Healthy Brain Project – Cognitive Status Adjudication Data

Cognitive status adjudication was completed on the entire Healthy Brain Project cohort (PI: Rosano, C), n=325. Adjudications took place during seven meetings between November 2011 and September of 2012. Subjects with complete Neuro-psychological test batteries, n=213, were adjudicated. To complete the adjudication, the following measures were reviewed: DSST, 3MSE, UPDRS, CES-D, self-reported vision, ADL, and IADLs from Healthy Brain Baseline through the 4th follow-up. Additionally, DOB, gender, race, and education were included. MR images at baseline and follow-up were included in the adjudication for each subject when available. Subjects with neuro-psychological data and MR images were adjudicated into the following categories: normal, mild cognitive impairment (MCI), dementia. MCI was further broken down into: amnestic MCI single domain; amnestic MCI multiple domain (language, visuospatial construction, executive functioning, attention); non-amnestic MCI single domain (language, visuospatial construction, executive functioning, attention); non-amnestic MCI multiple domain (language, visuospatial construction, executive functioning, attention). Dementia was further categorized into: NINCDS-ARDA criteria for dementia, DSM-IV criteria for dementia, DSM-IV criteria for Alzheimer's Disease, DSM-IV criteria for vascular disease, NINCDS-ADRDA criteria Alzheimer's Disease, NINCDS-AIREN criteria for vascular dementia, ADDTC criteria for Ischemic Vascular Dementia, Frontotemporal Lobar Degeneration, Consensus Guidelines for the Diagnosis of Demintia with Lewy Bodies. Subjects without complete neuro-psychological testing were also adjudicated, n=113. The most common reason for not having completed neuro-psychological testing was missed visit due to illness or deceased. These subjects were adjudicated following a separate protocol using data from Health ABC and Healthy Brain Project. Medical records, medication inventories, death certificates, and DPQ questionnaires were reviewed for evidence of dementia when applicable. Healthy Brain documentation was reviewed for evidence of dementia. Health ABC Yr 14 and/or EOL quarterly calls were reviewed for evidence of dementia. Specifically, TICS, COWA, and Year 14 reason for proxy call were reviewed. Adjudicated status was determined to be probable: dementia, cognitive impairment – not dementia, or normal. Of the total 325 subjects, 8 were unable to be classified under any of the above adjudication criteria. Cognitive adjudication data is only included in this HBP_CogAdj for the 314 participants in the Healthy Brain Project baseline visit. Adjudication may not be available for all of the 314 participants.

Healthy Brain Project DIAGNOSTIC CRITERIA - Summary form

	YES	NO	?
1. Normal NORM	1	0	9
2. Mild Cognitive Impairment (MCI) MCI	1	0	9
a) Amnestic MCI Single Domain AMCISG	1	0	9
b) Amnestic MCI Multiple Domain AMCIMT	1	0	9
Language AMCIMT_LG	1	0	9
Visuospatial Construction AMCIMT_VC	1	0	9
Executive Functioning AMCIMT_EF	1	0	9
Attention AMCIMT_AT	1	0	9
c) Non-Amnestic MCI Single Domain: NAMCISG	1	0	9
Language NAMCISG_LG	1	0	9
Visuospatial Construction NAMCISG_VC	1	0	9
Executive Functioning NAMCISG_EF	1	0	9
Attention NAMCISG_AT	1	0	9
d) Non-Amnestic MCI Multiple Domain: NAMCIMT	1	0	9
Language NAMCIMT_LG	1	0	9
Visuospatial Construction NAMCIMT_VC	1	0	9
Executive Functioning NAMCIMT_EF	1	0	9
Attention NAMCIMT_AT	1	0	9
3. Dementia DMT	1	0	9
a) NINCDS-ADRDA Criteria for Dementia NIN_DMT	1	0	9
b) DSM-IV Criteria for Dementia DSM_DMT	1	0	9
c) DSM-IV Criteria for Alzheimer's Disease DSM_AD	1	0	9
d) DSM-IV Criteria for Vascular Dementia DSM_VD	1	0	9

