

Table S1. Association^a between visit 1 flavonoid intake and ln(TMT-A) for White study participants, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	0.00000	\pm 0.00019	0.985	0.00009	\pm 0.00018	0.621	0.00012	\pm 0.00018	0.520	0.00003	\pm 0.00018	0.860
Flavones	-0.12931	\pm 0.11346	0.255	0.01560	\pm 0.10762	0.885	0.06186	\pm 0.10835	0.568	0.01463	\pm 0.10702	0.891
Flavonols	-0.00341	\pm 0.00515	0.508	0.00075	\pm 0.00480	0.876	0.00300	\pm 0.00484	0.535	-0.00020	\pm 0.00479	0.966
Flavonones	-0.00463	\pm 0.00614	0.450	-0.00362	\pm 0.00578	0.531	-0.00188	\pm 0.00580	0.745	-0.00330	\pm 0.00576	0.567
Flavan-3-ols	0.00002	\pm 0.00020	0.901	0.00011	\pm 0.00019	0.566	0.00013	\pm 0.00019	0.491	0.00005	\pm 0.00019	0.807
Anthocyanidins	-0.01383	\pm 0.00568	0.015	-0.00827	\pm 0.00545	0.129	-0.00692	\pm 0.00547	0.206	-0.00785	\pm 0.00544	0.149
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	-0.00001	\pm 0.00002	0.618	-0.00002	\pm 0.00002	0.531	-0.00002	\pm 0.00002	0.529	-0.00001	\pm 0.00002	0.702
Flavones	-0.03148	\pm 0.01504	0.037	-0.03107	\pm 0.01496	0.038	-0.03172	\pm 0.01497	0.034	-0.02892	\pm 0.01493	0.053
Flavonols	-0.00045	\pm 0.00065	0.488	-0.00052	\pm 0.00065	0.421	-0.00053	\pm 0.00065	0.417	-0.00037	\pm 0.00065	0.563
Flavonones	0.00051	\pm 0.00087	0.562	0.00049	\pm 0.00087	0.573	0.00043	\pm 0.00087	0.618	0.00047	\pm 0.00086	0.586
Flavan-3-ols	-0.00001	\pm 0.00003	0.625	-0.00002	\pm 0.00003	0.545	-0.00002	\pm 0.00003	0.545	-0.00001	\pm 0.00003	0.713
Anthocyanidins	0.00002	\pm 0.00061	0.976	-0.00017	\pm 0.00061	0.781	-0.00018	\pm 0.00061	0.763	-0.00012	\pm 0.00061	0.841

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S2. Association^a between visit 1 flavonoid intake and ln(TMT-A) for African American study participants, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	-0.00016	\pm 0.00046	0.733	0.00009	\pm 0.00042	0.837	0.00017	\pm 0.00042	0.686	0.00012	\pm 0.00042	0.783
Flavones	0.05521	\pm 0.16015	0.730	0.18620	\pm 0.14808	0.209	0.23777	\pm 0.14885	0.110	0.18686	\pm 0.14720	0.204
Flavonols	-0.00103	\pm 0.00908	0.910	0.00039	\pm 0.00843	0.963	0.00809	\pm 0.00873	0.354	0.00153	\pm 0.00838	0.855
Flavonones	-0.00577	\pm 0.00416	0.166	-0.00435	\pm 0.00383	0.256	-0.00306	\pm 0.00386	0.428	-0.00415	\pm 0.00381	0.276
Flavan-3-ols	-0.00009	\pm 0.00048	0.843	0.00013	\pm 0.00044	0.765	0.00017	\pm 0.00044	0.694	0.00016	\pm 0.00044	0.721
Anthocyanidins	0.00083	\pm 0.00760	0.913	0.00159	\pm 0.00698	0.820	0.00455	\pm 0.00704	0.518	0.00215	\pm 0.00695	0.757
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	0.00004	\pm 0.00006	0.498	0.00003	\pm 0.00006	0.612	0.00003	\pm 0.00006	0.588	0.00002	\pm 0.00006	0.744
Flavones	-0.00980	\pm 0.01879	0.602	-0.01346	\pm 0.01861	0.469	-0.01555	\pm 0.01863	0.404	-0.01533	\pm 0.01864	0.411
Flavonols	0.00126	\pm 0.00114	0.270	0.00118	\pm 0.00113	0.294	0.00121	\pm 0.00113	0.284	0.00090	\pm 0.00113	0.424
Flavonones	-0.00040	\pm 0.00051	0.435	-0.00055	\pm 0.00051	0.276	-0.00056	\pm 0.00051	0.269	-0.00053	\pm 0.00051	0.296
Flavan-3-ols	0.00005	\pm 0.00006	0.443	0.00004	\pm 0.00006	0.528	0.00004	\pm 0.00006	0.506	0.00003	\pm 0.00006	0.661
Anthocyanidins	-0.00006	\pm 0.00079	0.940	-0.00004	\pm 0.00078	0.961	-0.00004	\pm 0.00078	0.958	-0.00002	\pm 0.00078	0.981

