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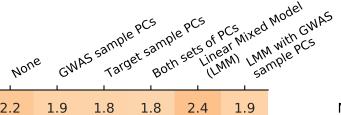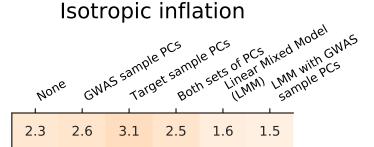
Number of significant PC-wise SAD components in first 20 PCs

Trait	None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
Median across traits	2.2	1.9	1.8	1.8	2.4	1.9
Body mass index	0	0	0	0	1	1
Hair color	8	7	7	6	7	7
Years of schooling	0	0	0	1	0	0
Hip circumference	6	3	4	2	5	2
Household income	1	1	0	2	1	1
Overall health rating	1	2	2	1	3	2
Pack years of smoking	0	0	0	0	2	0
Birth weight	0	0	0	0	4	3
Waist circumference	2	2	2	2	2	2
Neuroticism score	2	1	1	2	0	0
Hand grip strength	2	0	1	1	0	0
Pulse rate	0	1	0	0	2	1
Height	1	2	1	2	1	3
Forced vital capacity	3	1	2	1	2	1
Skin color	5	6	6	6	6	6
Alcohol intake frequency	3	2	1	0	2	1
Diastolic blood pressure	4	4	4	4	3	2

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	2.3	2.6	3.1	2.5	1.6	1.5
Body mass index	5.01	9.53	2.32	2.38	1.47	1.38
Hair color	1.98	3.21	4.09	2.15	1.01	1.00
Years of schooling	2.88	3.09	2.56	3.72	2.21	2.30
Hip circumference	1.89	3.09	1.50	1.47	1.15	1.09
Household income	2.87	2.66	2.90	2.83	2.46	2.13
Overall health rating	2.51	2.58	13.75	2.33	1.54	1.47
Pack years of smoking	1.94	2.56	2.11	2.91	2.27	1.97
Birth weight	2.07	2.12	2.04	2.05	1.38	1.45
Waist circumference	1.87	2.07	1.96	2.35	1.29	1.31
Neuroticism score	2.78	2.06	2.32	2.71	2.28	2.17
Hand grip strength	2.29	2.02	2.19	1.80	1.35	1.26
Pulse rate	2.05	1.93	5.45	5.05	3.25	1.85
Height	1.77	1.63	1.68	1.61	1.26	1.26
Forced vital capacity	1.58	1.55	2.85	2.04	1.29	1.28
Skin color	1.51	1.48	1.51	4.46	0.87	0.86
Alcohol intake frequency	1.91	1.37	1.29	1.81	0.98	1.09
Diastolic blood pressure	1.45	1.29	1.48	1.34	1.01	0.96