

Means and standard deviations for the UDS3 neuropsychological battery in cognitively normal participants

AS OF DECEMBER 2017

Table 1. Sample distribution of clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male	Female	Total
<60	≤12	17	32	49
	13-15	29	67	96
	16	55	109	164
	17+	67	110	177
60-69	≤12	40	100	140
	13-15	72	200	272
	16	155	246	401
	17+	224	435	659
70-79	≤12	68	187	255
	13-15	89	248	337
	16	171	319	490
	17+	403	562	965
80-89	≤12	39	106	145
	13-15	40	141	181
	16	94	140	234
	17+	211	227	438
≥90	≤12	5	29	34
	13-15	8	15	23
	16	17	18	35
	17+	22	35	57
Grand total		1826	3326	5152

CRITERIA — Subjects have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1–3.

Table 2. Summary statistics for clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Test	N	Mean (SD)	Q25	Median	Q75	Range
Montreal Cognitive Assessment (MoCA) — total score	5161	26.2 (2.8)	25	27	28	9-30
Craft Story 21 Recall Immediate — verbatim	5154	21.9 (6.6)	17	22	27	0-41
Craft Story 21 Recall Immediate — paraphrase	5154	16.2 (3.9)	14	17	19	0-25
Craft Story 21 Recall Delayed — verbatim	5150	19.1 (6.7)	14	19	24	0-40
Craft Story 21 Recall Delayed — paraphrase	5150	15.1 (4.2)	12	16	18	0-25
Craft Story 21 Recall Delayed — delay time (minutes)	5140	17.5 (3.8)	15	18	20	0-63
Benson Complex Figure Copy	5159	15.6 (1.4)	15	16	17	5-17
Benson Complex Figure Recall	5144	11.3 (3.1)	9	12	13	0-17
Number Span Test Forward — total correct trials	5172	8.3 (2.3)	7	8	10	0-14
Number Span Test Forward — longest span	5172	6.7 (1.3)	6	7	8	0-9
Number Span Test Backward — total correct trials	5171	7.2 (2.2)	6	7	9	0-14
Number Span Test Backward — longest span	5171	5.1 (1.3)	4	5	6	0-8
Multilingual Naming Test (MINT) — total score	5137	29.9 (2.4)	29	31	32	0-32
Verbal Fluency Phonemic Test — correct F-words	5170	14.9 (4.7)	12	15	18	1-35
Verbal Fluency Phonemic Test — correct L-words	5149	14.1 (4.4)	11	14	17	0-35
Verbal Fluency Phonemic Test — total correct F & L	5147	28.9 (8.4)	23	29	34	1-64
Category Fluency — Animals	5178	21.3 (5.6)	17	21	25	0-49
Category Fluency — Vegetables	5172	14.9 (4.3)	12	15	18	0-35
Trail Making Test Part A	5159	31.1 (13.6)	22	28	36	9-150
Trail Making Test Part B	5125	82.2 (45.5)	54	70	95	13-300

CRITERIA — Subjects have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1–3.

Table 3. Montreal Cognitive Assessment (MoCA) total score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	MALE						FEMALE					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	26.4	2.4	23.9	22.7	21.5	32	26.4	2.9	23.6	22.1	20.7
	13-15	29	26.5	2.5	24.0	22.8	21.5	67	26.7	2.8	23.9	22.5	21.1
	16	54	27.3	1.8	25.5	24.6	23.7	108	27.7	1.7	26.0	25.2	24.4
	17+	67	28.1	1.7	26.4	25.6	24.8	110	27.9	2.2	25.7	24.6	23.4
60-69	≤12	40	25.2	3.2	21.9	20.3	18.7	100	24.8	3.1	21.7	20.1	18.5
	13-15	72	25.8	2.3	23.5	22.3	21.1	198	26.0	2.6	23.3	22.0	20.7
	16	155	26.5	2.1	24.4	23.3	22.3	245	27.3	2.1	25.2	24.1	23.1
	17+	224	27.2	1.9	25.3	24.4	23.4	434	27.6	2.0	25.6	24.6	23.6
70-79	≤12	68	24.0	3.1	20.9	19.4	17.8	186	24.2	3.7	20.5	18.7	16.8
	13-15	89	24.8	2.8	22.0	20.6	19.2	248	25.8	2.8	23.0	21.6	20.2
	16	170	26.2	2.4	23.8	22.6	21.4	318	26.5	2.6	23.9	22.6	21.3
	17+	401	26.5	2.2	24.3	23.2	22.1	562	27.0	2.2	24.8	23.7	22.5
80-89	≤12	38	22.4	3.9	18.6	16.6	14.7	100	22.5	4.7	17.8	15.5	13.2
	13-15	40	24.8	3.3	21.5	19.8	18.2	140	24.8	3.4	21.4	19.7	18.0
	16	94	25.3	2.6	22.7	21.4	20.1	139	26.0	2.4	23.6	22.4	21.2
	17+	211	26.1	2.2	23.9	22.8	21.7	225	25.9	2.5	23.4	22.1	20.9
≥90	≤12	5	22.4	3.0	19.4	17.8	16.3	29	20.9	4.8	16.2	13.8	11.4
	13-15	7	23.7	2.3	21.4	20.3	19.1	14	23.6	4.1	19.5	17.4	15.4
	16	16	23.8	2.6	21.1	19.8	18.5	18	24.4	2.8	21.6	20.2	18.8
	17+	22	25.3	2.3	23.1	21.9	20.8	33	25.1	3.0	22.0	20.5	19.0

CRITERIA — Subjects have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1–3.

