Supplementary Material

Race/Ethnic Disparities in Mild Cognitive Impairment and Dementia: The Northern Manhattan Study

Supplementary Table 1. Comparison of participants who did or did not return for visit 2

Variable	Returned for Visit 2						
		No (n=301)					
	Yes (n=989)	Total	Hispanic (n=175)	Black (n=61)	White (n=57)	p$^\$$	p$^\yen$
Global cognitive domain Z-score at visit 1 (SD)	0.1 (0.7)	-0.3 (0.8)	-0.39 (0.72)	-0.35 (0.87)	0.07 (0.67)	<0.0001	<0.0001
Age, visit 1	69 (9)	75 (9)	73 (9)	76 (10)	78 (9)	0.0003	<0.0001
Education, y	10 (5)	10 (5)	8 (5)	12 (4)	13 (4)	<0.0001	0.905
Race/ethnicity*						N/A	
White	134 (14)	57 (19)	N/A	N/A	N/A		0.007
Black	162 (16)	61 (20)	N/A	N/A	N/A		
Hispanic	672 (68)	175 (58)	N/A	N/A	N/A		
Women	610 (62)	170 (57)	102 (58)	32 (53)	31(54)	0.53	0.106
Medical insurance status							
Medicare or private insurance	505 (51)	172 (57)	66 (38)	46 (75)	54 (95)	<0.0001	0.064
Medicaid or no insurance	484 (49)	129 (43)	109 (62)	15 (25)	3 (5)		
Literacy Z-scores							
WRAT/WAT	0.01 (0.9)	-0.05 (1.04)	-0.003 (0.952)	-0.358 (1.202)	0.268 (0.830)	0.003	0.387
Peabody	0.05 (1.0)	-0.16 (1.0)	-0.116 (1.002)	-0.579 (1.150)	0.179 (0.723)	0.0002	0.003
Current smoker	155 (16)	48 (16)	25 (14)	16 (26)	6 (11)	0.034	0.909
Moderate or Heavy Physical Activity	97 (10)	34 (11)	17 (9)	8 (13)	7 (12)	0.417	0.464
Diabetes mellitus	267 (27)	86 (29)	63 (36)	12 (20)	7 (12)	0.0008	0.592
Anti-hypertensive use	590 (60)	193 (64)	114 (65)	38 (62)	36 (63)	0.667	0.165
Systolic BP, mm Hg	136 (17)	139 (18)	139 (18)	141 (15)	134 (15)	0.057	0.004
Diastolic BP, mm Hg	79 (9)	76 (10)	77 (11)	78 (10)	72 (10)	0.015	0.0005
HDL, mg/dL	53 (17)	54.9 (17)	50 (14)	65 (21)	58 (17)	<0.0001	0.079
LDL, mg/dL	116 (36)	114.2 (34)	117 (34)	109 (33)	111 (34)	0.371	0.442

Waist Hip Ratio	0.915 (0.084)	0.924 (0.080)	0.928 (0.075)	0.921 (0.073)	0.918 (0.105)	0.808	0.117
Percent WMHV**	0.594 (0.737)	0.955 (1.066)	0.923 (1.008)	1.320 (1.373)	0.662 (0.716)	0.002	<0.0001
Brain parenchymal fraction***	0.730 (0.040)	0.706 (0.046)	0.713 (0.039)	0.702 (0.056)	0.689 (0.047)	0.196	<0.0001

$^{\$}$ p-value for age adjusted global comparison among three race/ethnic groups (2 degrees of freedom)

$^{¥}$ p-value for comparison between those who returned for visit2 and those who did not

* Column percentages sum to 98 because data for Other races are not included.

WAT, Word Accentuation Test; Peabody, Peabody Picture Vocabulary Test; BP, blood pressure; HDL, high density lipoprotein; LDL, low density lipoprotein; WRAT, Wide Range Achievement Test.

** Percent Total Cranial Volume adjusted WMHV

*** Total Cranial Volume adjusted (proportion)

Supplementary Table 2. Multivariable model of race/ethnicity and ordinal outcome of MCI/dementia among participants that were cognitively healthy at visit 1

Parameter	OR	95% CI of OR		p*	p**
Model 1					
Black versus White	1.8	0.8	4	0.175	<0.0001
Hispanic versus White	6	2.7	13.6	<0.0001	
Hispanic versus Black	3.4	1.7	7.1	0.0008	
Model 2					
Black versus White	1.8	0.7	4.1	0.364	<0.0001
Hispanic versus White	6.9	2.9	16.8	0.0001	
Hispanic versus Black	3.9	1.7	9.0	0.0011	
Model 3					
Black versus White	1.7	0.7	3.8	0.215	<0.0001
Hispanic versus White	5.9	2.6	13.4	<0.0001	
Hispanic versus Black	3.5	1.7	7.2	0.0009	

Cognitively healthy defined as MMSE score of 27 or greater.
* p-value for testing pairwise comparison based on ordinal regression
** p-value for Likelihood Ratio Test with 2 degrees of freedom
Model 1 adjusted for age, education, medical insurance status, literacy.
Model 2 adjusted for variables in model 1 and smoking, leisure time physical activity, diabetes mellitus, systolic and diastolic blood pressure, antihypertensive use, low and high density lipoprotein levels, waist hip ratio, and reported ethanol use.
Model 3 adjusted for variables in model 1 and brain parenchymal fraction, subclinical infarct status, and log white matter hyperintensity volume.

Supplemental Table 3. Sensitivity analysis examining race/ethnic associations with outcomes of MCI/dementia versus cognitively healthy, and dementia versus MCI/cognitively healthy

	MCI/Dementia combined versus Healthy					Dementia versus MCI/Healthy combined				
	OR	95% CI of OR		p*	p**	OR	95% CI of OR		p*	p**
Model 1					<0.0001					0.0208
Black versus White	2.0	1.0	3.8	0.043		1.7	0.3	9.4	0.516	
Hispanic versus white	4.4	2.2	8.8	<0.0001		7.3	1.3	40.7	0.022	
Hispanic versus Black	2.2	1.3	3.9	0.004		4.2	1.2	15.1	0.028	
Model 2					<0.0001					0.0624
Black versus White	1.8	0.9	3.7	0.087		2.0	0.3	11.3	0.456	
Hispanic versus white	4.5	2.1	9.3	<0.0001		6.6	1.1	39.8	0.039	
Hispanic versus Black	2.4	1.3	4.4	0.003		3.4	0.8	13.8	0.089	
Model 3					<0.0001					0.0304
Black versus White	1.8	0.9	3.5	0.084		1.4	0.2	7.7	0.718	
Hispanic versus white	4.3	2.1	8.7	<0.0001		5.9	1.1	32.8	0.041	
Hispanic versus Black	2.4	1.4	4.2	0.003		4.3	1.2	15.8	0.027	

* p-value for testing pairwise comparison based on logistic regression
** p-value for Likelihood Ratio Test with 2 degrees of freedom
Model 1 adjusted for age, education, medical insurance status, literacy.
Model 2 adjusted for variables in model 1 and smoking, leisure time physical activity, diabetes mellitus, systolic and diastolic blood pressure, antihypertensive use, low and high density lipoprotein levels, waist hip ratio, and reported ethanol use.
Model 3 adjusted for variables in model 1 and brain parenchymal fraction, subclinical infarct status, and log white matter hyperintensity volume.