

**Supplementary Table 3.** Comparison of baseline and repeated measurements for anthropometric indices on the incident diabetes

Anthropometric & body composition indices	Total (n=6,030)				Men (n=2,877)				Women (n=3,153)					
	Baseline measurements		Repeated vs. Baseline measurements		Baseline measurements		Repeated measurements		Baseline measurements		Repeated measurements		Repeated vs. Baseline measurements	
	Harrell's C-index	Harrell's C-index	cNRI	Lower Upper 95% CI	Harrell's C-index	Harrell's C-index	Harrell's C-index	Harrell's C-index	Harrell's C-index	Harrell's C-index	Harrell's C-index	Harrell's C-index	Lower Upper 95% CI	Lower Upper 95% CI
Basic model	0.610	0.610	-	-	0.591	0.591	-	-	0.636	0.636	0.636	0.636	-	-
Basic model+ABSI	0.621	0.621	-	-	0.611	0.611	-	-	0.640	0.640	0.643	0.643	-	-
Basic model+BAI	0.634	0.633	-	-	0.613	0.613	-	-	0.659	0.659	0.657	0.657	-	-
Basic model+WC	0.661 <sup>ab</sup>	0.668 <sup>a</sup>	-	-	0.661 <sup>ab</sup>	0.665 <sup>b</sup>	-	-	0.673 <sup>b</sup>	0.673 <sup>b</sup>	0.687 <sup>b</sup>	0.687 <sup>b</sup>	0.157	0.062 0.251
Basic model+BMI	0.657 <sup>b</sup>	0.665 <sup>b</sup>	0.164	0.098 0.231	0.642	0.646 <sup>b</sup>	-	-	0.678 <sup>ab</sup>	0.678 <sup>ab</sup>	0.690 <sup>b</sup>	0.690 <sup>b</sup>	0.248	0.154 0.342
Basic model+WHR	0.647	0.664 <sup>b</sup>	0.061	-0.005 0.128	0.643 <sup>b</sup>	0.647 <sup>b</sup>	-	-	0.661 <sup>b</sup>	0.661 <sup>b</sup>	0.691 <sup>ab</sup>	0.691 <sup>ab</sup>	0.299	0.207 0.391
Basic model+weight-adjusted SMI	0.652 <sup>b</sup>	0.662 <sup>b</sup>	0.150	0.084 0.216	0.654 <sup>b</sup>	0.662 <sup>ab</sup>	-	-	0.659	0.659	0.670 <sup>b</sup>	0.670 <sup>b</sup>	-	-
Basic model+PBF	0.653 <sup>b</sup>	0.661 <sup>b</sup>	-	-	0.657 <sup>b</sup>	0.660 <sup>b</sup>	-	-	0.659	0.659	0.668 <sup>b</sup>	0.668 <sup>b</sup>	-	-
Basic model+FTM	0.652 <sup>b</sup>	0.660 <sup>b</sup>	-	-	0.657 <sup>b</sup>	0.660 <sup>b</sup>	-	-	0.658	0.658	0.669 <sup>b</sup>	0.669 <sup>b</sup>	0.227	0.133 0.321

The basic model included age, education levels, physical activity, alcohol intake, current smoking, total energy intake, dietary diversity score, and log-transformed C-reactive protein levels, and quartiles of unweighted genetic risk score at baseline. A blank for cNRI results means that Harrell's C-index of the prediction model using baseline measurements is comparable to Harrell's C-index of the prediction model using repeated measurements.

cNRI, continuous net reclassification improvement; CI, confidence interval; ABSI, a body shape index; BAI, body adiposity index; WC, waist circumference; BMI, body mass index; WHR, waist-to-hip ratio; SMI, skeletal muscle index; PBF, percent body fat; FTM, fat-to-muscle ratio.

<sup>a</sup>The highest Harrell's C-index among the indices within the same column, <sup>b</sup>The indices have a Bonferroni-adjusted P value greater than 0.05, indicating no significant difference between them within the same column.