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S3. Association^a between visit 1 flavonoid intake and ln(TMT-A) for all study participants 50+ years, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	-0.00087	\pm 0.00034	0.010	-0.00022	\pm 0.00031	0.488	-0.00015	\pm 0.00031	0.627	-0.00027	\pm 0.00031	0.385
Flavones	-0.24376	\pm 0.15976	0.127	0.10282	\pm 0.15042	0.494	0.17461	\pm 0.15118	0.248	0.11087	\pm 0.14926	0.458
Flavonols	-0.01972	\pm 0.00790	0.013	-0.00456	\pm 0.00737	0.536	0.00091	\pm 0.00751	0.903	-0.00419	\pm 0.00730	0.567
Flavonones	-0.00381	\pm 0.00553	0.491	-0.00345	\pm 0.00511	0.499	-0.00103	\pm 0.00516	0.843	-0.00305	\pm 0.00506	0.547
Flavan-3-ols	-0.00084	\pm 0.00035	0.017	-0.00022	\pm 0.00033	0.506	-0.00018	\pm 0.00032	0.588	-0.00028	\pm 0.00032	0.389
Anthocyanidins	-0.01581	\pm 0.00627	0.012	-0.00224	\pm 0.00586	0.702	0.00058	\pm 0.00590	0.922	-0.00132	\pm 0.00582	0.820
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	0.00006	\pm 0.00005	0.211	0.00005	\pm 0.00005	0.251	0.00006	\pm 0.00005	0.206	0.00005	\pm 0.00005	0.250
Flavones	-0.01341	\pm 0.02265	0.554	-0.01604	\pm 0.02250	0.476	-0.01633	\pm 0.02250	0.468	-0.01346	\pm 0.02252	0.550
Flavonols	0.00099	\pm 0.00112	0.377	0.00088	\pm 0.00111	0.425	0.00099	\pm 0.00111	0.372	0.00077	\pm 0.00111	0.489
Flavonones	-0.00035	\pm 0.00071	0.618	-0.00055	\pm 0.00070	0.431	-0.00055	\pm 0.00070	0.430	-0.00054	\pm 0.00070	0.435
Flavan-3-ols	0.00007	\pm 0.00005	0.161	0.00006	\pm 0.00005	0.191	0.00007	\pm 0.00005	0.156	0.00006	\pm 0.00005	0.192
Anthocyanidins	-0.00040	\pm 0.00063	0.519	-0.00053	\pm 0.00063	0.401	-0.00052	\pm 0.00063	0.402	-0.00046	\pm 0.00063	0.458

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S4. Association^a between visit 1 flavonoid intake and ln(TMT-A) for White study participants 50+ years, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	-0.00042	\pm 0.00036	0.244	-0.00023	\pm 0.00034	0.498	-0.00018	\pm 0.00034	0.595	-0.00028	\pm 0.00035	0.419
Flavones	-0.03899	\pm 0.17968	0.828	0.08152	\pm 0.17650	0.644	0.13760	\pm 0.17807	0.440	0.09815	\pm 0.17540	0.576
Flavonols	-0.01047	\pm 0.00919	0.255	-0.00488	\pm 0.00889	0.583	-0.00217	\pm 0.00895	0.809	-0.00464	\pm 0.00888	0.602
Flavonones	-0.01180	\pm 0.00844	0.163	-0.00834	\pm 0.00830	0.316	-0.00615	\pm 0.00835	0.462	-0.00856	\pm 0.00827	0.300
Flavan-3-ols	-0.00037	\pm 0.00037	0.313	-0.00021	\pm 0.00036	0.554	-0.00017	\pm 0.00036	0.636	-0.00026	\pm 0.00036	0.461
Anthocyanidins	-0.01384	\pm 0.00755	0.068	-0.00856	\pm 0.00745	0.251	-0.00710	\pm 0.00749	0.343	-0.00806	\pm 0.00742	0.278
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	0.00005	\pm 0.00005	0.357	0.00005	\pm 0.00005	0.364	0.00005	\pm 0.00005	0.333	0.00005	\pm 0.00005	0.288
Flavones	-0.03308	\pm 0.02759	0.231	-0.03358	\pm 0.02743	0.222	-0.03229	\pm 0.02749	0.240	-0.03273	\pm 0.02739	0.232
Flavonols	0.00070	\pm 0.00134	0.604	0.00066	\pm 0.00133	0.619	0.00073	\pm 0.00133	0.586	0.00071	\pm 0.00133	0.592
Flavonones	0.00109	\pm 0.00138	0.430	0.00095	\pm 0.00136	0.489	0.00089	\pm 0.00136	0.512	0.00069	\pm 0.00136	0.610
Flavan-3-ols	0.00005	\pm 0.00005	0.353	0.00005	\pm 0.00005	0.354	0.00005	\pm 0.00005	0.321	0.00006	\pm 0.00005	0.281
Anthocyanidins	-0.00002	\pm 0.00076	0.983	-0.00016	\pm 0.00076	0.832	-0.00018	\pm 0.00076	0.808	-0.00009	\pm 0.00076	0.905

