The BIOCARD Study

Biomarkers of Cognitive Decline Among Normal Individuals

Cognitive
Limited Dataset

Glossary of Terms

Allowable Codes	codes (and their meaning) allowed to be values for that variable
Audit findings	error rates based on BIOCRAD or NIH phase audits error rates are calculated as number of errors/total number of variables examined
Baseline visit	date admitted to NIH phase of BIOCARD study *[Note:some data may have been collected prior to this date]*
Collection	when the variable information was collected (i.e., Baseline, Follow-up)
Comments	further information about the variable not covered in the above fields
Data type	numeric or character *[Noted: Dates are numeric data]*
JHU phase	the study phase at JHU from 2009 – present
Missing OK if	instances (such as skips) or reasons why a blank or missing value is acceptable
NA	not applicable for this variable
NIH / NIH phase	the study phase that was performed at the NIH from 1995 – 2005
Question text	the question as it appears on the NACC or BIOCARD data collection forms
Short description	a short explanation of what the variable means
Source	the name of the NACC form, BIOCARD form, or NIH dataset containing the variable information (or "DERIVED" if the variable was derived) and the variable question number located on the form or in the dataset, if applicable
Unknown Code	the codes for the "unknown", "don't know", or missing values in the variable
Variable Name	the name of the variable in the provided dataset *{Noted: Variables will follow the NACC naming scheme as closely as possible]*

Acronyms and Definitions

AD	Alzheimer's Disease
CDR	Clinical Dementia Rating
CERAD	Consortium to Establish a Registry for Alzheimer's Disease
CNS	Central Nervous System
CSF	Cerebrospinal Fluid
CVD	Cardiovascular disease
CVLT	California Verbal Learning Test
FAQ	Functional Assessment Questionnaire
FTD	Frontotemporal Degenerations
GDS	Geriatric Depression Scale
JHU	The Johns Hopkins University
MCI	Mild Cognitive Impairment
MMSE	Mini-Mental State Examination
NACC	National Alzheimer's Coordinating Center
NART	National Adult Reading Test
NIA	National Institute on Aging
NINDS	National Institute of Neurological Disorders and Stroke
NPI-Q	Neuropsychiatric Inventory Questionnaire
PDRS	Unified Parkinson's Disease Rating Scale
WAIS	Wechsler Adult Intelligence Scale
WMS	Wechsler Memory Scale

Cognitive Limited Dataset Characteristics

Number of variables: 102

Order of variables:

1)	JHUANONID	*Participant ID Anonymized by JHU*
2)	VISITNO	*Chronological visit number*
3)	MOFROMBL	*Months since baseline visit*
4)	MMSE	*MMSE score, total*
5)	LOGMEM1A	*Logical Memory Immediate A: Story units recalled (Story A)*
6)	LOGMEM1B	*Logical Memory Immediate B: Story units recalled (Story B)*
7)	LOGMEM2A	*Logical Memory Delayed A: Story units recalled (Story A)*
8)	LOGMEM2B	*Logical Memory Delayed B: Story units recalled (Story B)*
9)	MEMTIME	*Time elapsed between Logical Memory Immediate and Delayed*
10)	DIGITEST	*Digit Span: Test source*
11)	DIGIF	*Digit Span Forward: Trials correct*
12)	DIGIFLEN	*Digit Span Forward: Length*
13)	DIGIB	*Digit Span Backward: Trials correct*
14)	DIGIBLEN	*Digit Span Backward: Length*
15)	ANIMALS	*Category Fluency: Total animals named*
16)	VEG	*Category Fluency: Total vegetables named*
17)	ANINTRU	*Category Fluency: Intrusions, animals*
18)	ANPERSEV	*Category Fluency: Perseveration, animals*
19)	VINTRU	*Category Fluency: Intrusions, vegetables*
20)	VPERSEV	*Category Fluency: Perseveration, vegetables*
21)	TRAILA	*Trail Making Part A: Total number of seconds*
22)	TRAILB	*Trail Making Part B: Total number of seconds*
23)	DSST	*Digit Symbol (WAIS-R): Total number correct items*
24)	FCORR	*Verbal Fluency: Number of correct, letter F*
25)	FINTRU	*Verbal Fluency: Intrusions, letter F*
26)	FPERSEV	*Verbal Fluency: Perseveration, letter F*
27)	ACORR	*Verbal Fluency: Number of correct, letter A*
28)	AINTRU	*Verbal Fluency: Intrusions, letter A*
29)	APERSEV	*Verbal Fluency: Perseveration, letter A*
30)	SCORR	*Verbal Fluency: Number of correct, letter S*
31)	SINTRU	*Verbal Fluency: Intrusions, letter S*
32)	SPERSEV	*Verbal Fluency: Perseveration, letter S*
33)	BLOCK	*Block design (WAIS-R): Total score*
34)	REYCOPY	*Rey Figure Copy: Total score*
35)	REYRECAL	*Rey Figure Recall*

