Supplemental Table 1. All SNPs genotyped across all populations.

	SNP	Reference Allele	MAF	Effect Estimate	Standard Error	*P* value
Jackson Heart Study	rs7206790	C	0.419	-0.0036	0.0019	0.0612
	rs8047395	G	0.310	-0.0011	0.0019	0.5591
	rs9928094	G	0.415	0.0012	0.0053	0.8158
	rs9939973	A	0.431	0.0006	0.0064	0.9202
	rs9940646	G	0.414	0	1	1
	rs9940128	A	0.408	0.0016	0.0023	0.4875
	rs1421085	C	0.103	0.0120	0.0033	0.0003
	rs9923147	T	0.409	0.0016	0.0021	0.4304
	rs9923544	T	0.411	0	1	1
	rs8055197	G	0.287	-0.0016	0.0023	0.4772
	rs1558902	A	0.084	0.0151	0.0035	2.10E-05
	rs11075985	A	0.415	0.0015	0.0034	0.6645
	rs9922047	C	0.274	-0.0029	0.0024	0.2217
	rs17817288	G	0.400	0.0059	0.0021	0.0044
	rs9924817	A	0.024	-0.0160	0.0073	0.0289
	rs16952524	A	0.068	0	1	1
	rs1121980	A	0.457	0	1	1
	rs16952525	G	0.078	0.0077	0.0038	0.0418
	rs16945088	G	0.308	0.0022	0.0021	0.3039
	rs8057044	G	0.283	0	1	1
	rs17817449	G	0.341	0.0012	0.0050	0.8077
	rs8043757	T	0.403	-0.0012	0.0034	0.7270
	rs8063946	T	0.349	0.0023	0.0023	0.3106
	rs11075987	T	0.232	-0.0013	0.0024	0.5887
	rs8054237	A	0.269	-0.0058	0.0024	0.0175
	rs8050136	A	0.424	0	1	1
	rs8051591	G	0.427	0	1	1
	rs4783820	A	0.020	-0.0071	0.0071	0.3208
	rs9935401	A	0.428	0	1	1
	rs3751812	T	0.099	0.0120	0.0034	0.0004

	rs9939609	A	0.469	0.0018	0.0022	0.4125
	rs7202116	G	0.474	0.0024	0.0020	0.2328
	rs7185735	G	0.470	0.0023	0.0025	0.3552
	rs9941349	T	0.180	0.0106	0.0026	5.85E-05
	rs9931494	G	0.176	0.0117	0.0027	1.34E-05
	rs17817964	T	0.103	0.0117	0.0033	0.0004
	rs9933040	A	0.209	0.0072	0.0024	0.0030
	rs9922708	T	0.199	0.0074	0.0027	0.0061
	rs8044769	T	0.238	0.0014	0.0022	0.5281
	rs1115005	T	0.086	-0.0017	0.0047	0.7122
	rs9935403	A	0.172	-0.0021	0.0038	0.5751
Multiethnic Cohort Study	rs4784323	A	0.134	-0.0049	0.0059	0.4082
	rs7206790	C	0.440	0.0017	0.0041	0.6826
	rs8047395	G	0.315	-0.0051	0.0043	0.2350
	rs8055197	G	0.297	-0.0043	0.0044	0.3350
	rs17817288	G	0.391	0.0057	0.0041	0.1615
	rs16952525	G	0.073	0.0072	0.0080	0.3671
	rs8057044	G	0.301	-0.0064	0.0044	0.1476
	rs8050136	A	0.436	0.0042	0.0041	0.2990
	rs3751812	T	0.117	0.0148	0.0061	0.0158
	rs9941349	T	0.191	0.0113	0.0051	0.0272
	rs1861867	T	0.166	-0.0126	0.0054	0.0207
SPT	rs1121980	A	0.491	-0.0008	0.0033	0.8060
	rs16952525	G	0.078	-0.0002	0.0062	0.9768
	rs8050136	A	0.460	0.0000	0.0033	0.9899
	rs3751812	T	0.078	0.0075	0.0060	0.2139
	rs9941349	T	0.173	0.0020	0.0044	0.6443
	rs9931494	G	0.167	0.0013	0.0045	0.7720
GXE	rs1121980	A	0.496	0.0717	0.1080	0.5071
	rs16952525	G	0.078	-0.2760	0.1869	0.1398
	rs8050136	A	0.452	0.0165	0.1072	0.8774
	rs3751812	T	0.083	0.1102	0.1971	0.5761
	rs9941349	T	0.173	0.3383	0.1524	0.0264

