Tianxin	1	0
98	Hunan	Zhuzhou	Lusong	2	0
99	Hunan	Xiangtan	Yuhu	1	0
100	Hunan	Xiangtan	Xiangtan	1	0
101	Hunan	Changde	Wuling	3	0
102	Hunan	Chenzhou	Suxian	3	0
103	Guangdong	Guangzhou	Liwan	1	0
104	Guangdong	Guangzhou	Yuexiu	2	0
105	Guangxi	Liuzhou	Liubei	2	0
106	Guangxi	Liuzhou	Luzhai	1	0
107	Hainan	Haikou	Meilan	2	0
108	Hainan	Sanya	Sanya municipal district	2	0
109	Chongqing	Chongqing	Yuzhong	1	0
110	Chongqing	Chongqing	Shapingba	2	0
111	Chongqing	Chongqing	Beibei	3	0
112	Sichuan	Zigong	Gongjing	1	0
113	Sichuan	Panzhihua	Renhe	2	0
114	Sichuan	Guangyuan	Lizhou	4	0
115	Guizhou	Liupanshui	Shuicheng	1	0
116	Guizhou	Zunyi	Honghuagang	4	0

117	Yunnan	Yuxi	Hongta	3	0
118	Yunnan	Baoshan	Longyang	2	0
119	Tibet	Lhasa	Chengguan	4	0
120	Shaanxi	Xi'an	Lianhu	1	0
121	Shaanxi	Baoji	Chencang	1	0
122	Shaanxi	Shangluo	Shangzhou	2	0
123	Gansu	Jinchang	Jinchuan	3	0
124	Gansu	Wuwei	Liangzhou	2	0
125	Gansu	Zhangye	Ganzhou	2	0
126	Ningxia	Shizuishan	Pingluo	1	0
127	Ningxia	Zhongwei	Shapotou	3	0
Kizilsu Kirghiz					
128	Sinkiang	Autonomous Prefecture	Artux	1	0

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The number “1” of station location represents monitoring stations of the corresponding county were chose from neighboring county, while “0” represents monitoring stations located in the same county.

**Table S2.** Cutoffs in county, regional and country level using 25th/75th percentiles of the daily mean temperature.

Province/Region	City	County	P25	P75
<b>National cutoffs</b>			6.3	23.2
<b>Region-specific cutoffs</b>				
Northern China			3.6	22.7
Southern China			11.9	25.1
<b>County-specific cutoffs</b>				
Beijing	Beijing	Dongcheng	2.8	24.0
Beijing	Beijing	Xicheng	2.8	24.1
Beijing	Beijing	Chaoyang	2.8	24.1
Beijing	Beijing	Mentougou	2.9	23.6
Beijing	Beijing	Miyun	0.4	22.6
Beijing	Beijing	Yanqing	-0.7	20.8
Tianjin	Tianjin	Hexi	2.7	24.2
Tianjin	Tianjin	Nankai	2.7	24.2
Tianjin	Tianjin	Hongqiao	2.7	24.2
Hebei	Shijiazhuang	Changan	4.8	25.0
Hebei	Shijiazhuang	Qiaoxi	4.5	24.7
Hebei	Shijiazhuang	Xinhua	4.5	24.7
Hebei	Shijiazhuang	Xinji	4.5	24.7
Hebei	Xingtai	Qiaodong	5.1	24.2
Hebei	Xingtai	Xingtai	5.1	24.2
Hebei	Baoding	Wangdu	2.2	23.2
Hebei	Cangzhou	Xinhua	3.2	24.1
Hebei	Cangzhou	Yunhe	3.8	24.3
Hebei	Langfang	Xianghe	1.2	23.4
Shanxi	Taiyuan	Xinghualing	1.5	20.9
Shanxi	Yangquan	Chengqu	2.2	20.9
Shanxi	Yangquan	Pingding	2.2	20.9
Shanxi	Jincheng	Chengqu	4.0	21.8
Shanxi	Jincheng	Zezhou	4.0	21.8
Shanxi	Jinzhong	Yuci	1.7	20.9
Inner Mongolia	Huhehaote	Huimin	-4.0	18.7
Inner Mongolia	Bayannaoer	Linhe	-2.5	20.4
Liaoning	Shenyang	Shenhe	-3.0	21.1
Liaoning	Dalian	Shahekou	2.6	21.8
Liaoning	Anshan	Tiexi	-0.2	22.5
Liaoning	Benxi	Mingshan	-2.6	20.5
Liaoning	Jinzhou	Linghe	-1.2	21.1

