Supplementary Online Content

This supplementary material has been provided by the authors to give readers additional information about their work.

eFigure 1. Comparisons Between Measured and Modeled Annual Mean Concentrations of Pollutants
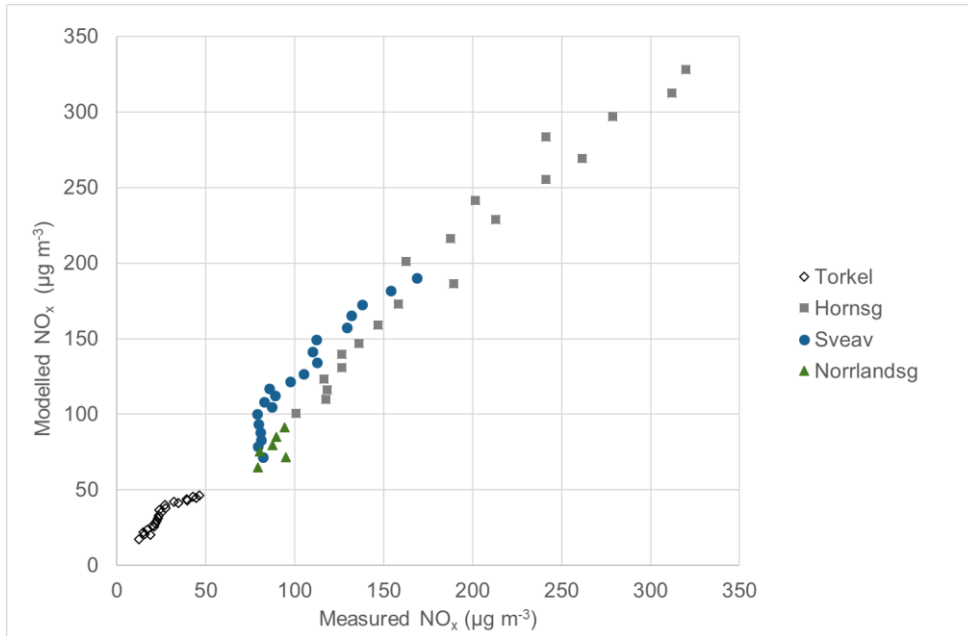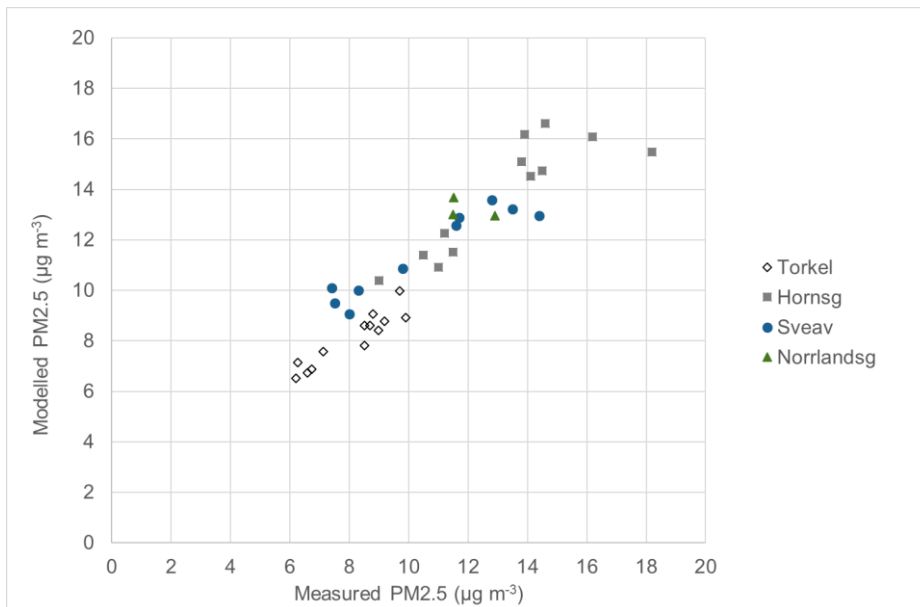
A. NO$_x$ for 1990-2011

