

Supplementary Materials

Association Between Clinical Characteristics and Telomere Length - Factor Analysis of Mixed Data (FAMD)-based cluster analysis

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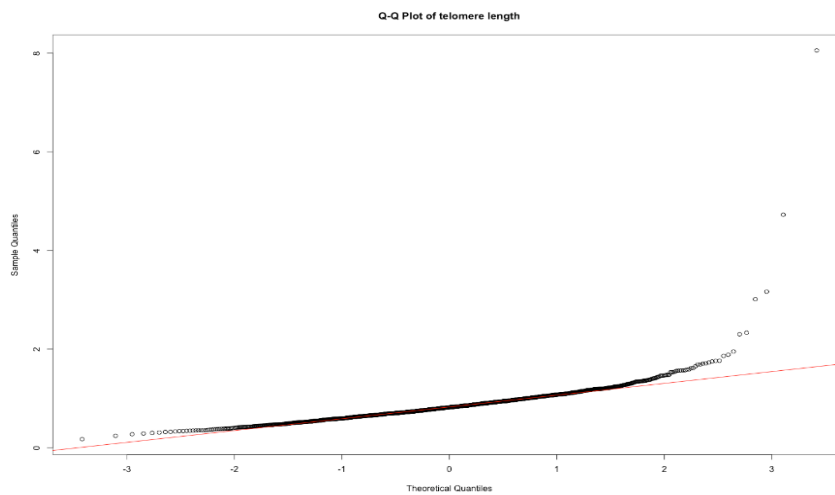
*Equally contributed first authors

Supplementary Table S1. Primer sequences used in this study.

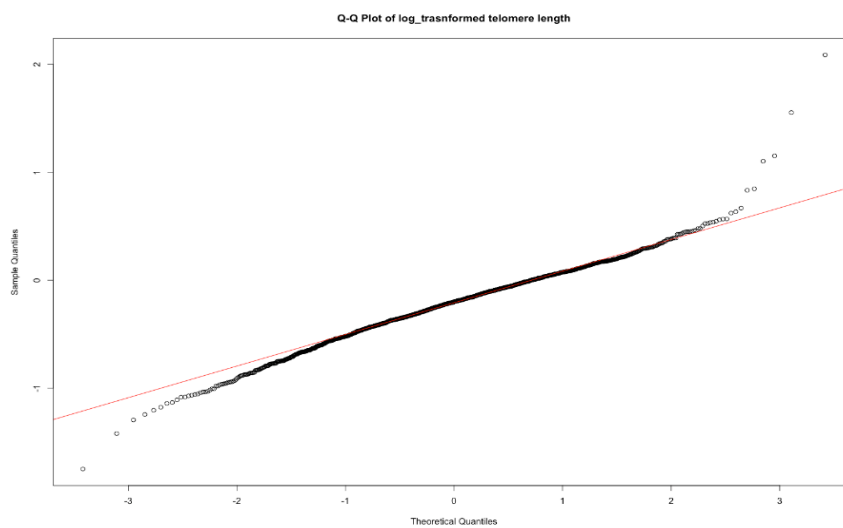
telg	5'-ACACTAAGGTTTGGGTTTGGGTTTGGGTTAGTGT-3'
telc	5'-TGTTAGGTATCCCTATCCCTATCCCTATCCCTATCCCTAACA-3', 500 nM
albugcr1	5'-CGGCGGCGGGCGGCGGGCTGGGCGGCCATGCTTTTCAGC TCTGCAAGTC-3'
albdgcr2	5'-GCCCCGCCCCGCCGCGCCCGTCCCGCCGAGCATTAAAGCTCTTTGGCAACGTAGGTTTC-3', 900 nM

Supplementary Figure S1. QQ-plot of telomere length.