Table 4. Craft Story 21 Recall Immediate verbatim score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	22.5	6.2	16.2	13.1	10.0	32	20.6	6.1	14.5	11.5	8.4
	13-15	29	21.0	6.8	14.2	10.8	7.4	67	20.6	5.9	14.7	11.7	8.8
	16	55	23.9	6.7	17.1	13.8	10.4	109	23.7	6.2	17.5	14.4	11.3
	17+	66	25.0	6.9	18.1	14.7	11.2	110	24.3	6.4	18.0	14.8	11.6
60-69	≤12	40	21.1	7.6	13.5	9.7	6.0	99	20.9	7.4	13.5	9.8	6.1
	13-15	72	21.7	6.6	15.1	11.8	8.5	197	21.7	5.9	15.8	12.8	9.9
	16	155	20.8	5.8	15.0	12.2	9.3	245	23.8	6.0	17.9	14.9	11.9
	17+	223	23.8	6.3	17.5	14.4	11.2	432	24.4	6.3	18.1	15.0	11.8
70-79	≤12	68	19.1	6.9	12.2	8.7	5.2	186	20.1	6.7	13.4	10.1	6.7
	13-15	89	20.6	6.7	13.9	10.6	7.2	247	21.7	6.5	15.2	11.9	8.7
	16	170	21.7	6.2	15.6	12.5	9.4	316	22.5	6.1	16.4	13.3	10.2
	17+	401	22.0	6.2	15.7	12.6	9.5	560	23.2	6.1	17.0	14.0	10.9
80-89	≤12	38	18.0	6.0	12.0	8.9	5.9	105	17.1	7.1	9.9	6.4	2.8
	13-15	40	18.6	6.6	12.0	8.7	5.4	141	20.6	6.4	14.1	10.9	7.7
	16	93	19.1	5.8	13.2	10.3	7.4	139	20.3	6.9	13.4	10.0	6.5
	17+	209	20.6	6.2	14.5	11.4	8.3	224	21.6	6.0	15.6	12.6	9.6
≥90	≤12	5	17.0	4.6	12.4	10.0	7.7	29	16.3	6.8	9.5	6.1	2.7
	13-15	8	17.6	5.3	12.4	9.7	7.1	15	16.5	5.6	10.9	8.1	5.3
	16	15	20.2	5.3	14.9	12.3	9.6	17	17.5	8.2	9.3	5.2	1.1
	17+	22	18.1	6.2	11.9	8.8	5.7	33	18.1	6.0	12.1	9.1	6.1

CRITERIA — Subjects have: 1.) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 5. Craft Story 21 Recall Immediate paraphrase score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	15.8	5.1	10.6	8.1	5.5	32	15.3	3.5	11.7	10.0	8.2
	13-15	29	15.8	4.1	11.6	9.6	7.5	67	15.4	3.6	11.8	10.0	8.2
	16	55	17.6	4.0	13.6	11.6	9.7	109	17.4	4.0	13.4	11.4	9.4
	17+	66	17.8	3.7	14.1	12.2	10.4	110	17.7	3.6	14.1	12.3	10.5
60-69	≤12	40	15.9	4.6	11.3	9.0	6.7	99	15.5	4.6	10.9	8.6	6.3
	13-15	72	16.3	3.6	12.7	10.9	9.1	197	16.2	3.4	12.8	11.1	9.4
	16	155	15.9	3.6	12.3	10.5	8.7	245	17.4	3.5	14.0	12.2	10.5
	17+	223	17.4	3.3	14.1	12.4	10.8	432	17.8	3.4	14.4	12.7	11.0
70-79	≤12	68	14.1	4.4	9.7	7.5	5.4	186	15.0	4.2	10.8	8.7	6.7
	13-15	89	15.5	3.8	11.6	9.7	7.8	247	16.0	3.8	12.2	10.3	8.4
	16	170	16.1	3.6	12.5	10.7	8.9	316	16.7	3.6	13.1	11.3	9.5
	17+	401	16.3	3.6	12.6	10.8	9.0	560	17.0	3.6	13.4	11.7	9.9
80-89	≤12	38	13.4	3.8	9.6	7.7	5.8	105	13.1	4.7	8.3	5.9	3.6
	13-15	40	13.8	3.9	9.8	7.9	5.9	141	15.1	4.0	11.1	9.0	7.0
	16	93	14.7	3.5	11.2	9.5	7.7	139	15.4	4.3	11.1	9.0	6.8
	17+	209	15.6	3.8	11.8	9.9	8.0	224	15.9	3.8	12.1	10.1	8.2
≥90	≤12	5	13.0	1.0	12.0	11.5	11.0	29	12.3	4.8	7.5	5.1	2.7
	13-15	8	14.0	4.6	9.4	7.1	4.8	15	12.7	3.7	9.0	7.1	5.2
	16	15	14.5	2.7	11.9	10.5	9.2	17	13.5	5.0	8.5	6.0	3.5
	17+	22	14.5	3.3	11.2	9.6	8.0	33	13.5	3.9	9.6	7.7	5.7

CRITERIA — Subjects must have: 1.) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 6. Craft Story 21 Recall Delayed verbatim score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	21.2	5.6	15.6	12.8	10.0	32	17.8	6.7	11.0	7.7	4.3
	13-15	29	18.7	6.9	11.8	8.4	5.0	67	18.8	6.7	12.2	8.9	5.5
	16	55	21.7	6.8	14.9	11.4	8.0	109	21.0	6.6	14.5	11.2	7.9
	17+	66	22.9	6.9	16.1	12.6	9.2	110	22.5	6.6	15.9	12.6	9.4
60-69	≤12	40	18.2	7.3	10.8	7.2	3.5	99	18.7	7.4	11.3	7.6	3.9
	13-15	72	19.3	6.3	13.0	9.8	6.7	197	18.8	6.1	12.7	9.7	6.6
	16	155	18.3	6.0	12.3	9.3	6.3	245	21.2	6.5	14.8	11.6	8.3
	17+	223	21.1	5.9	15.2	12.2	9.2	430	21.4	6.2	15.2	12.1	9.0
70-79	≤12	68	16.9	6.9	10.1	6.7	3.2	186	17.2	7.1	10.1	6.5	3.0
	13-15	89	17.6	6.4	11.1	7.9	4.7	247	18.9	6.5	12.4	9.1	5.9
	16	170	19.3	6.3	13.0	9.9	6.7	316	19.5	6.3	13.2	10.1	6.9
	17+	401	19.0	6.3	12.7	9.6	6.4	559	20.4	6.4	14.0	10.9	7.7
80-89	≤12	38	14.5	5.2	9.2	6.6	4.0	105	13.9	7.0	6.8	3.3	0.0
	13-15	40	15.3	6.6	8.7	5.4	2.0	140	17.4	7.2	10.2	6.6	3.0
	16	93	16.0	5.7	10.3	7.5	4.7	139	17.3	7.0	10.3	6.8	3.3
	17+	210	17.8	6.0	11.8	8.8	5.8	223	18.4	6.3	12.1	8.9	5.7
≥90	≤12	5	14.6	3.0	11.6	10.2	8.7	29	13.2	6.3	6.9	3.8	0.7
	13-15	8	15.0	6.1	8.9	5.8	2.7	15	13.9	4.6	9.2	6.9	4.6
	16	15	16.7	6.1	10.6	7.5	4.4	17	14.9	7.0	7.9	4.4	0.9
	17+	22	16.7	4.9	11.8	9.3	6.9	33	15.4	5.5	9.9	7.2	4.5

