

Supplementary appendix 1

Table S1: Encoding of variables related to dietary habits

Elementary indicator	Response modes	Quantitative daily frequency
Food Categories	More than once a day	2
	Once a day	1
	Several times a week	2.5/7
	Less than once a week	3/28
	Never	0
Non-Alcoholic Drinks	Over one litre per day	1
	From 1/2 litre to 1 litre per day	0.5
	Less than 1/2 litre	0.25
	Less frequently	0
	Seasonally only	0
	I do not consume	0

Table S2: Encoding of variables related to physical activity

Elementary indicator	Response categories	Frequency
Physical Activity	Once or more a week	1-2/week
	Once or more a month	2-3/month
	Less frequently	0
Sports Activity	Five or more times a week	5+/week
	Three or four times a week	3-4/week
	Twice a week	1-2/week
	Once a week	1-2/week
	Two or three times a month	2-3/month
	Once a month	1/month
	Occasionally during the year	1/month



Table S3: Characteristics of the sample ($n = 32,600$) and estimated population size (N) after applying sampling weights (n =sample size after missing removal, N =population size before missing removal)

Variable	Levels	%	N (%)
Gender	Female	52.25	25,596,995 (51.72)
	Male	47.75	23,899,117 (48.28)
Age	18-19	2.35	1,184,828 (2.39)
	20-24	5.92	2,949,957 (5.96)
	25-34	11.24	6,194,782 (12.52)
	35-44	13.37	7,185,013 (14.52)
	45-54	18.99	9,303,917 (18.80)
	55-59	9.75	4,687,998 (9.47)
	60-64	8.60	4,065,038 (8.21)
	65-74	14.63	6,843,355 (13.83)
	75+	15.16	7,081,222 (14.31)
Marital Status	Single	31.59	15,906,715 (32.14)
	Married	48.72	23,867,856 (48.22)
	Separated, Divorced	9.12	4,652,503 (9.40)
	Widowed	9.61	4,612,386 (9.32)
	Missing	0.95	456,652 (0.92)
Educational Level	None/Elementary School	14.13	6,717,273 (13.57)
	Middle School Diploma	27.41	13,878,665 (28.04)
	High School Diploma	39.54	19,445,349 (39.29)
	Graduate/Postgraduate	17.42	8,739,261 (17.66)
	Missing	1.50	715,563 (1.45)
Geographical Region	North-east	21.32	9,696,826 (19.59)
	North-west	22.94	13,285,006 (26.84)
	Central	19.08	9,878,040 (19.96)
	South	26.88	11,207,238 (22.64)
	Islands	9.69	5,334,052 (10.78)
	Missing	0.09	94,949 (0.19)



Table S4: Pairwise comparisons of HLCI among age-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	18-19	20-24	25-34	35-44	45-54	55-59	60-64	65-74
20-24	1.00000	-	-	-	-	-	-	-
25-34	0.00419	0.03597	-	-	-	-	-	-
35-44	6.4e-09	2.9e-10	0.00135	-	-	-	-	-
45-54	1.5e-06	5.5e-07	0.43261	1.00000	-	-	-	-
55-59	0.00048	0.00266	1.00000	0.08958	1.00000	-	-	-
60-64	0.00306	0.03594	1.00000	0.00820	1.00000	1.00000	-	-
65-74	0.19436	1.00000	0.95643	2.1e-10	2.7e-06	0.07857	0.78464	-
75+	0.00014	0.00350	1.00000	7.7e-06	0.03447	1.00000	1.00000	0.23542

Table S5: Pairwise comparisons of the diet dimension among age-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	18-19	20-24	25-34	35-44	45-54	55-59	60-64	65-74
20-24	0.0914	-	-	-	-	-	-	-
25-34	1.0e-12	8.3e-09	-	-	-	-	-	-
35-44	< 2e-16	< 2e-16	0.0265	-	-	-	-	-
45-54	< 2e-16	< 2e-16	5.1e-12	0.0026	-	-	-	-
55-59	< 2e-16	< 2e-16	< 2e-16	2.7e-14	2.1e-05	-	-	-
60-64	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	0.0159	-	-
65-74	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	2.5e-09	0.7589	-
75+	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	6.3e-05	1.0000	1.0000