	Prob	Poss	Not
e) NINCDS-ADRDA Criteria for Alzheimer's Disease NIN_AD NIN_AD	☐	☐	☐
f) NINCDS-AIREN Criteria for Vascular Dementia	☐	☐	☐
g) ADDTC Criteria for Ischemic Vascular Dementia ADD_IVD	☐	☐	☐
h) Frontotemporal Lobar Degeneration FLD	☐	☐	☐
i) Consensus Guidelines for the Diagnosis of Dementia With Lewy Bodies CG_DMT	☐	☐	☐

j) Parkinson's Disease PD ☐ yes ☐ no ☐ unk

	Prob	**Poss**	**Not**
1. **Without cognitive deficits** PD_NOCD	☐	☐	☐
2. **With mild cognitive impairment** PD_MCI	☐	☐	☐
3. **With dementia** PD_DMT	☐	☐	☐

k) Progressive Supranuclear Palsy Diagnostic Criteria PSP ☐ ☐ ☐

l) Multiple System Atrophy Diagnostic criteria ☐ yes ☐ no ☐ unk
MSA

	Prob	**Poss**	**Not**
1. **Striatonigral degenerative type** MSA_SD	☐	☐	☐
2. **Olivopontocerebellar Atrophy** MSA_OA	☐	☐	☐

m) Other Causes of Dementia OTHCAU_DMT ☐ ☐ ☐

4. Disease processes that can cause cognitive deficits DISCD ☐ ☐ ☐

If Probable or Possible, specify (mark all that apply):

a) **Depression** ☐ DISCD_DPE

b) **Chronic pain** ☐ DISCD_CP

c) **Other** ☐ DISCD_OTH

Comment: __DISCD_OTH_COM_____

ID#: HB __HABCID__   Adjudication Date:__AJDATE____

Healthy Brain Project DIAGNOSTIC CRITERIA

Participants Without NeuroPsychological Battery Evaluation

Current Status: CRSTATUS   Deceased __ (DOD __ __/__ __/__ __)   Living __

DOD

Most Recent HBP Visit: Date __MRV_Date__   Follow Up: BL 2 3 4 5   Visit Type: Clinic
MRV_FU   MRV_TY Home
Phone

Evidence of Dementia:	**Yes** (Date)	**No**	**Unknown**
1. **Obtained from HBP related visit:** DEMIA_HBP			
a. **Self Report** DEMIA_HBP_SELF	1 DEMIA_HBP_SELF_DATE	0	9
b. **Proxy Report** DEMIA_HBP_PROXY	1 DEMIA_HBP_PROXY_DATE	0	9
c. **Medication History** DEMIA_HBP_MEDHS	1 DEMIA_HBP_MEDHS_DATE	0	9
Circle all applicable	Aricept DEMIA_HBP_AR		
	Namenda DEMIA_HBP_NAM		
	Exelon DEMIA_HBP_EXE		
	Razadyne DEMIA_HBP_RAZ		
DEMIA_HBP_OTH	Other: __DEMIA_HBP_OTH_SPE____		

2. **Obtained from Health ABC Yr 14 or EOL Quarterly Call** DEMIA_HABC			
DEMIA_HABC_PROXY a. **Year 14 proxy call due to cognitive problems**	1 DEMIA_HABC_PROXY_DATE	0	9
DEMIA_HABC_TICS b. **Abn TICS (Score:** DEMIA_HABC_TICS_SCORE	1 DEMIA_HABC_TICS_DATE	0	9
DEMIA_HABC_COWA c. **Abn COWA (Score:** DEMIA_HABC_COWA_SCORE **)**	1 DEMIA_HABC_COWA_DATE	0	9
DEMIA_HABC_COGN d. **Cognitive Problems Reason for Proxy Call**	1 DEMIA_HABC_COGN_DATE	0	9

3. **Obtained from Medical Records** DEMIA_MED			
DEMIA_MED_DIAG a. **Diagnosis of dementia (ICD or text)**	1 DEMIA_MED_DIAG_DATE	0	9
DEMIA_MED_DEATH b. **Death Certificate**	1 DEMIA_MED_DEATH_DATE	0	9
DEMIA_MED_MEDHS c. **Medication History**	1 DEMIA_MED_MEDHS_DATE	0	9
Circle all applicable	Aricept DEMIA_MED_AR		
	Namenda DEMIA_MED_NAM		
	Exelon DEMIA_MED_EXE		
	Razadyne DEMIA_MED_RAZ		
DEMIA_MED_OTH	Other: __DEMIA_MED_OTH_SPE____		
DEMIA_MED_DPQ d. **DPQ reported evidence of dementia** (proxy interview after death)	1 DEMIA_MED_DPQ_DATE	0	9