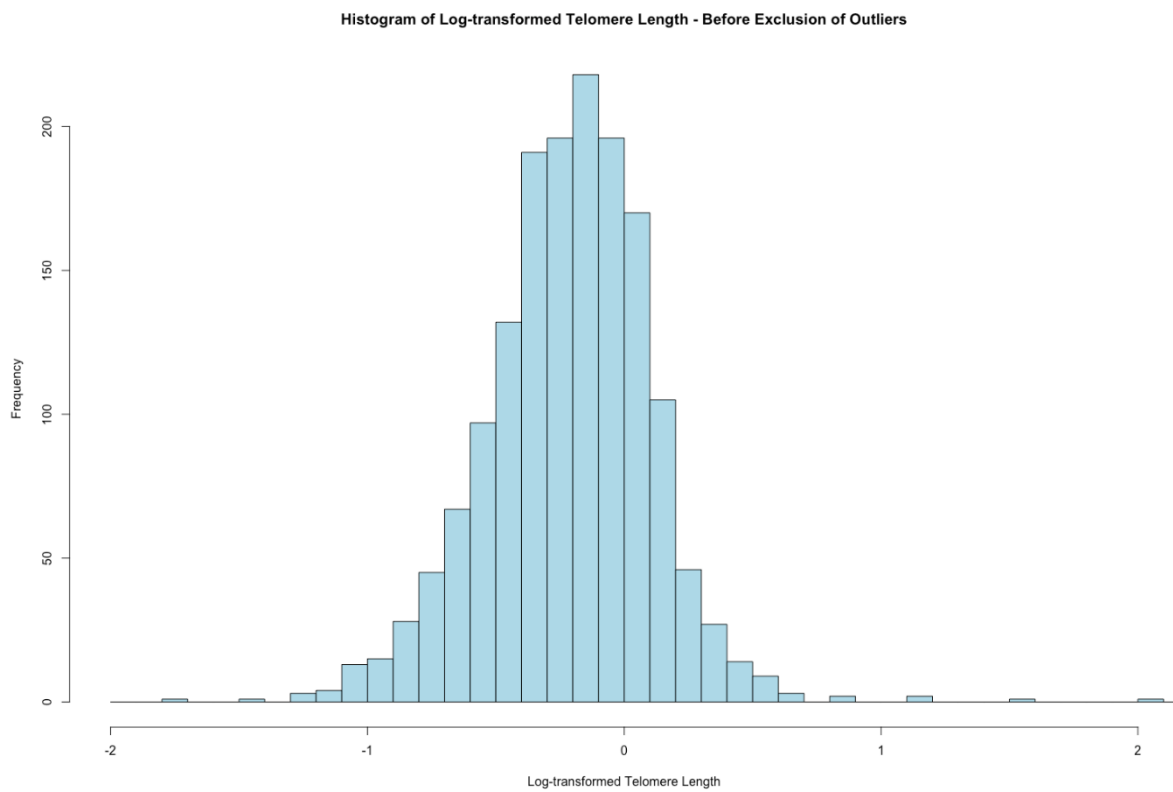
A)



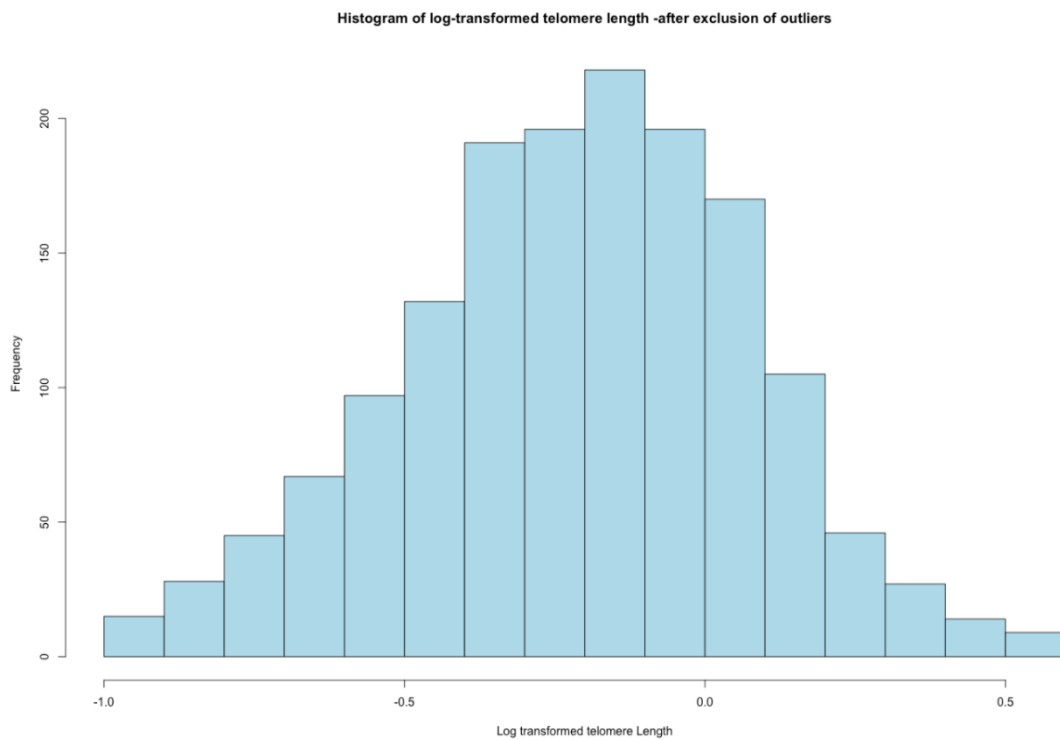
B)



Supplementary Figure S2. Histogram of log-transformed telomere length before the exclusion of outliers.