36) PAIRED1 *WMS-R: Verbal Paired Associates I (Immediate Recall)*
37) PAIRED2 *WMS-R: Verbal Paired Associates II (Delayed Recall)*
38) CVLTFORM *California Verbal Learning Test (CVLT) form*
39) CVLTLTR1 *CVLT: Number correct trial #1*
40) CVLTLTR2 *CVLT: Number correct trial #2*
41) CVLTLTR3 *CVLT: Number correct trial #3*
42) CVLTLTR4 *CVLT: Number correct trial #4*
43) CVLTLTR5 *CVLT: Number correct trial #5*
44) CVLTTOTL *CVLT: Number correct trials #1 - #5*
45) CVLTSDFR *CVLT: Short delay free recall*
46) CVLTSDCR *CVLT: Short delay cued recall*
47) CVLTLDFR *CVLT: Long delay free recall*
48) CVLTLDCR *CVLT: Long delay cued recall*
49) CVLTSMTO *CVLT: Semantic clustering trials #1 - #5*
50) CVLTTRRC *CVLT: Percent recall from recency region*
51) CVLT15SL *CVLT: Total learning slope trials #1 - #5*
52) CVLTLDT5 *CVLT: Percent long delay free recall vs. trial #5*
53) CVLTTREP *CVLT: Total repetitions*
54) CVLTTINT *CVLT: Total intrusions*
55) CVLTRCHT *CVLT: Delayed recognition hits*
56) CVLTRCFA *CVLT: Delayed recognition false positive*
57) CVLTTODM *CVLT: Total recognition discriminability*
58) CVLTSMDM *CVLT: Semantic recognition discriminability*
59) DHAND *Grooved Pegboard: Dominant hand (seconds)*
60) NODHAND *Grooved Pegboard: Non-dominant hand (seconds)*
61) BOSTON *Boston Naming Test – number correct*
62) BNTPCT *Boston Naming Test – Percentage correct*
63) FRUITL *Category Fluency: Fruit # generated in 60 Seconds*
64) FRUIPER *Category Fluency: Fruit # perseverations*
65) FRUIINT *Category Fluency: Fruit # intrusions*
66) JOLOTOTL *Judgment of Line Orientation*
67) MATTIS *Dementia Rating Scale # correct /144*
68) SUPERMKT *Category Fluency: Supermarket items generated in 60 seconds*
69) NART_TL *NART: # correct/50*

70) NART_IQ *NART: Estimated Verbal IQ*
71) INFO *WMS-R: Information and Orientation*
72) FIGURAL *WMS-R: Figural Memory*
73) VISPAIR1 *WMS-R: Visual Paired Associates 1*
74) VISREPR1 *WMS-R: Visual Reproduction 1*
75) VISMEMSP *WMS-R: Visual Memory Span (Sum of forward and backward tapping span)*
76) VISPAIR2 *WMS-R: Visual Paired Associates 2 (Delayed Recall)*
77) VISREPR2 *WMS-R: Visual Reproduction 2 (Delayed Recall)*
78) WMSRVERB *WMS-R: Summary Verbal Memory*
79) WMSRVISU *WMS-R: Summary Visual Memory*
80) WMSRGEN *WMS-R: Summary General Memory*
81) WMSRDELY *WMS-R: Summary Delayed Memory*
82) WAISVCRW *WAIS-R: Vocab. raw score /70*
83) WAISVCSS *WAIS-R: Vocab. scaled score/19*
84) WAISVCAC *WAIS-R: Vocab. age-corrected/19*
85) WAISSMRW *WAIS-R: Similarities raw score/28*
86) WAISSMSS *WAIS-R: Similarities scaled score/19*
87) WAISSMAC *WAIS-R: Similarities age-corrected score/19*
88) WAISINRW *WAIS-R: Information raw score/29*
89) WAISINSS *WAIS-R: Information scaled score/19*
90) WAISINAC *WAIS-R: Information age corrected/19*
91) WAISPARW *WAIS-R: Arithmetic raw score/19*
92) WAISPASS *WAIS-R: Arithmetic scaled score/19*
93) WAISPAAC *WAIS-R: Arithmetic age corrected/19*
94) WAISPCRW *WAIS-R: Picture Completion raw score/20*
95) WAISPCSS *WAIS-R: Picture Completion scaled score/19*
96) WAISRCAC *WAIS-R: Picture Completion age corrected/19*
97) B17101 *New participant*
98) Composite_global *Global cognitive composite score*
99) Composite_episodic_memory *Cognitive composite score for verbal episodic memory*
100) Composite_executive *Cognitive composite score for executive function*
101) Composite_visuospatial *Cognitive composite score for visuospatial processing*
102) Composite_language *Cognitive composite score for language*

1)	Variable Name	**JHUANONID**
	Short Description	Participant ID Anonymized by JHU
	Source	NA
	Question Text	NA
	Time of Collection	Baseline
	Data Type	Character
	Allowable Codes	JHU + 6 numbers
	Missing OK If	NA
	Audit Findings	NA
	Comments	None

2)	Variable Name	**VISITNO**
	Short Description	Chronological visit number
	Source	NA
	Question Text	NA
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	NIH visit: Integers and decimals from 0 to 10, where a visit 0 represents a visit that occurred prior to the established baseline date JHU visit: 101, 102, 103, 104, ….. 1XX where XX is from 01 to 99 Visit number 999 used for all participants that have died before a 101 visit for forms: A4, A5, A5a, B1, B2, B3, B3a, B8, B9, and D1. For participants that are alive, an A5 may have a 999 visit number to capture medical data acquired during the NIH phase of the study.
	Missing OK If	NA
	Audit Findings	NA
	Comments	None

3)	Variable Name	**MOFROMBL**
	Short Description	Months since baseline visit
	Source	DERIVED
	Question Text	NA
	Time of Collection	Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 999
	Missing OK If	NA
	Audit Findings	NA
	Comments	Derived variable. [JHU phase] Calculated as months between the baseline start date and the V1 VISITDATE (formerly V11_Date) for follow-up visits. [NIH phase] Calculated as months between the baseline start date and the recorded visit date (COG1DATE - fsvis).

