**Supplementary Material B**

**Robust Norms based on longitudinal data for participants selection**

Cognitive function was reassessed only in participants who were 55 years or older at the second visit (2012-2014). From the 9,618 selected for standard norms, 3888 were considered as the final sample after the exclusion criteria.

First, we excluded all participants at the follow-up visit that was not eligible for the cognitive reassessment for being younger than 55 years at follow-up (n=4535), those who were in use of medications that could impact cognition (Supplementary Material A – Supplementary Table 1) (n=320), with self-reported stroke (n=21), and missing cognitive scores at follow-up (n=673).

Second, we additionally excluded participants with two or more follow-up scores that indicated decline based on Reliable Change Index (RCI) (Jacobson and Truax, 1991) (n=181). This index indicates if the observed change in scores from baseline to the follow-up visit is a meaningful change or a change that might be attributable to retest effect or the test reliability. We subtract the follow-up score from the baseline score and divide this by the standard error of the difference between the two test scores. The standard error of the difference can be computed directly from the standard error of measurement, that can be derived using the standard deviation of the normative sample and the reliability value of the test. Reliability scores from test-retest were extracted from previous psychometric results from the ELSA-Brasil study (Batista, Giatti, Barreto, Galery, & Passos, 2013). Standard deviations were derived from the standard normative sample of this study based on age and education. RCI scores between -1.96 and 1.96 suggest cognitive stability, scores bellow -1.96 suggest cognitive decline, and scores above 1.96 suggest a cognitive improvement.

The final robust sample is composed of 3888 participants, being 51% female, 58% White, and having a similar distribution across the six study-centers as shown for the whole sample of 9618.

Supplementary tables 1 and 2 shows the robust norms for two age ranges (55-65 years and >65 years) divided into four educational groups (incomplete elementary school - IES, incomplete high school - IHS, incomplete undergraduate school - IUS, and complete or more than undergraduate school - US). Recommendations for use and interpretation of this normative data are the same included in the main text.

**Supplementary Table 1.** Robustnormative data for 55-65 years according to educational level

A screenshot of a cell phone

Description automatically generated

WLT: Word List Test; SVF: Semantic Verbal Fluency; PVF: Phonemic Verbal Fluency; TMT-B: Trail Making Test – B; IES – incomplete elementary school; IHS – incomplete high school; IUS – incomplete undergraduate school; US – complete undergraduate school or higher degree.

**Supplementary Table 2.** Robustnormative data for >65 years according to educational level

A screenshot of a cell phone

Description automatically generated

WLT: Word List Test; SVF: Semantic Verbal Fluency; PVF: Phonemic Verbal Fluency; TMT-B: Trail Making Test – B; IES – incomplete elementary school; IHS – incomplete high school; IUS – incomplete undergraduate school; US – complete undergraduate school or higher degree.