Supplementary Figure S3. Histogram of log-transformed telomere length after the exclusion of outliers.



Supplementary Table S2. Comparison of Cardiovascular Risk Factors and Lipid Profiles in the LIPIDOGEN 2015 and LIPIDOGRAM 2015 Studies.

	LIPIDOGEN 2015	LIPIDOGRAM 2015		
Characteristic	N = 1,556 ¹	N = 13,700 ¹	Effect Size (SMD ² / Cliff's Delta / RD ³)	
Age	51 (13)	56 (14)	SMD:	-0.416
Female Sex	939 (60%)	8,684 (63%)	RD:	-0.0304
Place of residence	858 (55%)	7,016 (51%)	RD:	0.0393
Secondary or higher education	1,148 (74%)	7,927 (58%)	RD:	0.159
Waist circumference [cm]	94 (14)	95 (14)	SMD:	-0.0992
BMI [kg/m ²]	28.1 (4.9)	28.5 (5.1)	SMD:	-0.0735
Previous myocardial infarction	59 (3.8%)	625 (4.6%)	RD:	-0.0077
Family history of CV disease	706 (45%)	4,669 (34%)	RD:	0.113
Smoking	252 (16%)	2,298 (17%)	RD:	-0.00578
Alcohol	1,131 (73%)	8,976 (66%)	RD:	0.0717
Diabetes Mellitus	229 (15%)	1,842 (13%)	RD:	0.0127
Glucose [mmol/l]	98 (90,109)	99 (90,109)	Cliff's Delta:	-0.0122
Hypertension	650 (42%)	6,781 (49%)	RD:	-0.0772
Metabolic syndrome	781 (50%)	7,462 (54%)	RD:	-0.0427
Dyslipidemia	1,122 (72%)	9,904 (72%)	RD:	-0.00184
Fibrate	83 (5.3%)	463 (3.4%)	RD:	0.0195
Statin	423 (27%)	4,077 (30%)	RD:	-0.0257
Total Cholesterol [mmol/l]	5.36 (1.18)	5.24 (1.15)	SMD:	0.108
HDL-C [mmol/l]	1.36 (1.14, 1.69)	1.37 (1.14, 1.65)	Cliff's Delta:	0.0172
			SMD:	0.0343
LDL-C [mmol/l]	3.22 (0.98)	3.14 (0.94)	SMD:	0.0849
Triglycerides [mmol/l]	1.43 (1.02, 2.00)	1.38 (1.01, 1.93)	Cliff's Delta:	0.0218
Non-HDL-C [mmol/l]	3.93 (1.13)	3.82 (1.09)	SMD:	0.101
Remnant-C > 0.77 mmol/l	421 (27%)	3,451 (25%)	—	

	LIPIDOGEN 2015	LIPIDOGRAM 2015		
Characteristic	N = 1,556 ¹	N = 13,700 ¹	Effect Size (SMD ² / Cliff's Delta / RD ³)	
Remnants [mmol/l]	0.61 (0.49, 0.79)	0.60 (0.48, 0.77)	Cliff's Delta:	0.0309
SBP [mmHg]	126 (120, 140)	130 (120, 140)	Cliff's Delta:	-0.117
			SMD:	-0.193
DBP [mmHg]	80 (70, 85)	80 (73, 87)	Cliff's Delta:	-0.0459
			SMD:	-0.0863
CKD	37 (2.4%)	384 (2.8%)	RD:	-0.00425
Physical activity	706 (45%)	5,526 (40%)	RD:	0.0504
Atrial fibrillation	40 (2.6%)	707 (5.2%)	RD:	-0.0259