4. **Adjudicated Diagnosis:** ADDIAG

Dementia
Normal
Cognitive Impairment, not dementia

Comments: COMMENTS

The CONTENTS Procedure

Data Set Name	HBP.HBP_COGADJ	Observations	314
Member Type	DATA	Variables	102
Engine	V9	Indexes	0
Created	Wednesday, April 17, 2013 12:45:51 PM	Observation Length	1272
Last Modified	Wednesday, April 17, 2013 12:45:51 PM	Deleted Observations	0
Protection		Compressed	NO
Data Set Type		Sorted	NO
Label			
Data Representation	WINDOWS_32		
Encoding	wlatin1 Western (Windows)		

Engine/Host Dependent Information	
Data Set Page Size	16384
Number of Data Set Pages	28
First Data Page	2
Max Obs per Page	12
Obs in First Data Page	12
Number of Data Set Repairs	0
Filename	V:\Data Analysis File\Programs\Substudy Programs\HealthyBrain\HB201304Final\hbp_cogadj.sas7bdat
Release Created	9.0202M0
Host Created	XP_PRO

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#	**Variable**	**Type**	**Len**	**Format**	**Informat**	**Label**
1	BLCV_DATE	Num	8	MMDDYY10.	DATETIME19.	Date of HBP Baseline Visit
2	FU1_DATE	Num	8	MMDDYY10.	DATETIME19.	Date of HBP 1st Follow-Up Visit
3	FU2_DATE	Num	8	MMDDYY10.	DATETIME19.	Date of HBP 2nd Follow-Up Visit
4	FU3_DATE	Num	8	MMDDYY10.	DATETIME19.	Date of HBP 3rd Follow-Up Visit
5	FU4_DATE	Num	8	MMDDYY10.	DATETIME19.	Date of HBP 4th Follow-Up Visit
6	MRI_DATE	Num	8	MMDDYY10.	DATETIME19.	Date of MRI
7	MRV_DATE	Num	8	MMDDYY10.	DATETIME19.	Most Recent HBP Visit Date
8	AJDATE	Num	8	MMDDYY10.	DATETIME19.	Adjudication Date
9	DOD	Num	8	MMDDYY10.	DATETIME19.	Date of Death
10	DEMIA_HBP_SELF_DATE	Num	8	MMDDYY10.	DATETIME19.	Q1 a. Self Report Date
11	DEMIA_HBP_PROXY_DATE	Num	8	MMDDYY10.	DATETIME19.	Q1 b. Proxy Report Date
12	DEMIA_HBP_MEDHS_DATE	Num	8	MMDDYY10.	DATETIME19.	Q1 c. Medication History Date
13	DEMIA_HABC_PROXY_DATE	Num	8	MMDDYY10.	TIME8.	Q2 a. Year 14 Proxy Call Date
14	DEMIA_HABC_TICS_DATE	Num	8	MMDDYY10.	TIME8.	Q2 b. Abn TICS Date
15	DEMIA_HABC_COWA_DATE	Num	8	MMDDYY10.	TIME8.	Q2 b. Abn COWA Date
16	DEMIA_HABC_COGN_DATE	Num	8	MMDDYY10.	TIME8.	Q2 c. Cognitive Problems Date
17	DEMIA_MED_DIAG_DATE	Num	8	MMDDYY10.	TIME8.	Q3 a. Diagnosis of dementia Date
18	DEMIA_MED_DEATH_DATE	Num	8	MMDDYY10.	TIME8.	Q3 b. Death Certificate Date
19	DEMIA_MED_MEDHS_DATE	Num	8	MMDDYY10.	TIME8.	Q3 c. Medication History Date
20	DEMIA_MED_DPQ_DATE	Num	8	MMDDYY10.	TIME8.	Q3 d. DPQ Date
21	HABCID	Num	4	11.	11.	HABC ENROLLMENT ID
22	FU4_STATUS	Char	50			Status at 4th Follow-Up Visit
23	DEMIA_HBP_OTH_SPE	Char	50			Q1 c. Medication History --- Other
24	DEMIA_MED_OTH_SPE	Char	50			Q3 c. Medication History --- Other
25	Cohort	Char	50	$50.	$50.	Healthy Brain Cohort
26	FU1_STATUS	Char	17	$17.	$17.	Status at 1st Follow-Up Visit
27	FU2_STATUS	Char	17	$17.	$17.	Status at 2nd Follow-Up Visit
28	FU3_STATUS	Char	31	$31.	$31.	Status at 3rd Follow-Up Visit
29	NORM	Num	8	11.	11.	Q1. Normal (1=Yes, 0=No, 9=Unknown)
30	MCI	Num	8	11.	11.	Q2. Mild Cognitive Impairment (MCI) (1=Yes, 0=No, 9=Unknown)
31	AMCISG	Num	8	11.	11.	Q2. a) Amnestic MCI Single Domain (1=Yes, 0=No, 9=Unknown)