	rs9931494	G	0.168	0.3176	0.1546	0.0399
Maywood	rs8047395	G	0.306	0.0003	0.0178	0.9880
	rs11075985	C	0.417	0	1	1
	rs17817288	G	0.278	0.0067	0.0060	0.2672
	rs7193144	C	0.472	-0.0023	0.0072	0.7510
	rs8057044	G	0.250	0.0032	0.0064	0.6121
	rs17817449	G	0.361	-0.0084	0.0059	0.1513
	rs11075987	T	0.167	0.0018	0.0068	0.7913
	rs8050136	A	0.472	-0.0026	0.0057	0.6404
	rs3751812	T	0.111	0.0208	0.0110	0.0587
	rs9939609	T	0.417	0.0033	0.0058	0.5735
	rs7202116	A	0.417	0.0040	0.0058	0.4917
	rs7185735	A	0.417	0.0021	0.0075	0.7804
	rs9941349	T	0.167	0.0161	0.0080	0.0446
	rs12149832	A	0.083	0.0122	0.0111	0.2717

Shown are results for the JHS, MEC, SPT, GXE, and Maywood, as in Table 1. Effect direction is with respect to the minor allele and is in log BMI units. MAF: minor allele frequency.

Supplemental Table 2. All SNPs genotyped in samples with ancestry information.

				Subset Before Ancestry Adjustment			*Subset After Global Ancestry Adjustment*			*Subset After Global and Local Ancestry Adjustment*		
	SNP	**Reference Allele**	**MAF**	**Effect Estimate**	**Standard Error**	***P* value**	**Effect Estimate**	**Standard Error**	***P* value**	**Effect Estimate**	**Standard Error**	***P* value**
Jackson Heart Study	rs7206790	C	0.419	-0.0034	0.0026	0.1909	-0.0032	0.002	0.1022	-0.0034	0.0022	0.1232
	rs8047395	G	0.31	-0.0007	0.0024	0.7808	-0.0003	0.0019	0.8862	-0.0006	0.0024	0.7932
	rs9928094	G	0.415	0.0009	0.0026	0.7282	0	1	1	0.0008	0.0052	0.8759
	rs9939973	A	0.431	0.0004	0.0031	0.8883	0	1	1	0.0004	0.0024	0.8787
	rs9940646	G	0.414	0.0008	0.0023	0.7182	0	1	1	0.0008	0.0018	0.6664
	rs9940128	A	0.408	0.0012	0.0022	0.5934	0.0011	0.0022	0.6242	0.0011	0.0024	0.6617
	rs1421085	C	0.103	0.0123	0.0034	0.0003	0.0133	0.0034	7.59E-05	0.0122	0.0034	0.0003
	rs9923147	T	0.409	0.0012	0.0026	0.6459	0.0011	0.0021	0.5841	0.0011	0.0027	0.679
	rs9923544	T	0.411	0.0007	0.0027	0.7979	0	1	1	0.0006	0.0017	0.7286
	rs8055197	G	0.287	-0.001	0.0061	0.868	0	1	1	-0.0009	0.0032	0.7712
	rs1558902	A	0.084	0.0152	0.0036	2.57E-05	0.0162	0.0036	6.72E-06	0.0152	0.0036	2.45E-05
	rs11075985	A	0.415	0.0011	0.0021	0.5918	0.0011	0.007	0.8797	0.0011	0.0033	0.7511
	rs9922047	C	0.274	-0.0023	0.0026	0.3807	-0.0017	0.0037	0.6428	-0.0022	0.0028	0.4335
	rs17817288	G	0.4	0.0057	0.0021	0.006	0.0058	0.0021	0.0051	0.0057	0.0021	0.006
	rs9924817	A	0.024	-0.017	0.0075	0.024	-0.0171	0.0077	0.0264	-0.0163	0.0074	0.0279
	rs16952524	A	0.068	0	1	1	0	1	1	0	1	1
	rs1121980	A	0.457	0	1	1	0	1	1	0	1	1
	rs16952525	G	0.078	0.0079	0.0039	0.0424	0.0076	0.0039	0.0494	0.0079	0.0039	0.041
	rs16945088	G	0.308	0.0024	0.0021	0.2581	0.002	0.0039	0.6181	0.0023	0.0021	0.2695
	rs8057044	G	0.283	0.00003	0.00005	0.5738	0	1	1	0.0002	0.0003	0.5153
	rs17817449	G	0.341	0	1	1	0.0007	0.0017	0.6809	0.0006	0.0009	0.4613
	rs8043757	T	0.403	-0.0017	0.0026	0.5078	-0.0019	0.0018	0.3012	-0.0019	0.002	0.346
	rs8063946	T	0.349	0.0023	0.0023	0.3034	0.0019	0.0024	0.426	0.0023	0.0022	0.2988
	rs11075987	T	0.232	0	1	1	0	1	1	0	1	1
	rs8054237	A	0.269	-0.0062	0.0022	0.0054	-0.0068	0.0023	0.0025	-0.0064	0.0023	0.006
	rs8050136	A	0.424	0	1	1	0	1	1	0	1	1
	rs8051591	G	0.427	0	1	1	0	1	1	-0.0006	0.0017	0.7315
	rs4783820	A	0.02	-0.008	0.0072	0.2701	-0.0078	0.0072	0.2785	-0.0084	0.0085	0.3227
	rs9935401	A	0.428	0	1	1	-0.0006	0.0016	0.7182	0	1	1