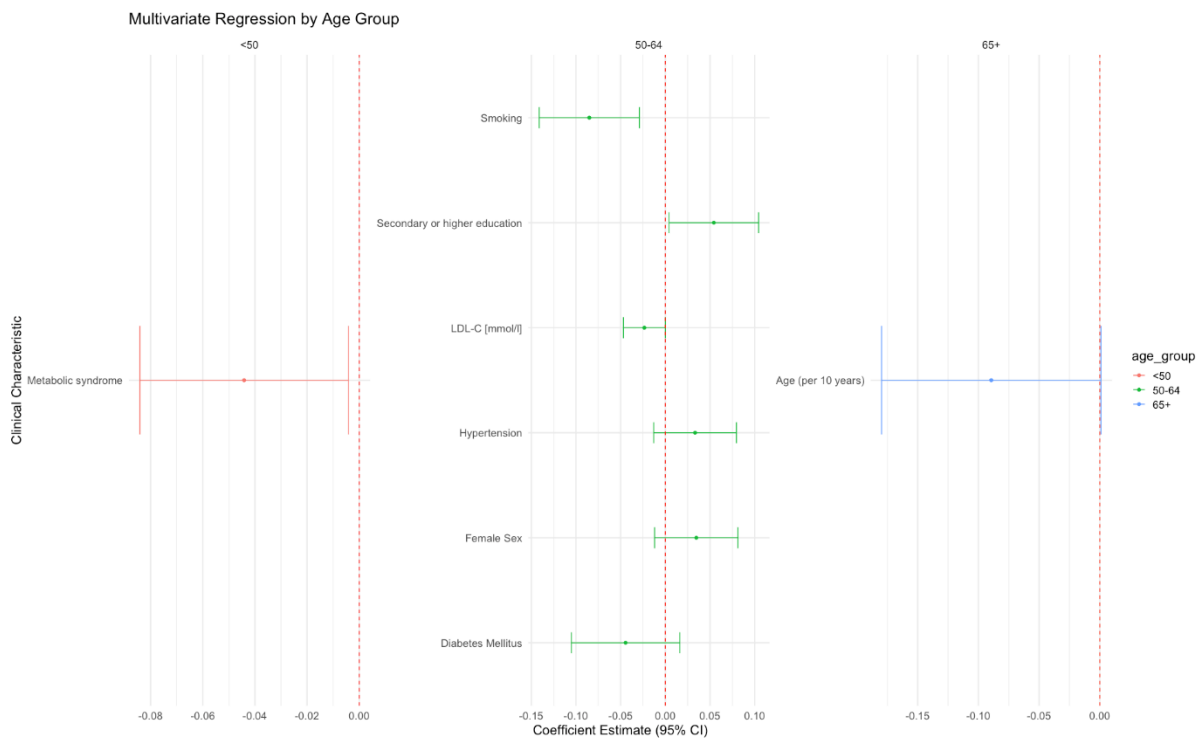
¹Mean (SD); n (%); Median (Q1,Q3); Median (Q1, Q3)

²Standardized Mean Difference (SMD)

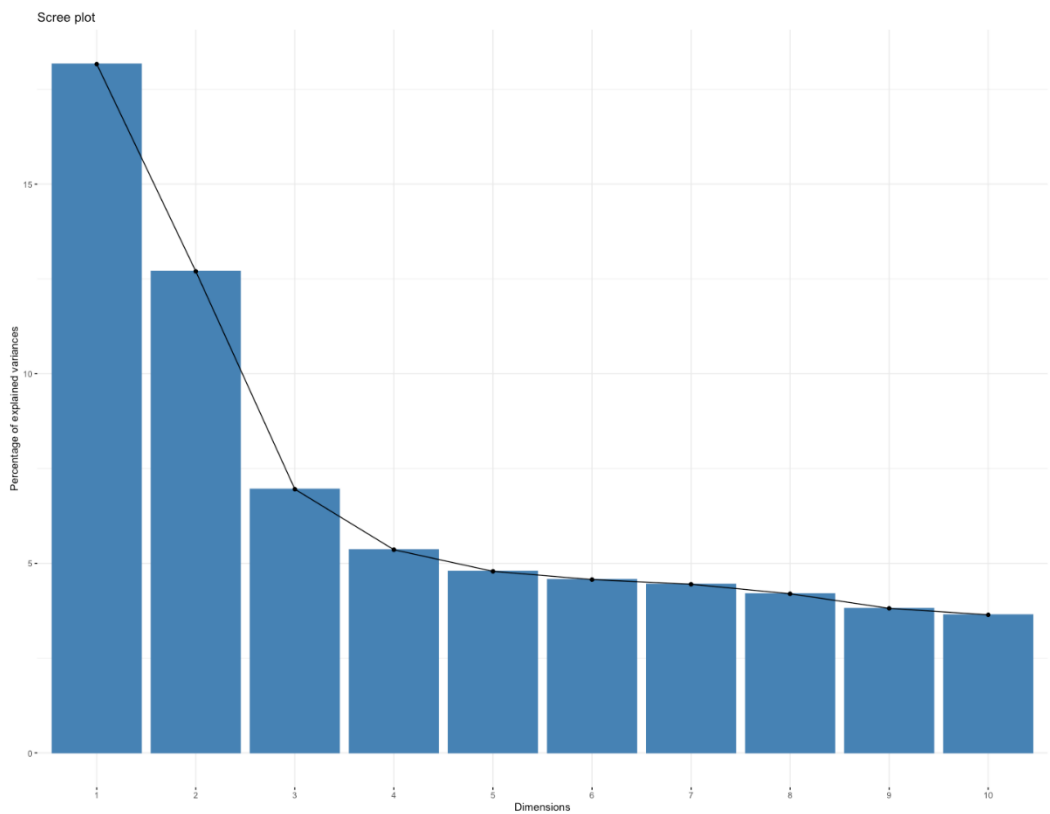
³Risk Difference (RD)

