



**Supplementary material**

**Central Obesity is the Key Component in the Association of Metabolic Syndrome With Left Ventricular Global Longitudinal Strain Impairment**

**Table 1 of the supplementary material**

**Comparison of Baseline Sociodemographic Characteristics Between the Random Sample and the Entire Population of the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil)**

Characteristics	ELSA-Brasil (N = 15 105)		Random sample (N = 1055)	
	n	%	n	%
<i>Sex</i>				
Men	6887	45.6	493	46.7
Women	8218	54.4	562	53.3
<i>Age, y</i>				
35-44	3340	22.1	211	20.0
45-54	5939	39.3	478	45.3
55-64	4234	28.0	261	24.7
65-74	1592	10.6	105	10.0
<i>Self-identified skin color/race category</i>				
White	7791	52.2	528	50.1

Black	2397	16.1	185	17.5
Brown ('pardo')	4202	28.2	303	28.7
Asian	374	2.5	26	2.5
Indigenous	157	1.0	13	1.2
<i>Educational level</i>				
Never attended school or incomplete elementary school	894	5.9	58	5.5
Complete elementary school or incomplete secondary school	1028	6.8	60	5.7
Complete secondary school	5233	34.6	349	33.1
University degree	7950	52.7	588	55.7

## Table 2 of the supplementary material

Quantile Regression for the Association of Metabolic Syndrome Components With Global Longitudinal Strain. Cohort  
Random Sample, the ELSA-Brasil Study (2008-2012) (N = 1055)

	Model 1		Model 2		Model 3		Model 4	
	Difference (SE)	P	Difference (SE)	P	Difference (SE)	P	Difference (SE)	P
<i>50th GLS Quantile</i>								
Elevated waist circumference*	0.73 (0.19)	.0002	0.31 (0.19)	.11	0.84 (0.19)	< .0001	0.70 (0.23)	.002
Elevated glucose and/or diabetes treatment	0.79 (0.21)	.0002	0.38 (0.22)	.08	-0.21 (0.18)	.24	-0.22 (0.19)	.26
Elevated triglycerides and/or specific medication use	1.05 (0.17)	< .0001	0.68 (0.20)	.0006	0.48 (0.22)	.03	0.42 (0.21)	.05
Reduced HDL-cholesterol and/or specific medication use	-0.11 (0.26)	.66	-0.20 (0.17)	.24	-0.21 (0.20)	.31	-0.26 (0.21)	.21
Elevated blood pressure and/or hypertension treatment	0.76 (0.19)	< .0001	0.43 (0.20)	.03	0.23 (0.19)	.22	0.18 (0.18)	.33
<i>75th GLS Quantile</i>								
Elevated waist circumference*	0.51 (0.21)	.02	0.36 (0.23)	.12	0.64 (0.22)	.004	0.29 (0.25)	.25
Elevated glucose and/or diabetes treatment	0.73 (0.21)	.0005	0.42 (0.22)	.06	0.30 (0.21)	.15	0.30 (0.20)	.13
Elevated triglycerides and/or specific medication use	0.76 (0.23)	.0009	0.65 (0.23)	.006	0.60 (0.20)	.002	0.52 (0.22)	.02

Reduced HDL-cholesterol and/or specific medication use	-0.10 (0.20)	.62	-0.34 (0.30)	.26	-0.35 (0.25)	.17	-0.27 (0.22)	.22
Elevated blood pressure and/or hypertension treatment	0.66 (0.18)	.0003	0.30 (0.23)	.19	0.25 (0.19)	.19	0.23 (0.20)	.26
<i>95th GLS Quantile</i>								
Elevated waist circumference*	1.04 (0.35)	.003	1.08 (0.42)	.01	0.97 (0.28)	.0005	0.43 (0.31)	.16
Elevated glucose and/or diabetes treatment	1.72 (0.33)	< .0001	0.65 (0.47)	.17	0.91 (0.28)	.001	0.55 (0.33)	.09
Elevated triglycerides and/or specific medication use	0.82 (0.46)	.07	0.42 (0.50)	.41	0.46 (0.36)	.21	0.59 (0.31)	.06
Reduced HDL-cholesterol and/or specific medication use	-0.03 (0.49)	.95	0.05 (0.49)	.92	-0.36 (0.38)	.35	-0.31 (0.32)	.32
Elevated blood pressure and/or hypertension treatment	0.94 (0.38)	.01	1.12 (0.41)	.007	0.43 (0.34)	.21	0.47 (0.37)	.21

GLS, global longitudinal strain; HDL, high-density lipoprotein; SE, standard error.

\*European origin cutoff waist circumference  $\geq 94$  cm for men and  $\geq 80$  cm for women.

Model 1: specific metabolic syndrome component.

Model 2: adjusted for all additional metabolic syndrome components.

Model 3: model 2 + sex, age (years), race/color, educational level, ELSA-Brasil center.

Model 4: model 3 + body mass index ( $\text{kg}/\text{m}^2$ ).