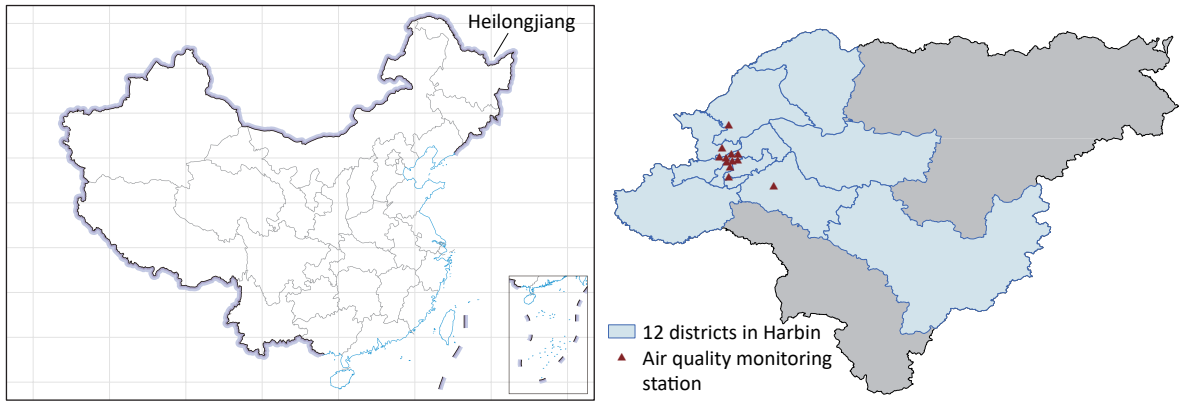
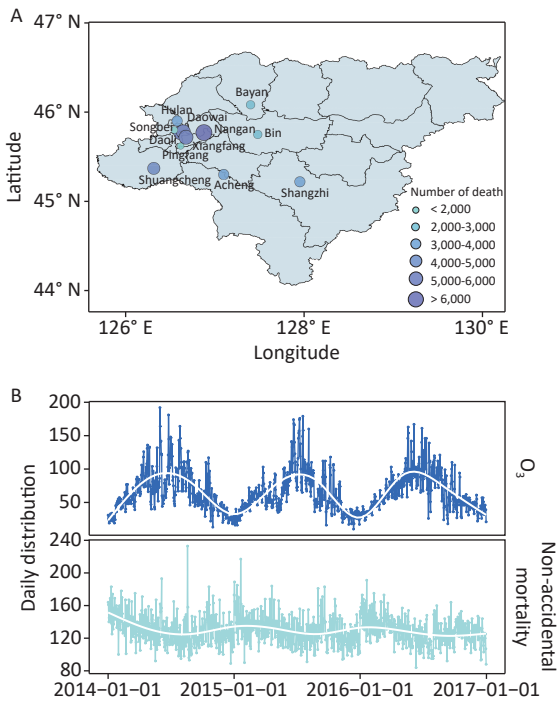
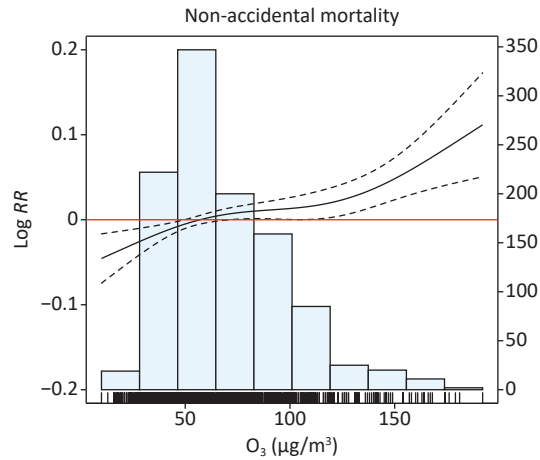


Supplementary Figure S1. Location of Heilongjiang province and distribution of monitoring sites in Harbin.



Supplementary Figure S2. Spatial distribution of death (A) and time series (B) in Harbin, 2014–2016.



Supplementary Figure S3. Exposure-response curves. The solid lines represent the Log *RR* of nonaccidental mortality, and the dotted lines indicate the 95% *CI*. The blue bars represent the frequencies of different ozone concentrations, and the frequency values are presented on the right-hand side of the *Y*-axis.

