Supplementary Appendix for

Air pollution and cardiovascular disease hospitalization – are associations modified by greenness, temperature and humidity?

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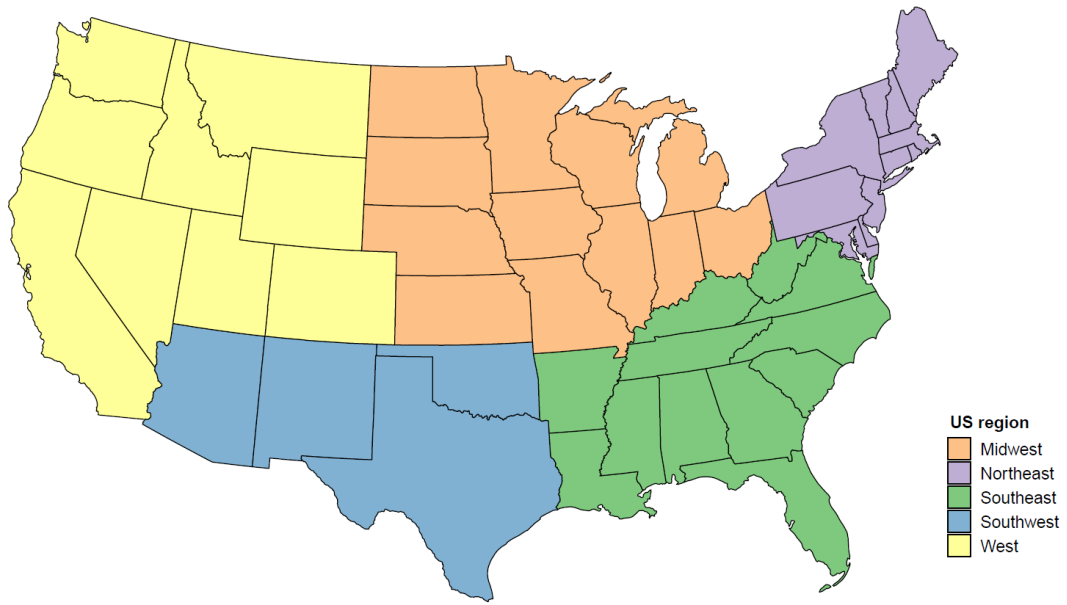jklompmaker@hsph.harvard.edu

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Figure S1. Geographical regions of