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#	Variable	Type	Len	Format	Informat	Label
	Variables in Creation Order					
32	AMCIMT	Num	8	11.	11.	Q2. b) Amnestic MCI Multiple Domain (1=Yes, 0=No, 9=Unknown)
33	AMCIMT_LG	Num	8	11.	11.	Q2. b) Amnestic MCI Multiple Domain --- Language (1=Yes, 0=No, 9=Unknown)
34	AMCIMT_VC	Num	8	11.	11.	Q2. b) Amnestic MCI Multiple Domain --- Visuospatial Construction (1=Yes, 0=No, 9=Unknown)
35	AMCIMT_EF	Num	8	11.	11.	Q2. b) Amnestic MCI Multiple Domain --- Executive Functioning (1=Yes, 0=No, 9=Unknown)
36	AMCIMT_AT	Num	8	11.	11.	Q2. b) Amnestic MCI Multiple Domain --- Attention (1=Yes, 0=No, 9=Unknown)
37	NAMCISG	Num	8	11.	11.	Q2. c) Non-Amnestic MCI Single Domain (1=Yes, 0=No, 9=Unknown)
38	NAMCISG_LG	Num	8	11.	11.	Q2. c) Non-Amnestic MCI Single Domain --- Language (1=Yes, 0=No, 9=Unknown)
39	NAMCISG_VC	Num	8	11.	11.	Q2. c) Non-Amnestic MCI Single Domain --- Visuospatial Construction (1=Yes, 0=No, 9=Unknown)
40	NAMCISG_EF	Num	8	11.	11.	Q2. c) Non-Amnestic MCI Single Domain --- Executive Functioning (1=Yes, 0=No, 9=Unknown)
41	NAMCISG_AT	Num	8	11.	11.	Q2. c) Non-Amnestic MCI Single Domain --- Attention (1=Yes, 0=No, 9=Unknown)
42	NAMCIMT	Num	8	11.	11.	Q2. d) Non-Amnestic MCI Multiple Domain (1=Yes, 0=No, 9=Unknown)
43	NAMCIMT_LG	Num	8	11.	11.	Q2. d) Non-Amnestic MCI Multiple Domain --- Language (1=Yes, 0=No, 9=Unknown)
44	NAMCIMT_VC	Num	8	11.	11.	Q2. d) Non-Amnestic MCI Multiple Domain --- Visuospatial Construction (1=Yes, 0=No, 9=Unknown)
45	NAMCIMT_EF	Num	8	11.	11.	Q2. d) Non-Amnestic MCI Multiple Domain --- Executive Functioning (1=Yes, 0=No, 9=Unknown)
46	NAMCIMT_AT	Num	8	11.	11.	Q2. d) Non-Amnestic MCI Multiple Domain --- Attention (1=Yes, 0=No, 9=Unknown)
47	DMT	Num	8	11.	11.	Q3. Dementia (1=Yes, 0=No, 9=Unknown)
48	MIN_DMT	Num	8	11.	11.	Q3. a) NINCDS-ADRDA Criteria for Dementia (1=Yes, 0=No, 9=Unknown)
49	DSM_DMT	Num	8	11.	11.	Q3. b) DSM-IV Criteria for Dementia(1=Yes, 0=No, 9=Unknown)
50	DSM_AD	Num	8	11.	11.	Q3. c) DSM-IV Criteria for Alzheimers Disease (1=Yes, 0=No, 9=Unknown)
51	DSM_VD	Num	8	11.	11.	Q3. d) DSM-IV Criteria for Vascular Dementia (1=Yes, 0=No, 9=Unknown)