SI conversion factors: to convert glucose to mmol/l, multiply by 0.0555

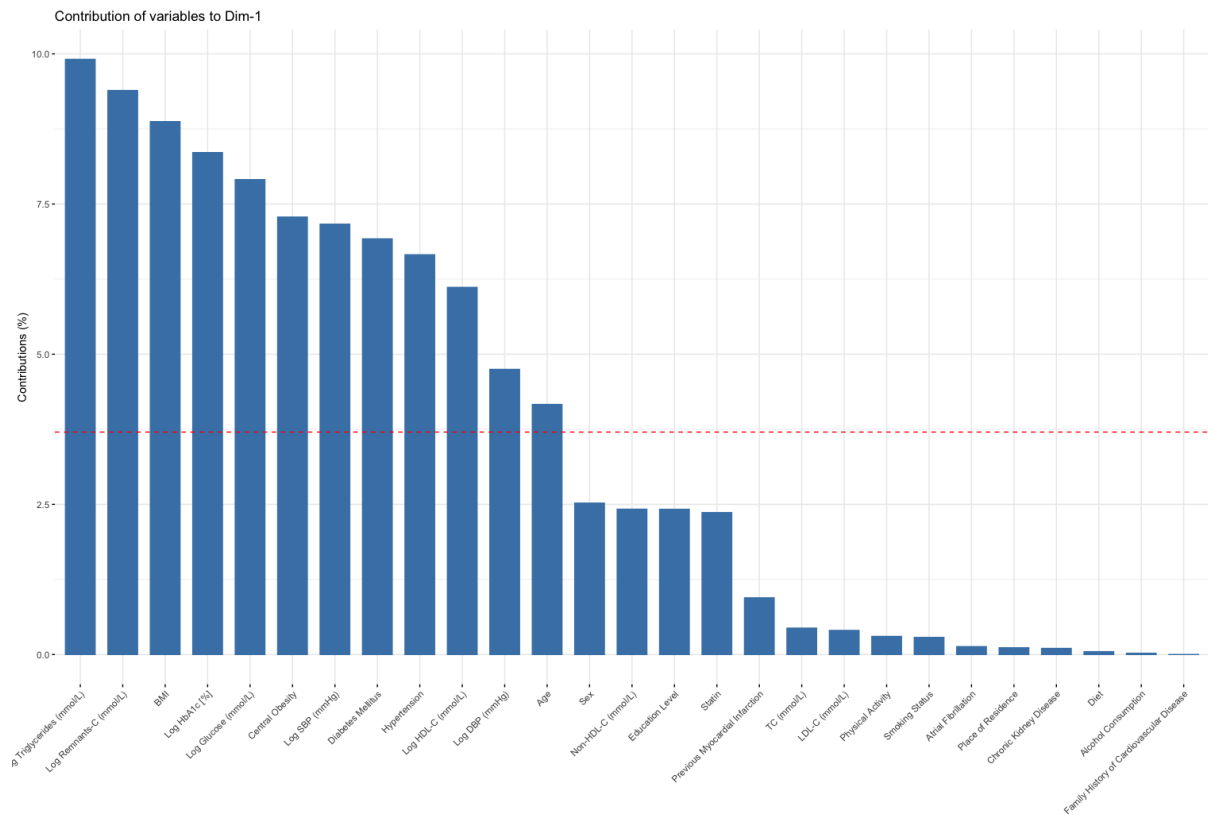
Supplementary Figure S4. Results of multivariate Regression by Age Group.