CRITERIA — Subjects must have: 1.) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 7. Craft Story 21 Recall Delayed paraphrase score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	15.5	4.4	11.2	9.0	6.8	32	14.5	4.0	10.5	8.5	6.4
	13-15	29	14.9	4.6	10.3	8.0	5.7	67	14.7	4.1	10.6	8.5	6.4
	16	55	17.0	4.1	13.0	10.9	8.9	109	16.6	4.3	12.3	10.2	8.0
	17+	66	17.1	3.8	13.3	11.4	9.5	110	17.3	3.9	13.4	11.5	9.5
60-69	≤12	40	14.7	4.6	10.1	7.8	5.5	99	14.7	4.8	9.9	7.5	5.1
	13-15	72	15.3	3.5	11.8	10.0	8.3	197	15.0	3.9	11.2	9.2	7.3
	16	155	15.0	3.8	11.2	9.3	7.5	245	16.7	3.7	13.0	11.2	9.3
	17+	223	16.7	3.5	13.2	11.4	9.7	430	16.7	3.7	13.0	11.1	9.3
70-79	≤12	68	13.4	4.3	9.1	6.9	4.8	186	13.5	4.6	8.9	6.6	4.3
	13-15	89	14.1	4.0	10.1	8.1	6.1	247	14.8	4.1	10.7	8.7	6.6
	16	170	15.1	3.8	11.3	9.3	7.4	316	15.5	3.9	11.6	9.6	7.7
	17+	401	15.2	3.9	11.3	9.4	7.4	559	16.0	3.7	12.3	10.4	8.5
80-89	≤12	38	11.8	3.7	8.1	6.3	4.4	105	11.3	5.3	6.0	3.3	0.7
	13-15	40	12.5	4.3	8.1	5.9	3.8	140	13.3	4.6	8.7	6.5	4.2
	16	93	13.2	3.8	9.5	7.6	5.7	139	14.2	4.7	9.6	7.3	4.9
	17+	210	14.3	3.9	10.4	8.4	6.5	223	14.7	4.2	10.5	8.4	6.3
≥90	≤12	5	12.0	1.4	10.6	9.9	9.2	29	10.8	4.5	6.3	4.0	1.8
	13-15	8	12.8	3.3	9.4	7.8	6.1	15	11.9	3.9	8.0	6.1	4.1
	16	15	12.9	3.8	9.1	7.2	5.3	17	11.8	4.6	7.2	4.9	2.7
	17+	22	13.8	2.7	11.1	9.8	8.5	33	12.6	4.2	8.4	6.3	4.2

CRITERIA — Subjects must have: 1.) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 8. Benson Complex Figure Copy score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	15.4	1.1	14.2	13.7	13.1	32	15.4	1.4	14.0	13.3	12.7
	13-15	29	15.4	1.4	14.0	13.3	12.6	67	15.6	1.1	14.5	14.0	13.4
	16	54	15.9	1.2	14.7	14.0	13.4	106	15.8	1.2	14.6	14.0	13.4
	17+	67	16.0	0.9	15.2	14.7	14.3	110	15.8	1.3	14.5	13.8	13.2
60-69	≤12	40	15.6	1.4	14.2	13.6	12.9	100	15.3	1.6	13.7	12.9	12.1
	13-15	72	15.7	1.3	14.4	13.7	13.0	200	15.6	1.3	14.3	13.6	13.0
	16	155	15.8	1.1	14.7	14.1	13.6	245	15.6	1.2	14.4	13.8	13.2
	17+	224	15.8	1.1	14.6	14.1	13.5	432	15.9	1.1	14.8	14.2	13.7
70-79	≤12	68	15.3	1.4	14.0	13.3	12.6	187	15.2	1.7	13.5	12.6	11.8
	13-15	89	15.4	1.3	14.0	13.4	12.7	248	15.4	1.4	14.0	13.3	12.7
	16	170	15.5	1.4	14.0	13.3	12.6	316	15.6	1.4	14.2	13.4	12.7
	17+	402	15.6	1.3	14.3	13.6	12.9	562	15.9	1.2	14.7	14.1	13.5
80-89	≤12	38	14.8	1.9	12.9	12.0	11.0	104	14.7	1.7	13.0	12.1	11.3
	13-15	38	14.9	1.9	13.1	12.1	11.2	138	15.2	1.8	13.4	12.4	11.5
	16	93	15.2	1.5	13.8	13.0	12.3	139	15.6	1.3	14.3	13.6	12.9
	17+	210	15.5	1.4	14.1	13.5	12.8	226	15.5	1.4	14.1	13.4	12.7
≥90	≤12	5	14.0	1.9	12.1	11.2	10.3	29	15.5	1.5	14.0	13.2	12.5
	13-15	8	15.6	1.5	14.1	13.4	12.6	14	14.0	3.1	10.9	9.4	7.8
	16	16	15.3	1.4	13.9	13.2	12.5	17	15.4	1.5	14.0	13.2	12.5
	17+	22	16.3	1.0	15.3	14.8	14.2	33	15.2	1.4	13.8	13.2	12.5