the US based on geographical position, climate and cultural differences.
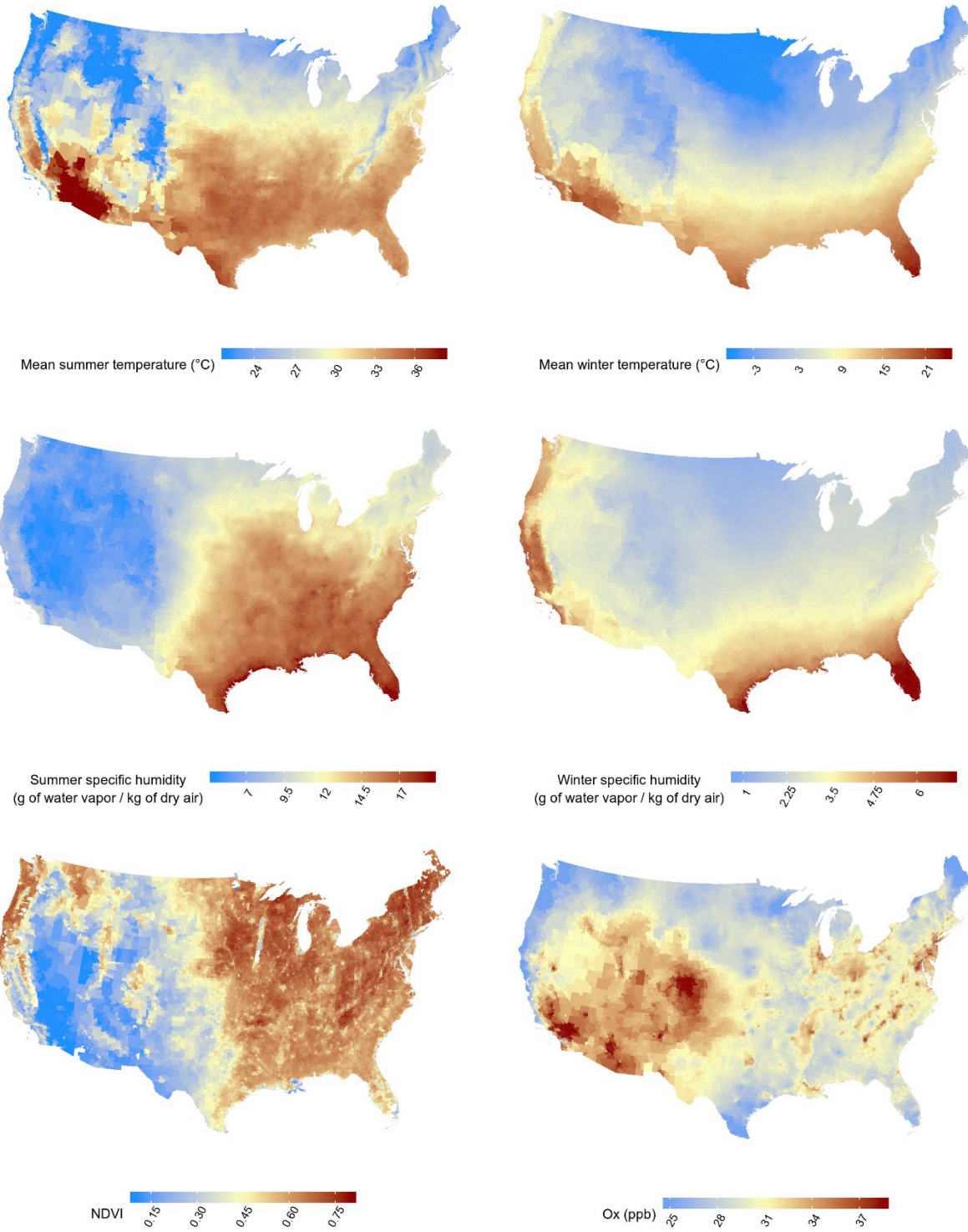
Figure S2. The spatial variation of the mean daily maximum summer and winter temperature, mean daily ambient summer and winter specific humidity, summer NDVI and Ox per zip code in the contiguous US (year = 2010).
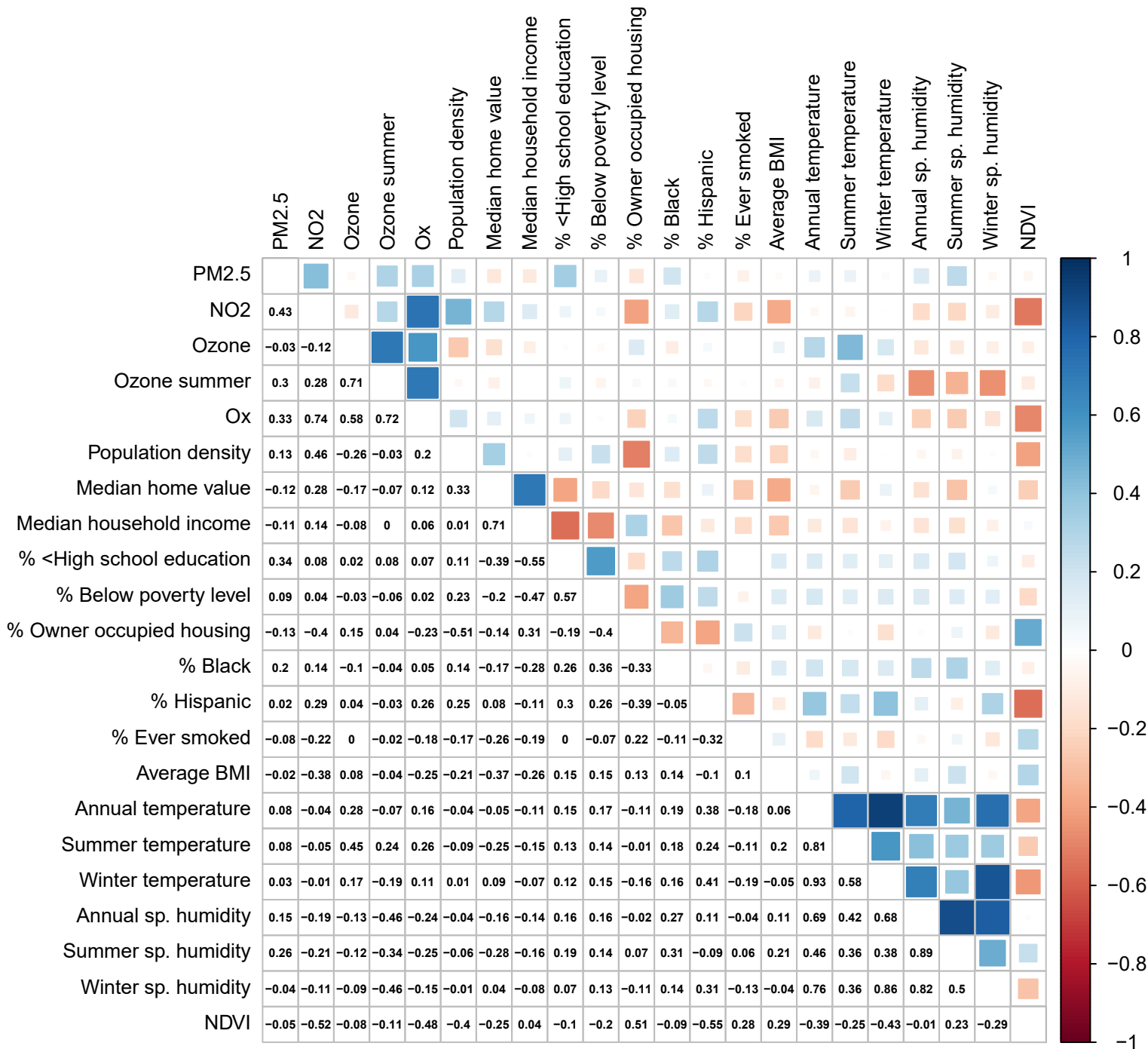
Figure S3. Pearson correlation between PM$_{2.5}$, NO$_2$, Ozone, and covariates [a].

[a] The correlations shown are correlations in the cardiovascular disease hospitalization cohort. Correlations in the coronary heart disease hospitalization and in the cerebrovascular disease hospitalization cohort are very similar to the correlations shown in this figure.