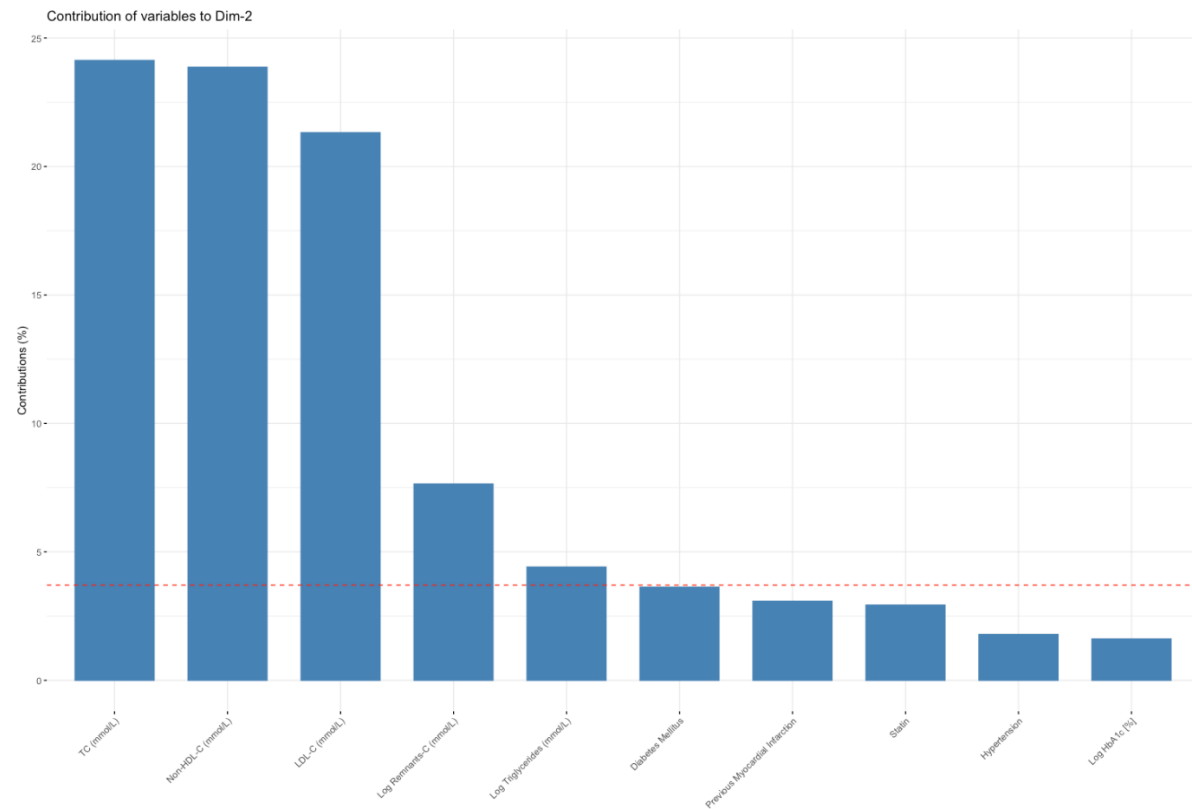
Supplementary Figure S5. The proportion of variance of the data retained by different dimension numbers.



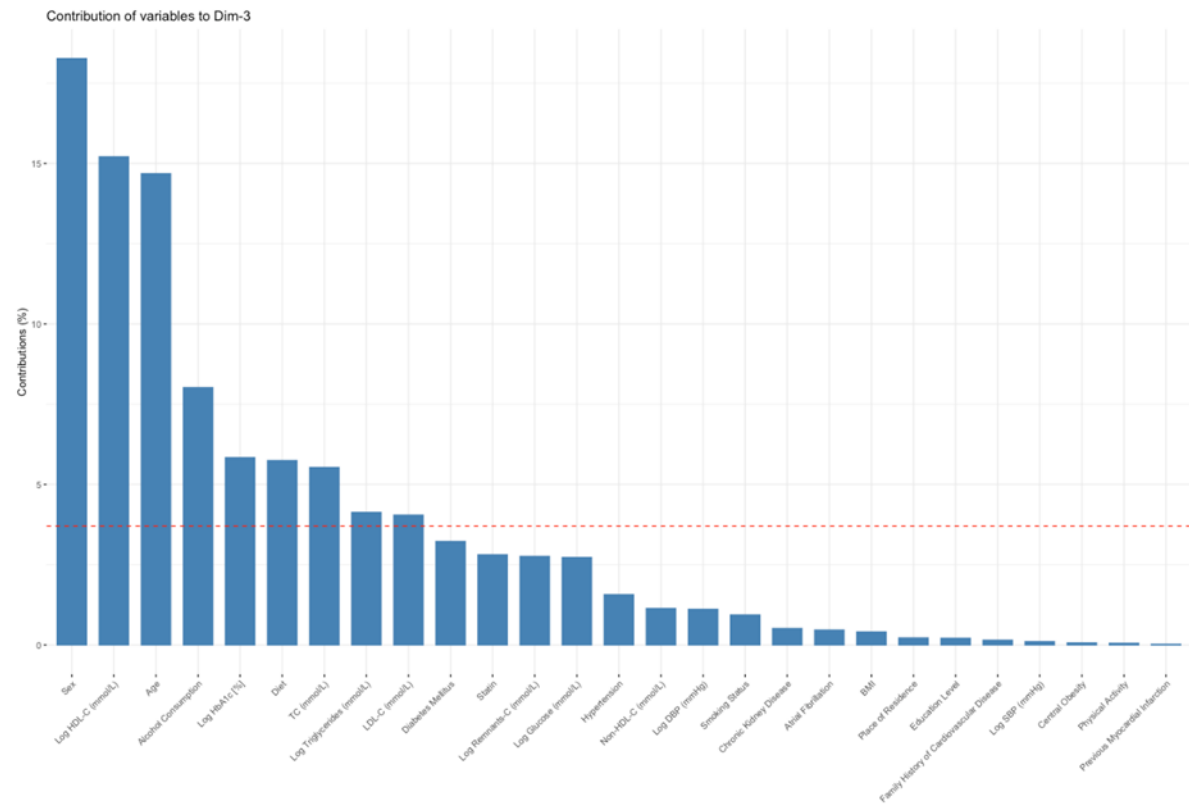
Supplementary Figure S6A. Variables contributing to dimension 1 – “Metabolic syndrome and cardiovascular risk factors”.



