

Supplementary Table 1. Incident T2DM and baseline characteristics according to the quartiles of VSR in men and women

Variable	Men				Women				P value
	Quartile 1 (<0.80) (n=1,689)	Quartile 2 (0.80-1.07) (n=1,757)	Quartile 3 (1.07-1.39) (n=1,702)	Quartile 4 (>1.39) (n=1,687)	Quartile 1 (<0.30) (n=1,029)	Quartile 2 (0.30-0.42) (n=996)	Quartile 3 (0.42-0.59) (n=994)	Quartile 4 (>0.59) (n=1,028)	
Incident T2DM	76 (4.5)	120 (6.8)	149 (8.8)	209 (12.4)	4 (0.4)	18 (1.8)	41 (4.1)	113 (11.0)	<0.001
Age, yr	51.0±8.6	52.1±7.5	53.4±7.5	54.9±7.0	48.8±6.9	51.3±6.8	53.2±7.2	56.0±7.7	<0.001
BMI, kg/m ²	23.6±2.9	24.5±2.7	24.9±2.4	25.2±2.3	21.0±2.3	22.1±2.6	22.9±2.7	23.9±2.8	<0.001
WC, cm	84.0±7.9	87.1±7.0	88.5±6.4	89.9±6.3	73.7±6.7	76.9±7.5	79.3±7.3	82.3±7.0	<0.001
ASM, kg	23.7±3.0	23.9±2.8	24.0±2.8	24.0±2.8	16.1±1.9	16.1±1.9	16.2±1.9	16.4±2.1	<0.001
Body fat mass, kg	14.0±5.5	15.8±4.9	16.6±4.5	17.0±4.3	13.8±4.2	16.0±4.9	17.5±4.9	19.2±5.0	<0.001
Body fat, %	19.6±5.3	21.7±4.6	22.5±4.4	23.0±4.3	25.3±5.6	28.2±5.7	29.9±5.5	31.9±5.3	<0.001
SBP, mm Hg	121.6±12.6	123.7±12.5	124.7±12.8	126.1±12.7	111.4±12.8	114.6±12.8	117.4±13.8	120.5±13.6	<0.001
DBP, mm Hg	77.6±19.9	80.1±9.8	80.8±10.1	81.9±10.0	69.6±10.1	71.6±10.0	73.4±10.1	75.1±9.9	<0.001
Glucose, mg/dL	95.2±9.1	96.6±9.5	98.0±9.8	99.5±10.1	91.0±8.2	92.6±8.7	94.2±8.4	96.9±9.5	<0.001
Cholesterol, mg/dL	191.9±31.9	194.0±32.9	195.1±33.9	195.1±34.7	194.1±30.2	197.2±31.7	203.7±31.7	201.1±35.4	<0.001
HDL-C, mg/dL	56.4±13.6	52.6±12.9	50.7±12.1	49.5±12.0	70.1±15.1	64.7±14.2	60.8±13.6	55.4±13.5	<0.001
LDL-C, mg/dL	120.9±28.7	123.4±29.4	124.9±30.3	124.1±30.8	113.8±26.8	120.0±28.1	128.6±29.3	128.3±31.9	<0.001
Triglyceride, mg/dL	89.0 (68.0-120.0)	111.0 (81.0-156.0)	122.0 (90.0- 167.0)	135.0 (97.0- 182.0)	67.0 (53.0-88.5)	77.0 (60.3-104.0)	89.0 (67.0-118.0)	109.0 (83.0-153.0)	<0.001
HbA1c, %	5.40±0.32	5.46±0.32	5.52±0.34	5.56±0.34	5.34±0.30	5.41±0.31	5.48±0.32	5.61±0.33	<0.001
Insulin, µIU/mL	3.7 (2.2-5.8)	4.7 (2.7-6.8)	5.4 (3.4-7.3)	5.9 (3.7-7.9)	3.1 (2.0-4.9)	3.7 (2.3-5.8)	4.6 (2.8-6.5)	5.9 (3.7-8.0)	<0.001
HOMA-IR	0.86 (0.51-1.39)	1.13 (0.63-1.67)	1.31 (0.81-1.80)	1.41 (0.87-1.98)	0.71 (0.44-1.12)	0.85 (0.51-1.37)	1.05 (0.63-1.57)	1.41 (0.86-1.94)	<0.001
hsCRP, mg/dL	0.04 (0.02-0.08)	0.05 (0.03-0.10)	0.06 (0.03-0.12)	0.06 (0.03-0.12)	0.02 (0.02-0.04)	0.03 (0.02-0.06)	0.04 (0.02-0.08)	0.05 (0.03-0.11)	<0.001
Current smoker	474 (28.1)	558 (31.8)	541 (31.8)	511 (30.3)	40 (3.9)	21 (2.1)	18 (1.8)	19 (1.8)	<0.001
Alcohol consumption, g/day	10.5 (3.1-35.3)	14.0 (4.5-39.0)	17.4 (4.3-46.5)	24.0 (6.4-52.8)	0.75 (0.0-3.0)	0.4 (0.0-2.3)	0.4 (0.0-1.78)	0.0 (0.0-1.52)	<0.001
Regular aerobic exercise	190 (11.2)	164 (9.3)	161 (9.5)	139 (8.2)	102 (9.9)	82 (8.2)	71 (7.1)	94 (9.1)	0.142
Regular resistance exercise	330 (19.5)	293 (16.7)	299 (17.6)	285 (16.9)	103 (10.0)	100 (10.0)	109 (11.0)	116 (11.3)	0.723
Menopause									<0.001
Natural menopause	-	-	-	-	360 (35.0)	461 (46.3)	535 (53.8)	595 (57.9)	
Surgical menopause	-	-	-	-	105 (10.2)	103 (10.3)	116 (11.7)	163 (15.9)	
Hypertension	442 (26.2)	625 (35.6)	727 (42.7)	830 (49.2)	106 (10.3)	147 (14.8)	216 (21.7)	337 (32.8)	<0.001