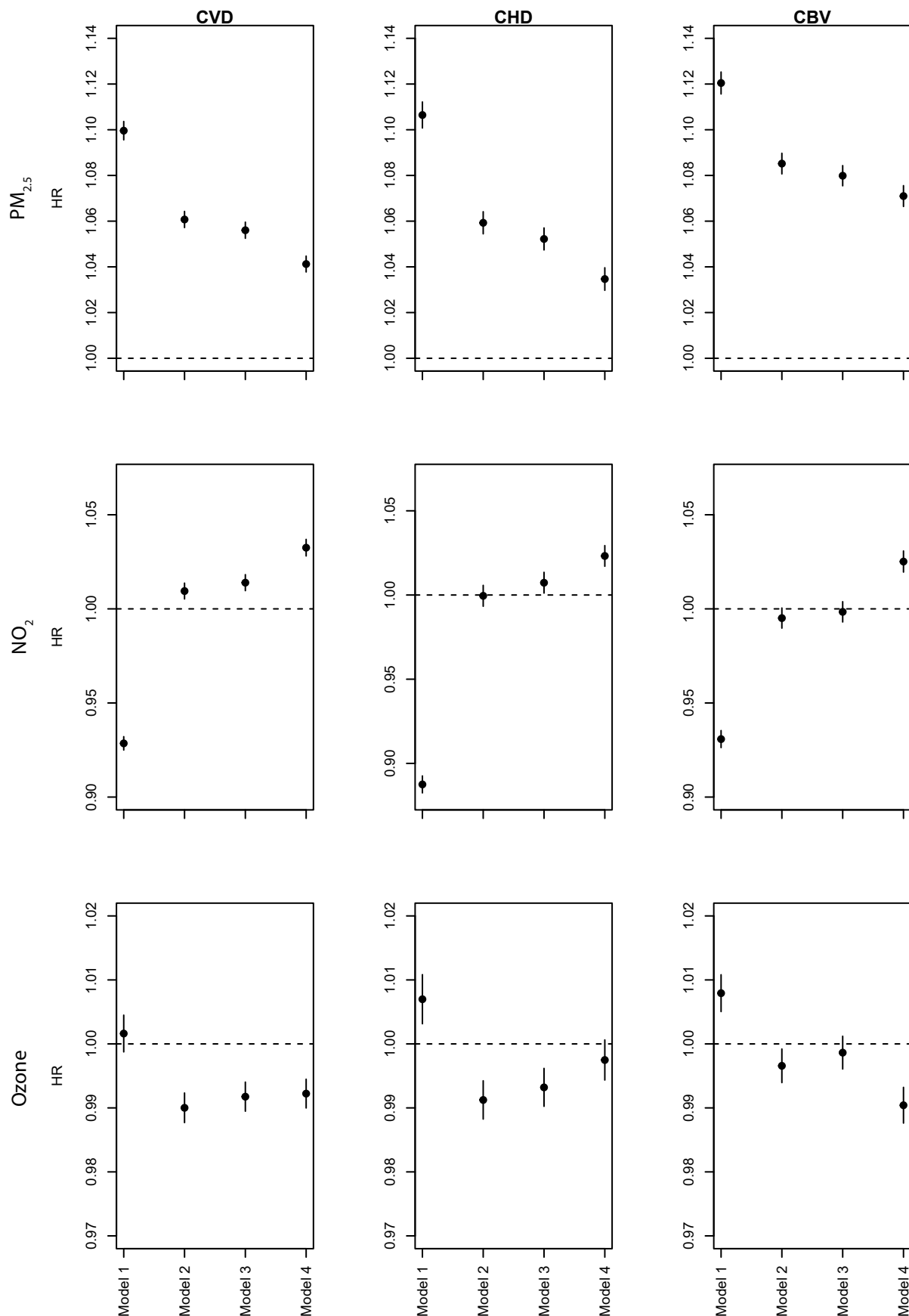
Figure S4. Associations of PM$_{2.5}$, NO$_2$ and Ozone with cardiovascular disease hospitalization (CVD), coronary heart disease hospitalization (CHD) and cerebrovascular disease hospitalization (CBV), in model with increasing adjustment for potential confounders [a, b].

[a] Associations are expressed per IQR increase (IQR PM$_{2.5}$ = 4.0 µg/m^3, IQR NO$_2$ = 13.9 ppb, IQR Ozone = 4.4 ppb) of the cardiovascular disease hospitalization cohort.

[b] Model 1 included PM$_{2.5}$, NO$_2$ and ozone and strata for all possible combinations of sex, race, dual, age at study entry (2-year categories) and follow-up year. In Model 2 all US census covariates were added. In Model 3 BRFSS covariates were added. In Model 4 US regions were added.