Liaoning	Fuxin	Haizhou	-3.7	20.9
Liaoning	Tieling	Yinzhou	-3.0	20.9
Jilin	Jilin	Fengman	-6.4	19.1
Jilin	Siping	Tiedong	-5.4	20.0
Jilin	Yanbian	Yanji	-5.7	17.4
Heilongjiang	Harbin	Nangang	-9.7	19.6
Heilongjiang	Harbin	Daowai	-9.7	19.6
Heilongjiang	Daqing	Datong	-9.3	19.4
Heilongjiang	Suihua	Beilin	-11.0	19.0
Shanghai	Shanghai	Putuo	10.4	24.6
Jiangsu	Jiangyin	Jiangyin	9.2	24.4
Jiangsu	Xuzhou	Yunlong	6.9	24.5
Jiangsu	Liyang	Liyang	8.9	24.5
Jiangsu	Zhangjiagang	Zhangjiagang	9.1	24.2
Jiangsu	Lianyungang	Donghai	6.0	23.3
Jiangsu	Yangzhou	yHanjiang	8.2	24.2
Jiangsu	Taizhou	Gaogang	7.9	23.8
Zhejiang	Zhuji	Zhuji	10.5	25.2
Zhejiang	Jinhua	Wucheng	11.5	26.1
Anhui	Wuhu	Jinghu	9.4	24.8
Anhui	Bengbu	Longzihu	7.6	23.8
Anhui	Ma'anshan	Yushan	9.2	23.9
Anhui	Tongling	Tongguanshan	9.7	24.9
Anhui	Anqing	Huaining	6.1	19.6
Anhui	Huangshan	Huangshan	3.4	15.9
Anhui	Fuyang	Yingzhou	7.7	24.2
Anhui	Suzhou	Yongqiao	7.2	24.5
Fujian	Putian	pHanjiang	16.0	27.2
Fujian	Nanping	Yanping	13.7	25.7
Fujian	Ningde	Jiaocheng	14.3	26.9
Jiangxi	Xinyu	Yushui	11.4	25.7
Jiangxi	Ganzhou	Zhanggong	13.7	27.6
Shandong	Jinan	Lixia	6.1	24.6
Shandong	Jinan	Shizhong	6.1	24.6
Shandong	Jinan	Huaiyin	6.1	24.6
Shandong	Jinan	Tianqiao	6.1	24.6
Shandong	Jinan	Licheng	6.1	24.6
Shandong	Jinan	Zhangqiu	5.2	24.4
Shandong	Zibo	Linzi	4.5	24.2
Shandong	Zaozhuang	Xuecheng	7.3	24.5

Shandong	Yantai	Laizhou	4.6	24.0
Shandong	Yantai	Penlai	3.7	22.5
Shandong	Shouguang	Shouguang	4.5	24.0
Shandong	Rushan	Rushan	3.2	21.8
Shandong	Laiwu	Laicheng	5.1	23.7
Shandong	Dezhou	Decheng	3.6	23.6
Shandong	Dezhou	Lingcheng	3.6	23.6
Shandong	Binzhou	Bincheng	3.6	23.6
Shandong	Binzhou	Zhanhua	3.6	23.7
Shandong	Heze	Mudan	6.6	24.8
Shandong	Heze	Dingtao	5.7	23.9
Henan	Zhengzhou	Zhongyuan	7.4	25.4
Henan	Zhengzhou	Erqi	7.4	25.4
Henan	Zhengzhou	Jinshui	7.4	25.4
Henan	Kaifeng	Longting	7.2	24.8
Henan	Kaifeng	Kaifeng	7.2	24.8
Henan	Anyang	Anyang	5.9	24.3
Henan	Xinxian	Hongqi	6.9	25.2
Henan	Xinxian	Muye	6.9	25.2
Henan	Jiaozuo	Jiefang	6.9	23.9
Henan	Jiaozuo	Mengzhou	6.9	23.9
Hubei	Wuhan	Jiang'an	9.4	25.0
Hubei	Wuhan	Caidian	10.3	25.5
Hubei	Enshi	Enshi	10.1	24.0
Hunan	Changsha	Tianxin	10.6	25.3
Hunan	Zhuzhou	Lusong	11.0	25.8
Hunan	Xiangtan	Yuhu	10.7	25.4
Hunan	Xiangtan	Xiangtan	10.7	25.4
Hunan	Changde	Wuling	10.1	24.3
Hunan	Chenzhou	Suxian	11.6	25.9
Guangdong	Guangzhou	Liwan	17.3	27.2
Guangdong	Guangzhou	Yuexiu	17.3	27.2
Guangxi	Liuzhou	Liubei	15.5	27.6
Guangxi	Liuzhou	Luzhai	15.4	27.5
Hainan	Haikou	Meilan	21.5	28.2
Hainan	Sanya	Sanya municipal district	21.7	26.2
Chongqing	Chongqing	Yuzhong	12.5	25.2
Chongqing	Chongqing	Shapingba	12.5	25.2
Chongqing	Chongqing	Beibei	11.9	24.7
Sichuan	Zigong	Gongjing	12.3	24.8

