

**Supplemental Table 1.** Stratified analysis by type 2 diabetes and obesity status in the Boston Puerto Rican Health study and anthropometric parameters based on the *TCF7L2*-rs7903146 and *TCF7L2*-rs12255372

	<b>BMI, kg/m<sup>2</sup></b>			
	<b>Non-diabetic</b>	<b>Diabetes</b>	<b>Non-obese</b>	<b>Obese</b>
<i>TCF7L2</i> -rs7903146				
CC, n=539	31.07 ±0.34	34.73 ±0.49	26.45 ±0.19	36.38 ±0.30
CT+TT, n=581	31.24 ±0.34	32.93 ±0.44	26.26 ±0.18	36.07 ±0.29
P-value	0.72	<b>0.0069</b>	0.475	0.459
P-interaction	<b>0.044</b>		0.8504	
<i>TCF7L2</i> - rs12255372				
GG, n=553	30.83 ±0.33	34.22 ±0.48	26.15 ±0.19	36.31 ±0.29
GT, n=476	31.49 ±0.37	33.22 ±0.51	26.55 ±0.21	36.08 ±0.32
TT, n=91	31.30 ±0.87	33.45 ±1.07	26.61 ±0.43	36.55 ±0.76
P-value	0.927	0.354	0.291	0.799
P-interaction	0.1002		0.6499	
	<b>Body Mass, kg</b>			
	<b>Non-diabetic</b>	<b>Diabetic</b>	<b>Non-obese</b>	<b>Obese</b>
<i>TCF7L2</i> -rs7903146				
CC, n=539	77.95 ±0.91	87.12 ±1.26	67.80 ±0.62	90.24 ±0.81
CT+TT, n=581	80.70 ±0.91	81.71 ±1.12	66.70 ±0.57	89.66 ±0.81
P-value	0.563	<b>0.0015</b>	0.189	0.613
P-interaction	<b>0.0105</b>		0.6357	
<i>TCF7L2</i> - rs12255372				
GG, n=553	77.77 ±0.90	85.45 ±1.24	66.91 ±0.60	90.34 ±0.81
GT, n=476	78.81 ±1.01	82.77 ±1.29	67.54 ±0.66	89.30 ±0.88
TT, n=91	78.79 ±2.35	83.25 ±2.74	66.8 ±1.39	91.06 ±2.09
P-value	0.7254	0.317	0.765	0.597
P-interaction	0.1716		0.5105	
	<b>Waist, cm</b>			
	<b>Non-diabetic</b>	<b>Diabetic</b>	<b>Non-obese</b>	<b>Obese</b>
<i>TCF7L2</i> -rs7903146				
CC, n=539	99.38 ±0.79	108.98 ±1.08	91.60 ±0.65	110.34 ±0.73
CT+TT, n=581	99.65 ±0.80	104.55 ±0.96	90.65 ±0.60	109.69 ±0.72
P-value	0.8109	<b>0.0024</b>	0.294	0.522
P-interaction	<b>0.0285</b>		0.7163	
<i>TCF7L2</i> - rs12255372				
GG, n=553	98.91 ±0.80	108.07 ±1.06	91.10 ±0.62	110.17 ±0.72
GT, n=476	100.43 ±0.88	104.94 ±1.10	91.16 ±0.69	109.93 ±0.78
TT, n=91	97.99 ±2.04	105.8 ±2.35	90.90 ±1.45	109.07 ±1.87
P-value	0.327	0.1260	0.986	0.855
P-interaction	<b>0.042</b>		0.9465	

Values are means ±Standard Error adjusted for age, sex, household income, health insurance, educational attainment, physical activity, smoking status, psychological acculturation, social support, perceived stress, and population structure.

**Supplemental Table 2.** Stratified analysis by metabolic syndrome status and adherence to MedDiet in the Boston Puerto Rican Health study and anthropometric parameters based on the *TCF7L2*-rs7903146 and *TCF7L2*-rs12255372

	BMI (Kg/m <sup>2</sup> )				Weight (kg)				Waist, (cm)			
	Metabolic Syndrome		Non-Metabolic syndrome		Metabolic Syndrome		Non-Metabolic syndrome		Metabolic Syndrome		Non-Metabolic syndrome	
	Low MedDiet	High MedDiet	Low MedDiet	High MedDiet	Low MedDiet	High MedDiet	Low MedDiet	High MedDiet	Low MedDiet	High MedDiet	Low MedDiet	High MedDiet
<b><i>TCF7L2</i>-rs7903146</b>												
CC, n=539	33.9 ±0.4	33.4 ±0.4	28.5 ±0.9	28.5 ±0.9	84.3 ±1.17	83.8 ±1.1	72.5 ±2.3	71.1 ±2.0	105.9 ±0.9	105.5 ±1.0	94.3 ±2.3	91.0 ±1.8
CT+TT, n=581	33.9 ±0.4	31.9 ±0.4	28.9 ±0.8	28.9 ±0.8	84.6 ±1.1	79.5 ±1.1	73.7 ±2.1	69.9 ±1.9	106.3 ±0.9	102.2 ±0.9	95.3 ±2.2	89.0 ±1.8
P value	0.90	<b>0.012</b>	0.75	0.75	0.84	<b>0.007</b>	0.71	0.683	0.76	<b>0.016</b>	0.77	0.44
P-for interaction <sup>1</sup>	0.07		0.73		0.054		0.72		0.059		0.56	
<b><i>TCF7L2</i>-rs12255372</b>												
GG, n=553	33.4 ±0.4	33.2 ±0.4	28.6 ±0.8	28.6 ±0.8	83.5 ±1.1	83.3 ±1.1	73.4 ±2.0	70.4 ±2.0	105.8 ±0.9	104.7 ±1.0	94.2 ±2.1	90.9 ±1.8
GT, n=476	34.2 ±0.5	32.3 ±0.5	27.9 ±1.0	27.9 ±1.0	85.2 ±1.3	80.5 ±1.2	69.0 ±2.7	71.0 ±2.2	106.3 ±1.0	103.4 ±1.0	94.2 ±2.7	89.3 ±2.0
TT, n=91	34.5 ±1.0	31.5 ±1.1	31.5 ±1.9	31.5 ±1.9	86.1 ±2.8	77.6 ±2.9	82.8 ±5.1	68.7 ±4.8	106.6 ±2.2	100.2 ±2.5	99.3 ±5.2	88.1 ±4.4
P value	0.317	0.167	0.167	0.167	0.39	0.06	0.01	0.737	0.74	0.09	0.37	0.55
P-for interaction	0.06		0.37		<b>0.04</b>		0.20		0.198		0.62	

Values are means ±Standard Error adjusted for age, sex, household income, health insurance, educational attainment, physical activity, smoking status, psychological acculturation, social support, perceived stress, and population structure

Metabolic Syndrome was defined according to the International Diabetes Federation