**Supplementary Materials** for **“**Intraindividual Cognitive Variability in Middle Age Predicts Cognitive Impairment 8-10 Years Later: Results from the Wisconsin Registry for Alzheimer’s Prevention”

The supplementary materials presented here summarize results from secondary analyses for both the primary and exploratory aims of the manuscript entitled, “Intraindividual Cognitive Variability in Middle Age Predicts Cognitive Impairment 8-10 Years Later: Results from the Wisconsin Registry for Alzheimer’s Prevention”.

**Description of Supplementary Tables**

Table S1 presents an overview of the data available for review by the consensus conference diagnosis team. The table footnote identifies cognitive tests, other assessments, and procedures that were added after the baseline visits.

Table S2 presents the parameter estimates for Models 2-4 using the consensus conference cognitive status at baseline as the outcome (i.e., cognitively normal vs early MCI). Results are presented parallel to Table 4 in the main manuscript. Results using baseline cognitive status differ from the primary analyses only with respect to Model 4. In Model 4, both the simple and complex versions of IICV remain a significant predictor of cognitive status after adjusting for the continuous memory and executive function scores that contribute to the IICV calculation. This may indicate that IICV is a better predictor of concurrent cognitive status rather than later cognitive status.

Table S3 presents the parameter estimates for Models 2-4 using the Wave 4 outcome (normal vs impaired) after excluding the n=57 who were identified as early MCI at baseline via retrospective consensus conference review. Results here differ from the primary analyses only with respect to Model 2: neither version of IICV is a significant predictor of Wave 4 cognitive status.

**Description of Supplementary Figures**

Figure S1 depicts the percent in each Wave 4 Cognitive Status category by baseline cognitive status (normal vs early MCI; Fisher’s exact test p<.0001).

Figure S2 is the “MCI Risk Estimator Worksheet” developed to illustrate how simple cut-offs and directionally-informed IICV could be used in a clinic setting to estimate risk of meeting consensus conference criteria for impairment.

Figure S3 provides the odds ratios repeating the exploratory analyses after excluding those with baseline consensus conference diagnosis of early MCI (n=57). The pattern of odds ratios is very similar to the pattern in the full data set indicating that directionally-informed IICV could be useful in a clinic setting for identifying those at risk of subsequent decline.

Figure S4 provides the odds ratios repeating the exploratory analyses after excluding those with a Wave 4 consensus conference diagnoses of Clinical MCI (n=11) or Dementia (n=1). The pattern of odds ratios is also very similar to the pattern in the full data set, suggesting that the results were not overly influenced by the small subset of cases with a clinical diagnosis at Wave 4.