Supplementary Material:

Assessing environmental epidemiology questions with a causal inference pipeline in practice: An investigation of the air pollution-multiple sclerosis relapses relationship.

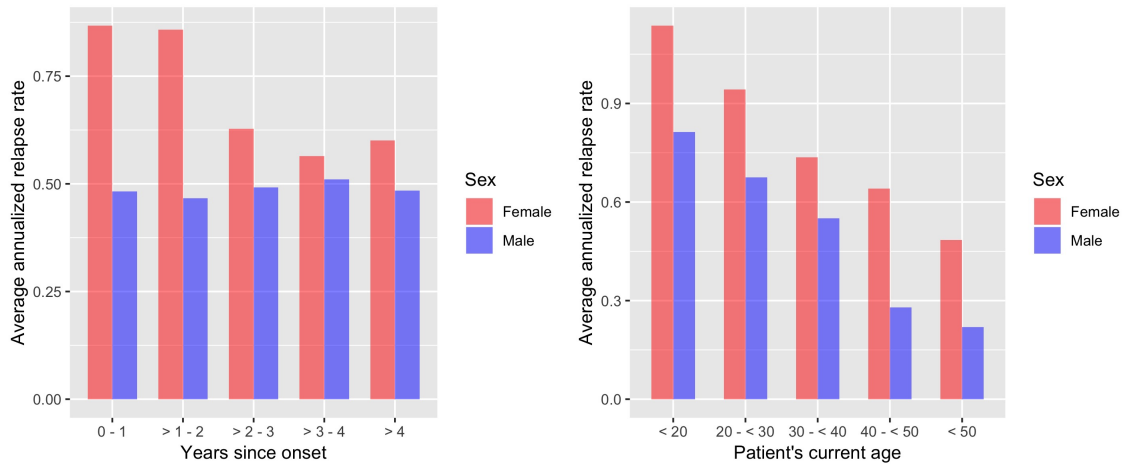Alice J. Sommer[1,2,3], Emmanuelle Leray[4], Young Lee[1], and Marie-Abèle C. Bind[1,*]