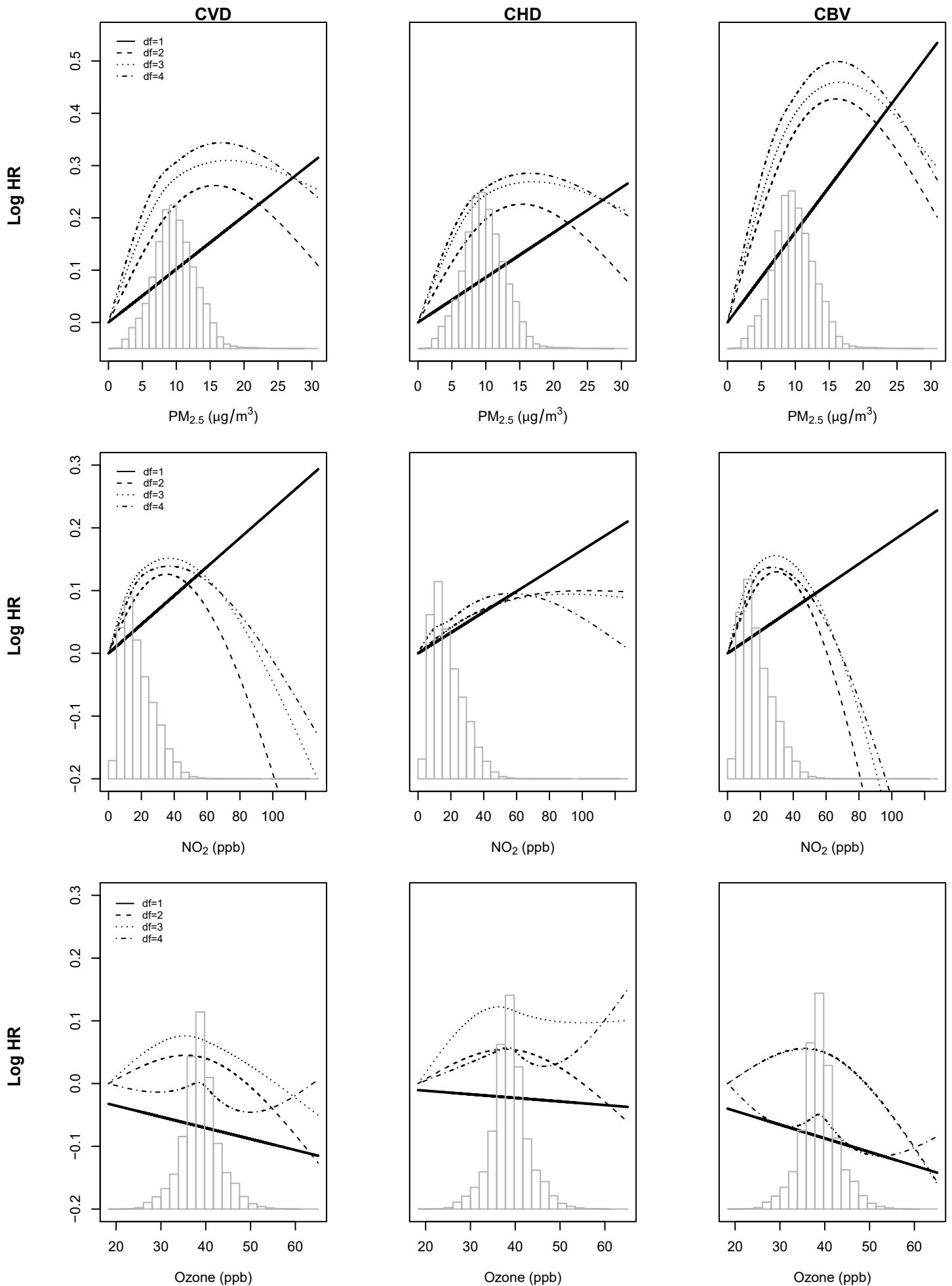
Figure S5. Exposure-response curves (Model 4) with natural splines (2, 3 and 4 degrees of freedom) of PM$_{2.5}$, NO$_2$ and ozone with cardiovascular disease hospitalization (CVD), coronary heart disease hospitalization (CHD) and cerebrovascular disease hospitalization (CBV) [a].

[a] Histograms of the exposure are shown on the x-axis.