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 9. Benson Complex Figure Recall score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	12.5	2.7	9.8	8.5	7.1	32	12.0	2.1	9.9	8.8	7.7
	13-15	29	12.5	2.9	9.6	8.2	6.7	67	12.5	2.3	10.2	9.1	7.9
	16	54	13.1	2.5	10.6	9.4	8.1	106	12.6	2.5	10.1	8.9	7.6
	17+	67	13.4	2.4	11.0	9.8	8.6	110	12.8	2.4	10.3	9.1	7.9
60-69	≤12	40	11.9	3.1	8.8	7.2	5.6	99	11.0	2.9	8.1	6.6	5.1
	13-15	72	12.1	3.0	9.2	7.7	6.2	199	11.7	2.7	9.0	7.6	6.2
	16	154	12.1	2.5	9.6	8.3	7.1	244	11.7	2.7	9.0	7.6	6.3
	17+	223	12.3	2.8	9.5	8.1	6.7	431	12.1	2.7	9.5	8.1	6.8
70-79	≤12	68	10.9	2.8	8.1	6.7	5.3	186	10.2	3.1	7.1	5.6	4.1
	13-15	89	10.9	3.2	7.6	6.0	4.4	247	11.0	3.0	8.1	6.6	5.1
	16	169	11.4	3.3	8.1	6.4	4.8	315	11.2	3.0	8.2	6.7	5.2
	17+	401	11.6	2.9	8.7	7.2	5.8	561	11.4	2.8	8.6	7.2	5.8
80-89	≤12	38	9.2	3.8	5.4	3.5	1.6	103	8.3	3.7	4.6	2.8	0.9
	13-15	38	11.2	2.6	8.6	7.3	6.0	138	9.6	3.3	6.3	4.7	3.0
	16	93	10.3	3.1	7.2	5.7	4.1	138	10.2	3.0	7.3	5.8	4.3
	17+	210	11.1	2.7	8.5	7.1	5.8	226	10.1	3.3	6.8	5.2	3.5
≥90	≤12	5	10.6	3.2	7.4	5.8	4.2	29	8.3	3.8	4.5	2.6	0.7
	13-15	8	10.1	2.0	8.2	7.2	6.2	14	7.9	4.3	3.6	1.4	0.0
	16	16	9.4	3.6	5.8	4.0	2.2	17	9.5	3.7	5.8	3.9	2.1
	17+	22	11.2	2.9	8.3	6.8	5.4	32	9.6	3.4	6.2	4.4	2.7

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in criteria 1-3.

Table 10. Number Span Test Forward (correct trials) score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	8.7	2.4	6.3	5.0	3.8	32	8.7	2.3	6.4	5.2	4.1
	13-15	29	8.5	2.0	6.5	5.6	4.6	67	8.4	2.5	5.9	4.6	3.4
	16	55	8.4	2.5	5.9	4.7	3.4	107	8.7	2.3	6.4	5.3	4.1
	17+	67	9.2	2.5	6.7	5.5	4.2	109	9.1	2.4	6.6	5.4	4.2
60-69	≤12	40	8.4	2.7	5.7	4.3	2.9	99	7.5	2.0	5.5	4.6	3.6
	13-15	72	7.9	2.5	5.4	4.2	3.0	200	7.6	2.2	5.4	4.3	3.2
	16	155	8.5	2.0	6.5	5.4	4.4	246	8.3	2.3	6.0	4.8	3.7
	17+	224	9.3	2.4	6.9	5.7	4.5	433	8.5	2.3	6.2	5.0	3.9
70-79	≤12	68	7.9	2.3	5.6	4.5	3.4	187	7.2	2.2	5.1	4.0	2.9
	13-15	89	7.7	2.5	5.2	3.9	2.7	248	7.8	2.1	5.6	4.6	3.5
	16	171	8.7	2.3	6.4	5.3	4.1	316	8.2	2.2	6.1	5.0	3.9
	17+	403	8.7	2.3	6.4	5.2	4.1	562	8.5	2.3	6.2	5.0	3.8
80-89	≤12	38	6.7	2.4	4.2	3.0	1.8	106	7.0	2.1	4.9	3.8	2.8
	13-15	40	7.8	2.0	5.7	4.7	3.7	140	8.0	2.0	6.0	5.0	4.0
	16	93	8.1	2.1	6.0	5.0	3.9	140	8.0	2.2	5.8	4.7	3.6
	17+	209	8.5	2.4	6.1	4.9	3.6	227	8.0	2.3	5.8	4.6	3.5
≥90	≤12	5	6.6	2.1	4.5	3.5	2.5	29	6.3	1.2	5.1	4.5	3.9
	13-15	8	8.3	2.5	5.7	4.4	3.2	15	7.4	1.5	5.9	5.2	4.5
	16	16	7.1	1.8	5.3	4.4	3.6	17	8.7	3.0	5.8	4.3	2.8
	17+	22	8.4	2.2	6.2	5.1	4.1	34	8.3	2.1	6.2	5.2	4.2

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0.
NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 11. Number Span Test Forward (longest span) score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	6.8	1.3	5.5	4.9	4.3	32	6.8	1.4	5.5	4.8	4.1
	13-15	29	6.8	1.1	5.7	5.1	4.6	67	6.7	1.5	5.3	4.6	3.8
	16	55	6.7	1.3	5.5	4.8	4.2	107	7.0	1.3	5.7	5.0	4.3
	17+	67	7.1	1.3	5.8	5.1	4.5	109	7.1	1.3	5.7	5.1	4.4
60-69	≤12	40	6.6	1.6	5.0	4.2	3.4	99	6.3	1.2	5.0	4.4	3.8
	13-15	72	6.5	1.4	5.1	4.5	3.8	200	6.3	1.2	5.0	4.4	3.8
	16	155	6.9	1.2	5.7	5.1	4.5	246	6.7	1.3	5.4	4.7	4.1
	17+	224	7.2	1.3	5.9	5.3	4.6	433	6.8	1.3	5.5	4.9	4.2
70-79	≤12	68	6.6	1.3	5.3	4.6	3.9	187	6.1	1.4	4.7	4.0	3.4
	13-15	89	6.5	1.6	4.8	4.0	3.2	248	6.4	1.2	5.2	4.5	3.9
	16	171	7.0	1.3	5.7	5.0	4.4	316	6.6	1.2	5.4	4.8	4.2
	17+	403	6.9	1.2	5.6	5.0	4.4	562	6.8	1.3	5.5	4.9	4.2
80-89	≤12	38	5.8	1.3	4.4	3.7	3.1	106	6.0	1.3	4.7	4.0	3.4
	13-15	40	6.4	1.2	5.2	4.6	4.0	140	6.6	1.2	5.4	4.8	4.2
	16	93	6.5	1.2	5.3	4.6	4.0	140	6.6	1.3	5.3	4.7	4.1
	17+	209	6.9	1.3	5.6	4.9	4.3	227	6.6	1.3	5.2	4.6	3.9
≥90	≤12	5	5.6	1.3	4.3	3.6	2.9	29	5.7	0.8	4.9	4.5	4.1
	13-15	8	6.6	1.6	5.0	4.2	3.4	15	6.3	1.0	5.2	4.7	4.2
	16	16	6.2	1.2	5.0	4.4	3.7	17	6.8	1.8	5.0	4.1	3.3
	17+	22	6.7	1.2	5.5	4.9	4.2	34	6.6	1.4	5.3	4.6	3.9

