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Supplemental Material

Association of Tailpipe-Related and Nontailpipe-Related Air Pollution Exposure with Cognitive Decline in the Chicago Health and Aging Project

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Table of Contents

R Code

Figure S1. Timeline of CHAP (1993-2012) indicating (i) windows during which participants were recruited/enrolled into CHAP, (ii) the window in which we have NO_x and NO₂ predicted concentrations, and (iii) the temporal ordering of TRAP exposure windows and the period in which participants were followed for cognitive decline.

Figure S2. Algorithm by which we assigned participants in our analyses a 3-year exposure window, which in turn determined their analytic baseline.

Table S1. Dataset containing 5 hypothetical participants in our study who entered CHAP at different times.

Table S2. C-statistics from models predicting either continuation due to not dropping out or continuation due to not dying among participants in our analytic sample (N=6,061).

Table S3. Results from pooled logistic regression models for dropout or death in our analytic sample (N=6,061), adjusting for NO_x and other relevant covariates.

Table S4. Results from pooled logistic regression models for dropout or death in our analytic sample (N=6,061), adjusting for NO₂ and other relevant covariates.

Table S5. Results from pooled logistic regression models for dropout or death in our analytic sample (N=6,061), adjusting for PM_{2.5-10,Cu} and other relevant covariates.

Table S6. Results from pooled logistic regression models for dropout or death in our analytic sample (N=6,061), adjusting for $PM_{2.5-10,Zn}$ and other relevant covariates.

Table S7. Spearman rank correlations of predicted annual average NO_x concentrations, from 1999 through 2012, at all CHAP locations (N=8,473 unique locations).

Table S8. Spearman rank correlations of predicted annual average NO_2 concentrations, from 1999 through 2012, at all CHAP locations (N=8,473 unique locations).

Table S9. Spearman rank correlations between estimated TRAP concentrations, averaged over 3 years prior to analytic baseline, and community noise levels (N=6,601).