

## Article

# Spatiotemporal Characteristics of Ozone Pollution and Resultant Increased Human Health Risks in Central China

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**Table S1.** The study area, ozone and population dataset used in this study.

Description	Descriptions
Study area	Central China Henan, Hubei, Hunan Provinces
Dataset	
Ozone pollution ChinaHighO3	Time coverage: 2014 to 2020 Spatial Coverage: Central China Spatial resolution: 10 km × 10 km Data source: <a href="http://tapdata.org.cn">http://tapdata.org.cn</a> (accessed on 21 May 2023)
Population	Time coverage: 2014 to 2020 Spatial Coverage: Central China Spatial resolution: 1 km × 1 km Data source: <a href="https://www.worldpop.org/">https://www.worldpop.org/</a> (accessed on 21 May 2023)

**Table S2.** Average annual MDA8 O<sub>3</sub> concentration [ $\mu\text{g m}^{-3}$ ] of entire Central China from 2014 to 2020.

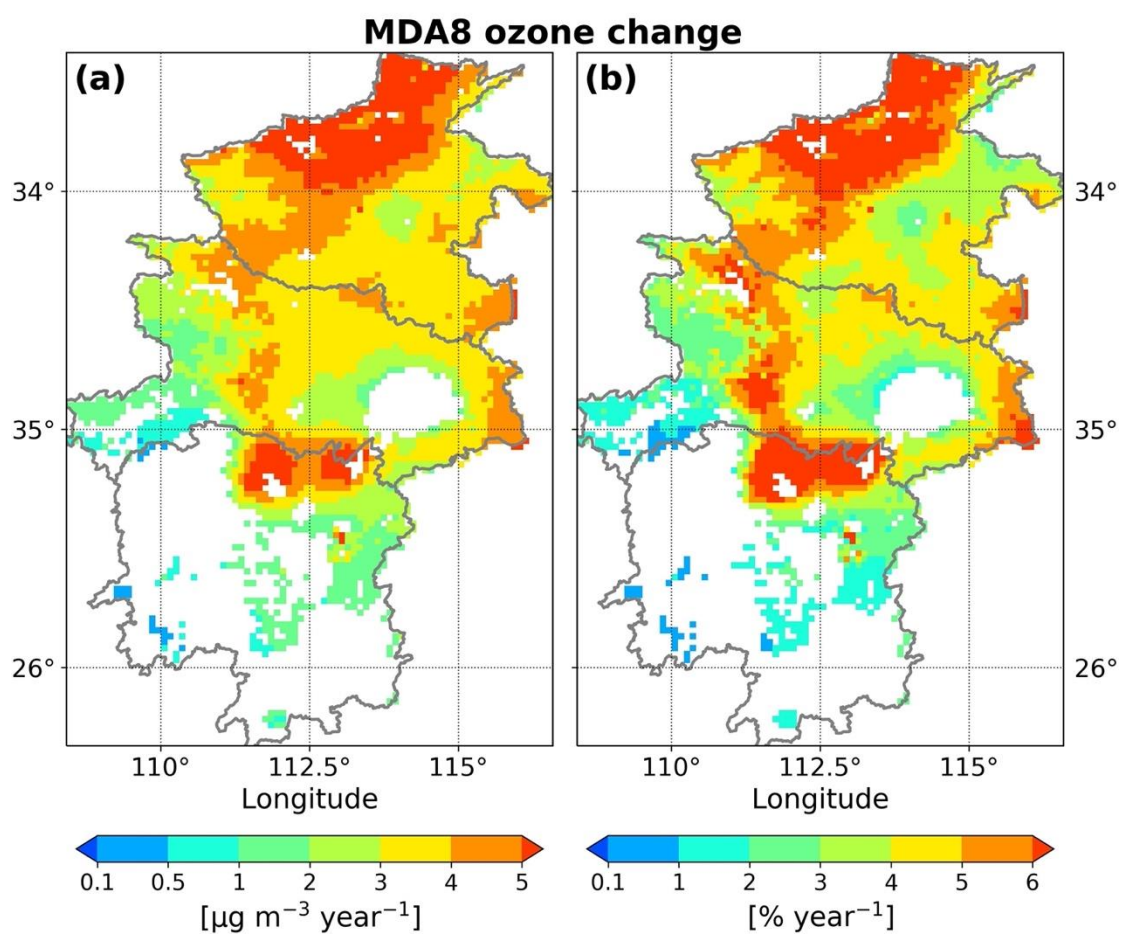
Year	2014	2015	2016	2017	2018	2019	2020
	80.1±7.5	80.4±7.9	87.6±8.8	93.3±9.7	96.2±11.2	101.2±12.1	96.3±12.3

Note: The value behind “±” is the standard deviation.

