Comparison of SAD variance among methods to adjust for population structure
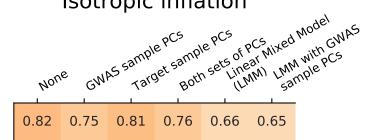
Number of significant PC-wise SAD components in first 20 PCs

Trait	None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
Median across traits	2.5	1.8	2.2	1.8	1.9	1.9
Height	4	3	3	4	3	4
Forced vital capacity	2	1	2	1	1	2
Skin color	1	4	1	3	3	3
Waist circumference	1	1	1	1	1	1
Hand grip strength	3	1	2	1	1	1
Years of schooling	1	1	0	1	2	2
Household income	4	3	4	3	3	2
Overall health rating	1	1	1	0	1	0
Alcohol intake frequency	0	0	0	0	0	0
Body mass index	2	1	1	1	2	2
Hip circumference	3	2	4	3	2	2
Hair color	8	6	8	5	7	5
Diastolic blood pressure	5	2	4	2	2	2
Neuroticism score	1	1	0	1	1	2
Pulse rate	1	1	1	1	2	3
Birth weight	2	2	3	2	2	2
Pack years of smoking	4	0	3	1	0	0

Isotropic inflation

Trait	None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
Median across traits	0.82	0.75	0.81	0.76	0.66	0.65
Height	1.69	1.26	1.63	1.27	1.06	1.04
Forced vital capacity	1.08	1.00	1.06	1.00	0.69	0.69
Skin color	1.19	0.96	1.18	0.98	0.80	0.77
Waist circumference	0.93	0.96	0.94	0.95	0.75	0.75
Hand grip strength	0.74	0.77	0.75	0.78	0.76	0.77
Years of schooling	0.75	0.73	0.73	0.72	0.59	0.58
Household income	0.76	0.72	0.75	0.70	0.60	0.59
Overall health rating	0.68	0.70	0.67	0.69	0.64	0.64
Alcohol intake frequency	0.77	0.69	0.77	0.75	0.76	0.74
Body mass index	0.71	0.68	0.71	0.69	0.58	0.58
Hip circumference	0.69	0.68	0.67	0.67	0.59	0.60
Hair color	0.90	0.66	0.89	0.66	0.68	0.65
Diastolic blood pressure	0.64	0.66	0.65	0.67	0.54	0.55
Neuroticism score	0.65	0.66	0.65	0.67	0.61	0.61
Pulse rate	0.61	0.62	0.58	0.59	0.57	0.59
Birth weight	0.56	0.55	0.57	0.56	0.51	0.51
Pack years of smoking	0.56	0.49	0.57	0.49	0.42	0.40