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S5. Association^a between visit 1 flavonoid intake and ln(TMT-A) for African American study participants 50+ years, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	-0.00023	\pm 0.00081	0.773	-0.00011	\pm 0.00078	0.884	0.00006	\pm 0.00078	0.940	0.00007	\pm 0.00077	0.929
Flavones	-0.11293	\pm 0.30209	0.709	0.16562	\pm 0.29551	0.575	0.28540	\pm 0.29717	0.337	0.20953	\pm 0.29352	0.475
Flavonols	-0.00766	\pm 0.01382	0.580	-0.00484	\pm 0.01342	0.718	0.00794	\pm 0.01410	0.573	-0.00206	\pm 0.01330	0.877
Flavonones	-0.00279	\pm 0.00682	0.682	-0.00049	\pm 0.00654	0.941	0.00177	\pm 0.00666	0.790	-0.00012	\pm 0.00649	0.986
Flavan-3-ols	-0.00022	\pm 0.00085	0.801	-0.00019	\pm 0.00082	0.816	-0.00012	\pm 0.00081	0.886	0.00000	\pm 0.00081	0.999
Anthocyanidins	-0.00163	\pm 0.01008	0.872	0.00625	\pm 0.00968	0.518	0.01138	\pm 0.00980	0.246	0.00572	\pm 0.00962	0.552
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	0.00010	\pm 0.00010	0.333	0.00009	\pm 0.00010	0.360	0.00011	\pm 0.00010	0.294	0.00008	\pm 0.00010	0.429
Flavones	0.01800	\pm 0.03831	0.639	0.01241	\pm 0.03822	0.746	0.00931	\pm 0.03820	0.808	0.01774	\pm 0.03831	0.643
Flavonols	0.00164	\pm 0.00195	0.403	0.00165	\pm 0.00195	0.397	0.00183	\pm 0.00195	0.348	0.00142	\pm 0.00195	0.464
Flavonones	-0.00109	\pm 0.00085	0.199	-0.00115	\pm 0.00084	0.171	-0.00113	\pm 0.00084	0.178	-0.00117	\pm 0.00084	0.165
Flavan-3-ols	0.00014	\pm 0.00011	0.210	0.00013	\pm 0.00011	0.227	0.00014	\pm 0.00011	0.183	0.00012	\pm 0.00011	0.284
Anthocyanidins	-0.00099	\pm 0.00109	0.366	-0.00107	\pm 0.00109	0.328	-0.00098	\pm 0.00109	0.366	-0.00092	\pm 0.00109	0.397

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S6. Association^a between visit 1 flavonoid intake and ln(TMT-B) for all study participants 50+ years, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-B)</i>												
Total Flavonoids	-0.00104	\pm 0.00057	0.067	0.00033	\pm 0.00049	0.504	0.00039	\pm 0.00049	0.431	0.00021	\pm 0.00048	0.658
Flavones	-0.78640	\pm 0.26593	0.003	0.10325	\pm 0.23446	0.660	0.18130	\pm 0.23660	0.444	0.16116	\pm 0.23160	0.487
Flavonols	-0.02973	\pm 0.01322	0.025	0.00792	\pm 0.01150	0.491	0.01356	\pm 0.01177	0.249	0.00771	\pm 0.01134	0.497
Flavonones	0.00316	\pm 0.00926	0.733	0.01071	\pm 0.00796	0.178	0.01370	\pm 0.00807	0.090	0.01253	\pm 0.00785	0.111
Flavan-3-ols	-0.00095	\pm 0.00059	0.108	0.00030	\pm 0.00051	0.550	0.00034	\pm 0.00051	0.508	0.00016	\pm 0.00050	0.745
Anthocyanidins	-0.03676	\pm 0.01057	0.001	-0.00436	\pm 0.00922	0.636	-0.00143	\pm 0.00932	0.878	-0.00100	\pm 0.00912	0.913
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-B) over time</i>												
Total Flavonoids	0.00010	\pm 0.00006	0.122	0.00009	\pm 0.00006	0.166	0.00009	\pm 0.00006	0.156	0.00008	\pm 0.00006	0.199
Flavones	0.00398	\pm 0.03092	0.898	0.00473	\pm 0.03071	0.878	0.00396	\pm 0.03075	0.898	0.00429	\pm 0.03069	0.889
Flavonols	0.00190	\pm 0.00152	0.212	0.00175	\pm 0.00151	0.247	0.00180	\pm 0.00151	0.234	0.00136	\pm 0.00151	0.366
Flavonones	-0.00077	\pm 0.00097	0.426	-0.00102	\pm 0.00096	0.288	-0.00103	\pm 0.00096	0.282	-0.00130	\pm 0.00096	0.175
Flavan-3-ols	0.00011	\pm 0.00007	0.104	0.00010	\pm 0.00007	0.144	0.00010	\pm 0.00007	0.135	0.00009	\pm 0.00007	0.163
Anthocyanidins	0.00014	\pm 0.00085	0.873	0.00001	\pm 0.00085	0.989	-0.00003	\pm 0.00085	0.976	-0.00007	\pm 0.00085	0.930