The CONTENTS Procedure

Variables in Creation Order

#	Variable	Type	Len	Format	Informat	Label
52	NIN_AD	Num	8	11.	11.	Q3. e) NINCDS- ADRDA Criteria for Alzheimers Disease (1=Probable, 2=Possible, 0=Not)
53	NIN_VD	Num	8	11.	11.	Q3. f) NINCDS-AIREN Criteria for Vascular Dementia (1=Probable, 2=Possible, 0=Not)
54	ADD_IVD	Num	8	11.	11.	Q3. g) ADDTC Criteria for Ischemic Vascular Dementia (1=Probable, 2=Possible, 0=Not)
55	FLD	Num	8	11.	11.	Q3. h) Frontotemporal Lobar Degeneration (1=Probable, 2=Possible, 0=Not)
56	CG_DMT	Num	8	11.	11.	Q3. i) Consensus Guidelines for the Diagnosis of Dementia With Lewy Bodies (1=Probable, 2=Possible,
57	PD	Num	8	11.	11.	Q3. j) Parkinsons Disease (1=Yes, 0=No, 9=Unknown)
58	PD_NOCD	Num	8	11.	11.	Q3. J) 1. Parkinsons Disease --- Without congnitive deficits (1=Probable, 2=Possible, 0=Not)
59	PD_MCI	Num	8	11.	11.	Q3. J) 2. Parkinsons Disease --- With mild congnitive impairment (1=Probable, 2=Possible, 0=Not)
60	PD_DMT	Num	8	11.	11.	Q3. J) 3. Parkinsons Disease --- With dementia (1=Probable, 2=Possible, 0=Not)
61	PSP	Num	8	11.	11.	Q3. k) Progressive Supranuclear Palsy Diagnostic Criteria (1=Probable, 2=Possible, 0=Not)
62	MSA	Num	8	11.	11.	Q3. i) Multiple System Atrophy Diagnostic Criteria (1=Yes, 0=No, 9=Unknown)
63	MSA_SD	Num	8	11.	11.	Q3. i) 1. Multiple System Atrophy Diagnostic Criteria --- Striatonigral degenerative type (1=Probabl
64	MSA_OA	Num	8	11.	11.	Q3. i) 2. Multiple System Atrophy Diagnostic Criteria --- Olivopontocerebellar Atrophy (1=Probable,
65	OTHCAU_DMT	Num	8	11.	11.	Q3. m) Other causes of Dementia (1=Probable, 2=Possible, 0=Not)
66	DISCD	Num	8	11.	11.	Q4. Disease processes that can cause congnitive deficits (1=Probable, 2=Possible, 0=Not)
67	DISCD_DPE	Num	8	11.	11.	Q4. Disease processes that can cause congnitive deficits --- Depression (1=Yes, 0=No)
68	DISCD_CP	Num	8	11.	11.	Q4. Disease processes that can cause congnitive deficits --- Chronic Pain (1=Yes, 0=No)
69	DISCD_OTH	Num	8	11.	11.	Q4. Disease processes that can cause congnitive deficits --- Other (1=Yes, 0=No)
70	DISCD_OTH_COM	Char	86	$86.	$86.	Q4. Disease processes that can cause congnitive deficits --- Other Comments
71	ADDIAG	Num	8	11.	11.	Adjudicated Diagnosis (1=Dementia; 2=Normal; 3=Congnitive Impairment, not dementia; 4=unclassifiable