Sichuan	Panzhihua	Renhe	17.2	25.9
Sichuan	Guangyuan	Lizhou	9.6	23.3
Guizhou	Liupanshui	Shuicheng	10.3	21.2
Guizhou	Zunyi	Honghuagang	9.4	22.6
Yunnan	Yuxi	Hongta	13.3	20.7
Yunnan	Baoshan	Longyang	13.6	21.6
Tibet	Lhasa	Chengguan	2.1	13.2
Shaanxi	Xi'an	Lianhu	6.2	23.5
Shaanxi	Baoji	Chencang	6.4	22.9
Shaanxi	Shangluo	Shangzhou	6.0	21.2
Gansu	Jinchang	Jinchuan	7.6	18.7
Gansu	Wuwei	Liangzhou	0.4	19.4
Gansu	Zhangye	Ganzhou	-2.0	19.3
Ningxia	Shizuishan	Pingluo	-0.4	20.2
Ningxia	Zhongwei	Shapotou	0.9	19.9
Sinkiang	Kizilsu Kirghiz Autonomous Prefecture	Artux	3.5	23.5

**Table S3.** Summary statistics (mean and standard deviation) of the ozone 8-h maximum, 1-h maximum and daily 24-h mean concentrations ( $\mu\text{g}/\text{m}^3$ ) at different levels of the temperature stratified by the county-level relative 25th/75th percentile and absolute 25th/75th percentile across all 128 counties of China between January 1st, 2013, and December 31st, 2018.

Regions	Total	Temperature		
		Low	Medium	High
<b>Relative cutoffs</b>				
O <sub>3</sub> 8 h-max	90.5±51.8	53.8±29.1	89.1±44.7	129.7±54.7
O <sub>3</sub> h-max	106.1±60.0	65.6±34.7	104.2±52.0	149.8±64.9
O <sub>3</sub> 24-h mean	56.5±34.4	35.2±22.7	55.0±30.3	80.4±36.4
<b>Absolute cutoffs</b>				
O <sub>3</sub> 8 h-max	90.5±51.8	54.9±28.2	88.4±43.9	127±55.6
O <sub>3</sub> h-max	106.1±60.0	66.3±32.7	102.8±50.4	147.6±66.0
O <sub>3</sub> 24-h mean	56.5±34.4	36.3±22.5	55.7±30.5	78.1±36.8

The absolute temperature levels were stratified by 6.3°C and 23.2°C as 25th percentile and 75th percentile, respectively, across all counties.

**Table S4.** Spearman correlation coefficients between air pollutants and meteorological conditions in 128 counties.

	O <sub>3</sub> 8 h-max	O <sub>3</sub> h-max	O <sub>3</sub> 24-h mean	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>	Temperature	Humidity
<b>China</b>									
O <sub>3</sub> 8 h-max	1.00	0.96	0.128	-0.04	0.06	-0.12	-0.13	0.57	-0.17
O <sub>3</sub> h-max		1.00	0.88	0.01	0.09	-0.07	-0.06	0.56	-0.16
O <sub>3</sub> 24-h mean			1.00	-0.13	-0.03	-0.17	-0.28	0.51	-0.18
PM <sub>2.5</sub>				1.00	0.82	0.58	0.64	-0.26	-0.07
PM <sub>10</sub>					1.00	0.62	0.61	-0.21	-0.30
SO <sub>2</sub>						1.00	0.56	-0.35	-0.29
NO <sub>2</sub>							1.00	-0.28	-0.15
Temperature								1.00	0.23
Humidity									1.00

**Table S5.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association using different ozone metrics in 128 counties of China between January 1st, 2013, and December 31st, 2018.

