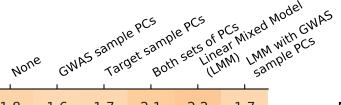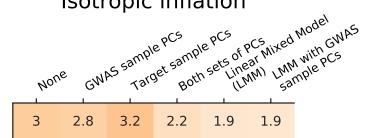# Comparison of SAD variance among methods to adjust for population structure

Number of significant PC-wise SAD components in first 20 PCs

	None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
Median across traits	1.8	1.6	1.7	2.1	2.2	1.7
Waist circumference	0	1	0	0	0	0
Hip circumference	4	1	4	2	5	2
Household income	1	2	1	2	0	0
Neuroticism score	1	0	0	2	0	1
Pack years of smoking	0	0	0	0	1	0
Years of schooling	0	0	0	0	0	0
Alcohol intake frequency	3	3	3	3	2	2
Overall health rating	1	2	3	4	4	2
Body mass index	0	1	0	0	1	0
Birth weight	1	1	0	2	4	5
Hand grip strength	0	1	1	3	0	1
Pulse rate	0	1	0	2	0	0
Hair color	6	7	6	8	8	8
Height	2	2	2	2	1	1
Diastolic blood pressure	5	0	2	0	5	0
Skin color	6	5	6	6	7	7
Forced vital capacity	1	1	1	0	0	0

Isotropic inflation

	None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
Median across traits	3	2.8	3.2	2.2	1.9	1.9
Waist circumference	1.74	8.93	1.71	1.72	1.02	1.02
Hip circumference	1.46	4.17	1.62	1.46	1.12	1.05
Household income	4.53	3.90	4.32	4.27	3.98	3.05
Neuroticism score	3.35	3.69	2.38	2.92	2.54	2.75
Pack years of smoking	2.96	3.44	5.48	3.50	2.68	2.52
Years of schooling	2.91	3.41	3.32	3.12	3.13	7.89
Alcohol intake frequency	4.59	3.00	2.12	2.02	1.34	1.32
Overall health rating	1.82	2.19	2.24	2.25	1.44	1.56
Body mass index	6.95	2.14	3.24	2.08	1.20	1.15
Birth weight	2.10	2.04	2.43	2.95	5.00	1.46
Hand grip strength	3.97	1.75	1.73	1.66	1.08	1.15
Pulse rate	1.68	1.71	2.61	1.61	2.17	1.41
Hair color	3.49	1.63	2.65	1.63	0.98	0.98
Height	3.68	1.59	3.32	1.61	1.23	1.24
Diastolic blood pressure	1.37	1.48	5.47	1.63	0.91	0.94
Skin color	1.51	1.45	7.35	1.61	0.87	0.86
Forced vital capacity	2.67	1.43	2.93	1.35	1.09	1.14