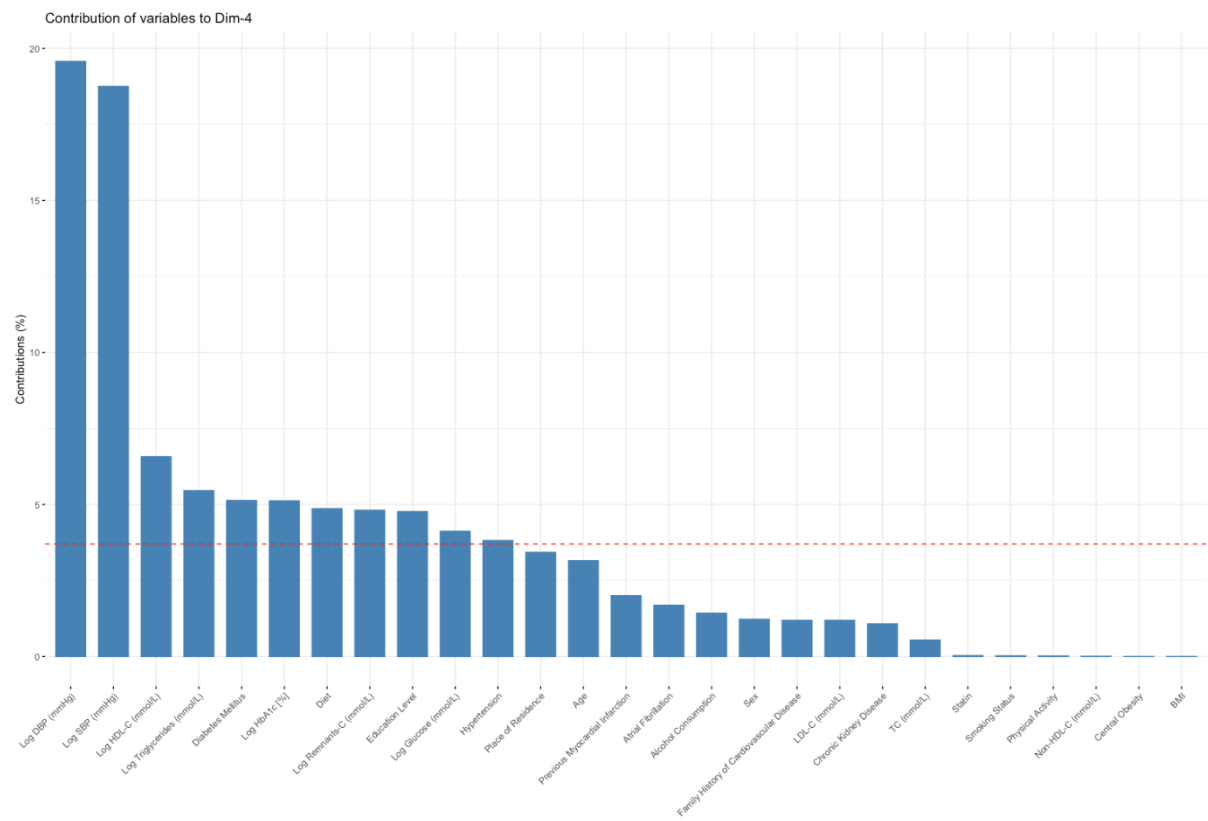
Supplementary Figure S6B. Variables contributing to dimension 2 – “Lipid profile”.