Period	Temperature		
	Low	Medium	High
<b>Nonaccidental</b>			
Main model ( $O_3$ 8 h-max)	-0.07(-0.21, 0.07)	0.36(0.27, 0.46)	0.44(0.36, 0.51)
$O_3$ h-max	-0.02(-0.15, 0.11)	0.31(0.23, 0.39)	0.36(0.30, 0.42)
$O_3$ 24-h mean	-0.16(-0.37, 0.04)	0.49(0.36, 0.63)	0.63(0.51, 0.75)
<b>Cardiovascular</b>			
Main model ( $O_3$ 8 h-max)	-0.04(-0.22, 0.15)	0.34(0.21, 0.46)	0.42(0.32, 0.51)
$O_3$ h-max	0(-0.16, 0.17)	0.29(0.19, 0.39)	0.34(0.27, 0.42)
$O_3$ 24-h mean	-0.12(-0.39, 0.15)	0.45(0.27, 0.63)	0.60(0.46, 0.75)
<b>Respiratory</b>			
Main model ( $O_3$ 8 h-max)	-0.07(-0.40, 0.26)	0.39(0.17, 0.61)	0.50(0.31, 0.68)
$O_3$ h-max	-0.04(-0.31, 0.22)	0.34(0.16, 0.52)	0.41(0.25, 0.57)
$O_3$ 24-h mean	-0.04(-0.56, 0.48)	0.64(0.30, 0.99)	0.89(0.58, 1.19)

**Table S6.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association using different lags of ozone exposure in 128 counties of China between January 1st, 2013, and December 31st, 2018.

Period	Temperature		
	Low	Medium	High
<b>Nonaccidental</b>			
Main model (Lag01)	-0.07(-0.21, 0.07)	0.36(0.27, 0.46)	0.44(0.36, 0.51)
Lag0	-0.19(-0.31, -0.07)	0.26(0.18, 0.34)	0.38(0.31, 0.44)
Lag1	-0.02(-0.13, 0.09)	0.27(0.20, 0.34)	0.30(0.24, 0.36)
Lag02	0.05(-0.10, 0.20)	0.39(0.29, 0.49)	0.43(0.34, 0.52)
<b>Cardiovascular</b>			
Main model (Lag01)	-0.04(-0.22, 0.15)	0.34(0.21, 0.46)	0.42(0.32, 0.51)
Lag0	-0.20(-0.34, -0.06)	0.21(0.10, 0.32)	0.32(0.23, 0.41)
Lag1	0.01(-0.14, 0.17)	0.27(0.17, 0.38)	0.31(0.22, 0.39)
Lag02	0.10(-0.11, 0.30)	0.38(0.23, 0.53)	0.42(0.31, 0.54)
<b>Respiratory</b>			
Main model (Lag01)	-0.07(-0.40, 0.26)	0.39(0.17, 0.61)	0.50(0.31, 0.68)
Lag0	-0.10(-0.38, 0.18)	0.26(0.07, 0.46)	0.42(0.26, 0.59)
Lag1	-0.03(-0.32, 0.25)	0.32(0.15, 0.49)	0.37(0.21, 0.53)
Lag02	0.14(-0.19, 0.47)	0.40(0.17, 0.64)	0.52(0.29, 0.74)

**Table S7.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association using different maximum period of temperature in 128 counties of China.

Period	Temperature		
	Low	Medium	High
<b>Nonaccidental</b>			
Main model (14 days)	-0.07(-0.21, 0.07)	0.36(0.27, 0.46)	0.44(0.36, 0.51)
21 days	-0.11(-0.26, 0.03)	0.37(0.28, 0.46)	0.52(0.45, 0.60)
28 days	-0.13(-0.27, 0.01)	0.36(0.27, 0.45)	0.57(0.49, 0.64)
<b>Cardiovascular</b>			
Main model (14 days)	-0.04(-0.22, 0.15)	0.34(0.21, 0.46)	0.42(0.32, 0.51)
21 days	-0.12(-0.30, 0.07)	0.34(0.22, 0.46)	0.54(0.44, 0.64)
28 days	-0.16(-0.34, 0.03)	0.33(0.21, 0.46)	0.60(0.50, 0.70)
<b>Respiratory</b>			
Main model (14 days)	-0.07(-0.40, 0.26)	0.39(0.17, 0.61)	0.50(0.31, 0.68)
21 days	-0.13(-0.46, 0.21)	0.38(0.18, 0.59)	0.59(0.40, 0.79)
28 days	-0.18(-0.52, 0.16)	0.38(0.17, 0.58)	0.65(0.47, 0.83)

**Table S8.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association using 5-9 degrees of freedom (df) per year for the time trend in 128 counties of China.

