

**Supplemental Table 7. The comparison of the original and the newly refined genetic risk score.**

Cohort	Original Risk Score					Newly Refined Risk Score				
	N <sup>#</sup>	R <sup>2*</sup>	C (95%CI) <sup>**</sup>	OR (95%CI) <sup>***</sup>	P-value <sup>****</sup>	R <sup>2*</sup>	C (95%CI) <sup>**</sup>	OR (95%CI) <sup>***</sup>	P-value <sup>****</sup>	
Italian Cohort	1,005	2.0%	0.57 (0.53-0.60)	1.30 (1.14-1.49)	1.5 x 10 <sup>-4</sup>	3.4%	0.59 (0.56-0.63)	1.43 (1.24-1.64)	6.8 x 10 <sup>-7</sup>	
French Cohort	859	1.8%	0.57 (0.53-0.61)	1.27 (1.10-1.45)	7.6 x 10 <sup>-4</sup>	2.8%	0.58 (0.55-0.62)	1.36 (1.18-1.57)	2.6 x 10 <sup>-5</sup>	
German Cohort	571	2.3%	0.58 (0.53-0.63)	1.35 (1.12-1.62)	1.9 x 10 <sup>-3</sup>	4.4%	0.60 (0.56-0.65)	1.54 (1.26-1.88)	2.0 x 10 <sup>-5</sup>	
Czech Cohort	402	1.7%	0.57 (0.51-0.63)	1.23 (1.03-1.46)	2.4 x 10 <sup>-2</sup>	2.0%	0.57 (0.52-0.63)	1.23 (1.04-1.45)	1.5 x 10 <sup>-2</sup>	
Hungarian Cohort	393	2.8%	0.59 (0.53-0.65)	1.40 (1.10-1.79)	5.7 x 10 <sup>-3</sup>	4.4%	0.61 (0.55-0.67)	1.54 (1.21-1.96)	5.1 x 10 <sup>-4</sup>	
Chinese Cohort	595	1.6%	0.57 (0.52-0.62)	1.29 (1.07-1.57)	8.0 x 10 <sup>-3</sup>	2.7%	0.59 (0.54-0.63)	1.36 (1.14-1.62)	6.2 x 10 <sup>-4</sup>	
Japanese Cohort	512	2.7%	0.59 (0.54-0.64)	1.34 (1.12-1.60)	1.5 x 10 <sup>-3</sup>	4.0%	0.61 (0.56-0.65)	1.38 (1.17-1.62)	1.2 x 10 <sup>-4</sup>	
African-American Cohort	85	4.6%	0.63 (0.50-0.76)	1.50 (0.93-2.41)	9.6 x 10 <sup>-2</sup>	5.1%	0.64 (0.51-0.77)	1.63 (0.94-2.82)	8.1 x 10 <sup>-2</sup>	
<b>All Replication Cohorts</b>	<b>4,422</b>	<b>2.2%</b>	<b>0.58 (0.56-0.59)</b>	<b>1.29 (1.22-1.37)</b>	<b>5.4 x 10<sup>-17</sup></b>	<b>3.2%</b>	<b>0.59 (0.57-0.61)</b>	<b>1.36 (1.28-1.45)</b>	<b>3.3 x 10<sup>-24</sup></b>	
GWAS Discovery	2,091	7.0%	0.63 (0.60-0.65)	1.70 (1.54-1.88)	1.9 x 10 <sup>-24</sup>	7.6%	0.64 (0.61-0.66)	1.69 (1.54-1.86)	1.5 x 10 <sup>-26</sup>	
GWAS Asian Follow-up	1,384	5.3%	0.61 (0.58-0.64)	1.65 (1.44-1.89)	5.8 x 10 <sup>-13</sup>	5.0%	0.61 (0.58-0.64)	1.57 (1.39-1.78)	1.2 x 10 <sup>-12</sup>	
GWAS European Follow-up	2,156	4.3%	0.60 (0.58-0.63)	1.46 (1.34-1.60)	1.6 x 10 <sup>-16</sup>	5.3%	0.61 (0.59-0.64)	1.56 (1.42-1.71)	1.0 x 10 <sup>-19</sup>	
<b>All GWAS Cohorts</b>	<b>5,631</b>	<b>5.0%</b>	<b>0.61 (0.60-0.62)</b>	<b>1.51(1.43-1.60)</b>	<b>3.1 x 10<sup>-46</sup></b>	<b>5.7%</b>	<b>0.62 (0.60-0.63)</b>	<b>1.56 (1.47-1.65)</b>	<b>4.1 x 10<sup>-52</sup></b>	
All Asian Cohorts Combined	4,582	4.5%	0.60 (0.59-0.62)	1.53 (1.43-1.64)	3.0 x 10 <sup>-34</sup>	5.0%	0.61 (0.59-0.63)	1.52 (1.43-1.62)	2.6 x 10 <sup>-38</sup>	
All European Cohorts Combined	5,386	2.6%	0.58 (0.57-0.60)	1.34 (1.26-1.41)	3.7 x 10 <sup>-24</sup>	3.6%	0.59 (0.58-0.61)	1.42 (1.34-1.51)	6.7 x 10 <sup>-33</sup>	
<b>All Cohorts Combined</b>	<b>10,053</b>	<b>3.8%</b>	<b>0.60 (0.59-0.61)</b>	<b>1.42 (1.36-1.50)</b>	<b>6.2 x 10<sup>-63</sup></b>	<b>4.7%</b>	<b>0.61 (0.60-0.62)</b>	<b>1.47 (1.42-1.54)</b>	<b>1.2 x 10<sup>-76</sup></b>	

# Number of analyzed individuals with 100% non-missing genotypes across all 7 scored loci.

\* R<sup>2</sup>: Nagelkerke R square expressed as percent

\*\* C-statistic: area under the ROC curve and its 95% confidence interval.

\*\*\* odds ratio per one standard deviation of the standardized risk score and its 95% confidence interval.

\*\*\*\* Wald's test for risk score as a quantitative predictor of disease status.