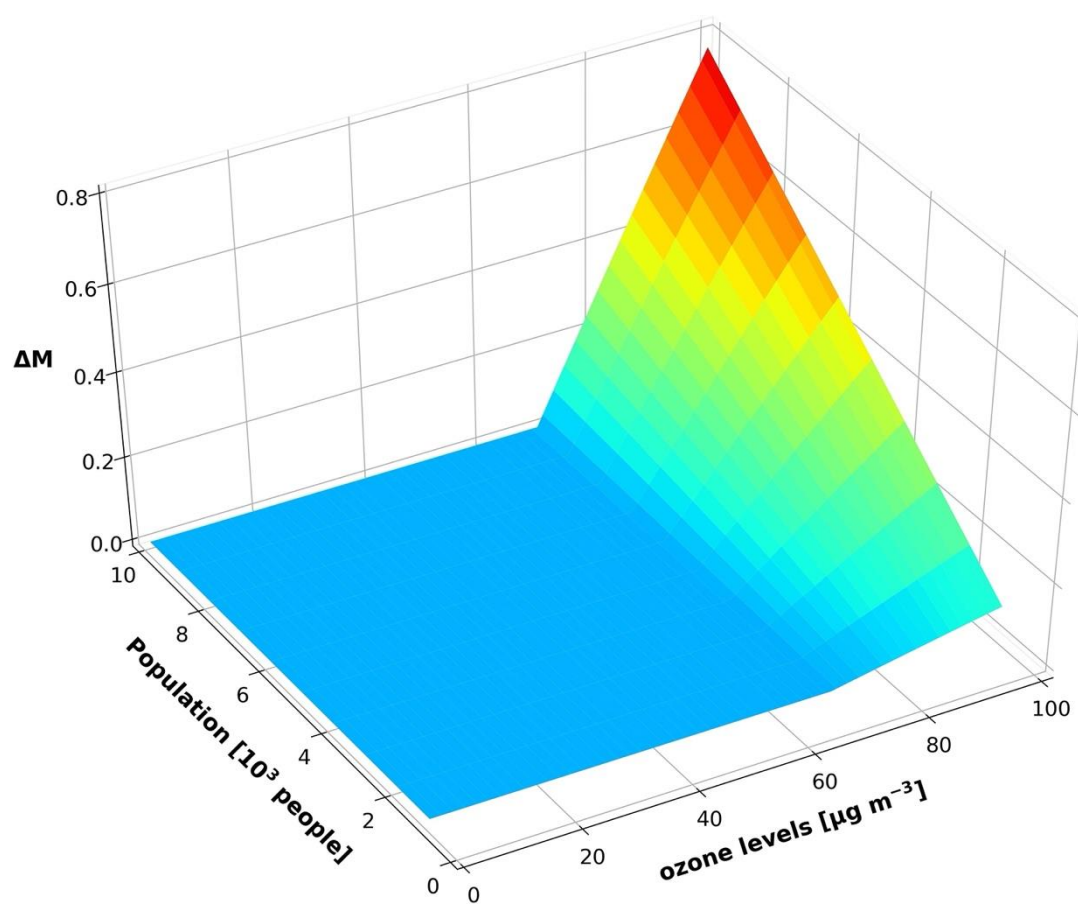
**Table S3.** The R-squared values between the annual premature mortality and the annual population and ozone levels, as assessed across all grid points in Central China from 2014 to 2020.

Year Variables	2014	2015	2016	2017	2018	2019	2020
Population	0.86	0.87	0.91	0.83	0.92	0.95	0.92
Ozone levels	0.26	0.25	0.25	0.25	0.23	0.22	0.22