4)	Variable Name	**MMSE**
	Short Description	MMSE score, total
	Source	C1 #1D
	Question Text	Total MMSE score (using D-L-R-O-W)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 30
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) No NIH phase audits.
	Comments	None

5)	Variable Name	**LOGMEM1A**
	Short Description	Logical Memory Immediate A: Story units recalled (Story A)
	Source	C1 #3B
	Question Text	Total number of story units recalled from this current test administration
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 25
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) [NIH audits] LOGICAL error rate = 3.4% (based on complete audit of 28 participants)
	Comments	Derived variable: based on WMS "LOGICAL" variable. LOGIMEM = LOGICAL / 2
6)	Variable Name	**LOGMEM1B**
	Short Description	Logical Memory Immediate B: Story units recalled (Story B)
	Source	DERIVED
	Question Text	Total number of story units recalled from this current test administration
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 25
	Missing OK If	JHU phase visit.
	Audit Findings	No NIH phase audits.
	Comments	NIH phase only.

7)	Variable Name	**LOGMEM2A**
	Short Description	Logical Memory Delayed A: Story units recalled (Story A)
	Source	C1 #9A
	Question Text	Delayed: Total number of story units recalled
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 25
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) [NIH audits] LOGICAL2 error rate = 3.4% (based on complete audit of 28 participants)
	Comments	Derived value: based on WMS "LOGICAL2" variable. LOGMEM2A = LOGICAL2 / 2
8)	Variable Name	**LOGMEM2B**
	Short Description	Logical Memory Delayed B: Story units recalled (Story B)
	Source	DERIVED
	Question Text	Delayed: Total number of story units recalled
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 25
	Missing OK If	JHU phase visit
	Audit Findings	No NIH phase audits.
	Comments	NIH phase only.

9)	Variable Name	**MEMTIME**
	Short Description	Logical Memory IIA (Delayed)
	Source	C1 #9B
	Question Text	Time elapsed between Logical Memory Immediate and Delayed
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	min = 0 minutes max = 85 minutes 88 = N/A 99 = Unknown
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019)
	Comments	JHU phase only
10)	Variable Name	**DIGITEST**
	Short Description	Digit Span: Test
	Source	DERIVED
	Question Text	Which test defined the digit span scores?
	Time of Collection	Baseline and Follow-up
	Data Type	Char
	Allowable Codes	1 = WMS-R 2 = WAIS-R
	Missing OK If	No JHU phase visit.
	Audit Findings	No NIH phase audits.
	Comments	NIH phase only. Indicates the source of data for the digit span data.

11)	Variable Name	**DIGIF**
	Short Description	Digit Span Forward: Trials correct
	Source	C1 #4A
	Question Text	Total number of trials correct prior to two consecutive errors at the same digit length
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 12
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) No NIH phase audits.
	Comments	JHU phase: C1 #4a answer NIH phase: based on either WAIS or WMS test. The test used for this value is specified in the DIGITEST variable.

12) Variable Name **DIGIFLEN**

Short Description	Digit Span Forward: Length
Source	C1 #4B
Question Text	Digit span forward length
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 8
Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
Missing OK If	NA
Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) No NIH phase audits.
Comments	JHU phase: C1 #4b answer NIH phase: based on either WAIS or WMS test. The test used for this value is specified in the DIGITEST variable.

13) Variable Name **DIGIB**

Short Description	Digit Span Backward: Trials correct
Source	C1 #5A
Question Text	Total number of trials correct prior to two consecutive errors at the same digit length
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 12
Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
Missing OK If	NA
Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) No NIH phase audits.
Comments	JHU phase: C1 #5a answer NIH phase: based on either WAIS or WMS test. The test used for this value is specified in the DIGITEST variable.

14) Variable Name **DIGIBLEN**

Short Description	Digit Span Backward: Length
Source	C1 #5B
Question Text	Digit span backward length
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 7
Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
Missing OK If	NA
Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) No NIH phase audits.
Comments	JHU phase: C1 #5b answer NIH phase: based on either WAIS or WMS test. The test used for this value is specified in the DIGITEST variable.

