Table S1. **The ability of body fat percentage to discriminate lipid disorder**. Areas under the ROC curve (AUCs), 95% confidence intervals and p-values (P) for cardiometabolic risk factors in school children from Mexico City (Central Mexico).

	AUC (95%CI), P	P^1
High TG	0.710(0.65-0.76), < 0.0001	0.062
High TC	0.57(0.51-0.63), 0.017	0.022
Low HDL	0.70(0.63-0.77), < 0.0001	0.002
High LDL	0.61(0.55-0.68), 0.001	0.113
Low ApoA1	0.51(0.40-0.62), 0.870	0.065
High ApoB	0.64(0.57-0.69), 0.010	0.008
Dyslipidemia	0.68(0.61-0.75), 0.0001	0.734

Triglycerides (TG, mg/dL), Total cholesterol (TC, mg/dL), high density lipoprotein, (HDL in mg/dl), low density lipoprotein, (LDL in mg/dl), apolipoprotein A1, (ApoaA, mg/dl), apolipoprotein B, (ApoB mg/dl). Lipids levels classification were according to the borderline-high criteria of the Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents National Heart, Lung and Blood Institute. P-value (P^1) resulted from Z test from de body mass index and BFP AUCs pairwise comparisons.

Table S2. **Results of lipid disorder association analysis with obesity.** Obesity (OB), Body Fat Percentage (BFP) school children from Mexico City. Estimate, standard errors (SE), p-value (p), odd ratio (OR) and 95% confidence intervals and p-values (P).

HighTG	Estimate	z	OR	95%CI	P
Int	-0.014	-0.085			0.930
BFP-OB	1.329	5.405	3.78	(2.34-6.16)	<0.001
High TC					
Intercept	-0.158	-0.932			0.350
BFP-OB	0.555	2.46	1.74	(1.12-2.71)	0.014
Low HDL					
Intercept	-3.319	-5.752			<0.001
BFP-OB	1.353	3.796	3.4	(1.77-6.98)	0.001
High LDL					
Intercept	-1.517	-6.871			<0.001
BFP-OB	0.871	3.243	2.39	(1.42- 4.10)	0.001
Low APOA1					
Intercept)	2.359	7.812			<0.001
BFP-OB	0.021	0.054	1.02	(0.46- 2.22)	0.960
High APOB					
Intercept	-1.089	-5.573			<0.001
BFP-OB	0.844	3.457	2.32	(1.45-3.79)	<0.0001
Dyslipidemia					
Intercept	1.862	3.181			0.002
Age	-0.119	-1.874	0.88	(0.78-1.00)	0.060
BFP-OB	1.438	4.6	4.21	(2.31-7.92)	<0.001

Lipids levels classification were according to the borderline-high criteria of the Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents National Heart, Lung and Blood Institute.