(Continued to the next page)

Supplementary Table 1. Continued

Variable	Men				Women				P value
	Quartile 1 (<0.80) (n=1,689)	Quartile 2 (0.80-1.07) (n=1,757)	Quartile 3 (1.07-1.39) (n=1,702)	Quartile 4 (>1.39) (n=1,687)	Quartile 1 (<0.30) (n=1,029)	Quartile 2 (0.30-0.42) (n=996)	Quartile 3 (0.42-0.59) (n=994)	Quartile 4 (>0.59) (n=1,028)	
Taking lipid-lowering drugs	135 (8.0)	210 (12.0)	247 (14.5)	308 (18.3)	44 (4.3)	72 (7.2)	89 (9.0)	205 (19.9)	<0.001
Family history of T2DM	361 (21.4)	373 (21.2)	354 (20.8)	290 (17.2)	243 (23.6)	250 (25.1)	221 (22.2)	228 (22.2)	0.361
VFA, cm ²	78.0 (50.4-105.0)	120.3 (95.0-148.0)	149.9 (123.8-178.6)	186.2 (154.8-221.6)	29.8 (20.6-39.0)	52.1 (40.7-65.5)	74.9 (62.0-92.5)	114.1 (93.3-140.2)	<0.001
SFA, cm ²	123.0 (86.5-160.0)	128.0 (102.3-157.4)	124.0 (102.4-145.5)	107.7 (90.8-126.6)	131.2 (100.2-164.7)	143.2 (115.7-181.3)	152.5 (126.8-185.6)	145.7 (119.6-175.4)	<0.001
VSR	0.64 (0.54-0.73)	0.93 (0.87-1.00)	1.21 (1.14-1.29)	1.64 (1.50-1.90)	0.23 (0.19-0.27)	0.36 (0.33-0.39)	0.49 (0.45-0.54)	0.75 (0.66-0.90)	<0.001
VFA/height ² , cm ² /m ²	26.6 (17.2-36.1)	41.0 (32.6-50.4)	51.7 (42.5-61.6)	64.1 (53.5-76.4)	11.4 (7.9-15.4)	20.6 (16.0-25.9)	30.1 (24.4-37.1)	45.6 (37.1-56.7)	<0.001
VFA/weight, cm ² /kg	1.1 (0.8-1.5)	1.7 (1.4-2.0)	2.1 (1.8-2.4)	2.5 (2.2-2.9)	0.6 (0.4-0.7)	0.9 (0.8-1.1)	1.3 (1.1-1.5)	1.9 (1.6-2.2)	<0.001
VFA/BMI	3.3 (2.3-4.3)	4.9 (4.1-5.8)	6.1 (5.2-6.9)	7.5 (6.4-8.6)	1.4 (1.0-1.8)	2.4 (1.9-2.8)	3.4 (2.9-3.8)	4.8 (4.1-5.5)	<0.001

Values are presented as number (%), mean ± standard deviation, or median (range).

T2DM, type 2 diabetes mellitus; VSR, visceral-to-subcutaneous fat ratio; BMI, body mass index; WC, waist circumference; ASM, appendicular skeletal muscle mass; SBP, systolic blood pressure; DBP, diastolic blood pressure; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; HbA1c, glycosylated hemoglobin; HOMA-IR, homeostasis model assessment of insulin resistance; hsCRP, high-sensitivity C-reactive protein; CT, computed tomography; VFA, visceral fat area; SFA, subcutaneous fat area.