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S7. Association^a between visit 1 flavonoid intake and ln(TMT-B) for White study participants 50+ years, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-B)</i>												
Total Flavonoids	-0.00034	\pm 0.00053	0.521	-0.00002	\pm 0.00049	0.966	0.00001	\pm 0.00049	0.980	-0.00013	\pm 0.00049	0.795
Flavones	-0.58736	\pm 0.26390	0.027	-0.22680	\pm 0.24842	0.362	-0.17044	\pm 0.25119	0.497	-0.18233	\pm 0.24680	0.460
Flavonols	-0.01459	\pm 0.01362	0.285	0.00044	\pm 0.01254	0.972	0.00288	\pm 0.01265	0.820	-0.00011	\pm 0.01252	0.993
Flavonones	-0.02005	\pm 0.01242	0.107	-0.00091	\pm 0.01168	0.938	0.00137	\pm 0.01177	0.908	0.00050	\pm 0.01163	0.966
Flavan-3-ols	-0.00020	\pm 0.00055	0.716	0.00003	\pm 0.00050	0.958	0.00005	\pm 0.00050	0.923	-0.00009	\pm 0.00051	0.855
Anthocyanidins	-0.03814	\pm 0.01114	0.001	-0.01931	\pm 0.01055	0.068	-0.01750	\pm 0.01062	0.099	-0.01758	\pm 0.01051	0.094
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-B) over time</i>												
Total Flavonoids	0.00011	\pm 0.00007	0.094	0.00010	\pm 0.00007	0.127	0.00010	\pm 0.00007	0.123	0.00010	\pm 0.00007	0.142
Flavones	0.02177	\pm 0.03544	0.539	0.02641	\pm 0.03533	0.455	0.02748	\pm 0.03542	0.438	0.02591	\pm 0.03535	0.464
Flavonols	0.00279	\pm 0.00171	0.105	0.00255	\pm 0.00171	0.136	0.00260	\pm 0.00171	0.129	0.00225	\pm 0.00171	0.190
Flavonones	0.00066	\pm 0.00179	0.714	0.00072	\pm 0.00177	0.683	0.00072	\pm 0.00178	0.685	0.00037	\pm 0.00178	0.833
Flavan-3-ols	0.00011	\pm 0.00007	0.100	0.00010	\pm 0.00007	0.133	0.00010	\pm 0.00007	0.128	0.00010	\pm 0.00007	0.146
Anthocyanidins	0.00029	\pm 0.00097	0.765	0.00013	\pm 0.00097	0.890	0.00009	\pm 0.00097	0.922	0.00017	\pm 0.00097	0.863