B. PM$_{2.5}$ for 1999-2011

eFigure 2. Hazard Ratios (HR) of Alzheimer Disease and Vascular Dementia With 95% Confidence Intervals by $PM_{2.5}$ and NOX
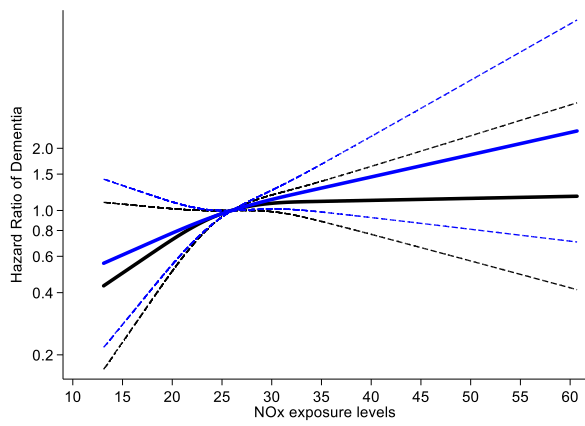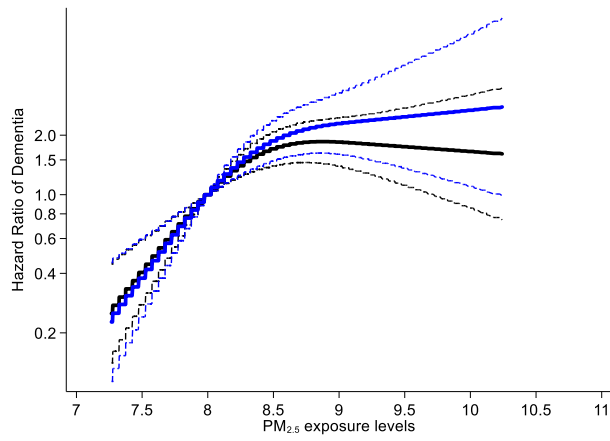
Estimates are hazard ratios derived from Cox proportional hazard models according to $PM_{2.5}$ and NO_x levels. Air pollutants are modelled using restrict cubic splines. Age is considered as time scale. Models are adjusted for sex, age at baseline, year of assessment, education, smoking, socio-economic status, early retirement, physical activity, depression, baseline MMSE score, diabetes, BMI, hypertension and dyslipidemia. The time exposure period is between 0−5 years before the event. The reference group is considered the mean exposure level in the entire population. Bars represent distribution of the exposure levels in the entire population and spikes represent the cases.
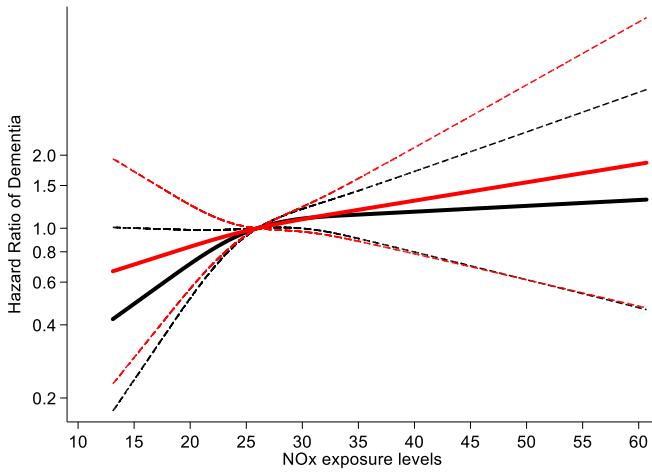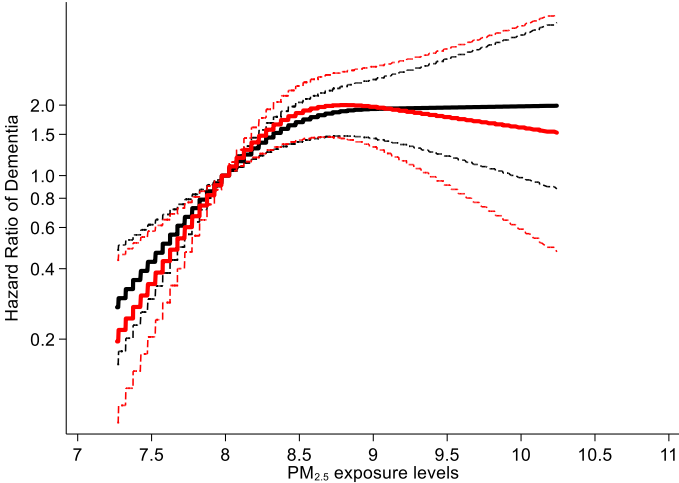
PM$_{2.5}$, μg/m^3