Supplementary Table S1. Descriptive analysis of the daily ambient pollutants, meteorological factors, and nonaccidental mortality in Harbin during 2014–2016

Variable		Mean ± SD	Minimum	Maximum	Percentile		
					P_{25}	P_{50}	P_{75}
The number of deaths	Nonaccidental mortality	129.79 ± 0.53	84.00	233.00	118.00	128.00	140.00
Air pollutant concentrations	O_3 (μg/m^3)	64.99 ± 0.93	10.00	192.00	43.00	58.00	83.00
	NO_2 (μg/m^3)	48.50 ± 0.63	15.00	145.00	34.00	43.00	59.00
	SO_2 (μg/m^3)	41.10 ± 1.36	3.00	234.00	9.00	21.00	61.00
	CO (mg/m^3)	1.02 ± 0.01	0.40	4.30	0.70	0.90	1.20
	$PM_{2.5}$ (μg/m^3)	64.20 ± 1.95	8.00	704.00	24.00	41.00	83.00
	PM_{10} (μg/m^3)	95.29 ± 2.23	16.00	628.00	47.00	72.50	122.00
Meteorological factors	Temperature (°C)	5.28 ± 0.46	−26.10	29.00	−9.38	7.50	19.60
	Air pressure (hPa)	1000.28 ± 0.29	973.20	1025.20	993.00	999.60	1007.60
	Relative humidity (%)	65.39 ± 0.45	15.00	97.00	57.00	67.00	76.00
	Wind speed (m/s)	8.84 ± 0.10	2.50	23.80	6.30	8.40	10.80
	Precipitation (mm)	1.25 ± 0.12	0.00	53.90	0.00	0.00	0.10
	Sunshine duration (h)	5.77 ± 0.12	0.00	14.10	2.40	6.20	8.80

Supplementary Table S2. *RR*s and 95% *CI*s for nonaccidental mortality with each IQR increase in O_3 concentration at single-day lags

Period	Lag	Total	Male	Female
Whole period	Lag0	1.018 (1.001−1.035)*	1.018 (0.997−1.040)	1.026 (1.003−1.050)*
	Lag1	1.020 (1.006−1.034)**	1.019 (1.002−1.037)*	1.026 (1.006−1.046)*
	Lag2	1.015 (1.003−1.027)*	1.015 (1.000−1.031)	1.018 (1.000−1.036)
	Lag3	1.003 (0.992−1.014)	0.995 (0.981−1.010)	1.012 (0.994−1.029)
	Lag4	1.006 (0.995−1.018)	0.998 (0.983−1.012)	1.015 (0.997−1.032)
	Lag5	1.008 (0.996−1.019)	1.005 (0.990−1.019)	1.006 (0.989−1.023)
	Lag6	0.995 (0.984−1.007)	0.996 (0.982−1.011)	0.987 (0.970−1.004)
Cold season	Lag0	1.001 (0.985−1.017)	1.000 (0.979−1.021)	1.003 (0.977−1.030)
	Lag1	1.006 (0.991−1.021)	0.998 (0.979−1.017)	1.018 (0.994−1.042)
	Lag2	0.999 (0.986−1.013)	1.003 (0.986−1.021)	0.993 (0.973−1.014)
	Lag3	0.990 (0.977−1.003)	0.987 (0.970−1.004)	0.994 (0.973−1.014)
	Lag4	0.995 (0.982−1.008)	0.997 (0.980−1.014)	0.993 (0.973−1.013)
	Lag5	1.005 (0.992−1.019)	1.010 (0.993−1.027)	1.002 (0.982−1.022)
	Lag6	1.009 (0.995−1.022)	1.012 (0.994−1.029)	1.005 (0.984−1.026)
Warm season	Lag0	1.021 (1.002−1.040)*	1.017 (0.993−1.041)	1.026 (1.001−1.051)*
	Lag1	1.018 (1.002−1.033)*	1.018 (0.998−1.037)	1.020 (0.998−1.042)
	Lag2	1.015 (1.002−1.028)*	1.012 (0.995−1.029)	1.019 (1.000−1.039)
	Lag3	1.005 (0.993−1.018)	0.998 (0.982−1.014)	1.014 (0.995−1.033)
	Lag4	1.007 (0.994−1.019)	0.997 (0.982−1.013)	1.017 (0.999−1.036)
	Lag5	1.002 (0.990−1.014)	0.999 (0.984−1.014)	0.987 (0.972−1.004)
	Lag6	0.986 (0.974-0.998)*	0.988 (0.973−1.003)	0.981 (0.964−1.000)*

Note. $^{**}P < 0.01$, $^{*}P < 0.05$. IQR: per interquartile range.