A. Chronic kidney disease (CKD) stratification with multi-PRS

CKD multi-PRS
OR = 1.99

CKD snpnet PRS
OR = 0.96

Chronic kidney disease (CKD) prevalence

Polygenic risk score quantile
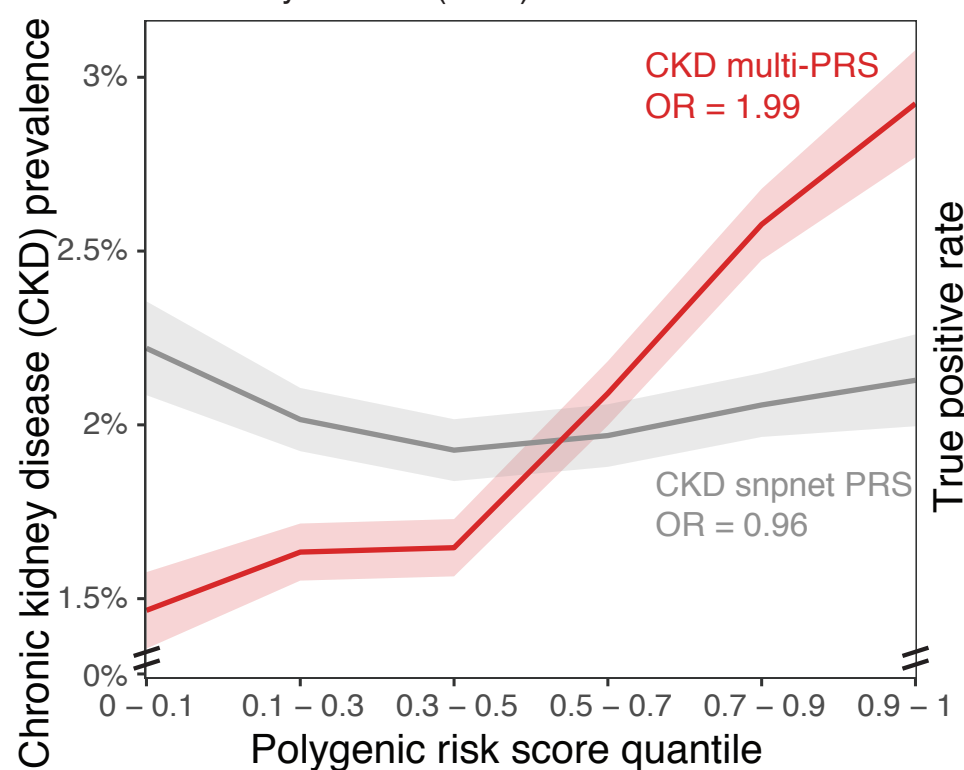
B. Higher AUC-ROC with multi-PRS for CKD

CKD multi–PRS
AUC = 0.57

CKD snpnet PRS
AUC = 0.499

True positive rate

False positive rate
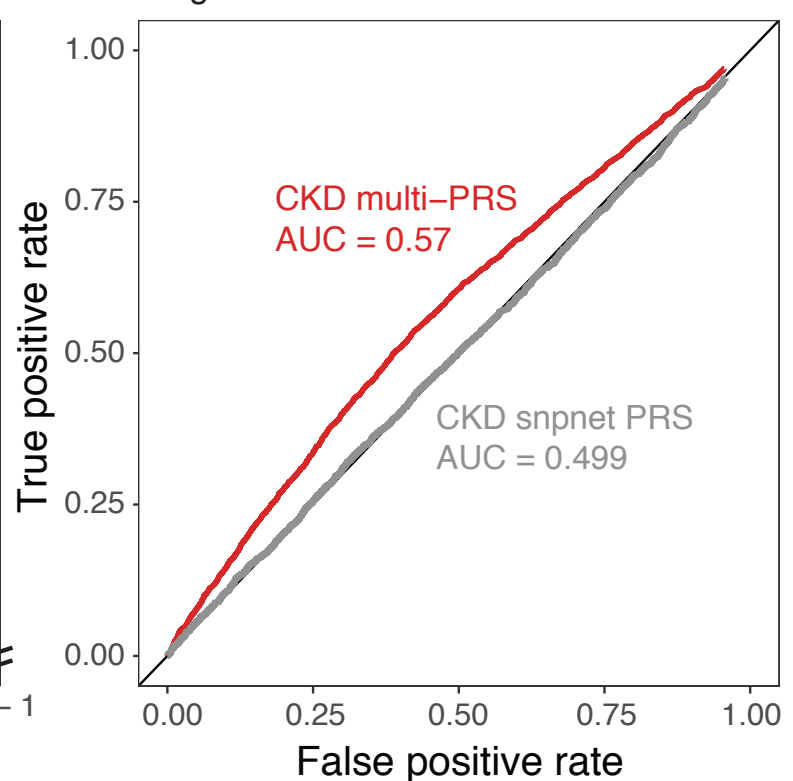
**C. Quantification of prediction accuracy of multi-PRS of numerous traits in held-out UK Biobank participants**