	rs3751812	T	0.099	0.012	0.0034	0.0005	0.0129	0.0034	0.0001	0.0118	0.0034	0.0004
	rs9939609	A	0.469	0.0013	0.002	0.5026	0.0013	0.0015	0.3962	0.0014	0.0018	0.4442
	rs7202116	G	0.474	0.0019	0.0025	0.4476	0.0017	0.0018	0.356	0.0019	0.002	0.3483
	rs7185735	G	0.47	0.0019	0.0021	0.3581	0.0018	0.0022	0.4162	0.0019	0.0023	0.402
	rs9941349	T	0.18	0.0108	0.0026	4.29E-05	0.0113	0.0027	2.19E-05	0.0108	0.0027	8.95E-05
	rs9931494	G	0.176	0.0118	0.0027	1.04E-05	0.0122	0.0027	6.29E-06	0.0118	0.0027	1.34E-05
	rs17817964	T	0.103	0.0116	0.0033	0.0005	0.0125	0.0033	0.0002	0.0115	0.0033	0.0005
	rs9933040	A	0.209	0.007	0.0025	0.0048	0.0076	0.0025	0.0021	0.0071	0.0024	0.0037
	rs9922708	T	0.199	0.0071	0.0027	0.0076	0.0077	0.0028	0.0052	0.0073	0.0026	0.0058
	rs8044769	T	0.238	0.0018	0.0027	0.5099	0.0024	0.0026	0.3606	0.0019	0.0029	0.5154
	rs1115005	T	0.086	-0.0022	0.0042	0.5904	-0.0028	0.0037	0.4606	-0.0024	0.0037	0.5184
	rs9935403	A	0.172	-0.0021	0.0046	0.6407	-0.0025	0.0048	0.6038	-0.0021	0.0054	0.6936
Multiethnic Cohort Study	rs4784323	A	0.134	-0.0107	0.008	0.1771	-0.0102	0.008	0.205			
	rs7206790	C	0.44	-0.0066	0.0055	0.23	-0.0062	0.0055	0.2609			
	rs8047395	G	0.315	-0.0088	0.0061	0.148	-0.0084	0.0061	0.1688			
	rs8055197	G	0.297	-0.0107	0.0061	0.0787	-0.0101	0.0061	0.0987			
	rs17817288	G	0.391	0.0088	0.0056	0.1176	0.009	0.0056	0.1107			
	rs16952525	G	0.073	0.0092	0.0112	0.4104	0.0085	0.0113	0.4486			
	rs8057044	G	0.301	-0.0132	0.0061	0.0299	-0.0125	0.0061	0.042			
	rs8050136	A	0.436	0.011	0.0057	0.0534	0.0108	0.0057	0.0579			
	rs3751812	T	0.117	0.0269	0.0085	0.0016	0.0292	0.0087	0.0008			
	rs9941349	T	0.191	0.0164	0.0071	0.0203	0.017	0.0071	0.0166			
	rs1861867	T	0.166	-0.0211	0.0074	0.0046	-0.0194	0.0076	0.0105			

Shown are results for the subset of individuals in JHS and MEC with ancestry information before and after global and local ancestry correction. Effect direction is with respect to the minor allele and is in log BMI units. MAF: minor allele frequency.

Supplemental Table 3. Conditional analysis of SNPs on rs3751812 and rs9941349.