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S8. Association^a between visit 1 flavonoid intake and ln(TMT-B) for African American study participants 50+ years, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-B)</i>												
Total Flavonoids	0.00170	\pm 0.00142	0.232	0.00225	\pm 0.00128	0.079	0.00241	\pm 0.00129	0.061	0.00253	\pm 0.00126	0.045
Flavones	0.03019	\pm 0.53028	0.955	0.95456	\pm 0.48897	0.051	1.08187	\pm 0.49397	0.029	1.09100	\pm 0.48170	0.024
Flavonols	0.00757	\pm 0.02422	0.755	0.02769	\pm 0.02215	0.211	0.04114	\pm 0.02352	0.080	0.03121	\pm 0.02180	0.152
Flavonones	0.00911	\pm 0.01201	0.449	0.01650	\pm 0.01084	0.128	0.01928	\pm 0.01106	0.082	0.01845	\pm 0.01068	0.084
Flavan-3-ols	0.00168	\pm 0.00150	0.263	0.00197	\pm 0.00135	0.145	0.00203	\pm 0.00135	0.134	0.00220	\pm 0.00133	0.098
Anthocyanidins	0.00367	\pm 0.01790	0.838	0.02059	\pm 0.01617	0.203	0.02567	\pm 0.01647	0.119	0.02442	\pm 0.01595	0.126
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-B) over time</i>												
Total Flavonoids	-0.00006	\pm 0.00015	0.696	-0.00006	\pm 0.00015	0.696	-0.00005	\pm 0.00015	0.734	-0.00005	\pm 0.00015	0.754
Flavones	-0.05359	\pm 0.05422	0.323	-0.05945	\pm 0.05383	0.269	-0.06266	\pm 0.05395	0.245	-0.06153	\pm 0.05392	0.254
Flavonols	-0.00126	\pm 0.00277	0.650	-0.00112	\pm 0.00275	0.684	-0.00103	\pm 0.00275	0.710	-0.00127	\pm 0.00275	0.645
Flavonones	-0.00124	\pm 0.00120	0.300	-0.00133	\pm 0.00119	0.263	-0.00134	\pm 0.00119	0.261	-0.00171	\pm 0.00119	0.150
Flavan-3-ols	-0.00003	\pm 0.00016	0.858	-0.00003	\pm 0.00016	0.862	-0.00002	\pm 0.00016	0.902	-0.00001	\pm 0.00016	0.973
Anthocyanidins	-0.00091	\pm 0.00153	0.554	-0.00099	\pm 0.00152	0.515	-0.00097	\pm 0.00152	0.522	-0.00125	\pm 0.00152	0.413

Abbreviations: TMT, Trail Making Test; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S9. Association^a between visit 1 flavonoid intake and ln(TMT-A) for all study participants without MMSE exclusion, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	-0.00050	\pm 0.00020	0.012	0.00000	\pm 0.00018	0.983	0.00004	\pm 0.00018	0.807	-0.00005	\pm 0.00017	0.756
Flavones	-0.30914	\pm 0.10076	0.002	0.03359	\pm 0.09095	0.712	0.08347	\pm 0.09151	0.362	0.04103	\pm 0.09026	0.649
Flavonols	-0.01502	\pm 0.00485	0.002	-0.00236	\pm 0.00435	0.587	0.00142	\pm 0.00442	0.748	-0.00309	\pm 0.00431	0.474
Flavonones	-0.00237	\pm 0.00363	0.513	-0.00508	\pm 0.00322	0.115	-0.00354	\pm 0.00324	0.274	-0.00425	\pm 0.00320	0.184
Flavan-3-ols	-0.00047	\pm 0.00020	0.022	0.00003	\pm 0.00018	0.872	0.00006	\pm 0.00018	0.758	-0.00004	\pm 0.00018	0.840
Anthocyanidins	-0.01706	\pm 0.00507	0.001	-0.00492	\pm 0.00457	0.281	-0.00292	\pm 0.00458	0.523	-0.00376	\pm 0.00454	0.408
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	0.00000	\pm 0.00002	0.995	-0.00001	\pm 0.00002	0.810	-0.00001	\pm 0.00002	0.827	-0.00001	\pm 0.00002	0.818
Flavones	-0.01676	\pm 0.01192	0.160	-0.01989	\pm 0.01182	0.092	-0.02068	\pm 0.01183	0.080	-0.02001	\pm 0.01182	0.091
Flavonols	0.00022	\pm 0.00059	0.708	0.00012	\pm 0.00059	0.845	0.00015	\pm 0.00059	0.804	0.00008	\pm 0.00059	0.886
Flavonones	-0.00008	\pm 0.00043	0.851	-0.00019	\pm 0.00043	0.657	-0.00021	\pm 0.00043	0.628	-0.00015	\pm 0.00043	0.724
Flavan-3-ols	0.00000	\pm 0.00002	0.965	0.00000	\pm 0.00002	0.855	0.00000	\pm 0.00002	0.870	0.00000	\pm 0.00002	0.855
Anthocyanidins	-0.00001	\pm 0.00050	0.988	-0.00017	\pm 0.00050	0.737	-0.00017	\pm 0.00050	0.737	-0.00012	\pm 0.00050	0.809