15)	Variable Name	**ANIMALS**
	Short Description	Category Fluency: Total animals named
	Source	C1 #6A
	Question Text	Total number of animals named in 60 seconds
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 77
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) [NIH audits] Error rate = 0.8% (based on complete audits of 28 participants)
	Comments	None
16)	Variable Name	**VEG**
	Short Description	Category Fluency: Total vegetables named
	Source	C1 #6B
	Question Text	Total number of vegetables named in 60 seconds
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 77
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) No NIH phase audits.
	Comments	None

17)	Variable Name	**ANINTRU**
	Short Description	Category Fluency: Intrusions, animals
	Source	C1A #4b
	Question Text	Number of incorrect answers when asked to name animals.
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None
18)	Variable Name	**ANPERSEV**
	Short Description	Category Fluency: Perseveration, animals
	Source	C1A #4c
	Question Text	Number of repeated answers when asked to name animals.
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

19)	Variable Name	**VINTRU**
	Short Description	Category Fluency: Intrusions, vegetables
	Source	C1A #5b
	Question Text	Number of incorrect answers when asked to name vegetables
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None
20)	Variable Name	**VPERSEV**
	Short Description	Category Fluency: Perseveration, vegetables
	Source	C1A #5c
	Question Text	Number of repeated answers when asked to name vegetables
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

21)	Variable Name	**TRAILA**
	Short Description	Trail Making Part A: Total number of seconds
	Source	C1 #7A
	Question Text	Part A, Total number of seconds to complete
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 150
	Unknown Code	Reasons: 995 = Physical problem 996 = Cognitive/behavior problem 997 = Other problem 998 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) [NIH audits] Error rate = 2.3% (based on complete audit of 28 participants)
	Comments	If participant was not finished by 150 seconds, 150 entered
22)	Variable Name	**TRAILB**
	Short Description	Trail Making Part B: Total number of seconds
	Source	C1 #7B
	Question Text	Part B, Total number of seconds to complete
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 300
	Unknown Code	Reasons: 995 = Physical problem 996 = Cognitive/behavior problem 997 = Other problem 998 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019)
	Comments	If participant was not finished by 300 seconds, 300 entered as score.

23)	Variable Name	**DSST**
	Short Description	Digit Symbol (WAIS-R): Total number correct items
	Source	C1 #8A
	Question Text	Total number of items correctly completed in 90 seconds
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 93
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1 form error rate = 0.2% (based on 78 forms as of NOV2019) [NIH audits] Error rate = 1.4% (based on complete audit of 28 participants)
	Comments	None

24)	Variable Name	**FCORR**
	Short Description	Verbal Fluency: Number of correct, letter F
	Source	C1A #1a
	Question Text	Number of correct answers when asked to name words beginning with "F".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 40
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None
25)	Variable Name	**FINTRU**
	Short Description	Verbal Fluency: Intrusions, letter F
	Source	C1A #1b
	Question Text	Number of incorrect responses when asked to name words beginning with "F".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

26)	Variable Name	**FPERSEV**
	Short Description	Verbal Fluency: Perseveration, letter F
	Source	C1A #1c
	Question Text	Number of repeated responses when asked to name words beginning with "F".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None
27)	Variable Name	**ACORR**
	Short Description	Verbal Fluency: Number of correct, letter A
	Source	C1A #2a
	Question Text	Number of correct answers when asked to name words beginning with "A".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 40
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

28)	Variable Name	**AINTRU**
	Short Description	Verbal Fluency: Intrusions, letter A
	Source	C1A #2b
	Question Text	Number of incorrect answers when asked to name words beginning with "A".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None
29)	Variable Name	**APERSEV**
	Short Description	Verbal Fluency: Perseveration, letter A
	Source	C1A #2c
	Question Text	Number of repeated answers when asked to name words beginning with "A".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

30)	Variable Name	**SCORR**
	Short Description	Verbal Fluency: Number of correct, letter S
	Source	C1A #3a
	Question Text	Number of correct answers when asked to name words beginning with "S".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 40
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None
31)	Variable Name	**SINTRU**
	Short Description	Verbal Fluency: Intrusions, letter S
	Source	C1A #3b
	Question Text	Number of incorrect answers when asked to name words beginning with "S".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

32)	Variable Name	**SPERSEV**
	Short Description	Verbal Fluency: Perseveration, letter S
	Source	C1A #3c
	Question Text	Number of repeated answers when asked to name words beginning with "S".
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

33)	Variable Name	**BLOCK**
	Short Description	Constructional Praxis, Block design (WAIS-R): Total score
	Source	C1A #6
	Question Text	Block Design (WAIS-R), total score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 51
	Unknown Code	Reasons: 95 = Physical problem 96 = Cognitive/behavior problem 97 = Other problem 98 = Verbal refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.4% (based on complete audit of 28 participants)
	Comments	None

34)	Variable Name	**REYCOPY**
	Short Description	Constructional Praxis, Rey Figure Copy: Total score
	Source	C1A #7
	Question Text	Rey Figure Copy, total score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric (with decimal)
	Allowable Codes	Min = 0.0 Max = 36.0
	Unknown Code	Reason: 99.5 = Physical Problems 99.6 = Cognitive Behavioral Problem 99.7 = Other 99.8 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 3.5% (based on complete audit of 28 participants)
	Comments	None
35)	Variable Name	**REYRECAL**
	Short Description	Memory, Rey Figure Recall
	Source	C1A #8
	Question Text	Rey Figure Recall task
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric (with decimal)
	Allowable Codes	Min = 0.0 Max = 36.0
	Unknown Code	Reason: 99.5 = Physical Problems 99.6 = Cognitive Behavioral Problem 99.7 = Other 99.8 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 5.6% (based on complete audit of 28 participants)
	Comments	None

