

Supplemental Material

Short-term exposure to fine particulate matter and its constituents may affect renal function via oxidative stress: A longitudinal panel study

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Table S1. Changes in superoxide dismutase (mean and 95% confidence intervals) with increase in [BUN blood urea nitrogen (mmol/L)] concentrations at previous visits ($Y_{ij} \rightarrow M_{ij+1}$).

M_{ij+1}	Changes and 95% confidence	<i>p</i> -value
Superoxide dismutase	-0.55 (-1.66, 0.56)	0.37

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Figure S1. Directed acyclic graph for mediation analysis. $PM_{2.5}^{ij}$ represents $PM_{2.5}$ exposure for i^{th} subject prior to j^{th} visit; M^{ij} represents the potential bio-mediator levels for i^{th} subject prior to j^{th} visit; Y^{ij} represents the renal function indicators for i^{th} subject prior to j^{th} visit; C_1^{ij} represents exposure-outcome confounders; C_2^{ij} represents exposure-mediator confounders; C_3^{ij} represent mediator-outcome confounders. The dotted line indicates the time-varying confounding assumption.

Figure S2. Monthly averaged $PM_{2.5}$ concentrations from September to December in Wuhan, China, 2018 to 2020.

Figure S3. Changes in blood urea nitrogen and blood urea nitrogen-to-serum creatinine (mean and 95% confidence intervals) with an interquartile range increment of 3-day averaged PM_{2.5} concentrations in the two-pollutant models.

Figure S4. Changes (mean and 95% confidence intervals) in blood urea nitrogen associated with an interquartile range increase in 3-day average concentrations of PM_{2.5}-bound constituents in the constituent-PM_{2.5} joint models and the constituent-residual model. Abbreviations same as in Table 2. *Estimated were statistically significant (p-value < 0.05).