Table S6: Pairwise comparisons of the physical activity dimension among age-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	18-19	20-24	25-34	35-44	45-54	55-59	60-64	65-74
20-24	1.0000	-	-	-	-	-	-	-
25-34	0.0202	1.4e-07	-	-	-	-	-	-
35-44	< 2e-16	< 2e-16	< 2e-16	-	-	-	-	-
45-54	< 2e-16	< 2e-16	< 2e-16	1.0000	-	-	-	-
55-59	< 2e-16	< 2e-16	< 2e-16	0.0337	0.8300	-	-	-
60-64	< 2e-16	< 2e-16	< 2e-16	0.0014	0.0550	1.0000	-	-
65-74	< 2e-16	< 2e-16	< 2e-16	3.0e-13	8.1e-11	0.0053	0.2954	-
75+	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16

Table S7: Pairwise comparisons of the alcohol consumption dimension among age-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	18-19	20-24	25-34	35-44	45-54	55-59	60-64	65-74
20-24	0.00011	-	-	-	-	-	-	-
25-34	< 2e-16	1.2e-08	-	-	-	-	-	-
35-44	< 2e-16	3.1e-14	1.00000	-	-	-	-	-
45-54	< 2e-16	< 2e-16	0.06396	1.00000	-	-	-	-
55-59	< 2e-16	8.6e-12	1.00000	1.00000	1.00000	-	-	-
60-64	< 2e-16	< 2e-16	3.5e-07	0.00186	0.02833	0.03696	-	-
65-74	< 2e-16	< 2e-16	0.00380	1.00000	1.00000	1.00000	1.00000	-
75+	1.1e-07	1.00000	0.00046	1.7e-09	8.7e-14	5.4e-08	< 2e-16	3.0e-14

Table S8: Pairwise comparisons of the tobacco consumption dimension among age-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	18-19	20-24	25-34	35-44	45-54	55-59	60-64	65-74
20-24	0.00043	-	-	-	-	-	-	-
25-34	1.4e-07	1.00000	-	-	-	-	-	-
35-44	4.8e-10	0.00966	1.00000	-	-	-	-	-
45-54	5.0e-05	1.00000	1.00000	0.00155	-	-	-	-
55-59	0.00288	1.00000	0.13370	0.00028	1.00000	-	-	-
60-64	0.38260	0.42003	1.5e-05	1.5e-09	0.01424	1.00000	-	-
65-74	1.00000	4.7e-13	< 2e-16	< 2e-16	< 2e-16	6.3e-13	1.6e-05	-
75+	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16	< 2e-16

Table S9: Pairwise comparisons of the HLCI among Marital Status-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	Single	Married	Separated, Divorced
Married	1.000	-	-
Separated, Divorced	0.060	0.025	-
Widowed	0.032	0.010	3.9e-05

Table S10: Pairwise comparisons of the diet dimension among Marital Status-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	Single	Married	Separated, Divorced
Married	< 2e-16	-	-
Separated, Divorced	< 2e-16	1.00000	-
Widowed	< 2e-16	0.00074	0.00282

Table S11: Pairwise comparisons of the physical activity dimension among Marital Status-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	Single	Married	Separated, Divorced
Married	< 2e-16	-	-
Separated, Divorced	< 2e-16	8.2e-10	-
Widowed	< 2e-16	< 2e-16	< 2e-16

Table S12: Pairwise comparisons of the alcohol consumption dimension among Marital Status-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	Single	Married	Separated, Divorced
Married	1.7e-08	-	-
Separated, Divorced	0.0076	1.0000	-
Widowed	< 2e-16	< 2e-16	< 2e-16

Table S13: Pairwise comparisons of the tobacco consumption dimension among Marital Status-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	Single	Married	Separated, Divorced
Married	<2e-16	-	-
Separated, Divorced	0.35	<2e-16	-
Widowed	<2e-16	<2e-16	<2e-16

Table S14: Pairwise comparisons of the HLCl among educational level-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	None/Elementary School	Middle School Diploma	High School Diploma
Middle School Diploma	1.4e-12	-	-
High School Diploma	2.5e-06	< 2e-16	-
Graduate/Post Graduate	< 2e-16	< 2e-16	< 2e-16

Table S15: Pairwise comparisons of the diet dimension among educational level-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	None/Elementary School	Middle School Diploma	High School Diploma
Middle School Diploma	<2e-16	-	-
High School Diploma	<2e-16	1	-
Graduate/Post Graduate	1	<2e-16	<2e-16