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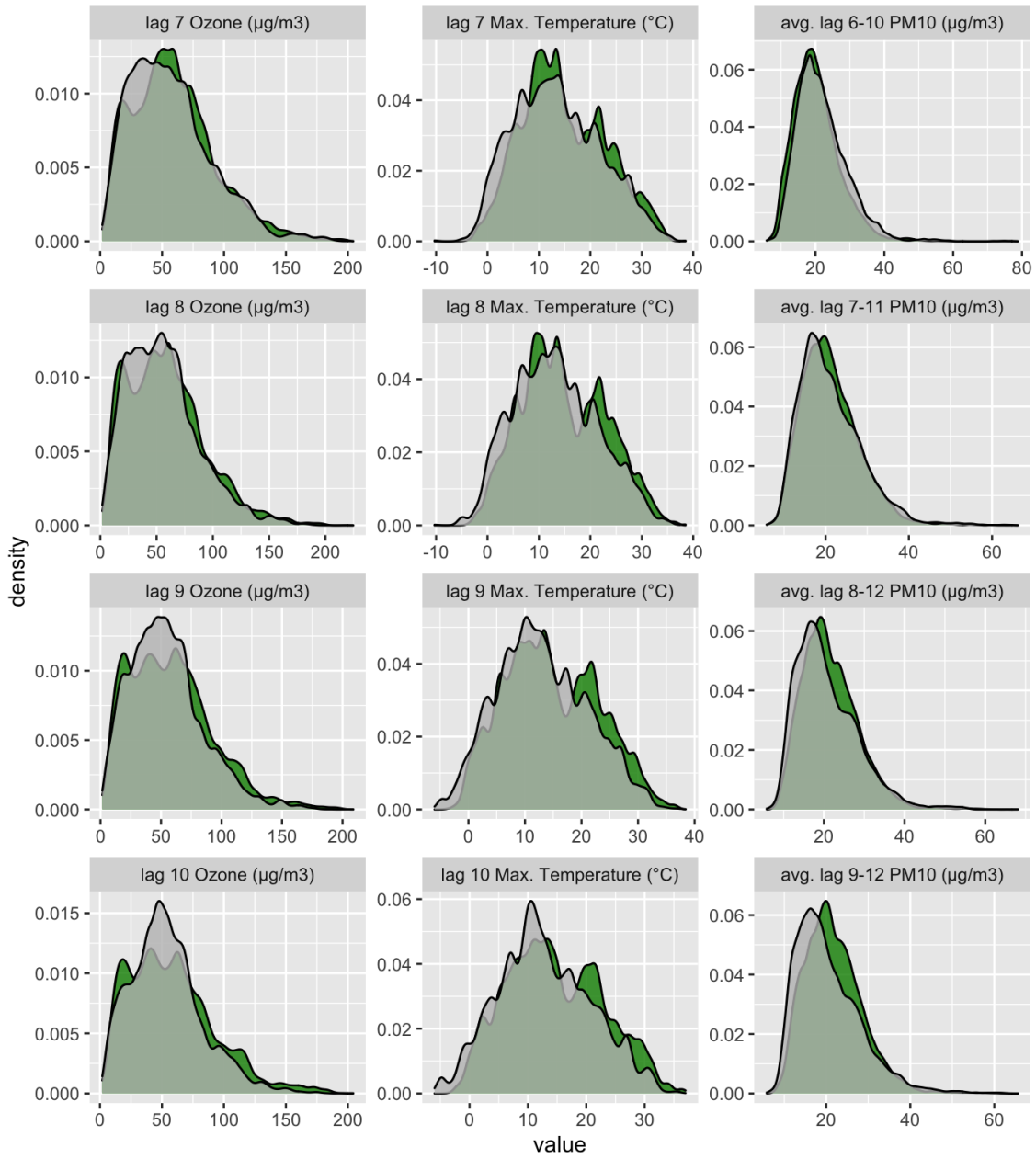EA, 7449, F-35000 Rennes, France*
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Web Figure 1: Annualized relapse rates per years at onset and patient's current age categories.

Web Table 1: Literature summary of the air pollution-MS relationship.

Authors	Outcome	Methods	Epidemiological findings
Oikenen et al. (2003) *Finland*	dichotomized monthly relapses count	mulitvariate logistic regression	PM associated with MS (relapse): Higher risk of MS relapse in months with highest PM_{10} (average monthly concentration in highest quartile) than lowest PM_{10} (lowest quartile).
Gregory et al. (2008) *Georgia USA*	MS prevalence rates	mulitvariate linear regression	PM associated with MS (disease onset): Higher MS prevalence rates in counties with higher long-term exposure to PM_{10}.
Heydarpour et al.(2014) *Teheran Iran*	case (MS patient) - control (not)	t-test	Higher long-term exposure to PM_{10} for MS cases when compared to randomly selected controls.
Angelici et al. (2016) *Lombardy region Italy*	hospital admission count	poisson regression	MS-related hospitalization increases on days preceded by one week with average PM_{10} levels in the highest quartile.
Bergamaschi et al. (2017) *Pavia province Italy*	inflammatory activity (brain MRI)	logistic regression	Higher PM_{10} levels during days before brain MRIs showing inflammatory activity in MS patients.
Jeanjean et al. (2017) *Alsace region France*	relapse occurrence	case-crossover study	Higher PM_{10} (0_3 , NO_2) levels during days before relapse occurence.
Palacios et al. (2017) *USA* (Nurses Health Study I and II)	MS onset	multivariable Cox proportional hazards models	No association between average PM exposure and MS onset risk.
Hong Chen et al. (2017) *Ontario Canada*	MS cases	multivariable Cox proportional hazards model	No association between living near major roads and MS incidence.

Web Figure 2: Temporal unconfoundedness verification.