**Supplemental Methods**

**Inverse Probability Censoring Weights Methods**

Examination of patterns of attrition and mortality over follow-up gave some indication that there was a higher proportion of loss to follow-up over the study period in the variable depressive symptoms and persistent depressive symptoms categories compared to the no depression category. Due to concerns about potential informative censoring leading to possible survivor bias in our results, we conducted sensitivity analyses in our models by weighting each woman by her inverse probability of not being censored at the fourth time point. Results were then compared to the unweighted models. Under the missing at random assumption, the use of inverse probability censoring weights creates a pseudo-population in which no one is censored by weighting individuals in the study population based on the inverse of their observed censoring status.1-3 Inverse probability censoring weights (IPCW) were obtained by modeling censoring status at the fourth time point (with being uncensored as the outcome of interest) in a logistic model that included baseline independent variables selected a priori based on their plausibility to influence censoring over the study period. The independent variables used in this model included covariates from the multivariable models plus baseline global cognitive score, race, husband’s education, living arrangements, hormone use, multivitamin use, and the interaction between age and baseline global cognitive score.  Weights were stabilized to reduce the potential that a few individuals with extremely large weights would exert undue influence on the results.

1. Hernan, M.A., B. Brumback, and J.M. Robins, *Marginal structural models to estimate the causal effect of zidovudine on the survival of HIV-positive men.* Epidemiology, 2000. **11**(5): p. 561-70.
2. Robins, J., *Association, Causation, and Marginal Structural Models.* Synthese, 1999. **121**: p. 151-79.
3. Robins, J.M., M.A. Hernan, and B. Brumback, *Marginal structural models and causal inference in epidemiology.* Epidemiology, 2000. **11**(5): p. 550-60.