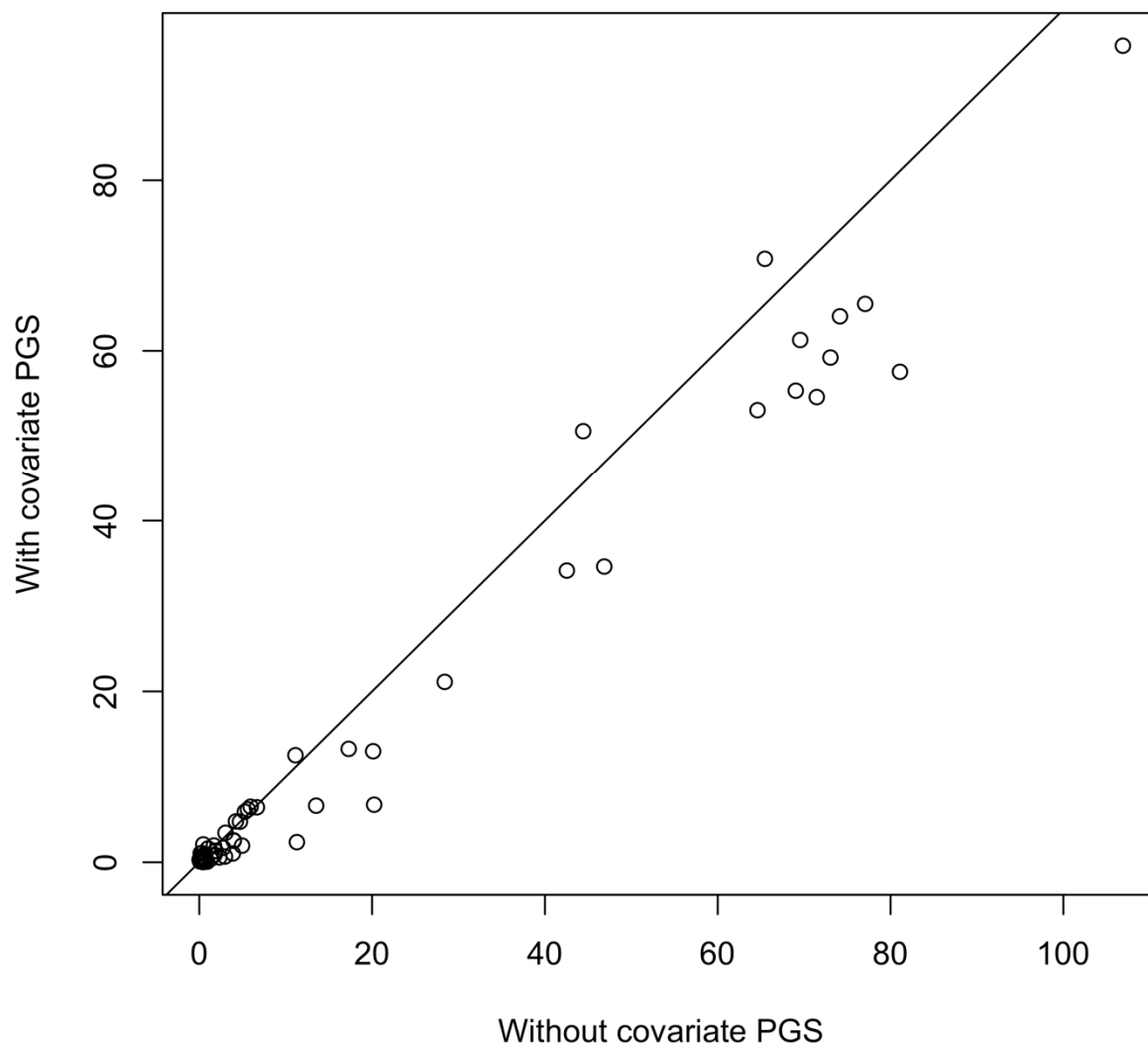
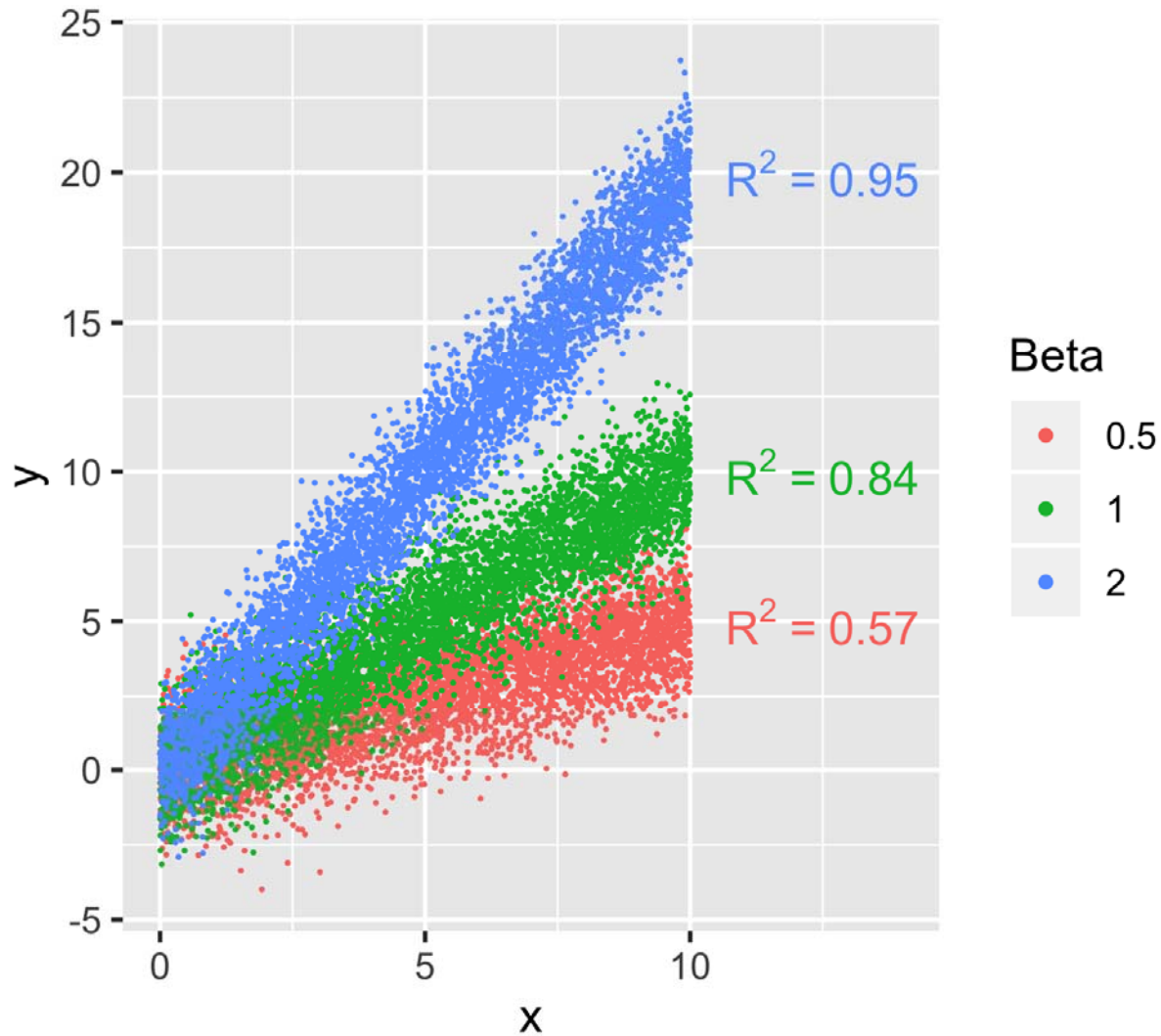


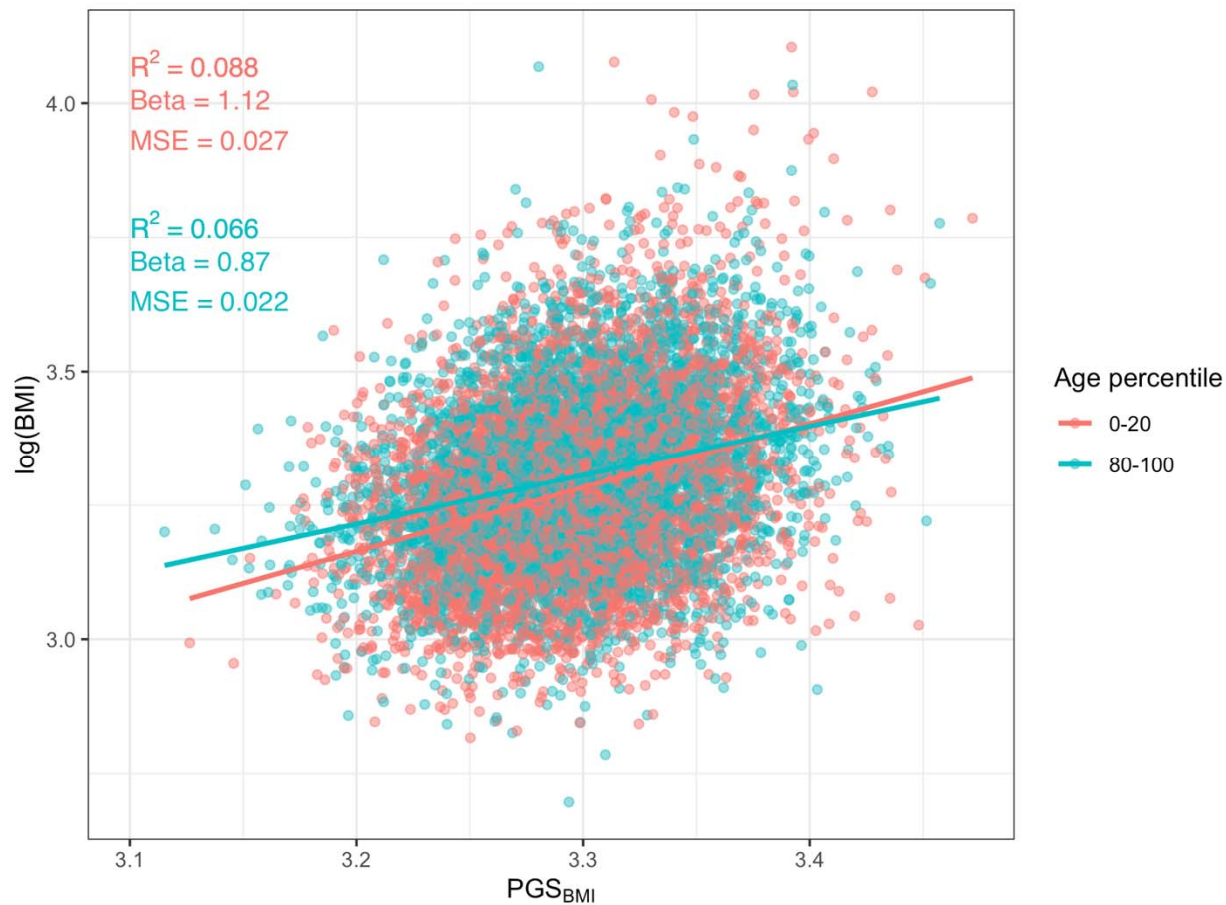
918 Supplemental Figures:



919
920 S Figure 1. PGS-covariate interaction term $-\log_{10}(\text{p-values})$ in UKBB EUR, with and without
921 including the covariate PGS in the model – the mean $-\log_{10}(\text{p})$ is reduced from 18.0899 to
922 14.97072 with their inclusions. Note age and sex PGS were not calculated, and their interaction
923 p-values are excluded from this figure.



924
925 S Figure 2. Three sets of simulated data with varying regression line slopes, showing how model
926 R^2 changes when regression line slope changes, all else being equal. Residuals were sampled
927 from a normal distribution (mean=0, sigma=sqrt($\pi/2$)) to give mean squared error=1. 5,000 x-
928 values were sampled for each line, uniformly distributed from 0-10. Despite having the same
929 mean squared error, model R^2 increases as beta increases.
930



931
932 S Figure 3. Univariable association of PGS_{BMI} and $\log(\text{BMI})$ in European UKBB, separately for
933 the bottom and top quintiles of age. R^2 is higher in younger individuals, which is partially a
934 consequence of the larger effect (as shown in S Figure 2), despite the mean squared error
935 actually being higher.
936