Period	Temperature		
	Low	Medium	High
<b>Nonaccidental</b>			
Main model (Time $df=6$ )	-0.07(-0.21, 0.07)	0.36(0.27, 0.46)	0.44(0.36, 0.51)
$df=5$	-0.09(-0.23, 0.05)	0.34(0.25, 0.43)	0.42(0.35, 0.50)
$df=7$	-0.17(-0.31, -0.03)	0.30(0.21, 0.40)	0.39(0.32, 0.46)
$df=8$	-0.21(-0.35, -0.08)	0.31(0.22, 0.40)	0.42(0.34, 0.49)
$df=9$	-0.25(-0.40, -0.11)	0.31(0.22, 0.40)	0.41(0.34, 0.48)
<b>Cardiovascular</b>			
Main model (Time $df=6$ )	-0.04(-0.22, 0.15)	0.34(0.21, 0.46)	0.42(0.32, 0.51)
$df=5$	-0.07(-0.25, 0.11)	0.31(0.19, 0.42)	0.39(0.28, 0.49)
$df=7$	-0.17(-0.35, 0.01)	0.26(0.14, 0.38)	0.35(0.26, 0.45)
$df=8$	-0.22(-0.40, -0.04)	0.27(0.15, 0.39)	0.39(0.29, 0.48)
$df=9$	-0.26(-0.45, -0.08)	0.27(0.15, 0.40)	0.38(0.27, 0.49)
<b>Respiratory</b>			
Main model (Time $df=6$ )	-0.07(-0.4, 0.26)	0.39(0.17, 0.61)	0.50(0.31, 0.68)
$df=5$	-0.05(-0.39, 0.28)	0.38(0.16, 0.61)	0.53(0.33, 0.73)
$df=7$	-0.25(-0.57, 0.08)	0.28(0.06, 0.50)	0.41(0.22, 0.60)
$df=8$	-0.31(-0.63, 0.02)	0.32(0.09, 0.55)	0.47(0.28, 0.67)
$df=9$	-0.34(-0.67, 0)	0.34(0.12, 0.57)	0.47(0.27, 0.66)

**Table S9.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association with adjustments for different copollutants in 128 counties of China.