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0.
NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 12. Number Span Test Backward (correct trials) score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	7.4	2.9	4.5	3.0	1.6	32	7.6	2.7	4.9	3.5	2.1
	13-15	29	7.2	2.1	5.1	4.0	2.9	67	7.4	2.4	5.0	3.8	2.6
	16	55	7.2	2.4	4.9	3.7	2.5	107	7.8	2.2	5.6	4.5	3.4
	17+	67	8.6	2.0	6.6	5.6	4.6	109	8.0	2.3	5.7	4.6	3.5
60-69	≤12	40	6.5	2.6	3.9	2.6	1.3	99	6.5	2.2	4.2	3.1	2.0
	13-15	72	6.8	2.5	4.3	3.0	1.8	200	6.8	2.2	4.5	3.4	2.3
	16	155	7.4	2.0	5.4	4.4	3.3	246	7.4	2.2	5.2	4.0	2.9
	17+	224	8.1	2.0	6.1	5.1	4.1	433	7.6	2.1	5.6	4.5	3.5
70-79	≤12	68	6.6	2.1	4.5	3.4	2.4	187	6.1	2.1	4.0	2.9	1.9
	13-15	89	6.4	2.0	4.5	3.5	2.5	248	6.6	1.9	4.6	3.7	2.7
	16	171	7.7	2.2	5.4	4.3	3.2	316	7.2	2.1	5.1	4.0	2.9
	17+	403	7.5	2.2	5.3	4.2	3.0	561	7.5	2.1	5.4	4.3	3.3
80-89	≤12	38	5.3	1.8	3.4	2.5	1.6	105	5.6	2.2	3.4	2.3	1.1
	13-15	40	6.7	2.0	4.7	3.7	2.7	140	6.7	2.0	4.7	3.7	2.6
	16	93	6.5	1.9	4.6	3.7	2.7	140	7.2	2.1	5.0	4.0	2.9
	17+	210	7.3	2.1	5.1	4.1	3.0	227	6.8	2.2	4.6	3.6	2.5
≥90	≤12	5	5.4	2.3	3.1	1.9	0.8	29	5.1	1.8	3.3	2.4	1.5
	13-15	8	7.1	1.9	5.2	4.3	3.4	15	5.9	2.0	4.0	3.0	2.0
	16	16	6.3	2.2	4.1	3.0	1.9	17	6.9	2.9	4.1	2.6	1.2
	17+	22	6.8	2.2	4.6	3.5	2.5	34	7.1	2.4	4.8	3.6	2.4

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0.
NOTE: includes only the first available visit meeting criteria in criteria 1-3.

Table 13. Number Span Test Backward (longest span) score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	5.2	1.6	3.5	2.7	1.9	32	5.4	1.6	3.8	3.0	2.2
	13-15	29	5.1	1.2	3.9	3.3	2.6	67	5.3	1.4	3.9	3.2	2.5
	16	55	5.3	1.4	3.9	3.2	2.5	107	5.4	1.3	4.1	3.5	2.9
	17+	67	5.9	1.2	4.7	4.1	3.6	109	5.6	1.3	4.3	3.7	3.0
60-69	≤12	40	4.8	1.5	3.2	2.5	1.7	99	4.6	1.3	3.2	2.6	1.9
	13-15	72	4.9	1.5	3.3	2.6	1.8	200	4.8	1.2	3.6	3.0	2.3
	16	155	5.3	1.2	4.1	3.5	2.9	246	5.2	1.3	3.9	3.2	2.6
	17+	224	5.6	1.2	4.5	3.9	3.3	433	5.3	1.2	4.1	3.5	2.9
70-79	≤12	68	4.8	1.3	3.5	2.9	2.2	187	4.5	1.3	3.1	2.5	1.8
	13-15	89	4.7	1.2	3.6	3.0	2.4	248	4.8	1.1	3.6	3.0	2.5
	16	171	5.3	1.4	3.9	3.2	2.5	316	5.1	1.2	3.9	3.3	2.7
	17+	403	5.2	1.3	4.0	3.3	2.7	561	5.3	1.2	4.1	3.5	2.8
80-89	≤12	38	4.1	1.1	3.0	2.4	1.8	105	4.1	1.3	2.8	2.1	1.5
	13-15	40	4.8	1.1	3.7	3.2	2.6	140	4.9	1.2	3.7	3.1	2.5
	16	93	4.8	1.2	3.6	3.0	2.4	140	5.1	1.3	3.8	3.1	2.4
	17+	210	5.2	1.2	3.9	3.3	2.7	227	5.0	1.3	3.7	3.1	2.4
≥90	≤12	5	4.2	1.6	2.6	1.7	0.9	29	4.0	1.1	2.9	2.4	1.9
	13-15	8	5.3	1.5	3.8	3.0	2.3	15	4.5	1.2	3.3	2.7	2.1
	16	16	4.8	1.4	3.3	2.6	1.9	17	5.0	1.8	3.2	2.3	1.5
	17+	22	4.8	1.2	3.6	3.0	2.4	34	5.0	1.4	3.6	2.9	2.3

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0.
NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 14. Multilingual Naming Test (MINT) score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	29.4	1.7	27.6	26.8	25.9	32	28.8	2.2	26.6	25.5	24.4
	13-15	29	30.4	1.3	29.2	28.5	27.9	67	29.2	2.2	27.0	26.0	24.9
	16	55	30.2	2.1	28.1	27.0	26.0	109	30.0	1.9	28.1	27.1	26.2
	17+	67	30.9	1.2	29.8	29.2	28.6	110	30.0	2.5	27.5	26.3	25.0
60-69	≤12	38	30.2	1.6	28.6	27.8	27.0	97	28.6	2.5	26.1	24.9	23.6
	13-15	72	30.3	1.7	28.5	27.7	26.8	198	29.3	2.5	26.8	25.5	24.3
	16	155	30.5	2.0	28.5	27.5	26.5	245	30.3	2.0	28.3	27.3	26.3
	17+	224	30.9	1.6	29.3	28.6	27.8	432	30.6	1.7	28.9	28.0	27.2
70-79	≤12	66	30.0	1.9	28.0	27.0	26.1	178	28.4	2.9	25.5	24.1	22.7
	13-15	87	30.0	2.0	28.0	27.0	26.1	247	29.1	3.1	26.0	24.4	22.8
	16	171	30.4	1.9	28.6	27.6	26.7	316	29.9	2.1	27.8	26.7	25.6
	17+	403	30.8	1.9	28.9	28.0	27.0	560	30.0	2.2	27.8	26.7	25.6
80-89	≤12	37	28.9	2.4	26.5	25.3	24.0	102	27.4	3.3	24.1	22.4	20.8
	13-15	40	30.3	1.3	29.0	28.4	27.8	140	28.7	2.8	26.0	24.6	23.2
	16	93	30.7	1.7	29.0	28.2	27.3	137	29.4	2.5	26.9	25.7	24.4
	17+	210	30.6	1.9	28.7	27.7	26.8	224	29.5	2.5	26.9	25.6	24.4
≥90	≤12	5	29.4	2.3	27.1	25.9	24.8	29	25.6	4.0	21.5	19.5	17.5
	13-15	8	26.8	6.1	20.6	17.6	14.5	14	27.9	4.0	23.8	21.8	19.8
	16	16	30.4	1.7	28.8	27.9	27.1	17	28.6	2.3	26.2	25.1	23.9
	17+	22	30.5	1.8	28.7	27.7	26.8	33	28.7	3.7	25.0	23.1	21.3

