FT=Functional Tests

FTCAT=HD-CAB

Computation of HD-CAB Composite
HD-CAB Composite Score Calculation

HD CAB Test	Key variable for composite score*
HD-CAB Paced Tapping (HD-CAB PTAP) **FTTESTCD=HDCAB101**	1/SD of the inter-tap interval for the self-paced taps
HD-CAB Emotion Recognition (HD-CAB EMO) **FTTESTCD=HDCAB102**	Number of correct responses to the negative expressions (anger, fear, sadness, disgust) out of 24 possible
HD-CAB One Touch Stockings of Cambridge (HD-CAB OTS) **FTTESTCD=HDCAB103**	Mean time to correct response (sec) averaged across all 10 trials (reverse scored as per point 2 below)
Symbol Digit Modalities Test (SDMT) **FTTESTCD=HDCAB104**	Number of correct responses in 90 seconds out of 110 possible responses
HD-CAB Hopkins Verbal Learning Test – Revised (HVLT-R) **FTTESTCD=HDCAB105**	Total number of words correctly recalled over Trials 1-4 out of 48 possible
HD-CAB Trail Making Test-B (HD-CAB TMT-B) **FTTESTCD=HDCAB106**	Time to completion (sec) of TMT Part B with upper time limit of 240 seconds (reverse scored as per point 2 below)

FTTESTCD=HDCAB107

*All variables need to be directionally consistent for composite score calculation. For the purposes of the composite here, we have arbitrarily selected high numbers as better scores. Thus, only two variables need to be recoded, HD-CAB OTS and HD-CAB TMT-B (see #2 below for specific reverse coding instructions.

1. For each of the variables which comprise the composite, compute a *z*-score for each individual participant using the formula: participant's score minus sample mean divided by the sample standard deviation, $z = (χ-μ)/σ$.

2. For those tests where higher scores indicate poorer performance (i.e., Trail Making Test B & One Touch Stockings), reverse the z-score so that for all tests, higher scores indicate better performance. Use the formula Reverse Score = (z- score) * (-1)

3. To compute each participant's composite, compute their average *z*-score across all variables that comprise the composite.

4. For each pair of groups you wish compare (e.g., a treatment group and a placebo group), compute Cohen's *d* effect sizes using the formula
   $d = (M_{group1} − M_{group2}) / SD_{pooled(group1,group2)}$
   a. Consider whether to calculate age, education, and sex adjusted Cohen's *d*
   b. Consider whether to use bootstrapping to estimate 95% bias corrected adjusted confidence intervals to improve the robustness of the estimate of the effect size.