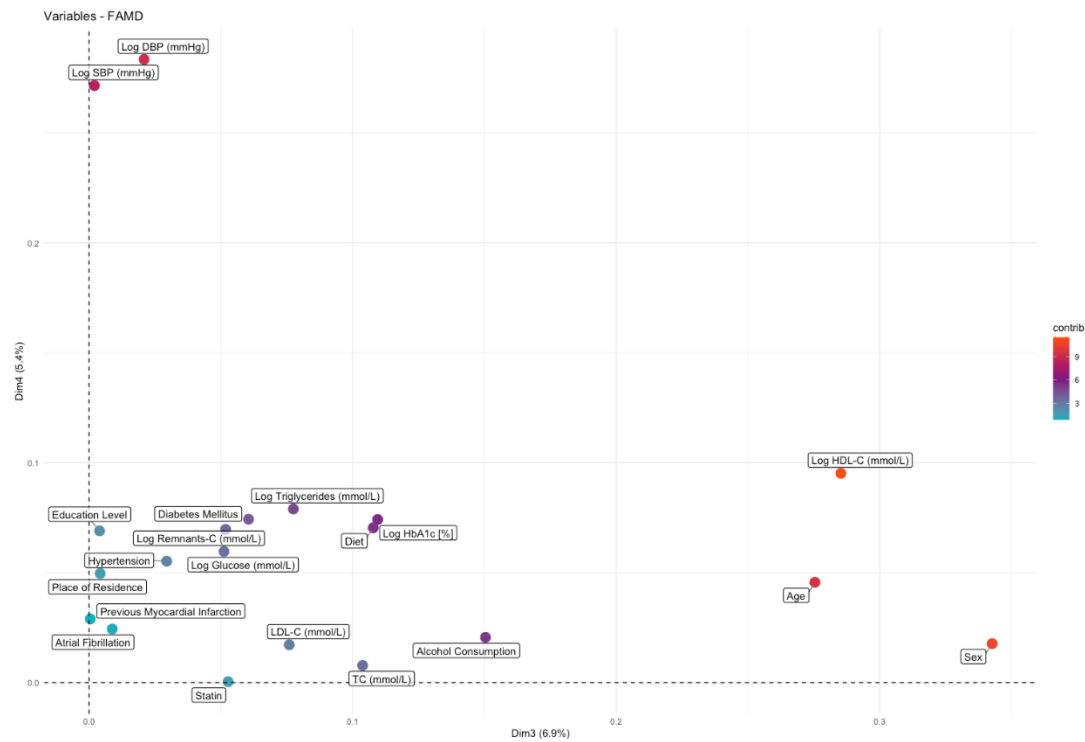
Supplementary Figure S6C. Variables contributing to dimension 3 – “Demographic and lifestyle factors.”



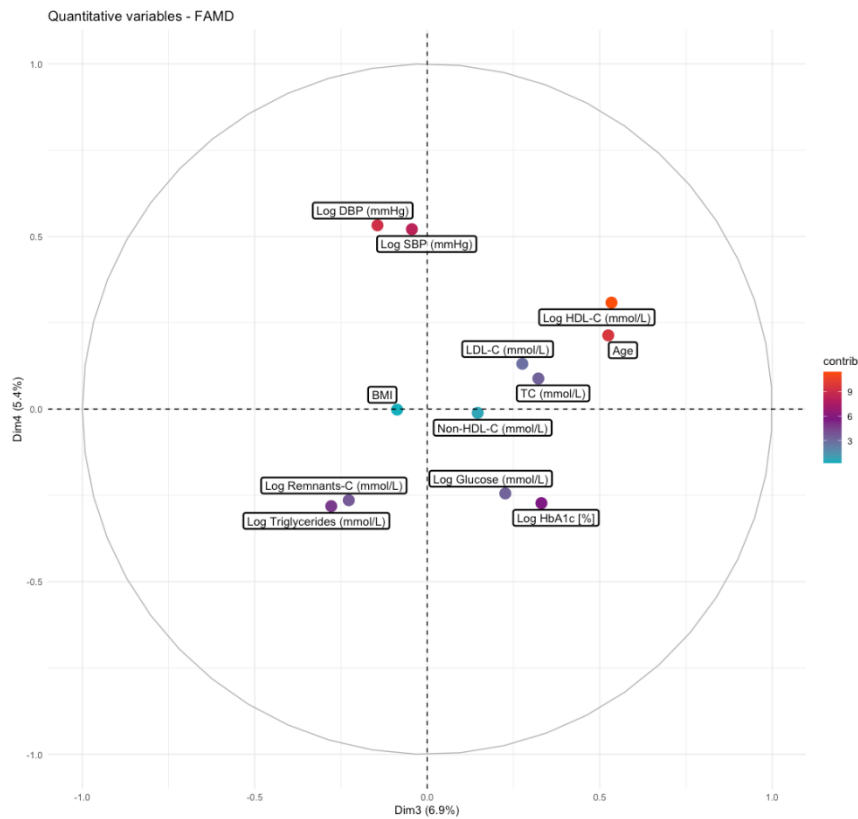
Supplementary Figure S6D. Variables contributing to dimension 4 - “Blood pressure and lipid metabolism”.



Supplementary Figure S7A. The contributions of variables – quantitative and qualitative – to principal 3rd and 4th dimensions. FAMD – factor analysis of mixed data.



Supplementary Figure S7B. The strength and direction of correlations between continuous variables and the 3rd and the 4th dimension.



Supplementary Figure S7C. The strength and direction of correlations between categorical variables and the 3rd and 4th dimension.