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0.
NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 15. Phonemic Test – F-words correct score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	15.2	3.5	11.7	10.0	8.3	32	15.2	4.7	10.5	8.2	5.8
	13-15	29	13.9	4.1	9.8	7.7	5.7	67	15.2	4.6	10.6	8.4	6.1
	16	54	16.6	4.8	11.8	9.4	7.0	109	16.4	4.0	12.4	10.4	8.4
	17+	66	16.9	4.5	12.4	10.2	7.9	109	17.4	4.0	13.3	11.3	9.3
60-69	≤12	40	13.7	4.0	9.7	7.7	5.7	100	13.7	5.0	8.7	6.3	3.8
	13-15	72	13.2	4.0	9.2	7.2	5.2	199	14.1	4.4	9.7	7.4	5.2
	16	155	14.4	4.5	10.0	7.7	5.5	246	15.5	4.6	10.9	8.6	6.3
	17+	223	15.8	4.8	11.1	8.7	6.3	433	16.2	4.3	12.0	9.8	7.7
70-79	≤12	68	11.9	4.4	7.5	5.2	3.0	187	12.8	4.4	8.4	6.1	3.9
	13-15	89	12.8	4.3	8.5	6.3	4.2	248	14.1	4.5	9.6	7.3	5.0
	16	171	14.3	4.2	10.1	8.0	5.9	317	14.8	4.4	10.4	8.2	6.0
	17+	402	15.2	4.5	10.7	8.4	6.2	562	15.9	4.6	11.4	9.1	6.8
80-89	≤12	38	10.6	5.0	5.6	3.1	0.0	104	12.2	5.1	7.1	4.5	1.9
	13-15	40	13.0	3.9	9.1	7.1	5.2	141	13.9	4.4	9.5	7.3	5.1
	16	94	14.0	5.0	9.1	6.6	4.1	140	15.0	4.7	10.3	7.9	5.6
	17+	210	15.6	4.7	10.9	8.6	6.2	226	15.6	4.3	11.3	9.1	6.9
≥90	≤12	5	12.6	6.3	6.3	3.1	0.0	29	12.0	4.6	7.4	5.1	2.9
	13-15	8	9.6	1.9	7.7	6.7	5.8	15	11.7	5.1	6.6	4.1	1.5
	16	16	11.6	3.0	8.6	7.1	5.6	17	14.9	3.9	11.1	9.1	7.2
	17+	22	16.9	6.7	10.2	6.9	3.5	34	15.1	3.5	11.6	9.8	8.1

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0.
NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 16. Phonemic Test – L-words correct score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	14.7	4.4	10.3	8.1	5.9	32	14.3	4.5	9.8	7.6	5.3
	13-15	28	12.4	3.8	8.6	6.7	4.8	67	14.2	4.3	9.9	7.8	5.6
	16	54	15.6	4.1	11.4	9.4	7.3	109	15.4	3.9	11.5	9.5	7.6
	17+	66	16.2	4.2	11.9	9.8	7.7	109	16.3	4.1	12.2	10.1	8.0
60-69	≤12	39	12.9	4.7	8.2	5.8	3.5	99	13.1	4.3	8.8	6.7	4.5
	13-15	72	12.4	4.2	8.3	6.2	4.1	199	13.3	4.6	8.7	6.4	4.1
	16	153	13.4	4.2	9.2	7.1	5.0	246	14.9	4.5	10.4	8.1	5.9
	17+	224	15.2	4.4	10.7	8.5	6.3	432	15.5	3.9	11.7	9.7	7.8
70-79	≤12	68	11.2	4.3	6.9	4.8	2.6	187	11.5	4.2	7.3	5.3	3.2
	13-15	88	12.1	3.9	8.2	6.3	4.4	247	13.1	4.2	8.9	6.8	4.7
	16	170	13.5	3.7	9.8	8.0	6.1	313	14.2	4.1	10.0	8.0	5.9
	17+	401	14.2	4.3	9.9	7.7	5.5	561	15.1	4.4	10.7	8.6	6.4
80-89	≤12	37	10.4	4.6	5.9	3.6	1.3	102	11.3	4.6	6.7	4.4	2.2
	13-15	40	12.4	4.1	8.3	6.3	4.2	138	12.6	4.2	8.4	6.3	4.2
	16	93	12.6	4.6	8.0	5.8	3.5	139	13.9	3.9	10.0	8.1	6.1
	17+	210	14.8	4.1	10.7	8.6	6.6	227	14.8	4.2	10.6	8.5	6.4
≥90	≤12	5	13.0	5.2	7.8	5.1	2.5	29	11.2	4.1	7.1	5.1	3.0
	13-15	8	8.6	1.9	6.7	5.7	4.8	15	11.9	4.7	7.2	4.9	2.6
	16	16	10.2	3.8	6.4	4.5	2.6	17	13.8	4.3	9.5	7.4	5.2
	17+	22	14.9	6.3	8.6	5.4	2.2	34	13.3	3.6	9.7	7.9	6.1