Figure S1

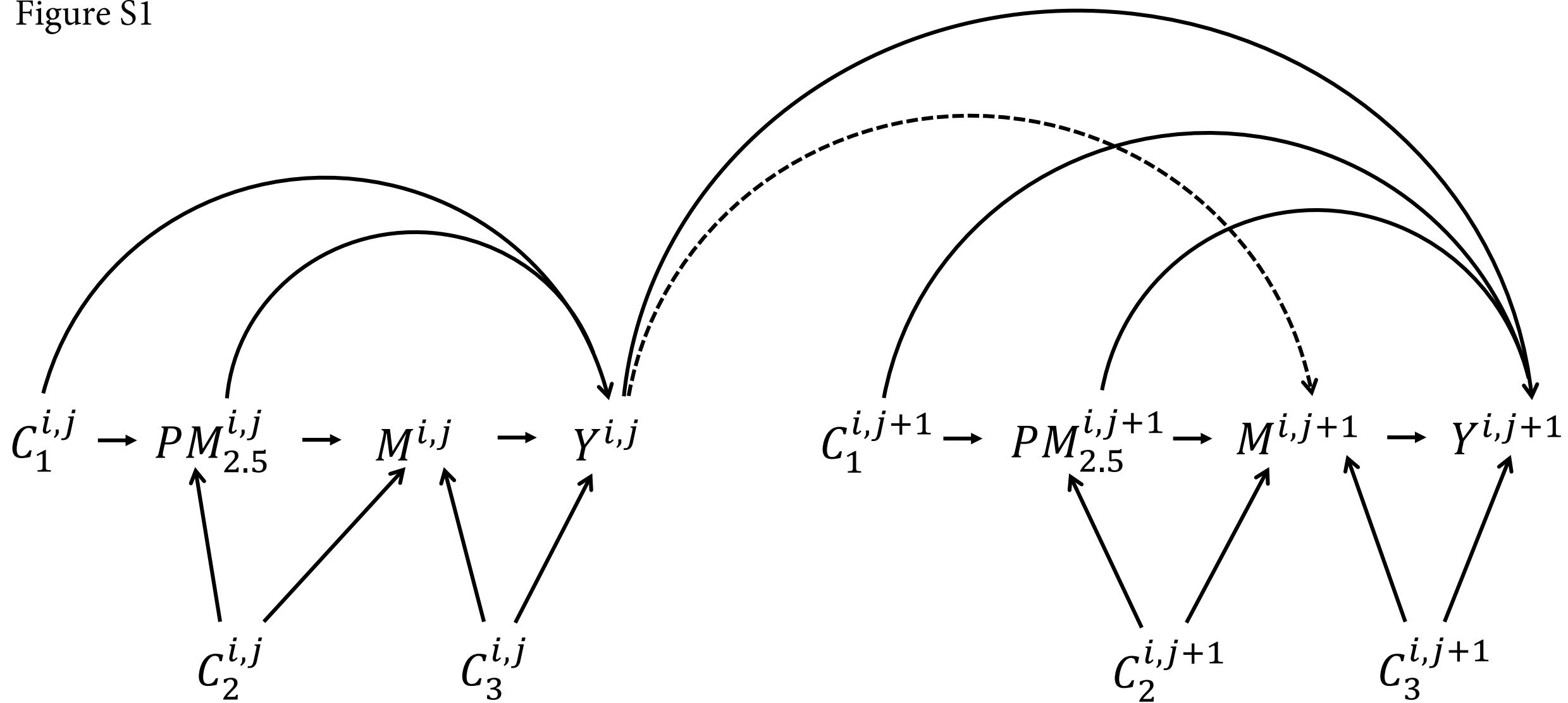


Figure S2

PM_{2.5} concentrations from September to December in Wuhan, China, 2018 to 2020