Abbreviations: TMT, Trail Making Test; MMSE, Mini-Mental State Exam; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S10. Association^a between visit 1 flavonoid intake and ln(TMT-A) for White study participants without MMSE exclusion, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	-0.00007	\pm 0.00020	0.727	0.00003	\pm 0.00018	0.881	0.00005	\pm 0.00018	0.769	-0.00002	\pm 0.00018	0.899
Flavones	-0.17236	\pm 0.11441	0.132	-0.00599	\pm 0.10708	0.955	0.03532	\pm 0.10779	0.743	0.00053	\pm 0.10634	0.996
Flavonols	-0.00455	\pm 0.00522	0.383	-0.00030	\pm 0.00480	0.950	0.00179	\pm 0.00483	0.711	-0.00113	\pm 0.00477	0.813
Flavonones	-0.00215	\pm 0.00578	0.710	-0.00299	\pm 0.00535	0.576	-0.00162	\pm 0.00537	0.763	-0.00233	\pm 0.00533	0.663
Flavan-3-ols	-0.00004	\pm 0.00020	0.843	0.00004	\pm 0.00019	0.820	0.00006	\pm 0.00019	0.733	-0.00002	\pm 0.00019	0.934
Anthocyanidins	-0.01735	\pm 0.00582	0.003	-0.00887	\pm 0.00554	0.109	-0.00780	\pm 0.00555	0.160	-0.00870	\pm 0.00552	0.115
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	-0.00001	\pm 0.00002	0.768	-0.00001	\pm 0.00002	0.666	-0.00001	\pm 0.00002	0.663	0.00000	\pm 0.00002	0.838
Flavones	-0.03119	\pm 0.01472	0.034	-0.03098	\pm 0.01470	0.035	-0.03108	\pm 0.01472	0.035	-0.02989	\pm 0.01467	0.042
Flavonols	-0.00034	\pm 0.00064	0.596	-0.00040	\pm 0.00064	0.535	-0.00038	\pm 0.00064	0.556	-0.00027	\pm 0.00064	0.673
Flavonones	0.00098	\pm 0.00083	0.237	0.00096	\pm 0.00082	0.240	0.00090	\pm 0.00082	0.270	0.00094	\pm 0.00082	0.249
Flavan-3-ols	-0.00001	\pm 0.00002	0.772	-0.00001	\pm 0.00002	0.675	-0.00001	\pm 0.00002	0.672	0.00000	\pm 0.00002	0.842
Anthocyanidins	-0.00006	\pm 0.00060	0.915	-0.00026	\pm 0.00060	0.667	-0.00027	\pm 0.00060	0.657	-0.00020	\pm 0.00060	0.732

Abbreviations: TMT, Trail Making Test; MMSE, Mini-Mental State Exam; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S11. Association^a between visit 1 flavonoid intake and ln(TMT-A) for African American study participants without MMSE exclusion, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-A)</i>												
Total Flavonoids	-0.00057	\pm 0.00048	0.230	-0.00020	\pm 0.00043	0.647	-0.00010	\pm 0.00043	0.817	-0.00017	\pm 0.00043	0.700
Flavones	-0.14196	\pm 0.17133	0.408	0.07716	\pm 0.15538	0.620	0.13957	\pm 0.15657	0.373	0.07875	\pm 0.15417	0.610
Flavonols	-0.01430	\pm 0.00922	0.121	-0.00888	\pm 0.00841	0.291	-0.00149	\pm 0.00878	0.866	-0.00818	\pm 0.00835	0.327
Flavonones	-0.00761	\pm 0.00452	0.092	-0.00536	\pm 0.00407	0.187	-0.00394	\pm 0.00410	0.337	-0.00500	\pm 0.00404	0.216
Flavan-3-ols	-0.00048	\pm 0.00050	0.338	-0.00014	\pm 0.00045	0.760	-0.00008	\pm 0.00045	0.854	-0.00011	\pm 0.00045	0.803
Anthocyanidins	-0.00272	\pm 0.00834	0.745	0.00011	\pm 0.00751	0.988	0.00341	\pm 0.00757	0.653	0.00070	\pm 0.00746	0.925
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-A) over time</i>												
Total Flavonoids	0.00004	\pm 0.00006	0.498	0.00003	\pm 0.00006	0.615	0.00003	\pm 0.00006	0.595	0.00002	\pm 0.00006	0.770
Flavones	-0.00290	\pm 0.01847	0.875	-0.00817	\pm 0.01828	0.655	-0.01010	\pm 0.01832	0.581	-0.00966	\pm 0.01830	0.598
Flavonols	0.00158	\pm 0.00113	0.164	0.00146	\pm 0.00112	0.193	0.00147	\pm 0.00112	0.188	0.00119	\pm 0.00112	0.287
Flavonones	-0.00037	\pm 0.00053	0.484	-0.00054	\pm 0.00052	0.297	-0.00055	\pm 0.00052	0.289	-0.00050	\pm 0.00052	0.331
Flavan-3-ols	0.00004	\pm 0.00006	0.464	0.00003	\pm 0.00006	0.553	0.00004	\pm 0.00006	0.535	0.00002	\pm 0.00006	0.714
Anthocyanidins	0.00005	\pm 0.00081	0.952	0.00009	\pm 0.00080	0.911	0.00008	\pm 0.00080	0.916	0.00011	\pm 0.00080	0.889