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	Variables in Creation Order					
#	Variable	Type	Len	Format	Informat	Label
72	CRSTATUS	Num	8	11.	11.	Current Status (1=Living, 0=Deceased)
73	MRV_FU	Num	8	11.	11.	Most Recent HBP Follow Up - 1=bl, 2=1st FU since bl, 3=2nd FU since bl, 4=3rd FU since bl, 5=4th FU since bl
74	MRV_TY	Num	8	11.	11.	Most Recent HBP Visit Type (0=Clinic, 1=Home, 2=Phone)
75	DEMIA_HBP	Num	8	11.	11.	Q1. Evidence of Dementia obtained from HBP related visit (1=Yes, 0=No)
76	DEMIA_HBP_SELF	Num	8	11.	11.	Q1 a. Self Report (1=Yes, 0=No, 9=Unknown)
77	DEMIA_HBP_PROXY	Num	8	11.	11.	Q1 b. Proxy Report (1=Yes, 0=No, 9=Unknown)
78	DEMIA_HBP_MEDHS	Num	8	11.	11.	Q1 c. Medication History (1=Yes, 0=No, 9=Unknown)
79	DEMIA_HBP_AR	Num	8	11.	11.	Q1 c. Medication History --- Aricept (1=Yes, 0=No)
80	DEMIA_HBP_NAM	Num	8	11.	11.	Q1 c. Medication History --- Namenda (1=Yes, 0=No)
81	DEMIA_HBP_EXE	Num	8	11.	11.	Q1 c. Medication History --- Exelon (1=Yes, 0=No)
82	DEMIA_HBP_RAZ	Num	8	11.	11.	Q1 c. Medication History --- Razadyne (1=Yes, 0=No)
83	DEMIA_HBP_OTH	Num	8	11.	11.	Q1 c. Medication History --- Other (1=Yes, 0=No)
84	DEMIA_HABC	Num	8	11.	11.	Q2. Evidence of Dementia obtained from HABC Yr 14 or EOL Quarterly Call (1=Yes, 0=No)
85	DEMIA_HABC_PROXY	Num	8	11.	11.	Q2 a. Year 14 Proxy Call due to Cognitive Problems (1=Yes, 0=No, 9=Unknown)
86	DEMIA_HABC_TICS	Num	8	11.	11.	Q2 b. Abn TICS (1=Yes, 0=No, 9=Unknown)
87	DEMIA_HABC_COWA	Num	8	11.	11.	Q2 b. Abn COWA (1=Yes, 0=No, 9=Unknown)
88	DEMIA_HABC_COGN	Num	8	11.	11.	Q2 c. Cognitive Problems Reason for Proxy Call (1=Yes, 0=No, 9=Unknown)
89	DEMIA_MED	Num	8	11.	11.	Q3. Obtained from Medical Records (1=Yes, 0=No)
90	DEMIA_MED_DIAG	Num	8	11.	11.	Q3 a. Diagnosis of dementia (ICD or text) (1=Yes, 0=No, 9=Unknown)
91	DEMIA_MED_DEATH	Num	8	11.	11.	Q3 b. Death Certificate (1=Yes, 0=No, 9=Unknown)
92	DEMIA_MED_MEDHS	Num	8	11.	11.	Q3 c. Medication History (1=Yes, 0=No, 9=Unknown)
93	DEMIA_MED_AR	Num	8	11.	11.	Q3 c. Medication History --- Aricept (1=Yes, 0=No)
94	DEMIA_MED_NAM	Num	8	11.	11.	Q3 c. Medication History --- Namenda (1=Yes, 0=No)
95	DEMIA_MED_EXE	Num	8	11.	11.	Q3 c. Medication History --- Exelon (1=Yes, 0=No)

The CONTENTS Procedure

	Variables in Creation Order					
#	Variable	Type	Len	Format	Informat	Label
96	DEMIA_MED_RAZ	Num	8	11.	11.	Q3 c. Medication History --- Razadyne (1=Yes, 0=No)
97	DEMIA_MED_OTH	Num	8	11.	11.	Q3 c. Medication History --- Other (1=Yes, 0=No)
98	DEMIA_MED_DPQ	Num	8	11.	11.	Q3 d. DPQ reported evidence of dementia (1=Yes, 0=No, 9=Unknown)
99	COMMENTS	Char	179	$179.	$179.	Q5. Comments
100	DEMIA_HABC_TICS_SCORE	Num	8			Q2 b. Abn TICS Score
101	DEMIA_HABC_COWA_SCORE	Num	8			Q2 b. Abn COWA Score
102	VERSION	Num	8	YYMMDD10.		Release Date for this Version of HBP_CogAdj