

Supplementary Table 1. AUCs with 95% CIs for HOMA-IR, HOMA-AD, the TyG index, HOMA-1%S, QUICKI, the McAuley index, SPISE, and HOMA-2%B to identify MetS and its components

Variable	HOMA-IR	HOMA-AD	TyG index	HOMA-1%S	QUICKI	McAuley index	SPISE	HOMA-2%B
Central obesity	0.620 (0.538–0.698)	0.649 (0.567–0.725)	0.668 (0.587–0.743)	0.638 (0.548–0.726)	0.620 (0.537–0.698)	0.651 (0.569–0.727)	0.749 (0.671–0.816)	0.581 (0.499–0.661)
Elevated glucose	0.963 (0.919–0.987)	0.893 (0.832–0.937)	0.865 (0.799–0.915)	0.960 (0.916–0.984)	0.954 (0.907–0.982)	0.796 (0.723–0.857)	0.720 (0.641–0.790)	0.894 (0.834–0.939)
Elevated TG	0.664 (0.583–0.739)	0.666 (0.585–0.741)	0.906 (0.848–0.948)	0.664 (0.583–0.739)	0.663 (0.581–0.738)	0.895 (0.834–0.939)	0.940 (0.889–0.972)	0.558 (0.474–0.639)
Reduced HDL-C	0.745 (0.668–0.813)	0.713 (0.634–0.784)	0.724 (0.645–0.793)	0.735 (0.658–0.803)	0.738 (0.660–0.807)	0.762 (0.680–0.827)	0.768 (0.692–0.833)	0.742 (0.664–0.810)
Elevated BP	0.675 (0.594–0.749)	0.654 (0.572–0.729)	0.663 (0.581–0.738)	0.670 (0.589–0.744)	0.672 (0.591–0.746)	0.658 (0.576–0.733)	0.607 (0.524–0.686)	0.593 (0.509–0.672)
MetS	0.851 (0.784–0.904)	0.846 (0.778–0.899)	0.836 (0.767–0.891)	0.850 (0.783–0.903)	0.844 (0.776–0.898)	0.815 (0.743–0.874)	0.822 (0.751–0.880)	0.842 (0.773–0.896)

Values are presented as AUC (95% CI).

AUC, area under the curve; CI, confidence interval; HOMA, homeostatic model assessment; IR, insulin resistance; AD, adiponectin; TyG, triglyceride-glucose; %S, insulin sensitivity; QUICKI, quantitative insulin sensitivity check index; SPISE, single-point insulin sensitivity estimator; %B, beta-cell function; MetS, metabolic syndrome; TG, triglycerides; HDL-C, high-density lipoprotein cholesterol; BP, blood pressure.

Supplementary Table 2. Odds ratio of surrogate markers of IR and insulin secretion for MetS and its components

Variable	HOMA-IR	HOMA-AD	TyG index	HOMA-1%S	QUICKI	McAuley index	SPISE	HOMA-2%B
Central obesity	1.08 (0.97–1.20)	1.02 (0.99–1.05)	1.03 (0.96–1.10)	0.97 (0.95–1.00)	1.56* (0.90–2.13)	2.24* (1.62–3.08)	0.65 (0.49–0.85)	0.99 (0.98–1.00)
Elevated glucose	16.47* (6.12–28.44)	1.95* (1.50–2.54)	1.68* (1.37–2.04)	1.77* (1.70–1.85)	2.53* (2.02–3.17)	3.34* (2.84–4.16)	0.72 (0.58–0.90)	0.92 (0.90–0.95)
Elevated TG	1.13* (1.01–1.27)	1.01 (0.99–1.04)	3.46* (2.32–4.83)	1.03 (1.01–1.08)	2.46* (1.53–3.32)	1.03 (0.93–1.14)	1.00 (0.97–1.03)	0.96 (0.93–0.98)
Reduced HDL-C	1.27* (1.18–1.48)	1.23* (1.13–1.39)	1.13* (1.04–1.23)	0.92 (0.90–0.95)	2.02* (1.28–3.15)	0.96 (0.94–1.01)	1.00 (0.98–1.01)	0.97 (0.95–0.99)
Elevated BP	1.14* (1.01–1.29)	1.02 (0.99–1.04)	1.07 (1.01–1.15)	0.96 (0.93–0.98)	0.97 (0.95–1.15)	0.57 (0.54–0.60)	0.76 (0.61–0.96)	0.99 (0.98–1.01)
MetS	2.24* (1.60–3.13)	1.42* (1.22–1.66)	1.51* (1.28–1.78)	0.88 (0.84–0.92)	2.19* (1.46–3.23)	1.15* (1.03–1.29)	1.03* (1.01–1.05)	1.02* (1.01–1.03)

Values are presented as odds ratio (95% confidence interval). Odds ratio with 95% confidence interval are presented with adjustment for age, sex, BMI, smoking, and alcohol intake. * $P < 0.05$.

IR, insulin resistance; MetS, metabolic syndrome; HOMA, homeostatic model assessment; AD, adiponectin; TyG, triglyceride-glucose; %S, insulin sensitivity; QUICKI, quantitative insulin sensitivity check index; SPISE, single-point insulin sensitivity estimator; %B, beta-cell function; TG, triglycerides; HDL-C, high-density lipoprotein cholesterol; BP, blood pressure.