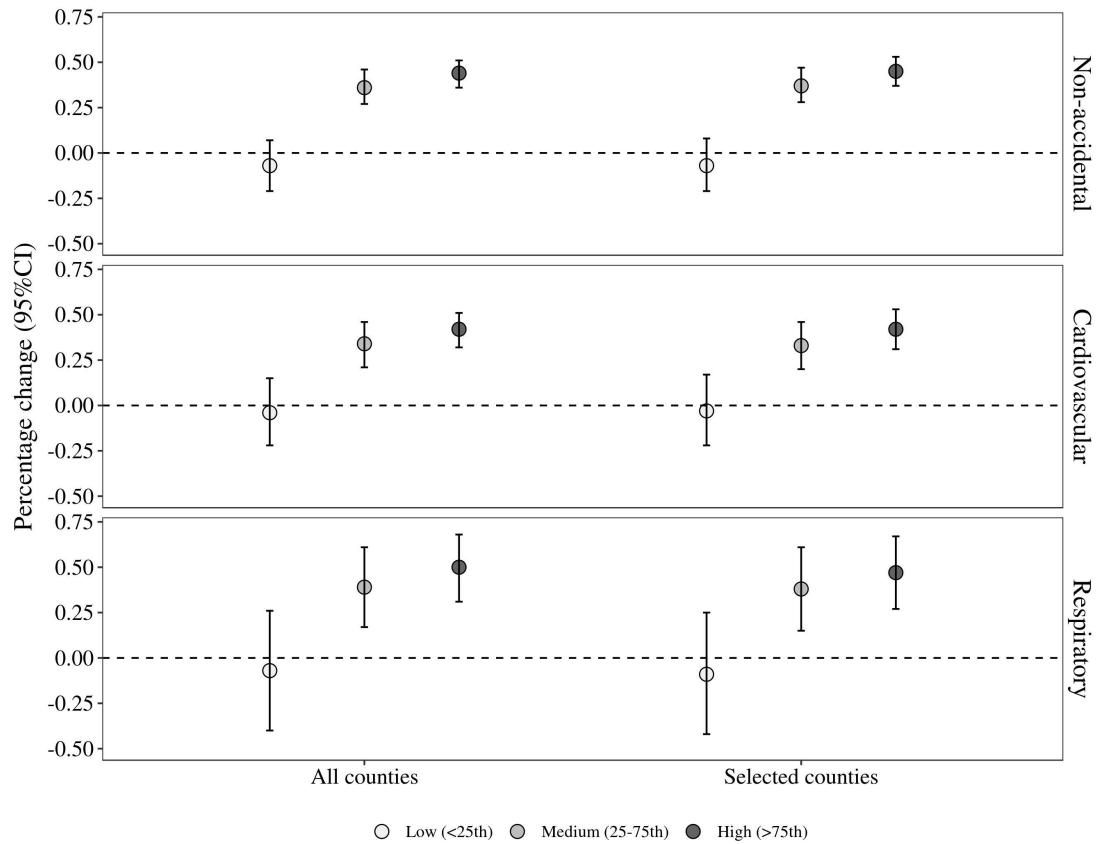
Period	Temperature		
	Low	Medium	High
<b>Nonaccidental</b>			
Main model	-0.07(-0.21, 0.07)	0.36(0.27, 0.46)	0.44(0.36, 0.51)
O <sub>3</sub> +PM <sub>2.5</sub>	-0.06(-0.21, 0.10)	0.31(0.22, 0.41)	0.37(0.29, 0.45)
O <sub>3</sub> +PM <sub>10</sub>	-0.05(-0.20, 0.11)	0.30(0.20, 0.40)	0.35(0.27, 0.43)
O <sub>3</sub> +SO <sub>2</sub>	-0.02(-0.18, 0.14)	0.36(0.27, 0.46)	0.41(0.34, 0.49)
O <sub>3</sub> +NO <sub>2</sub>	-0.03(-0.18, 0.13)	0.34(0.25, 0.44)	0.40(0.32, 0.48)
<b>Cardiovascular</b>			
Main model	-0.04(-0.22, 0.15)	0.34(0.21, 0.46)	0.42(0.32, 0.51)
O <sub>3</sub> +PM <sub>2.5</sub>	-0.02(-0.22, 0.18)	0.28(0.16, 0.41)	0.35(0.22, 0.47)
O <sub>3</sub> +PM <sub>10</sub>	-0.01(-0.21, 0.20)	0.27(0.14, 0.40)	0.33(0.20, 0.45)
O <sub>3</sub> +SO <sub>2</sub>	0.01(-0.19, 0.21)	0.33(0.21, 0.45)	0.40(0.28, 0.51)
O <sub>3</sub> +NO <sub>2</sub>	0.02(-0.18, 0.22)	0.32(0.20, 0.45)	0.39(0.28, 0.50)
<b>Respiratory</b>			
Main model	-0.07(-0.40, 0.26)	0.39(0.17, 0.61)	0.50(0.31, 0.68)
O <sub>3</sub> +PM <sub>2.5</sub>	-0.12(-0.49, 0.25)	0.33(0.10, 0.57)	0.42(0.22, 0.62)
O <sub>3</sub> +PM <sub>10</sub>	-0.10(-0.47, 0.27)	0.32(0.09, 0.56)	0.42(0.21, 0.62)
O <sub>3</sub> +SO <sub>2</sub>	-0.04(-0.41, 0.32)	0.39(0.16, 0.62)	0.48(0.28, 0.68)
O <sub>3</sub> +NO <sub>2</sub>	-0.07(-0.45, 0.31)	0.38(0.15, 0.61)	0.48(0.28, 0.68)

**Table S10.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association using different relative temperature cutoffs in 128 counties of China.