CKD
Alcoholic cirrhosis
Gout
Type 2 diabetes (strict)
Type 2 diabetes
Heart failure
Cholecystitis
Gallstones
Myocardial infarction
Angina
Hypertension

AUC
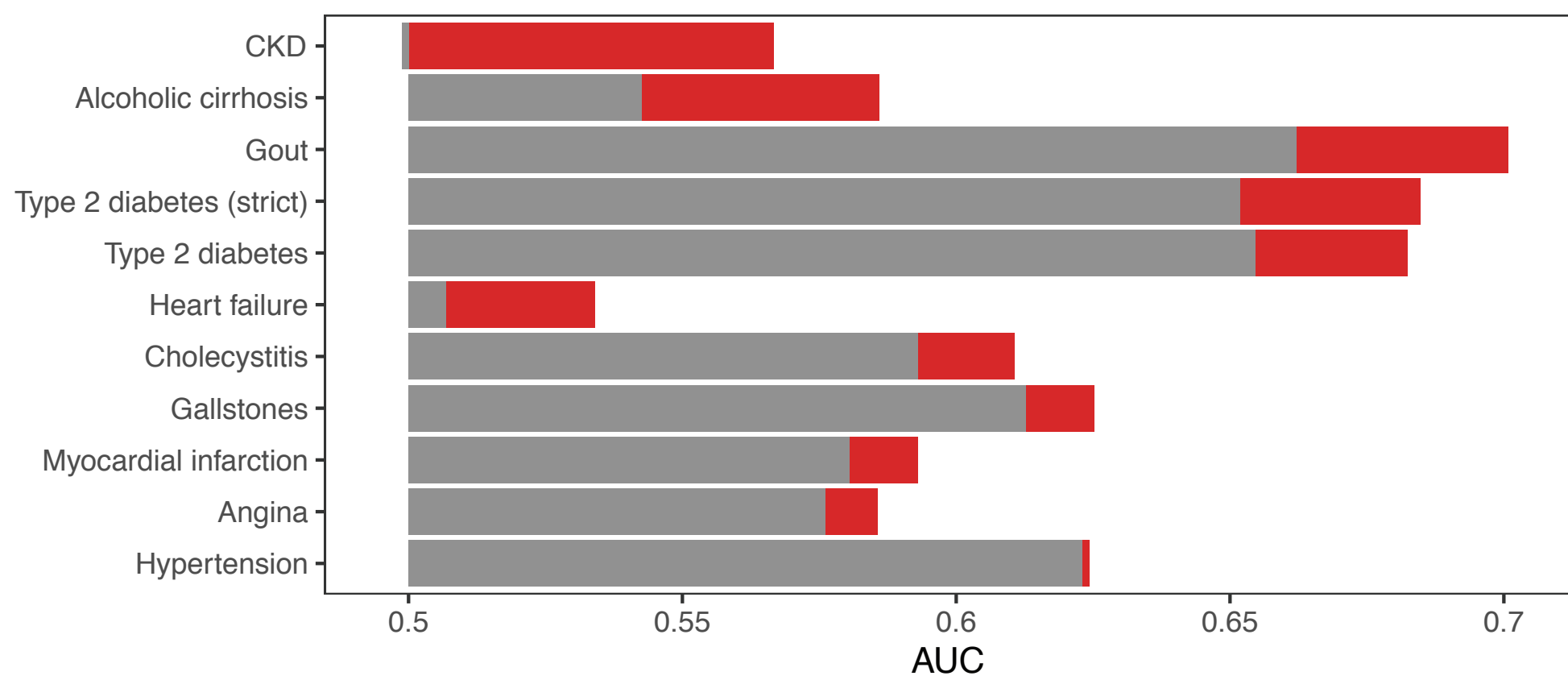
D. Incident disease prediction in the FinnGen cohort across numerous traits with UKBB-trained multi-PRS

Type 2 diabetes
CKD
Myocardial infarction
Heart failure
Gout
Gallstones
Alcoholic cirrhosis

Legend:
multi-PRS
snpnet PRS

Hazard ratio