

**Supplementary Table 12.** Incremental value of polygenic risk score in predicting abnormal glucose tolerance at 7-year postpartum, over the clinical risk factors, in the HAPO-HK Study

Variable	ROC curve analysis											$P_{NRI}$
	Number		Model 1: PRS only		Model 2 (base model): PCs and clinical risk factors		Model 3: PRS, PCs, and clinical risk factors		Comparison of AUC Model 3 vs. Model 2		Continuous NRI (95% CI)	
	GDM case	Non-GDM control	AUC (95% CI)	P value	AUC (95% CI)	P value	AUC (95% CI)	P value	Increased AUC	P value		
PCs, age, and BMI	129	829	0.595 (0.544–0.645)	$2.6 \times 10^{-4}$	0.750 (0.701–0.798)	$3.5 \times 10^{-20}$	0.767 (0.721–0.813)	$8.9 \times 10^{-23}$	0.0171	0.0187	31.7 (12.6–49.6)	<0.05
PCs, age, BMI, and GDM status	129	828	0.595 (0.544–0.645)	$2.6 \times 10^{-4}$	0.783 (0.738–0.828)	$2.3 \times 10^{-25}$	0.787 (0.743–0.831)	$4.1 \times 10^{-26}$	0.0045	0.1623	25.5 (1.50–42.8)	<0.05
PCs, age, BMI, and T2DM-related PRS	129	828	0.595 (0.544–0.645)	$2.6 \times 10^{-4}$	0.781 (0.736–0.827)	$3.8 \times 10^{-25}$	0.788 (0.744–0.833)	$2.7 \times 10^{-26}$	0.0069	0.0822	25.6 (2.10–42.1)	<0.05

The T2DM-related PRS was derived based on 286 T2DM-related variants reported by Diabetes Meta-Analysis of Trans-Ethnic association studies (DIAMANTE) consortium [2]. ROC curve analysis: Model 1 includes the PRS only; Model 2 (base model) includes the principal components and the clinical risk factors; Model 3 includes both models 1 and 2. AUC (95% CI) and related changes were estimated based on the risk prediction models (i.e., models 1–3) computed by logistic regression. *P* tests the null hypothesis that “AUC is equal to zero.”  $P_{increase}$  tests the null hypothesis that “difference in AUC between models 2 and 3 is equal to zero.” Reclassification analysis: Old model includes the principal components and the clinical risk factors. New model includes old model and PRS.  $P_{NRI}$  tests the null hypothesis that “continuous NRI is equal to zero.” HAPO-HK, Hyperglycemia and Adverse Pregnancy Outcome-Hong Kong; GDM, gestational diabetes mellitus; ROC, receiver operating characteristic; PRS, polygenic risk score; PC, principal component; AUC, area under the curve; CI, confidence interval; NRI, net reclassification improvement; BMI, body mass index.