36)	Variable Name	**PAIRED1**
	Short Description	Paired Associates I (New Learning)
	Source	C1A #9
	Question Text	WMS-R Paired Associates I (New Learning)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 24
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 3.4% (based on complete audit of 28 participants)
	Comments	None
37)	Variable Name	**PAIRED2**
	Short Description	Paired Associates II (Delayed Recall)
	Source	C1A #10
	Question Text	WMS-R Paired Associates II (Delayed Recall)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 8
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 2.3% (based on complete audit of 28 participants)
	Comments	None

38) Variable Name **CVLTFORM**

Short Description	California Verbal Learning Test (CVLT) form
Source	C1A #11
Question Text	Standard or alternate CVLT form
Time of Collection	Baseline and Follow-up
Data Type	Character
Allowable Codes	1 = Standard Form 2 = Alternate Form
Missing OK If	NA
Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
Comments	None

39) Variable Name **CVLTLTR1**

Short Description	CVLT: Number correct trial #1
Source	C1A #12
Question Text	CVLT word list, # correct in Trial 1
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 16
Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
Missing OK If	NA
Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
Comments	None

40)	Variable Name	**CVLTLTR2**
	Short Description	CVLT: Number correct trial #2
	Source	C1A #13, not available at NIH visits
	Question Text	CVLT word list, # correct in Trial 2
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

41)	Variable Name	**CVLTLTR3**
	Short Description	CVLT: Number correct trial #3
	Source	C1A #14, not available at NIH visits
	Question Text	CVLT word list, # correct in Trial 3
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

42)	Variable Name	**CVLTLTR4**
	Short Description	CVLT: Number correct trial #4
	Source	C1A #15, not available at NIH visits
	Question Text	CVLT word list, # correct in Trial 4
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

43)	Variable Name	**CVLTLTR5**
	Short Description	CVLT: Number correct trial #5
	Source	C1A #16
	Question Text	CVLT word list, # correct in Trial #5
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.8% (based on complete audit of 28 participants)
	Comments	None

44)	Variable Name	**CVLTTOTL**
	Short Description	CVLT: Number correct trials #1 - #5
	Source	C1A #17
	Question Text	CVLT word list, total number correct (sum of trials #1 to #5)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 80
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None
45)	Variable Name	**CVLTSDFR**
	Short Description	CVLT: Short delay free recall
	Source	C1A #18
	Question Text	CVLT word list, short delay free recall
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

46)	Variable Name	**CVLTSDCR**
	Short Description	CVLT: Short delay cued recall C1A #19
	Source	CVLT word list, short delay cued recall
	Question Text	Baseline and Follow-up
	Time of Collection	Numeric
	Data Type	Min = 0 Max = 16
	Allowable Codes	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Unknown Code	NA
	Missing OK If	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019)
	Audit Findings	[NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None
47)	Variable Name	**CVLTLDFR**
	Short Description	CVLT: Long delay free recall
	Source	C1A #20
	Question Text	CVLT word list, long delay free recall
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019)
		[NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

48)	Variable Name	**CVLTLDCR**
	Short Description	CVLT: Long delay cued recall C1A #21
	Source	CVLT word list, long delay cued recall
	Question Text	Baseline and Follow-up
	Time of Collection	Numeric
	Data Type	Min = 0 Max = 16
	Allowable Codes	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Unknown Code	NA
	Missing OK If	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019)
	Audit Findings	[NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None
49)	Variable Name	**CVLTSMTO**
	Short Description	CVLT: Semantic clustering trials #1 - #5
	Source	C1A #22
	Question Text	CVLT semantic clustering trials #1 - #5
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric (with decimal)
	Allowable Codes	Min = -4.0 Max = 9.0
	Unknown Code	Reason: 99.5 = Physical Problems 99.6 = Cognitive Behavioral Problem 99.7 = Other 99.8 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019)
		[NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

50)	Variable Name	**CVLTTRRC**
	Short Description	CVLT: Percent recall from recency region
	Source	C1A #23
	Question Text	CVLT, % Recall from Recency region
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 100
	Unknown Code	Reason: 995 = Physical Problems 996 = Cognitive Behavioral Problem 997 = Other 998 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

51)	Variable Name	**CVLT15SL**
	Short Description	CVLT: Total learning slope trial #1 – trial #5
	Source	C1A #24
	Question Text	CVLT, Slope, across number correct from trial #1 (CVLTLTR1) to trial #5 (CVLTLTR5)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric (with decimal)
	Allowable Codes	Min = -5.0 Max = 5.0
	Unknown Code	Reason: 95/99.5 = Physical Problems 96/99.6 = Cognitive Behavioral Problem 97/99.7 = Other 98/99.8 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

52)	Variable Name	**CVLTLDT5**
	Short Description	CVLT: % long delay FR vs. trial #5
	Source	C1A #25
	Question Text	CVLT, Percentage of words recalled at Long Delay Free Recall relative to number of words recalled at Trial #5 ([100*CVLTLDFR/CVLTLTR5]-100)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric (with decimal)
	Allowable Codes	Min = -100.0 Max = 900.0
	Unknown Code	Reason: 999.5 = Physical Problems 999.6 = Cognitive Behavioral Problem 999.7 = Other 999.8 = Refusal
	Missing OK If	NA
	Audit Findings	No NIH phase audits.
	Comments	None
53)	Variable Name	**CVLTTREP**
	Short Description	CVLT: Total repetitions
	Source	C1A #26
	Question Text	CVLT, Total Repetitions
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 92
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