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0.
NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 17. Phonemic Test – F & L words correct score by age, education, and sex, among clinically cognitive normal UDS participants with UDS3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	29.9	7.1	22.8	19.2	15.6	32	29.5	8.3	21.2	17.0	12.9
	13-15	28	26.3	7.0	19.2	15.7	12.2	67	28.6	8.1	20.6	16.5	12.5
	16	54	32.2	8.2	24.0	19.9	15.8	109	31.7	7.1	24.5	21.0	17.4
	17+	66	33.1	7.8	25.2	21.3	17.4	109	33.6	7.5	26.1	22.4	18.6
60-69	≤12	39	26.6	7.9	18.7	14.7	10.8	99	26.7	8.4	18.3	14.0	9.8
	13-15	72	25.5	7.3	18.1	14.5	10.8	199	27.4	8.4	19.0	14.8	10.6
	16	153	27.7	8.0	19.7	15.7	11.7	246	30.3	8.3	22.0	17.8	13.6
	17+	223	31.0	8.5	22.5	18.3	14.0	432	31.6	7.5	24.1	20.3	16.6
70-79	≤12	68	22.9	7.9	15.0	11.0	7.1	187	24.3	7.9	16.5	12.5	8.6
	13-15	88	24.6	7.4	17.2	13.5	9.8	247	27.1	8.3	18.8	14.6	10.5
	16	170	27.5	7.1	20.5	16.9	13.4	313	28.8	7.7	21.1	17.2	13.3
	17+	401	29.3	8.2	21.1	17.1	13.0	561	30.9	8.4	22.5	18.3	14.1
80-89	≤12	37	20.9	9.1	11.9	7.4	2.8	102	23.5	9.1	14.4	9.9	5.3
	13-15	40	25.2	7.4	17.8	14.1	10.4	138	26.4	7.9	18.5	14.6	10.6
	16	93	26.7	8.7	17.9	13.6	9.2	139	28.9	7.9	21.0	17.1	13.1
	17+	210	30.4	7.9	22.5	18.5	14.6	226	30.4	7.8	22.6	18.7	14.8
≥90	≤12	5	25.6	11.4	14.2	8.5	2.9	29	23.1	8.3	14.9	10.7	6.6
	13-15	8	18.3	3.5	14.8	13.0	11.3	15	23.6	9.5	14.1	9.3	4.6
	16	16	21.9	6.1	15.8	12.8	9.7	17	28.8	7.2	21.6	18.0	14.4
	17+	22	31.8	12.3	19.5	13.3	7.1	34	28.4	6.5	21.9	18.6	15.3

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 18. Category Fluency – Animals List Generation score by age, education, and sex, among clinically cognitive normal UDS participants with UDS 3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	21.4	4.8	16.6	14.2	11.8	32	21.9	5.1	16.8	14.3	11.7
	13-15	29	21.4	5.2	16.3	13.7	11.1	67	22.0	4.9	17.2	14.7	12.3
	16	55	24.2	5.5	18.6	15.9	13.1	109	23.2	4.4	18.9	16.7	14.5
	17+	67	25.8	5.5	20.3	17.6	14.9	110	25.7	5.6	20.1	17.3	14.4
60-69	≤12	40	20.5	4.7	15.8	13.4	11.1	100	19.7	4.6	15.1	12.8	10.5
	13-15	72	22.0	5.3	16.7	14.0	11.3	200	20.9	5.5	15.4	12.7	9.9
	16	155	21.0	5.0	16.0	13.5	11.1	246	22.6	5.4	17.2	14.5	11.9
	17+	224	24.0	5.3	18.6	16.0	13.3	434	24.1	5.6	18.5	15.7	12.9
70-79	≤12	68	18.9	5.2	13.7	11.1	8.5	187	18.7	5.0	13.7	11.2	8.6
	13-15	89	19.8	4.4	15.4	13.2	11.0	248	19.5	5.0	14.5	12.0	9.5
	16	171	20.8	4.7	16.1	13.7	11.4	316	21.2	5.2	16.0	13.4	10.8
	17+	401	21.9	5.5	16.4	13.7	11.0	562	22.4	5.4	17.0	14.3	11.7
80-89	≤12	38	16.8	5.6	11.1	8.3	5.5	106	16.2	4.7	11.5	9.2	6.9
	13-15	40	18.1	5.9	12.2	9.2	6.2	141	18.0	4.9	13.1	10.7	8.2
	16	94	18.2	4.9	13.4	10.9	8.5	140	20.0	4.6	15.4	13.1	10.8
	17+	210	20.7	5.6	15.1	12.3	9.5	227	20.7	5.9	14.8	11.8	8.9
≥90	≤12	5	15.0	3.8	11.2	9.3	7.4	29	13.8	4.4	9.4	7.1	4.9
	13-15	8	14.5	4.8	9.7	7.3	4.9	15	17.6	5.9	11.7	8.7	5.8
	16	16	18.8	4.7	14.1	11.7	9.4	17	19.0	5.3	13.7	11.0	8.3
	17+	22	19.5	5.4	14.1	11.4	8.8	34	18.7	4.8	13.9	11.5	9.1

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 19. Category Fluency – Vegetables List Generation score by age, education, and sex, among clinically cognitive normal UDS participants with UDS 3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					-1SD	-1.5SD	-2SD				-1SD	-1.5SD	-2SD
<60	≤12	17	14.1	4.6	9.6	7.3	5.0	32	15.3	3.2	12.1	10.5	8.9
	13-15	29	14.7	3.8	10.9	9.0	7.1	67	15.1	3.8	11.3	9.4	7.5
	16	55	14.8	4.4	10.5	8.3	6.1	109	16.8	3.2	13.6	11.9	10.3
	17+	67	16.1	3.8	12.3	10.4	8.4	110	17.6	4.4	13.3	11.1	8.9
60-69	≤12	40	14.1	4.2	9.9	7.9	5.8	100	14.7	3.5	11.2	9.5	7.8
	13-15	72	13.2	4.5	8.8	6.6	4.3	199	15.7	4.0	11.7	9.8	7.8
	16	154	13.6	3.6	10.0	8.2	6.5	246	16.7	3.8	12.8	10.9	9.0
	17+	224	14.4	3.9	10.5	8.5	6.6	434	17.5	4.2	13.3	11.2	9.1
70-79	≤12	68	11.8	3.4	8.4	6.7	5.0	187	14.3	4.0	10.2	8.2	6.2
	13-15	89	12.1	3.5	8.6	6.8	5.0	248	15.2	3.7	11.6	9.7	7.9
	16	170	13.0	3.5	9.5	7.7	5.9	316	16.0	3.7	12.2	10.4	8.5
	17+	402	13.7	4.4	9.3	7.1	4.9	562	16.2	4.2	12.1	10.0	7.9
80-89	≤12	38	10.6	4.1	6.5	4.4	2.4	106	12.9	3.4	9.5	7.8	6.1
	13-15	40	12.9	4.0	8.9	6.9	4.9	140	14.2	3.5	10.7	9.0	7.2
	16	93	11.3	3.7	7.5	5.7	3.8	140	14.8	3.9	10.9	9.0	7.0
	17+	210	13.1	4.3	8.8	6.6	4.5	226	15.3	4.5	10.7	8.5	6.2
≥90	≤12	5	9.2	3.4	5.8	4.1	2.4	29	11.8	3.6	8.2	6.4	4.6
	13-15	8	9.8	4.2	5.5	3.4	1.3	15	12.9	2.7	10.2	8.8	7.5
	16	16	10.2	3.1	7.1	5.5	3.9	17	14.5	4.0	10.5	8.5	6.5
	17+	22	13.7	4.6	9.1	6.8	4.5	34	13.6	3.8	9.7	7.8	5.9