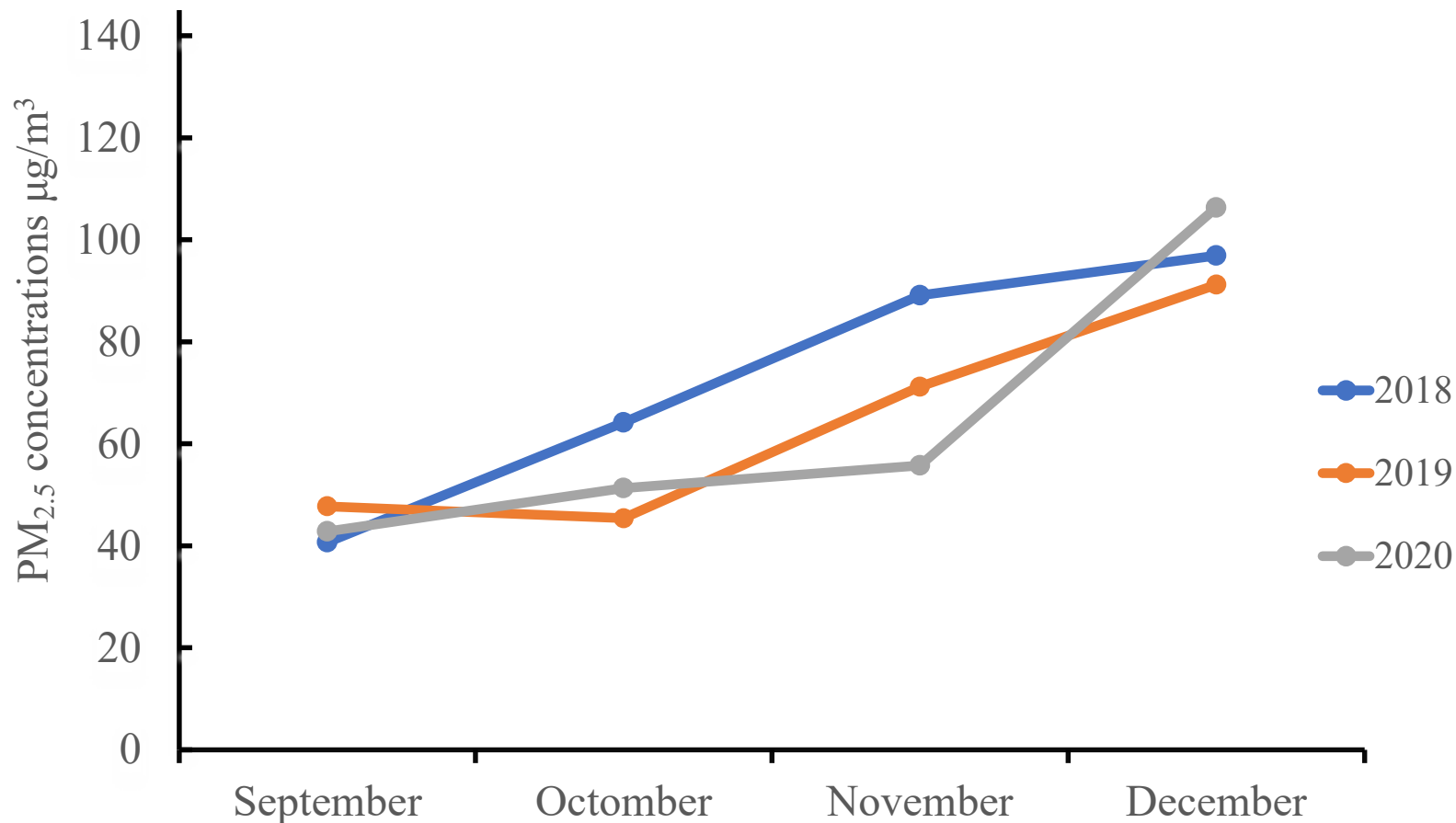


Figure S3

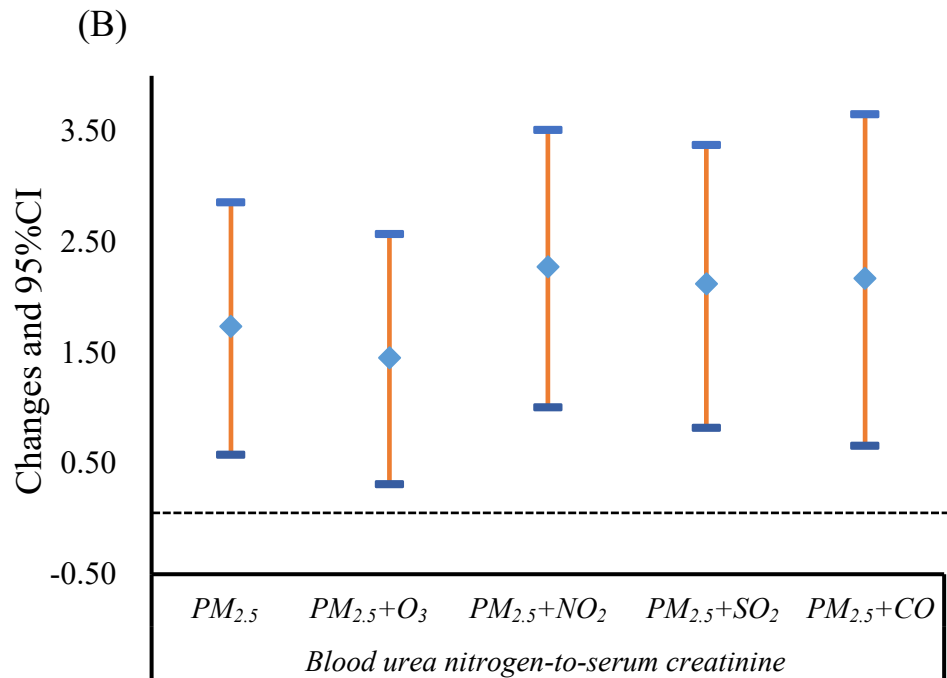
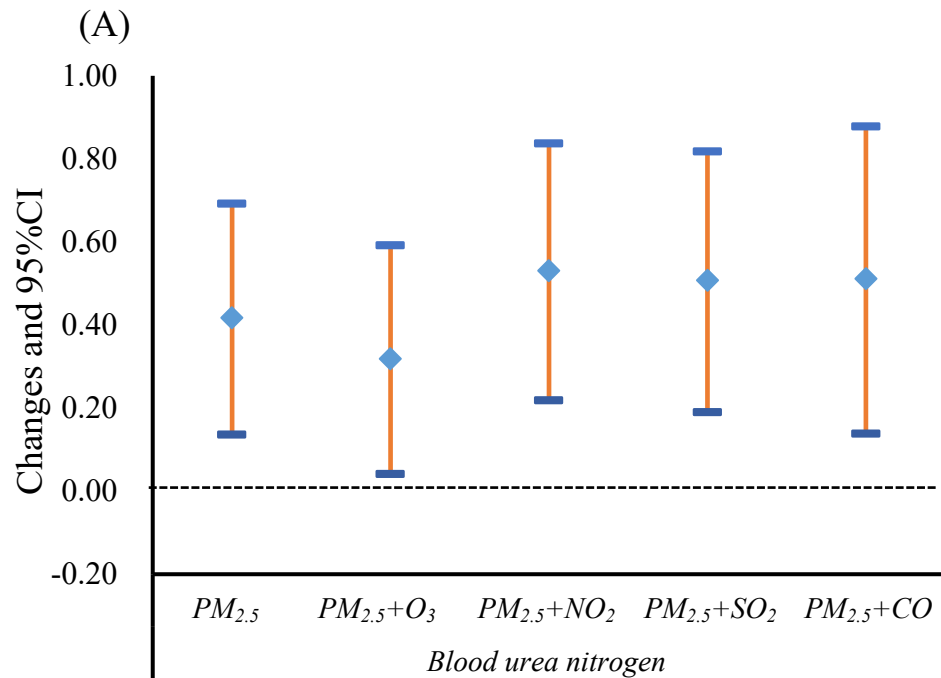


Figure S4