54)	Variable Name	**CVLTTINT**
	Short Description	CVLT: Total intrusions
	Source	C1A #27
	Question Text	CVLT, Total Intrusions
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 56
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

55)	Variable Name	**CVLTRCHT**
	Short Description	CVLT: Delayed recognition hits
	Source	C1A #28
	Question Text	CVLT, Delayed Recognition Hits (number correctly recognized)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 16
	Unknown Code	Reason: Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

56)		
	Variable Name	**CVLTRCFA**
	Short Description	CVLT: Delayed recognition false positive
	Source	C1A #29
	Question Text	CVLT, Delayed Recognition False Positive (number incorrectly recognized)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 36
	Unknown Code	Reason: Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

57)	Variable Name	**CVLTTODM**
	Short Description	CVLT: Total recognition discriminability
	Source	C1A #30
	Question Text	CVLT, Total Recognition Discriminability
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric (with decimal)
	Allowable Codes	Min = -4.1 Max = 4.1
	Unknown Code	Reason: 95/99.5 = Physical Problems 96/99.6 = Cognitive Behavioral Problem 97/99.7 = Other 98/99.8 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.4% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

58)	Variable Name	**CVLTSMDM**
	Short Description	CVLT: Semantic recognition discriminability
	Source	C1A #31
	Question Text	CVLT, Semantic Recognition Discriminability
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric (with decimal)
	Allowable Codes	Min = -4.1 Max = 4.1
	Unknown Code	Reason: 95/99.5 = Physical Problems 96/99.6 = Cognitive Behavioral Problem 97/99.7 = Other 98/99.8 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) [NIH audits] Error rate = 1.7% (based on complete audit of 28 participants)
	Comments	None

59)	Variable Name	**DHAND**
	Short Description	Grooved Pegboard: Dominant hand (seconds)
	Source	C1A #32
	Question Text	Speed on grooved pegboard. Dominant hand (time to complete in seconds).
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 300
	Unknown Code	Reason: 995 = Physical Problems 996 = Cognitive Behavioral Problem 997 = Other 998 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

60)	Variable Name	**NONDHAND**
	Short Description	Grooved Pegboard: Non-dominant hand (seconds)
	Source	C1A #33
	Question Text	Speed on grooved pegboard. Non-dominant hand (time to complete in seconds).
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 300
	Unknown Code	Reason: 995 = Physical Problems 996 = Cognitive Behavioral Problem 997 = Other 998 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	None

61)	Variable Name	**BOSTON**
	Short Description	Boston Naming Test
	Source	C1 #10a, NIH
	Question Text	Number of correct responses
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 30 (for JHU visits 101+); Max=60 (for NIH visits 1-10)
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal
	Missing OK If	NA
	Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
	Comments	At the NIH, five individuals completed a 60-item Boston naming test, and have values higher than 30. Some individuals complete a 20-item Boston naming test. At JHU, individuals complete a 30-item version.

62) Variable Name **BNTPCT**

Short Description	Boston Naming Test Percent
Source	DERIVED
Question Text	Percentage correct responses out of total ((number correct/total) *100)
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0% Max = 100%
Missing OK If	NA
Audit Findings	[JHU Audits]: C1a form error rate = 0.3% (based on 75 forms as of NOV2019) No NIH phase audits.
Comments	None

63) Variable Name **FRUITL**

Short Description	Category Fluency: Fruit number generated in 60 seconds
Source	NIH
Question Text	Total number of words generated in the category Fruits
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 77
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

64) Variable Name **FRUIPER**

Short Description	Category Fluency: Fruit number perseverations
Source	NIH
Question Text	Number of words repeated in the category Fruits
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 60
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

65) Variable Name **FRUIINT**

Short Description	Category Fluency: Fruit number intrusions
Source	NIH
Question Text	Number of words incorrect in the category Fruits
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 60
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

66) Variable Name **JOLOTOTL**

Short Description	Judgment of Line Orientation number correct /60
Source	NIH
Question Text	Total correct
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 60
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

67)	Variable Name	**MATTIS**
	Short Description	Dementia Rating Scale Number Correct/144
	Source	NIH
	Question Text	Sum of Attention, Memory, Initiation and Preservation, Construction, Conceptualization
	Time of Collection	Baseline and Follow-up Numeric
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 144
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

68)	Variable Name	**SUPERMKT**
	Short Description	Category Fluency: Supermarket items generated in 60 seconds
	Source	NIH
	Question Text	Number of items generated
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 77
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

69	Variable Name	**NART_TL**
	Short Description	National Adult Reading Test number correct/50
	Source	NIH
	Question Text	Total Correct (number of errors subtracted from number of items)
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 50
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

70)	Variable Name	**NART_IQ**
	Short Description	NART: Estimated Verbal IQ
	Source	NIH
	Question Text	NART IQ Score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 50 Max = 150
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

