

## SUPPLEMENTAL MATERIAL

### Dog Ownership and Cardiovascular Health: Results from the Kardiovize 2030 project

Andrea Maugeri, Jose R. Medina-Inojosa, Sarka Kunzova, Martina Barchitta, Antonella Agodi,

Manlio Vinciguerra, Francisco Lopez-Jimenez

**Supplemental Table 1.** Definition of Ideal Cardiovascular Health Metrics

Metric	Definition
<b>Smoking</b>	<b>Ideal</b> = Never or quit > 12 months <b>Intermediate</b> = Former ≤12 months <b>Poor</b> =Current
<b>Body Mass Index</b>	<b>Ideal</b> = <25 Kg/m <sup>2</sup> <b>Intermediate</b> = 25-29.9 Kg/m <sup>2</sup> <b>Poor</b> = ≥30 Kg/m <sup>2</sup>
<b>Physical* Activity</b>	<b>Ideal</b> = ≥150 min/week moderate or ≥75 min/ week vigorous or ≥150 min/ week moderate + vigorous <b>Intermediate</b> = 1–149 min/ week moderate or 1–74 min/ week vigorous or 1–149 min/ week moderate + vigorous <b>Poor</b> =None
<b>Diet Score<sup>†</sup></b>	<b>Ideal</b> = 4-5 components <b>Intermediate</b> = 2-3components <b>Poor</b> = 0-1 component
<b>Total Cholesterol</b>	<b>Ideal</b> = <200 mg/dL, without medication or physician diagnosis of Hypercholesterolemia <b>Intermediate</b> = 200–239 mg/dL, or treated to <200 mg/dL <b>Poor</b> = ≥240 mg/dL
<b>Blood pressure</b>	<b>Ideal</b> = <120/<80 mmHg, without medication or physician diagnosis of Hypertension <b>Intermediate</b> = SBP 120–139 or DBP 80–89 mmHg, or treated to <120/<80 mmHg <b>Poor</b> = SBP ≥140 or DBP ≥90mmHg
<b>Fasting glucose</b>	<b>Ideal</b> = <100 mg/dL, without medication or physician diagnosis of Diabetes <b>Intermediate</b> = 100–125 mg/dL, or treated to <100 mg/dL <b>Poor</b> = ≥ 126 mg/dL

\*Physical activity was assessed using the International Physical Activity Questionnaire (Craig CL, Marshall AL, Sjöström M, Bauman AE, Booth ML, Ainsworth BE, Pratt M, Ekelund U, Yngve A, Sallis JF, Oja P. International physical activity questionnaire: 12-country reliability and validity. *Med Sci Sports Exerc* 2003;35(8):1381-95.)

† Food and nutrient intakes were assessed by 24-hours recall; we then categorized achievement of the following components: ≥4.5 cups/d of fruits and vegetables (approximated as ≥4.5 servings/day; ≥3.5 oz servings/week of fish (approximated as ≥two 3–5 oz. servings/week); ≥three 1 oz servings/day of whole grains (approximated as ≥three servings/day); sodium (<1,500 mg/d); and ≤36 oz/week of sugar sweetened beverages (approximated as ≤4 glasses/week) Abbreviations: SBP, systolic blood pressure; DBP, diastolic blood pressure.