Abbreviations: TMT, Trail Making Test; MMSE, Mini-Mental State Exam; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S12. Association^a between visit 1 flavonoid intake and ln(TMT-B) for all study participants without MMSE exclusion, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-B)</i>												
Total Flavonoids	-0.00120	\pm 0.00032	<0.001	-0.00024	\pm 0.00027	0.368	-0.00019	\pm 0.00027	0.477	-0.00029	\pm 0.00026	0.268
Flavones	-1.03293	\pm 0.16506	<0.001	-0.21236	\pm 0.13782	0.123	-0.14283	\pm 0.13888	0.304	-0.18034	\pm 0.13612	0.185
Flavonols	-0.03209	\pm 0.00798	<0.001	-0.00462	\pm 0.00658	0.483	0.00083	\pm 0.00671	0.901	-0.00473	\pm 0.00650	0.467
Flavonones	0.00618	\pm 0.00597	0.301	0.00310	\pm 0.00487	0.524	0.00556	\pm 0.00491	0.257	0.00492	\pm 0.00482	0.307
Flavan-3-ols	-0.00117	\pm 0.00034	0.001	-0.00025	\pm 0.00028	0.370	-0.00022	\pm 0.00028	0.434	-0.00031	\pm 0.00027	0.249
Anthocyanidins	-0.03891	\pm 0.00833	<0.001	-0.00498	\pm 0.00693	0.472	-0.00194	\pm 0.00696	0.780	-0.00205	\pm 0.00685	0.765
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-B) over time</i>												
Total Flavonoids	0.00006	\pm 0.00003	0.051	0.00005	\pm 0.00003	0.096	0.00005	\pm 0.00003	0.092	0.00005	\pm 0.00003	0.122
Flavones	0.01908	\pm 0.01605	0.235	0.01657	\pm 0.01588	0.297	0.01560	\pm 0.01590	0.326	0.01601	\pm 0.01587	0.313
Flavonols	0.00158	\pm 0.00080	0.049	0.00141	\pm 0.00079	0.076	0.00144	\pm 0.00079	0.070	0.00121	\pm 0.00079	0.128
Flavonones	-0.00018	\pm 0.00058	0.752	-0.00033	\pm 0.00057	0.558	-0.00036	\pm 0.00057	0.534	-0.00037	\pm 0.00057	0.518
Flavan-3-ols	0.00007	\pm 0.00003	0.053	0.00006	\pm 0.00003	0.097	0.00006	\pm 0.00003	0.094	0.00005	\pm 0.00003	0.122
Anthocyanidins	0.00056	\pm 0.00068	0.411	0.00038	\pm 0.00067	0.568	0.00037	\pm 0.00067	0.583	0.00037	\pm 0.00066	0.581

Abbreviations: TMT, Trail Making Test; MMSE, Mini-Mental State Exam; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S13. Association^a between visit 1 flavonoid intake and ln(TMT-B) for White study participants without MMSE exclusion, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-B)</i>												
Total Flavonoids	-0.00037	\pm 0.00033	0.261	-0.00024	\pm 0.00027	0.371	-0.00021	\pm 0.00027	0.426	-0.00030	\pm 0.00027	0.265
Flavones	-0.85911	\pm 0.18808	<0.001	-0.38499	\pm 0.15796	0.015	-0.33718	\pm 0.15939	0.034	-0.35813	\pm 0.15662	0.022
Flavonols	-0.01578	\pm 0.00866	0.069	-0.00517	\pm 0.00710	0.467	-0.00265	\pm 0.00717	0.712	-0.00570	\pm 0.00705	0.418
Flavonones	-0.01029	\pm 0.00955	0.282	-0.00692	\pm 0.00789	0.381	-0.00515	\pm 0.00793	0.516	-0.00413	\pm 0.00785	0.599
Flavan-3-ols	-0.00028	\pm 0.00034	0.407	-0.00021	\pm 0.00028	0.447	-0.00019	\pm 0.00028	0.491	-0.00028	\pm 0.00028	0.314
Anthocyanidins	-0.05140	\pm 0.00958	<0.001	-0.02115	\pm 0.00820	0.010	-0.01957	\pm 0.00824	0.018	-0.01916	\pm 0.00817	0.019
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-B) over time</i>												
Total Flavonoids	0.00005	\pm 0.00003	0.128	0.00004	\pm 0.00003	0.241	0.00004	\pm 0.00003	0.235	0.00004	\pm 0.00003	0.247
Flavones	0.02823	\pm 0.01963	0.151	0.02640	\pm 0.01947	0.175	0.02622	\pm 0.01951	0.179	0.02872	\pm 0.01941	0.139
Flavonols	0.00150	\pm 0.00086	0.083	0.00117	\pm 0.00085	0.170	0.00120	\pm 0.00085	0.160	0.00110	\pm 0.00085	0.197
Flavonones	0.00086	\pm 0.00112	0.441	0.00081	\pm 0.00110	0.461	0.00079	\pm 0.00110	0.474	0.00074	\pm 0.00109	0.501
Flavan-3-ols	0.00005	\pm 0.00003	0.153	0.00004	\pm 0.00003	0.278	0.00004	\pm 0.00003	0.271	0.00004	\pm 0.00003	0.282
Anthocyanidins	0.00131	\pm 0.00081	0.105	0.00108	\pm 0.00080	0.174	0.00106	\pm 0.00080	0.186	0.00106	\pm 0.00079	0.184