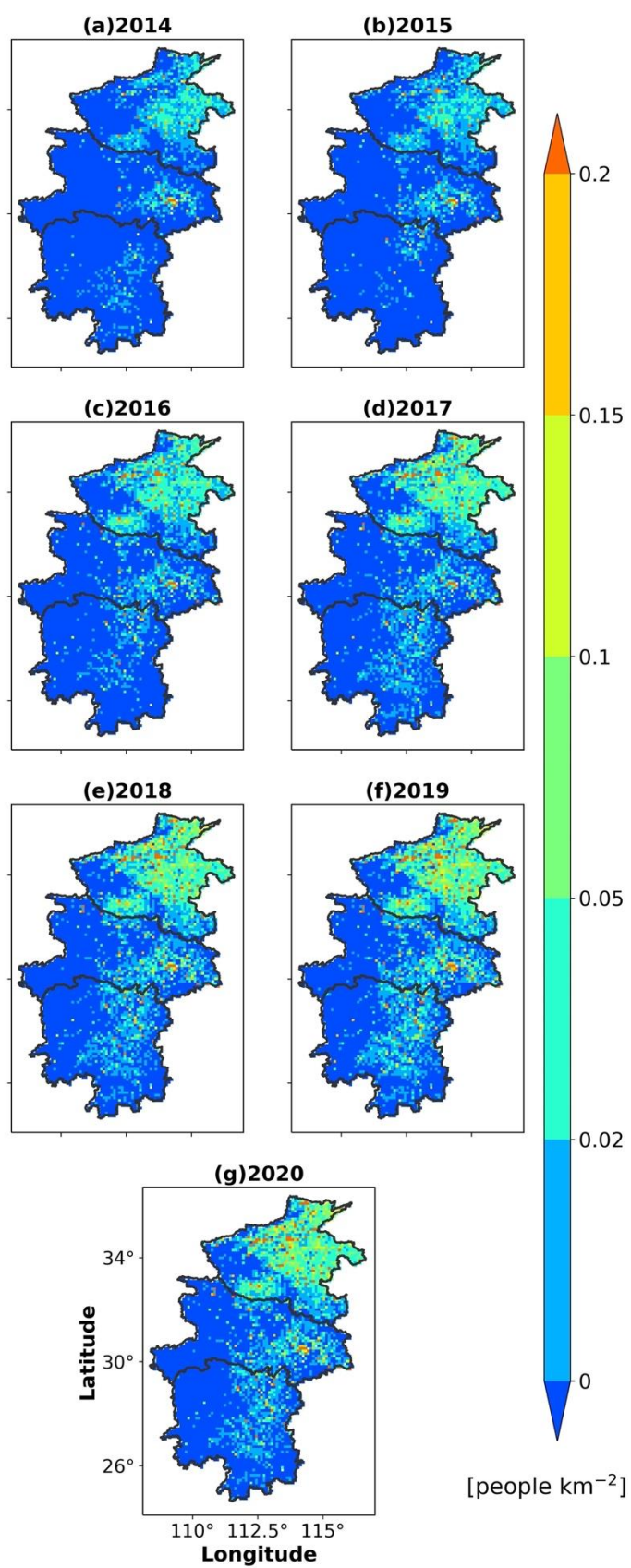




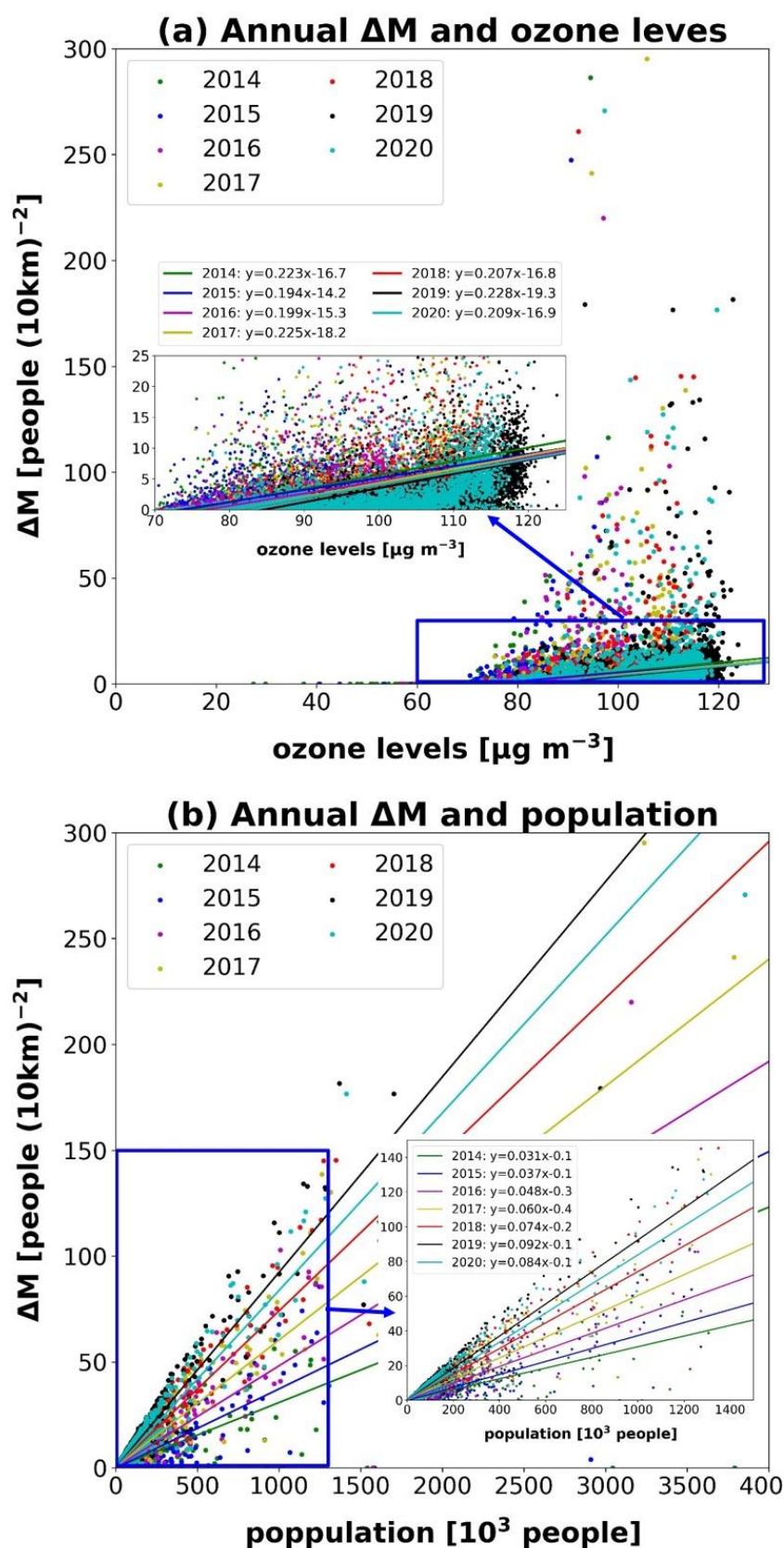
**Figure S1.** The spatial patterns of annual changes in MDA8 ozone concentration from 2014 to 2020, including formats of (a) mass concentration and (b) percentage.



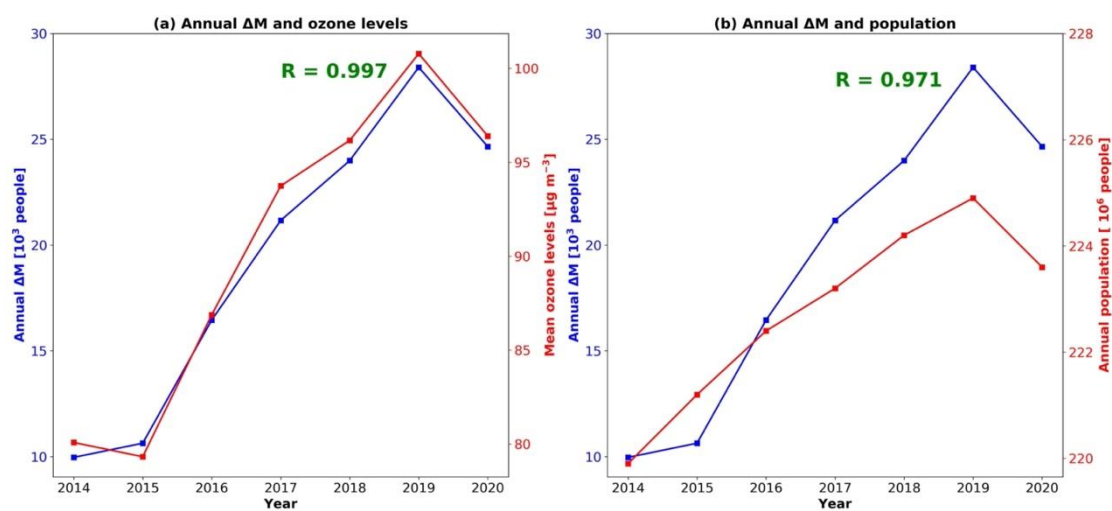
**Figure S2.** The correlations between premature mortality and ozone levels as well as exposed population.



**Figure S3.** The spatial patterns of annual premature mortality attributed to ozone exposure for respiratory diseases from 2014 to 2020.



**Figure S4.** The overall regional correlation between the annual premature mortality and (a) ozone levels and (b) the annual population, as assessed across all grid points in Central China from 2014 to 2020.



**Figure S5.** Annual variations of premature mortality, regional average ozone levels, and total population in Central China from 2014 to 2020.