**Supplemental Table 2.** Comparison of characteristics between dog owners and non-dog owners

<b>Characteristics Median (Interquartile Range) or %</b>	<b>Dog owners (n=429)</b>	<b>Non-dog owners (n=1340)</b>	<b>p-value</b>
Age, years	47.0 (18.0)	47.0 (10.0)	0.245
Sex (% male)	39.4%	45.8%	0.021
Educational level (% low <sup>a</sup> )	22.6%	17.6%	<0.001
Marital status (% living alone)	38.8%	38.0%	0.775
Employment (% unemployed)	19.6%	17.8%	0.569
Income (less than 30000 CZK)	38.1%	41.7%	0.305
Smoking (% current smokers)	31.9%	25.2%	0.006
Physical activity, MET-min/week	4833 (5631)	2805 (4176)	<0.001
Weight, Kg	76.0 (24.0)	77.0 (23.0)	0.587
Body mass index, Kg/m <sup>2</sup>	25.0 (6.6)	25.4 (6.1)	0.949
Waist circumference, cm	87.0 (20.3)	89.0 (20.0)	0.646
Central obesity <sup>b</sup> (%)	29.2%	31.0%	0.478
Systolic blood pressure, mmHg	118.0 (17.5)	118.0 (20.4)	0.463
Diastolic blood pressure, mmHg	79.5 (11.0)	79.0 (13.0)	0.861
History of hypertension	28.4%	31.3%	0.262
Fasting glucose, nmol/l	4.9 (0.8)	4.9 (0.7)	0.488
History of diabetes mellitus	6.9%	9.4%	0.110
Triglycerides, nmol/l	1.04 (0.80)	1.05 (0.80)	0.777
Total Cholesterol, nmol/l	5.1 (1.3)	5.1 (1.3)	0.972
HDL Cholesterol, nmol/l	1.5 (0.5)	1.5 (0.5)	0.309
LDL Cholesterol, nmol/l	3.0 (1.2)	3.0 (1.2)	0.568
Total Cholesterol/HDL-Cholesterol ratio	3.4 (1.4)	3.4 (1.5)	0.304
History of hypercholesterolemia	26.8%	28.6%	0.480
CVH score <sup>c</sup>	10 (3)	9 (3)	0.005
Number of Ideal CVH metrics	4 (2)	4 (1)	0.242

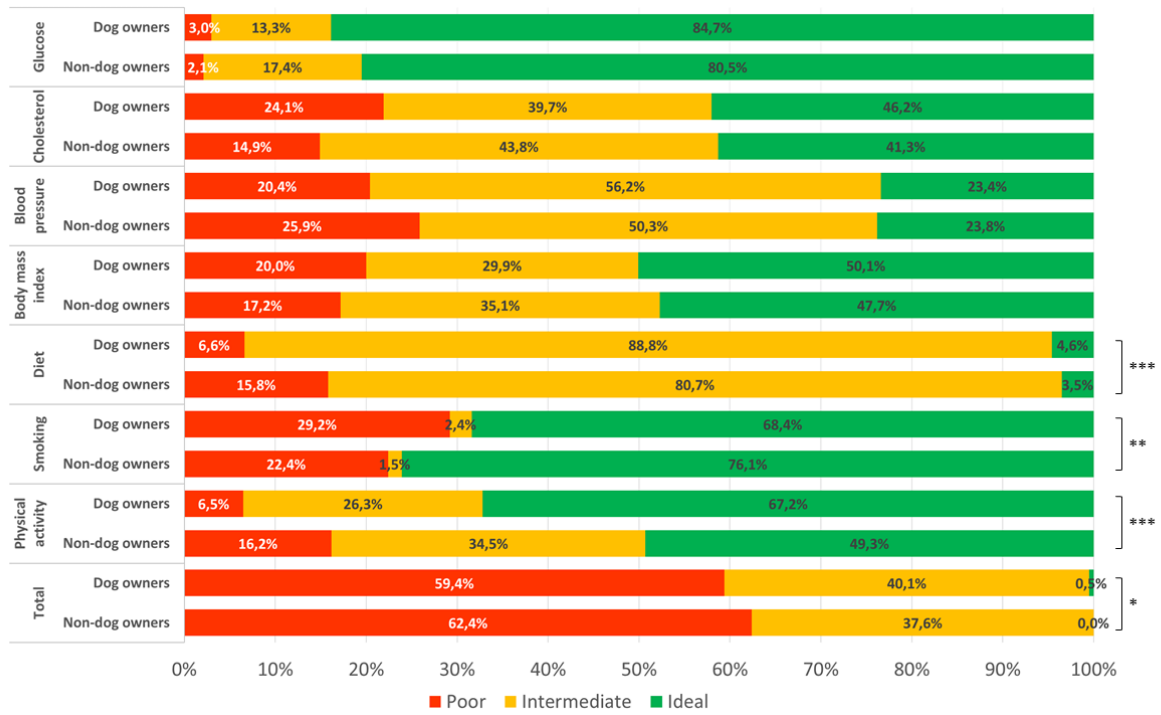
<sup>a</sup> Primary education or apprenticeship

<sup>b</sup> Defined as waist circumference  $\geq 102$  cm in men and  $\geq 88$  cm in women

<sup>c</sup> Computed as the sum of seven metrics defined by the American Heart Association (AHA)

Abbreviations: CVH = Cardiovascular health, CZK= Czech koruna, MET= Metabolic Equivalent for Task.

**Supplemental Figure 1.** Distribution of cardiovascular health metrics and comparison between dog owners and non-dog owners



\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  based on the Chi-Squared test