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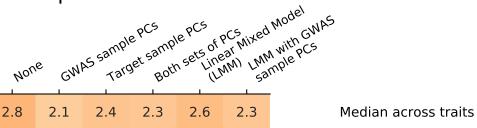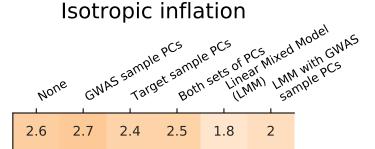
Number of significant PC-wise SAD components in first 20 PCs

Trait	None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
Median across traits	2.8	2.1	2.4	2.3	2.6	2.3
Pulse rate	1	1	1	1	1	1
Overall health rating	1	0	0	1	0	0
Skin color	7	5	7	6	8	8
Household income	4	1	2	0	5	5
Height	3	5	5	4	6	4
Birth weight	2	1	2	1	1	1
Hand grip strength	2	1	3	2	2	1
Years of schooling	1	2	1	1	1	1
Neuroticism score	1	0	1	2	0	0
Body mass index	1	1	0	1	1	1
Alcohol intake frequency	3	2	3	1	3	2
Hip circumference	2	1	2	1	0	0
Forced vital capacity	5	5	4	5	2	3
Waist circumference	2	1	1	2	1	1
Diastolic blood pressure	3	3	3	3	2	3
Hair color	8	6	4	7	8	8
Pack years of smoking	1	1	1	1	3	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	2.6	2.7	2.4	2.5	1.8	2
Pulse rate	2.07	7.39	3.88	3.81	1.65	1.64
Overall health rating	2.15	5.48	3.73	2.42	2.86	2.32
Skin color	2.27	3.72	1.47	2.61	0.94	0.94
Household income	3.77	3.49	4.11	4.16	3.71	2.49
Height	3.53	2.89	2.62	1.87	1.36	1.36
Birth weight	2.62	2.45	2.44	2.34	2.08	2.24
Hand grip strength	2.10	2.23	2.50	2.27	1.83	3.94
Years of schooling	2.11	2.22	2.21	2.50	2.26	2.17
Neuroticism score	4.22	2.14	1.93	4.82	1.65	1.78
Body mass index	1.89	2.08	1.91	2.06	1.34	1.37
Alcohol intake frequency	1.70	2.05	1.63	2.06	1.46	3.90
Hip circumference	4.75	1.84	1.80	1.84	1.30	3.76
Forced vital capacity	3.75	1.73	3.00	1.76	1.65	1.23
Waist circumference	1.57	1.73	1.61	1.75	1.33	1.44
Diastolic blood pressure	1.57	1.57	1.74	1.74	2.32	1.16
Hair color	2.40	1.57	2.05	1.98	1.03	1.01
Pack years of smoking	1.72	1.45	2.36	1.71	1.94	2.00