



The BIOCARD Study

Biomarkers of Cognitive Decline
Among Normal Individuals

**Cognitive Limited
Dataset
November 2021**

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 <i>[Note:some data may have been collected prior to this date]</i>
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 <i>[Noted: Dates are numeric data]</i>
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 <i>[Noted: Variables will follow the NACC naming scheme as closely as possible]</i>

Acronyms and Definitions

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

Cognitive Limited Dataset Characteristics

Number of variables: 97

Order of variables:

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

36)	PAIRED1	<i>WMS-R: Verbal Paired Associates I (Immediate Recall)</i>
37)	PAIRED2	<i>WMS-R: Verbal Paired Associates II (Delayed Recall)</i>
38)	CVLTFORM	<i>California Verbal Learning Test (CVLT) form</i>
39)	CVLTLTR1	<i>CVLT: Number correct trial #1</i>
40)	CVLTLTR2	<i>CVLT: Number correct trial #2</i>
41)	CVLTLTR3	<i>CVLT: Number correct trial #3</i>
42)	CVLTLTR4	<i>CVLT: Number correct trial #4</i>
43)	CVLTLTR5	<i>CVLT: Number correct trial #5</i>
44)	CVLTTOTL	<i>CVLT: Number correct trials #1 - #5</i>
45)	CVLTSDFR	<i>CVLT: Short delay free recall</i>
46)	CVLTSDCR	<i>CVLT: Short delay cued recall</i>
47)	CVLTLDFR	<i>CVLT: Long delay free recall</i>
48)	CVLTLDCR	<i>CVLT: Long delay cued recall</i>
49)	CVLTSMT0	<i>CVLT: Semantic clustering trials #1 - #5</i>
50)	CVLTTTRC	<i>CVLT: Percent recall from recency region</i>
51)	CVLT15SL	<i>CVLT: Total learning slope trials #1 - #5</i>
52)	CVLTLDT5	<i>CVLT: Percent long delay free recall vs. trial #5</i>
53)	CVLTTREP	<i>CVLT: Total repetitions</i>
54)	CVLTTINT	<i>CVLT: Total intrusions</i>
55)	CVLTRCHT	<i>CVLT: Delayed recognition hits</i>
56)	CVLTRCFA	<i>CVLT: Delayed recognition false positive</i>
57)	CVLTTODM	<i>CVLT: Total recognition discriminability</i>
58)	CVLTSMDM	<i>CVLT: Semantic recognition discriminability</i>
59)	DHAND	<i>Grooved Pegboard: Dominant hand (seconds)</i>
60)	NODHAND	<i>Grooved Pegboard: Non-dominant hand (seconds)</i>
61)	BOSTON	<i>Boston Naming Test – number correct</i>
62)	BNTPCT	<i>Boston Naming Test – Percentage correct</i>
63)	FRUITL	<i>Category Fluency: Fruit # generated in 60 Seconds</i>
64)	FRUIPER	<i>Category Fluency: Fruit # perseverations</i>
65)	FRUIINT	<i>Category Fluency: Fruit # intrusions</i>
66)	JOLOTOTL	<i>Judgment of Line Orientation</i>
67)	MATTIS	<i>Dementia Rating Scale # correct /144</i>
68)	SUPERMKT	<i>Category Fluency: Supermarket items generated in 60 seconds</i>
69)	NART_TL	<i>NART: # correct/50</i>

70)	NART_IQ	<i>NART: Estimated Verbal IQ</i>
71)	INFO	<i>WMS-R: Information and Orientation</i>
72)	FIGURAL	<i>WMS-R: Figural Memory</i>
73)	VISPAIR1	<i>WMS-R: Visual Paired Associates 1</i>
74)	VISREPR1	<i>WMS-R: Visual Reproduction 1</i>
75)	VISMEMSP	<i>WMS-R: Visual Memory Span (Sum of forward and backward tapping span)</i>
76)	VISPAIR2	<i>WMS-R: Visual Paired Associates 2 (Delayed Recall)</i>
77)	VISREPR2	<i>WMS-R: Visual Reproduction 2 (Delayed Recall)</i>
78)	WMSRVERB	<i>WMS-R: Summary Verbal Memory</i>
79)	WMSRVISU	<i>WMS-R: Summary Visual Memory</i>
80)	WMSRGEN	<i>WMS-R: Summary General Memory</i>
81)	WMSRDELY	<i>WMS-R: Summary Delayed Memory</i>
82)	WAISVCRW	<i>WAIS-R: Vocab. raw score /70</i>
83)	WAISVCSS	<i>WAIS-R: Vocab. scaled score/19</i>
84)	WAISVCAC	<i>WAIS-R: Vocab. age-corrected/19</i>
85)	WAISSMRW	<i>WAIS-R: Similarities raw score/28</i>
86)	WAISSMSS	<i>WAIS-R: Similarities scaled score/19</i>
87)	WAISSMAC	<i>WAIS-R: Similarities age-corrected score/19</i>
88)	WAISINRW	<i>WAIS-R: Information raw score/29</i>
89)	WAISINSS	<i>WAIS-R: Information scaled score/19</i>
90)	WAISINAC	<i>WAIS-R: Information age corrected/19</i>
91)	WAISPARW	<i>WAIS-R: Arithmetic raw score/19</i>
92)	WAISPASS	<i>WAIS-R: Arithmetic scaled score/19</i>
93)	WAISPAAC	<i>WAIS-R: Arithmetic age corrected/19</i>
94)	WAISPCRW	<i>WAIS-R: Picture Completion raw score/20</i>
95)	WAISPCSS	<i>WAIS-R: Picture Completion scaled score/19</i>
96)	WAISRCAC	<i>WAIS-R: Picture Completion age corrected/19</i>
97)	B17101	<i>New participant</i>

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	<p>NIH visit: Integers and decimals from 0 to 10, where a visit 0 represents a visit that occurred prior to the established baseline date</p> <p>JHU visit: 101, 102, 103, 104, 1XX where XX is from 01 to 99</p> <p>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.</p>
	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	<p>Derived variable.</p> <p>[JHU phase] Calculated as months between the baseline start date and the V1 VISITDATE (formerly V11_Date) for follow-up visits.</p> <p>[NIH phase] Calculated as months between the baseline start date and the recorded visit date (COG1DATE - fsvis).</p>

Cognitive Limited Dataset

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.

Cognitive Limited Dataset

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

Cognitive Limited Dataset

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
	Allowable Codes	Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal 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	CVLTDFR
	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

Cognitive Limited Dataset

48)	Variable Name	CVLTDCR
	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
	Allowable Codes	Max = 16
	Unknown Code	Reason: 95 = Physical Problems 96 = Cognitive Behavioral Problem 97 = Other 98 = Refusal 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	CVLTSMT0
	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

Cognitive Limited Dataset

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 on 75 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

Cognitive Limited Dataset

52)	Variable Name	CVLTLDTS
	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 ($[100 * CVLTLDTR / CVLTLDTS] - 100$)
	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

Cognitive Limited Dataset

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	CVLT TODM
	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	CVLT SMDM
	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	VISMEMP
	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	WAISVCS
	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
		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

Cognitive Limited Dataset

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