			Conditioned on rs3751812			*Conditioned on rs9941349*		
	SNP	**Reference Allele**	**Effect Estimate**	**Standard Error**	***P* value**	**Effect Estimate**	**Standard Error**	***P* value**
Jackson Heart Study	rs7206790	C	-0.0019	0.0019	0.3288	-0.0036	0.0020	0.0711
	rs8047395	G	0	1	1	0.0011	0.0024	0.6483
	rs9928094	G	-0.0020	0.0022	0.3599	-0.0021	0.0020	0.2806
	rs9939973	A	-0.0024	0.0023	0.2917	-0.0029	0.0023	0.2063
	rs9940646	G	-0.0019	0.0020	0.3405	-0.0022	0.0019	0.2569
	rs9940128	A	-0.0015	0.0020	0.4446	-0.0016	0.0019	0.3920
	rs1421085	C	0.0094	0.0132	0.4764	0.0057	0.0051	0.2668
	rs9923147	T	-0.0014	0.0018	0.4320	-0.0015	0.0026	0.5507
	rs9923544	T	-0.0020	0.0020	0.3146	-0.0021	0.0024	0.3866
	rs8055197	G	0.0002	0.0006	0.6937	0.0003	0.0008	0.6460
	rs1558902	A	0.0189	0.0081	0.0196	0.0102	0.0046	0.0268
	rs11075985	A	-0.0016	0.0020	0.4094	-0.0019	0.0019	0.3149
	rs9922047	C	-0.0013	0.0018	0.4727	-0.0004	0.0010	0.7113
	rs17817288	G	0.0032	0.0022	0.1488	0.0041	0.0021	0.0489
	rs9924817	A	-0.0149	0.0066	0.0248	-0.0140	0.0066	0.0346
	rs16952524	A	0.0024	0.0046	0.6106	0.0030	0.0040	0.4532
	rs1121980	A	-0.0028	0.0024	0.2419	-0.0034	0.0022	0.1158
	rs16952525	G	0.0093	0.0038	0.0151	0.0098	0.0038	0.0094
	rs16945088	G	0.0041	0.0022	0.0626	0.0024	0.0020	0.2251
	rs8057044	G	0.0013	0.0025	0.5998	0.0010	0.0015	0.5144
	rs17817449	G	-0.0026	0.0022	0.2447	-0.0006	0.0008	0.4021
	rs8043757	T	-0.0050	0.0022	0.0216	-0.0027	0.0019	0.1501
	rs8063946	T	0.0047	0.0023	0.0394	0.0021	0.0021	0.3208
	rs11075987	T	0	1	1	0.0012	0.0022	0.5783
	rs8054237	A	-0.0044	0.0022	0.0504	-0.0035	0.0023	0.1219
	rs8050136	A	-0.0033	0.0021	0.1101	-0.0023	0.0018	0.1968
	rs8051591	G	-0.0031	0.0022	0.1560	-0.0018	0.0014	0.2092
	rs4783820	A	-0.0072	0.0086	0.4035	-0.0049	0.0066	0.4558
	rs9935401	A	-0.0031	0.0022	0.1601	-0.0019	0.0016	0.2443
	rs3751812	T				0.0050	0.0051	0.3243
	rs9939609	A	0	1	1	0.0004	0.0003	0.2764
	rs7202116	G	0.0000	0.0001	0.5731	0.0009	0.0083	0.9101
	rs7185735	G	0	1	1	0.0009	0.0011	0.4455