Table S16: Pairwise comparisons of the physical activity dimension among educational level-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	None/Elementary School	Middle School Diploma	High School Diploma
Middle School Diploma	<2e-16	-	-
High School Diploma	<2e-16	<2e-16	-
Graduate/Post Graduate	<2e-16	<2e-16	<2e-16

Table S17: Pairwise comparisons of the alcohol consumption dimension among educational level-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	None/Elementary School	Middle School Diploma	High School Diploma
Middle School Diploma	< 2e-16	-	-
High School Diploma	< 2e-16	7.8e-09	-
Graduate/Post Graduate	< 2e-16	5.5e-11	0.27

P value adjustment method: bonferroni

Table S18: Pairwise comparisons of the tobacco consumption dimension among educational level-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	None/Elementary School	Middle School Diploma	High School Diploma
Middle School Diploma	< 2e-16	-	-
High School Diploma	< 2e-16	2.8e-05	-
Graduate/Post Graduate	< 2e-16	< 2e-16	< 2e-16

Table S19: Pairwise comparisons of the HLCl among geographical areas-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	North-east	North-west	Central	South
North-west	0.00010	-	-	-
Central	0.05635	1.00000	-	-
South	< 2e-16	< 2e-16	< 2e-16	-
Islands	4.7e-10	0.02156	0.00051	0.00160

Table S20: Pairwise comparisons of the diet dimension among geographical areas-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	North-east	North-west	Central	South
North-west	0.0822	-	-	-
Central	< 2e-16	< 2e-16	-	-
South	6.7e-07	0.0831	< 2e-16	-
Islands	7.7e-12	3.1e-06	0.0011	0.0088

Table S21: Pairwise comparisons of the physical activity dimension among geographical areas-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	North-east	North-west	Central	South
North-west	< 2e-16	-	-	-
Central	< 2e-16	4.7e-06	-	-
South	< 2e-16	< 2e-16	< 2e-16	-
Islands	< 2e-16	< 2e-16	< 2e-16	1

Table S22: Pairwise comparisons of the alcohol consumption dimension among geographical areas-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	North-east	North-west	Central	South
North-west	1	-	-	-
Central	1	1	-	-
South	< 2e-16	< 2e-16	< 2e-16	-
Islands	< 2e-16	< 2e-16	< 2e-16	8.2e-11

Table S23: Pairwise comparisons of the tobacco consumption dimension among geographical areas-groups using Wilcoxon rank sum test with continuity correction (p-values, adjustment method: Bonferroni)

	North-east	North-west	Central	South
North-west	0.437	-	-	-
Central	9.8e-05	0.119	-	-
South	0.038	1.000	0.785	-
Islands	0.010	0.833	1.000	1.000



Section S2 Pairwise comparison questions for experts

For each pair of factors considered (diet, physical or sports activity, tobacco consumption, and alcohol consumption), we will ask you which of the two factors you consider more important in pursuing a healthy lifestyle and how much more important this factor is compared to the other on a scale from 1 to 9.

Importance Definition

- 1 A and B are equally important
- 3 A is slightly more important than B
- 5 A is moderately more important than B
- 7 A is strongly more important than B
- 9 A is extremely more important than B
- 1) What do you consider more important between a proper diet and moderate alcohol consumption in pursuing a healthy lifestyle?
- 1.1) To what extent do you consider factor A more important than factor B?
- 2) What do you consider more important between a proper diet and not smoking in pursuing a healthy lifestyle?
- 2.1) To what extent do you consider factor A more important than factor B?

- 3) What do you consider more important between a proper diet and engaging in physical or sports activity in pursuing a healthy lifestyle?
- 3.1) To what extent do you consider factor A more important than factor B?
- 4) What do you consider more important between moderate alcohol consumption and not smoking in pursuing a healthy lifestyle?
- 4.1) To what extent do you consider factor A more important than factor B?
- 5) What do you consider more important between moderate alcohol consumption and engaging in physical or sports activity in pursuing a healthy lifestyle?
- 5.1) To what extent do you consider factor A more important than factor B?
- 6) What do you consider more important between not smoking and engaging in physical or sports activity in pursuing a healthy lifestyle?
- 6.1) To what extent do you consider factor A more important than factor B?
- 7) What do you consider more important between a healthy diet and moderate alcohol consumption in pursuing a healthy lifestyle?
- 7.1) To what extent do you consider factor A more important than factor B?