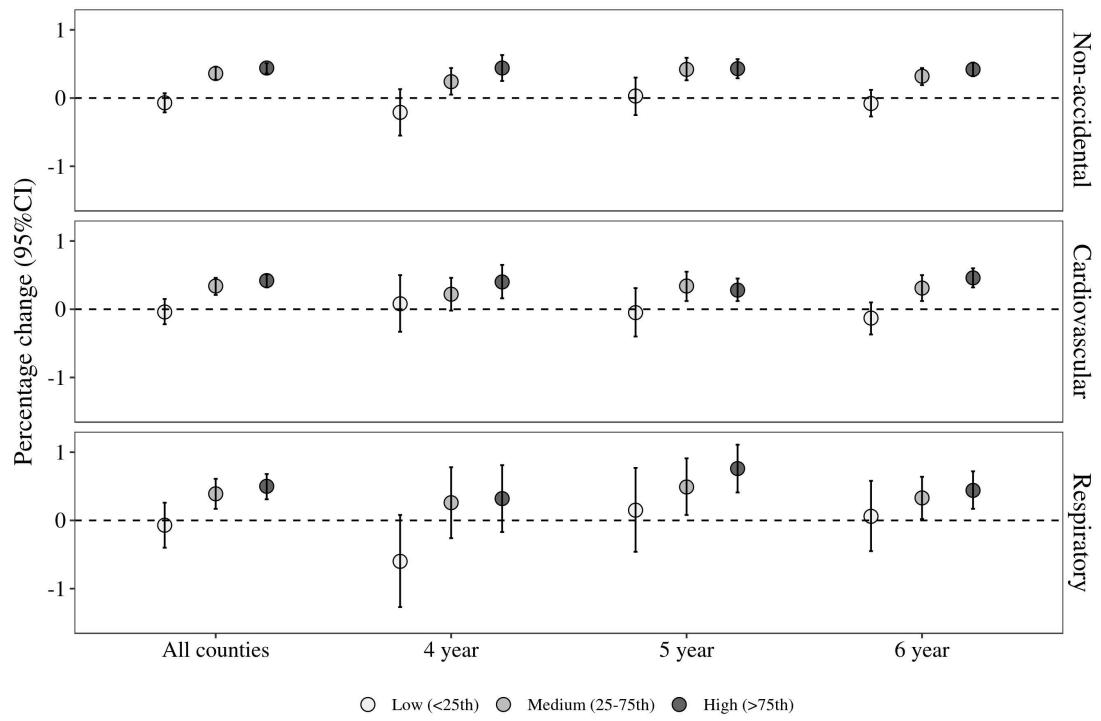
Period	Temperature		
	Low	Medium	High
<b>Nonaccidental</b>			
Main model (25th/75th)	-0.07(-0.21, 0.07)	0.36(0.27, 0.46)	0.44(0.36, 0.51)
20th/80th	-0.05(-0.18, 0.09)	0.37(0.29, 0.46)	0.44(0.35, 0.52)
15th/85th	0.03(-0.11, 0.18)	0.36(0.28, 0.44)	0.45(0.36, 0.53)
10th/90th	0.09(-0.06, 0.23)	0.34(0.26, 0.42)	0.48(0.39, 0.57)
5th/95th	-0.02(-0.19, 0.15)	0.33(0.26, 0.41)	0.60(0.49, 0.71)
<b>Cardiovascular</b>			
Main model (25th/75th)	-0.04(-0.22, 0.15)	0.34(0.21, 0.46)	0.42(0.32, 0.51)
20th/80th	-0.02(-0.21, 0.17)	0.37(0.25, 0.49)	0.39(0.28, 0.50)
15th/85th	-0.02(-0.23, 0.18)	0.34(0.23, 0.45)	0.42(0.31, 0.53)
10th/90th	-0.04(-0.24, 0.16)	0.33(0.23, 0.43)	0.47(0.35, 0.60)
5th/95th	-0.07(-0.31, 0.17)	0.32(0.22, 0.41)	0.59(0.44, 0.75)
<b>Respiratory</b>			
Main model (25th/75th)	-0.07(-0.40, 0.26)	0.39(0.17, 0.61)	0.50(0.31, 0.68)
20th/80th	0.03(-0.30, 0.35)	0.38(0.20, 0.57)	0.52(0.32, 0.73)
15th/85th	0.13(-0.23, 0.48)	0.40(0.22, 0.58)	0.46(0.25, 0.67)
10th/90th	0.09(-0.28, 0.47)	0.40(0.21, 0.60)	0.41(0.17, 0.65)
5th/95th	0.28(-0.19, 0.76)	0.37(0.19, 0.55)	0.53(0.28, 0.78)

**Table S11.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association under different regions in 128 counties of China.