Abbreviations: TMT, Trail Making Test; MMSE, Mini-Mental State Exam; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).

Table S14. Association^a between visit 1 flavonoid intake and ln(TMT-B) for African American study participants without MMSE exclusion, HANDLS 2004-2020.

	Basic Model ^b			Demographic Model ^c			Lifestyle Model ^d			Clinical Model ^e		
	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value	$\hat{\beta}$	\pm SE	p-value
<i>Flavonoid Main Effect: Association between visit 1 flavonoid intake and visit 1 ln(TMT-B)</i>												
Total Flavonoids	-0.00090	\pm 0.00076	0.241	-0.00001	\pm 0.00066	0.993	0.00016	\pm 0.00066	0.813	0.00012	\pm 0.00065	0.858
Flavones	-0.51534	\pm 0.27456	0.061	0.05560	\pm 0.23864	0.816	0.15961	\pm 0.24053	0.507	0.08918	\pm 0.23524	0.705
Flavonols	-0.01469	\pm 0.01473	0.319	0.00047	\pm 0.01286	0.971	0.01354	\pm 0.01345	0.314	0.00277	\pm 0.01267	0.827
Flavonones	0.00269	\pm 0.00725	0.710	0.00751	\pm 0.00624	0.228	0.01040	\pm 0.00629	0.098	0.00839	\pm 0.00615	0.172
Flavan-3-ols	-0.00097	\pm 0.00080	0.224	-0.00017	\pm 0.00069	0.800	-0.00008	\pm 0.00069	0.901	-0.00007	\pm 0.00068	0.916
Anthocyanidins	0.01040	\pm 0.01333	0.435	0.01971	\pm 0.01148	0.086	0.02555	\pm 0.01157	0.027	0.02211	\pm 0.01132	0.051
<i>Flavonoid*Time Interaction: Association between visit 1 flavonoid intake and change in ln(TMT-B) over time</i>												
Total Flavonoids	0.00007	\pm 0.00008	0.386	0.00006	\pm 0.00008	0.415	0.00006	\pm 0.00008	0.401	0.00005	\pm 0.00008	0.537
Flavones	-0.00244	\pm 0.02504	0.922	-0.00501	\pm 0.02480	0.840	-0.00799	\pm 0.02485	0.748	-0.00864	\pm 0.02486	0.728
Flavonols	0.00104	\pm 0.00154	0.499	0.00113	\pm 0.00152	0.457	0.00117	\pm 0.00152	0.444	0.00069	\pm 0.00152	0.653
Flavonones	-0.00028	\pm 0.00070	0.689	-0.00048	\pm 0.00070	0.489	-0.00050	\pm 0.00070	0.468	-0.00050	\pm 0.00070	0.471
Flavan-3-ols	0.00008	\pm 0.00008	0.328	0.00008	\pm 0.00008	0.344	0.00008	\pm 0.00008	0.331	0.00006	\pm 0.00008	0.448
Anthocyanidins	-0.00097	\pm 0.00108	0.368	-0.00094	\pm 0.00107	0.380	-0.00097	\pm 0.00107	0.365	-0.00096	\pm 0.00107	0.368

Abbreviations: TMT, Trail Making Test; MMSE, Mini-Mental State Exam; SE, Standard Error.

^aAssociations are reported for a 10-unit increment in visit 1 flavonoid intake.

^bBasic Model includes fixed effects for visit 1 flavonoid intake, time, and visit 1 flavonoid intake*time.

^cDemographic Model is the Basic Model adjusted for visit 1 age in years, age-squared, sex, race, poverty status, education in years, and Wide Range Achievement Test (WRAT) scores.

^dLifestyle Model is the Demographic Model adjusted for current smoking status, current drug use, and total energy intake at visit 1.

^eClinical Model is the Demographic Model adjusted for diabetes, hypertension, high cholesterol, the Center for Epidemiologic Studies Depression Scale (CES-D), and body mass index (BMI).