SUPPLEMENTARY

For the sensitivity analysis we handled missing data with Multiple Imputation using Fully Conditioned Specification as implemented in the R-Package *mice* (Van Buuren & Groothuis-Oudshoorn, 2011)with number of imputations set to 5. Multiple imputation preserves the sample size while accounting for uncertainty by incorporating randomness in missing value estimation with multiple data sets. Covariate balancing propensity scores (Imai & Ratkovic, 2014) were used to estimate propensity weights on each imputed dataset as implemented in the R-Package *WeightThem* (Pishgar et al., 2020), and the results were combined using the *Within* approach where weights are estimated for each imputed data set, exposure effects are computed for each individual data set and then the coefficients and standard errors are subsequently pooled using Rubin’s Rules (Rubin, 2004) to produce a point estimate of the exposure effect. The within approach demonstrates unbiased estimates when compared to other approaches (Granger et al., 2019; Leyrat et al., 2019). Further, we also computed a doubly robust estimator by running the regression model with propensity scores and the full covariate set to ensure an unbiased estimate in the case of a misspecified propensity or outcome regression model (Funk et al., 2011).

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