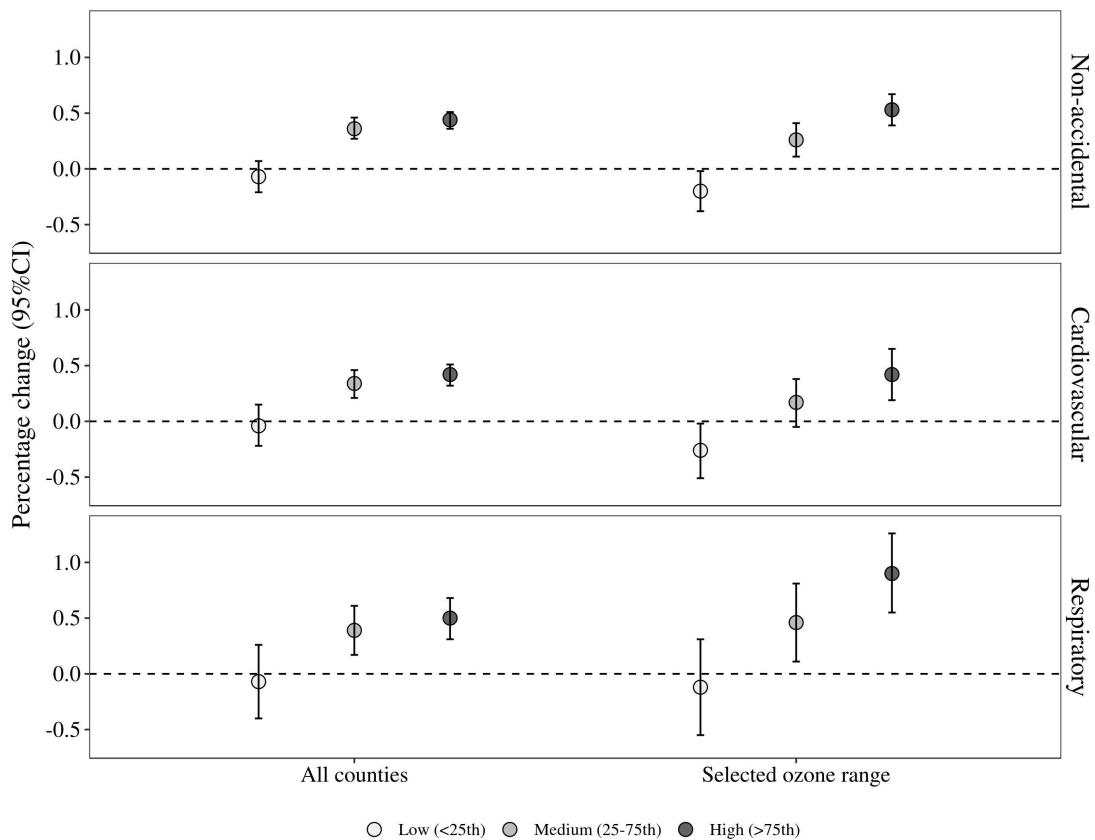
Period	Temperature		
	Low	Medium	High
<b>County-specific cutoffs</b>			
<b>Nonaccidental</b>			
Northern China	0.02(-0.16,0.20)	0.38(0.28,0.49)	0.39(0.31,0.48)
Southern China	-0.20(-0.42,0.01)	0.31(0.14,0.48)	0.52(0.37,0.67)
<b>Cardiovascular</b>			
Northern China	0.05(-0.18,0.28)	0.38(0.23,0.54)	0.39(0.27,0.51)
Southern China	-0.20(-0.50,0.11)	0.25(0.05,0.45)	0.46(0.24,0.69)
<b>Respiratory</b>			
Northern China	0.12(-0.33,0.58)	0.33(0.03,0.63)	0.45(0.17,0.72)
Southern China	-0.34(-0.87,0.20)	0.54(0.23,0.84)	0.61(0.30,0.92)
<b>Region-specific cutoffs</b>			
<b>Nonaccidental</b>			
Northern China	-0.02(-0.21,0.18)	0.33(0.21,0.44)	0.41(0.33,0.49)
Southern China	-0.21(-0.42,0.01)	0.31(0.14,0.47)	0.52(0.39,0.66)
<b>Cardiovascular</b>			
Northern China	-0.02(-0.28,0.23)	0.36(0.19,0.52)	0.40(0.29,0.51)
Southern China	-0.26(-0.57,0.05)	0.24(0.02,0.45)	0.52(0.32,0.73)
<b>Respiratory</b>			
Northern China	0.12(-0.32,0.56)	0.27(-0.04,0.59)	0.45(0.22,0.69)
Southern China	-0.29(-0.89,0.31)	0.46(0.16,0.77)	0.60(0.29,0.91)



**Figure S1.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association when excluding counties using stations from the neighboring.



**Figure S2.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association using counties with different study period.



**Figure S2.** Sensitivity analysis of the modification by the temperature on the ozone-mortality association when limiting to a same ozone range in each county.