71)	Variable Name	**INFO**
	Short Description	WMS: Information and Orientation
	Source	NIH
	Question Text	Raw score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 14
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

72)	Variable Name	**FIGURAL**
	Short Description	WMS: Figural memory
	Source	NIH
	Question Text	Raw score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 10
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

73) Variable Name **VISPAIR1**

Short Description	WMS: Visual Paired Associates 1
Source	NIH
Question Text	Raw score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 18
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

74) Variable Name **VISREPR1**

Short Description	Visual Reproduction 1
Source	NIH
Question Text	Raw score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 41
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

75) Variable Name **VISMEMSP**

Short Description	WMS: Visual Memory Span (Sum of forward & backward tapping span)
Source	NIH
Question Text	Raw score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 26
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

76) Variable Name **VISPAIR2**

Short Description	WMS: Visual Paired Associates 2 (Delayed Recall)
Source	NIH
Question Text	Raw score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 6
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

77)	Variable Name	**VISREPR2**
	Short Description	WMS: Visual Reproduction 2 (Delayed Recall)
	Source	NIH
	Question Text	Raw score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 41
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

78)	Variable Name	**WMSRVERB**
	Short Description	WMS: Revised Summary Verbal Memory
	Source	NIH
	Question Text	Indexes score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 50 Max = 150
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

79) Variable Name **WMSRVISU**

Short Description	WMS: Revised Summary Visual Memory
Source	NIH
Question Text	Indexes score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 50 Max = 150
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

80) Variable Name **WMSRGEN**

Short Description	WMS: Revised Summary General Memory
Source	NIH
Question Text	Raw Score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 50 Max = 150
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

81) Variable Name **WMSRDELY**

Short Description	WMS: Revised Summary Delayed Memory
Source	NIH
Question Text	Indexes score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 50 Max = 150
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

82) Variable Name **WAISVCRW**

Short Description	Wechsler Adult Intelligence Vocab. Raw score/70
Source	NIH
Question Text	Raw score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 70
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

83)	Variable Name	**WAISVCSS**
	Short Description	WAIS: Vocab. Scaled score/19
	Source	NIH
	Question Text	Scaled score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 19
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

84)	Variable Name	**WAISVCAC**
	Short Description	WAIS: Vocab. age-corrected/19
	Source	NIH
	Question Text	Age corrected score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 19
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

85) Variable Name **WAISSMRW**

Short Description	WAIS: Similarities raw score/28
Source	NIH
Question Text	Raw score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 28
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

86) Variable Name **WAISSMSS**

Short Description	WAIS: Similarities scaled score/19
Source	NIH
Question Text	Scaled score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 19
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

87) Variable Name **WAISSMAC**

Short Description	WAIS: Similarities age-corrected score/19
Source	NIH
Question Text	Age corrected score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 28
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

88) Variable Name **WAISINRW**

Short Description	WAIS: Information raw score/29
Source	NIH
Question Text	Raw score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 29
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

89) Variable Name **WAISINSS**

Short Description	WAIS: Information scaled score/19
Source	NIH
Question Text	Scaled score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 19
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

90) Variable Name **WAISINAC**

Short Description	WAIS: Information age corrected/19
Source	NIH
Question Text	Age corrected score
Time of Collection	Baseline and Follow-up
Data Type	Numeric
Allowable Codes	Min = 0 Max = 19
Missing OK If	NA
Audit Findings	No NIH phase audits
Comments	None

91)	Variable Name	**WAISPARW**
	Short Description	WAIS: Arithmetic raw score/19
	Source	NIH
	Question Text	Raw score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 19
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

92)	Variable Name	**WAISPASS**
	Short Description	WAIS: Arithmetic scaled score/19
	Source	NIH
	Question Text	Scaled score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 19
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

93)	Variable Name	**WAISPAAC**
	Short Description	WAIS: Arithmetic age corrected/19
	Source	NIH
	Question Text	Age corrected score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 19
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

94)	Variable Name	**WAISPCRW**
	Short Description	WAIS: Picture Completion raw score/20
	Source	NIH
	Question Text	Raw score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 20
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

95)	Variable Name	**WAISPCSS**
	Short Description	WAIS: Picture Completion scaled score/19
	Source	NIH
	Question Text	Scaled score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 19
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

96)	Variable Name	**WAISRCAC**
	Short Description	WAIS: Picture Completion age Corrected/19
	Source	NIH
	Question Text	Age corrected score
	Time of Collection	Baseline and Follow-up
	Data Type	Numeric
	Allowable Codes	Min = 0 Max = 19
	Missing OK If	NA
	Audit Findings	No NIH phase audits
	Comments	None

97) Variable Name **B17101**

Short Description	New BIOCARD participant
Source	B17 #01
Question Text	Is this a new participant?
Time of Collection	Baseline and Follow-up
Data Type	Char
Allowable Codes	1 = Yes 0 = No
Missing OK If	NA
Audit Findings	NA
Comments	None

98) Variable Name **Composite_global**

Short Description	Global cognitive composite score
Source	Calculated
Question Text	Global cognitive composite score ?
Time of Collection	Baseline and Follow-up
Data Type	Numerical
Allowable Codes	Decimal number
Missing OK If	NA
Audit Findings	NA
Comments	Calculated for all NIH and JHU visits over time (except in the case of missing data). An a priori-derived composite score based on 4 measures that were previously identified to be the best combination of cognitive predictors of time to progress from normal cognition to MCI clinical symptom onset, as described in Soldan et al., 2016 (Hypothetical Preclinical Alzheimer Disease Groups and Longitudinal Cognitive Change; JAMA Neurol; doi: 10.1001/jamaneurol.2016.0194). The following 4 tests are included in this composite score: (1) Paired Associates immediate, (2) Logical Memory delayed recall (Story A), (3) Boston Naming, and (4) Digit-Symbol Substitution.