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 20. Trail Making Part A score by age, education, and sex, among clinically cognitive normal UDS participants with UDS 3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					+1SD	+1.5SD	+2SD				+1SD	+1.5SD	+2SD
<60	≤12	17	26.7	12.4	39.1	45.2	51.4	32	27.2	15.3	42.5	50.2	57.8
	13-15	29	27.0	8.2	35.2	39.3	43.4	67	21.9	8.6	30.5	34.8	39.1
	16	54	21.6	9.1	30.7	35.2	39.7	108	22.0	7.0	29.0	32.5	36.0
	17+	66	22.6	16.9	39.5	47.9	56.3	110	21.9	10.3	32.2	37.3	42.4
60-69	≤12	40	33.1	15.4	48.5	56.2	63.9	100	30.5	11.9	42.5	48.4	54.4
	13-15	72	31.9	17.9	49.7	58.7	67.6	199	29.6	11.5	41.1	46.8	52.6
	16	155	27.2	8.7	35.9	40.3	44.6	244	27.9	9.4	37.3	42.0	46.7
	17+	224	25.5	7.9	33.3	37.3	41.2	434	26.3	8.6	34.9	39.2	43.5
70-79	≤12	68	34.0	12.4	46.4	52.6	58.8	187	36.1	19.6	55.7	65.5	75.3
	13-15	89	34.3	12.0	46.3	52.3	58.3	248	33.7	11.6	45.2	51.0	56.8
	16	171	31.9	12.0	43.9	49.9	55.9	316	30.5	10.5	40.9	46.2	51.4
	17+	399	29.7	9.3	39.1	43.7	48.4	561	30.3	10.4	40.7	45.9	51.1
80-89	≤12	38	43.9	22.8	66.8	78.2	89.6	106	45.0	22.4	67.4	78.6	89.8
	13-15	40	36.3	15.8	52.1	60.0	67.9	139	41.1	18.3	59.4	68.6	77.7
	16	94	35.9	12.4	48.3	54.5	60.7	138	35.1	14.5	49.6	56.9	64.2
	17+	210	33.5	12.8	46.4	52.8	59.2	227	34.9	12.2	47.1	53.2	59.3
≥90	≤12	5	35.6	8.3	43.9	48.0	52.1	28	55.4	32.4	87.8	104.0	120.2
	13-15	7	40.7	6.6	47.3	50.5	53.8	14	45.4	32.1	77.5	93.5	109.6
	16	16	38.4	13.3	51.7	58.4	65.1	17	40.8	13.8	54.6	61.5	68.3
	17+	22	41.4	16.4	57.8	66.0	74.2	32	49.0	21.0	70.0	80.5	91.0

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.

Table 21. Trail Making Part B score by age, education, and sex, among clinically cognitive normal UDS participants with UDS 3 battery, as of December 2017

Age (yrs)	Education (yrs)	Male						Female					
		n	Mean	SD	Cutpoints			n	Mean	SD	Cutpoints		
					+1SD	+1.5SD	+2SD				+1SD	+1.5SD	+2SD
<60	≤12	17	71.2	38.3	109.4	128.6	147.7	32	68.6	37.3	105.9	124.6	143.2
	13-15	29	68.9	38.4	107.3	126.5	145.7	67	57.0	29.3	86.3	100.9	115.5
	16	54	52.8	18.1	70.9	80.0	89.0	107	52.9	19.1	72.0	81.6	91.2
	17+	66	52.2	29.5	81.7	96.5	111.2	110	50.6	20.5	71.1	81.3	91.5
60-69	≤12	39	78.1	47.2	125.3	148.9	172.5	100	92.4	48.2	140.5	164.6	188.7
	13-15	72	88.3	48.3	136.6	160.7	184.9	199	83.6	45.1	128.7	151.2	173.7
	16	155	68.5	25.2	93.8	106.4	119.0	244	69.0	25.7	94.7	107.5	120.4
	17+	224	60.3	19.6	79.9	89.7	99.5	433	65.0	28.4	93.4	107.6	121.8
70-79	≤12	65	103.3	52.9	156.2	182.7	209.2	181	106.1	58.2	164.3	193.3	222.4
	13-15	89	90.7	44.3	135.0	157.1	179.3	248	94.5	50.8	145.3	170.7	196.0
	16	171	81.0	32.8	113.8	130.2	146.7	313	79.1	38.0	117.1	136.1	155.0
	17+	397	73.9	28.8	102.7	117.1	131.4	561	75.7	31.1	106.8	122.3	137.9
80-89	≤12	36	147.9	76.6	224.5	262.8	301.1	101	135.9	77.9	213.7	252.7	291.6
	13-15	40	107.9	60.5	168.4	198.7	228.9	137	113.0	57.5	170.4	199.2	227.9
	16	94	94.4	35.7	130.1	147.9	165.8	137	94.4	46.7	141.1	164.5	187.8
	17+	208	88.8	45.2	133.9	156.5	179.1	225	96.2	48.1	144.3	168.4	192.4
≥90	≤12	5	131.0	57.7	188.7	217.5	246.4	26	193.2	89.6	282.8	327.6	372.4
	13-15	7	114.0	23.8	137.8	149.7	161.6	14	115.3	68.4	183.7	217.9	252.1
	16	16	121.6	58.5	180.1	209.4	238.6	17	139.6	65.5	205.2	237.9	270.7
	17+	22	109.7	46.8	156.5	179.9	203.3	31	130.2	74.9	205.0	242.4	279.9

CRITERIA — Subjects must have: 1) at least one UDS3 battery test score available (MoCA total score; Craft Story Immediate/Delayed; Number Span Forward, Number Span Backward; or MINT total score); 2) clinical diagnosis of normal cognition; 3) global CDR=0. NOTE: includes only the first available visit meeting criteria in items 1-3.