NOx, μg/m^3
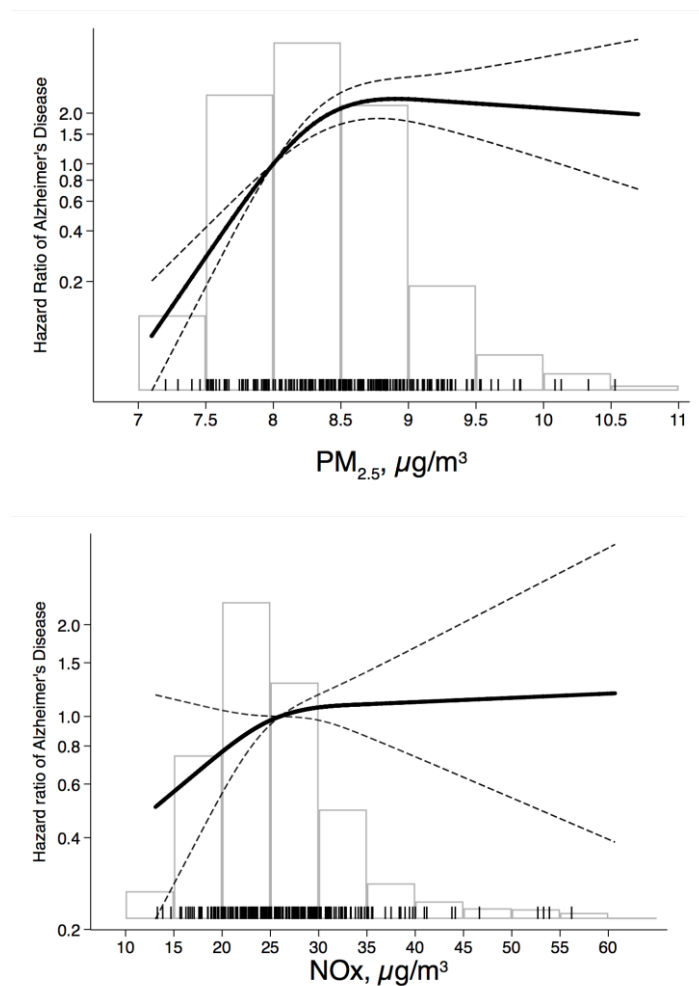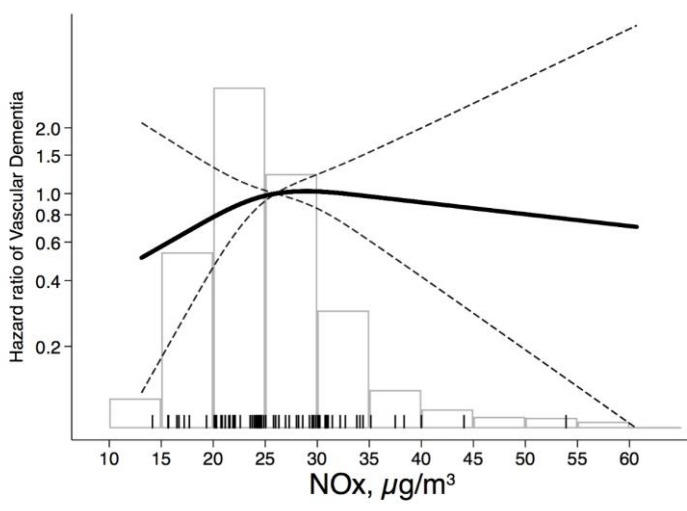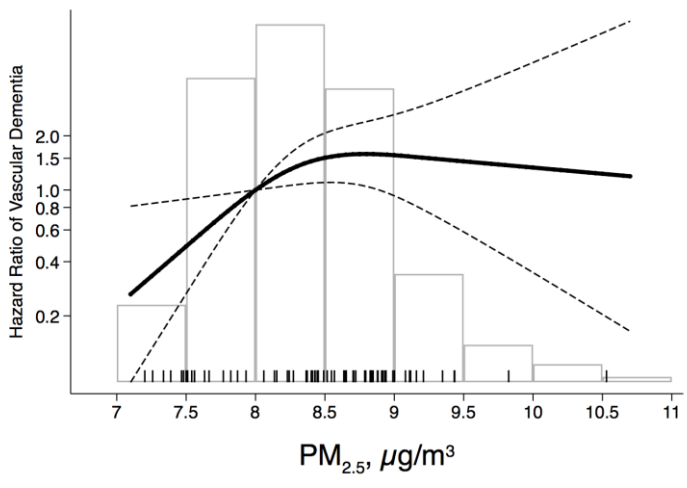
eFigure 3. Association Between Air Pollutants (NOX and PM$_{2.5}$) and the Hazard of Dementia

(A) Stratified by age groups: <78 years (blue line) and 78+ years (black line)

(B) Stratified by *APOE* status: at least one Ɛ4 allele (red line) and no Ɛ4 allele (black line)

Estimates are hazard ratios derived from Cox proportional hazard models according to the air pollutants. Air pollutions are modelled using restricted cubic splines. Age is considered as time scale. Models are adjusted for sex, age at baseline, year of assessment, education, smoking, socio-economic status,early retirement, physical activity, baseline MMSE score, BMI, depression, hypertension, dyslipidemia and diabetes. The time exposure period is between 0−5 years before the event. The reference group is considered the mean exposure level in the entire population.