99)	Variable Name	**Composite_episodic_memory**
	Short Description	Cognitive composite score for verbal episodic memory
	Source	Calculated
	Question Text	Cognitive composite score for verbal episodic memory?
	Time of Collection	Baseline and Follow-up
	Data Type	Numerical
	Allowable Codes	Decimal number
	Missing OK If	NA
	Audit Findings	NA
	Comments	Calculated for all JHU visits over time (except in the case of missing data). A summary factor score based on 3 measures that were previously identified as loading on a verbal episodic memory latent variable using confirmatory factor analysis (CFA). Details about the CFA and calculation of the composite score are described in the supplementary materials of Soldan et al., 2019 (Resting-State Functional Connectivity Is Associated With Cerebrospinal Fluid Levels of the Synaptic Protein NPTX2 in Non-demented Older Adults; Front Aging Neurosci; doi: 10.3389/fnagi.2019.00132). The following 3 tests are included in this composite score: (1) Paired Associates immediate, (2) Logical Memory delayed recall (Story A), and (3) California Verbal Learning Test (CVLT) total recall on Trials 1-5. Note: the z-scores used to create this composite score were calculated using the means and standard deviations from all available JHU cognitive data, i.e., from visit 101 onwards.

100) Variable Name **Composite_executive**

Short Description	Cognitive composite score for executive function
Source	Calculated
Question Text	Cognitive composite score for executive function?
Time of Collection	Baseline and Follow-up
Data Type	Numerical
Allowable Codes	Decimal number
Missing OK If	NA
Audit Findings	NA

Comments: Calculated for all JHU visits over time (except in the case of missing data). A summary factor score based on 3 measures that were previously identified as loading on an executive function latent variable using confirmatory factor analysis (CFA). Details about the CFA and calculation of the composite score are described in the supplementary materials of Soldan et al., 2019 (Resting-State Functional Connectivity Is Associated With Cerebrospinal Fluid Levels of the Synaptic Protein NPTX2 in Non-demented Older Adults; Front Aging Neurosci; doi: 10.3389/fnagi.2019.00132). The following 3 tests are included in this composite score: (1) Digit Span backwards, (2) Trails B (reverse scored), and (3) Digit-Symbol Substitution. Note: the z-scores used to create this composite score were calculated using the means and standard deviations from all available JHU cognitive data, i.e., from visit 101 onwards.

101) Variable Name **Composite_visuospatial**

Short Description	Cognitive composite score for visuospatial processing
Source	Calculated
Question Text	Cognitive composite score for visuospatial processing?
Time of Collection	Baseline and Follow-up
Data Type	Numerical
Allowable Codes	Decimal number
Missing OK If	NA
Audit Findings	NA

Comments: Calculated for all JHU visits over time (except in the case of missing data). A summary factor score based on 3 measures that were previously identified as loading on a visuospatial processing latent variable using confirmatory factor analysis (CFA). Details about the CFA and calculation of the composite score are described in the supplementary materials of Soldan et al., 2019 (Resting-State Functional Connectivity Is Associated With Cerebrospinal Fluid Levels of the Synaptic Protein NPTX2 in Non-demented Older Adults; Front Aging Neurosci; doi: 10.3389/fnagi.2019.00132). The following 3 tests are included in this composite score: (1) Rey Figure copy, (2) Rey Figure recall, and (3) Block Design. Note: the z-scores used to create this composite score were calculated using the means and standard deviations from all available JHU cognitive data, i.e., from visit 101 onwards.

102) Variable Name **Composite_language**

Short Description	Cognitive composite score for language
Source	Calculated
Question Text	Cognitive composite score for language?
Time of Collection	Baseline and Follow-up
Data Type	Numerical
Allowable Codes	Decimal number
Missing OK If	NA
Audit Findings	NA

Comments: Calculated for all JHU visits over time (except in the case of missing data). A summary factor score based on 3 measures that were previously identified as loading on a language latent variable using confirmatory factor analysis (CFA). Details about the CFA and calculation of the composite score are described in the supplementary materials of Soldan et al., 2019 (Resting-State Functional Connectivity Is Associated With Cerebrospinal Fluid Levels of the Synaptic Protein NPTX2 in Non-demented Older Adults; Front Aging Neurosci; doi: 10.3389/fnagi.2019.00132). The following 3 tests are included in this composite score: (1) Boston Naming, (2) category fluency (animals), and (3) letter fluency (sum of F, A, and S). Note: the z-scores used to create this composite score were calculated using the means and standard deviations from all available JHU cognitive data, i.e., from visit 101 onwards.