	rs9941349	T	0.0077	0.0037	0.0343			
	rs9931494	G	0.0099	0.0037	0.0078	0.0299	0.0132	0.0235
	rs17817964	T	0.0050	0.0081	0.5356	0.0046	0.0051	0.3665
	rs9933040	A	0.0028	0.0030	0.3604	-0.0059	0.0057	0.3064
	rs9922708	T	0.0025	0.0027	0.3495	-0.0082	0.0059	0.1695
	rs8044769	T	0.0029	0.0024	0.2149	0.0043	0.0024	0.0697
	rs1115005	T	-0.0002	0.0003	0.6135	0.0005	0.0009	0.6245
	rs9935403	A	-0.0005	0.0016	0.7438	-0.0011	0.0029	0.7192
Multiethnic Cohort Study	rs4784323	A	-0.0047	0.0059	0.4250	-0.0029	0.0059	0.6187
	rs7206790	C	0.0050	0.0042	0.2344	0.0020	0.0041	0.6285
	rs8047395	G	-0.0023	0.0045	0.6136	-0.0023	0.0045	0.6051
	rs8055197	G	-0.0011	0.0045	0.8077	-0.0011	0.0046	0.8171
	rs17817288	G	0.0002	0.0046	0.9631	0.0033	0.0043	0.4441
	rs16952525	G	0.0092	0.0081	0.2569	0.0105	0.0082	0.1968
	rs8057044	G	-0.0037	0.0045	0.4140	-0.0039	0.0045	0.3892
	rs8050136	A	0.0002	0.0044	0.9609	0.0009	0.0043	0.8266
	rs3751812	T				0.0122	0.0090	0.1736
	rs9941349	T	0.0032	0.0075	0.6723			
	rs1861867	T	-0.0112	0.0055	0.0416	-0.0103	0.0056	0.0664
SPT	rs1121980	A	-0.0022	0.0035	0.5236	-0.0014	0.0035	0.6919
	rs16952525	G	0.0006	0.0062	0.9270	0.0002	0.0063	0.9689
	rs8050136	A	-0.0016	0.0035	0.6443	-0.0004	0.0034	0.9145
	rs3751812	T				0.0096	0.0078	0.2198
	rs9941349	T	-0.0024	0.0057	0.6725			
	rs9931494	G	-0.0041	0.0059	0.4859	-0.0079	0.0177	0.6576
GXE	rs1121980	A	0.0502	0.1157	0.6645	-0.0219	0.1150	0.8491
	rs16952525	G	-0.2686	0.1878	0.1526	-0.2334	0.1880	0.2145
	rs8050136	A	-0.0076	0.1150	0.9475	-0.0221	0.1090	0.8391
	rs3751812	T				-0.3876	0.2845	0.1731
	rs9941349	T	0.5407	0.2196	0.0138			
	rs9931494	G	0.5364	0.2266	0.0179	-0.0668	0.6496	0.9182
Maywood	rs8047395	G	0.0027	0.0068	0.6924	0.0029	0.0057	0.6195
	rs11075985	C	-0.0040	0.0062	0.5250	-0.0037	0.0061	0.5388
	rs17817288	G	0.0030	0.0059	0.6179	0.0049	0.0062	0.4298
	rs7193144	C	-0.0063	0.0058	0.2802	-0.0034	0.0057	0.5532
	rs8057044	G	0.0054	0.0064	0.4034	0.0049	0.0066	0.4552
	rs17817449	G	-0.0135	0.0061	0.0268	-0.0100	0.0058	0.0831

	rs11075987	T	0.0037	0.0070	0.5988	0.0049	0.0074	0.5087
	rs8050136	A	-0.0066	0.0060	0.2710	-0.0045	0.0057	0.4331
	rs3751812	T				0.0125	0.0139	0.3686
	rs9939609	T	0.0066	0.0060	0.2735	0.0048	0.0061	0.4326
	rs7202116	A	0.0075	0.0060	0.2164	0.0053	0.0056	0.3429
	rs7185735	A	0.0054	0.0061	0.3759	0.0035	0.0064	0.5827
	rs9941349	T	0.0107	0.0102	0.2926			
	rs12149832	A	-0.0153	0.0192	0.4253	-0.0034	0.0097	0.7236

Shown are results after conditioning either on rs3751812 or rs9941349. Effect direction is with respect to the minor allele and is in log BMI units.

Samples are as in Table 1. MAF: Minor allele frequency.

Supplemental Table 4. Conditional analysis in JHS for rs3751812 and rs9941349.

	rs3751812			*rs9941349*		
Conditioned SNPs	**Effect Estimate**	**Standard Error**	***P* value**	**Effect Estimate**	**Standard Error**	***P* value**
rs1421085	0	1	1	0.0076	0.0036	0.0374
rs1558902	-0.0039	0.0057	0.4871	0.0060	0.0035	0.0877
rs17817288	0.0097	0.0035	0.0062	0.0094	0.0027	0.0006
rs9924817	0.0118	0.0034	0.0006	0.0102	0.0026	0.0001
rs16952525	0.0128	0.0034	0.0001	0.0115	0.0026	1.30E-05
rs8054237	0.0106	0.0034	0.0017	0.0095	0.0027	0.0005
rs9931494	0.0031	0.0032	0.3319	-0.0182	0.0144	0.2083
rs17817964	0.0060	0.0072	0.4083	0.0079	0.0038	0.0359
rs9933040	0.0097	0.0044	0.0276	0.0162	0.0054	0.0027
rs9922708	0.0097	0.0043	0.0258	0.0182	0.0057	0.0014

Shown are results in JHS for rs3751812 and rs9941349 after conditioning on SNPs that showed significant associations, as in Table 2. Effect direction is with respect to the minor allele and is in log BMI units. Note that in this table, as opposed to Supplemental Table 2, the SNPs that were conditioned on are shown in a column at the left.