

Table S3 Plasma concentrations of biomarkers by the FRAILOMIC cohorts

Biomarker	3-C	AMI	TSHA	InC	<i>p</i>
Vitamin D₃ , nmol/L	41.6 (39.6- 3.8) ^a	37.0 (34.7-39.5) ^b	47.1 (44.6-49.7) ^c	41.0 (38.4-43.8) ^{a,b}	< 0.001
Retinol , μmol/L	2.04 (1.99-2.09) ^a	2.01 (1.95-2.07) ^a	1.69 (1.65-1.74) ^b	1.76 (1.70-1.82) ^a	< 0.001
α-Tocopherol , μmol/L	30.8 (30.1-31.5) ^a	25.9 (25.0-26.8) ^b	31.3 (30.6-32.1) ^a	27.9 (27.0-28.9) ^c	< 0.001
γ-Tocopherol , μmol/L	1.34 (1.29-1.40) ^a	1.26 (1.20-1.34) ^{a,b}	1.00 (0.96-1.05) ^c	1.17 (1.11-1.24) ^b	< 0.001
α-Carotene , μmol/L	0.22 (0.20-0.23) ^a	0.23 (0.21-0.25) ^a	0.08 (0.07-0.08) ^b	0.05 (0.04-0.05) ^c	< 0.001
β-Carotene , μmol/L	0.62 (0.58-0.66) ^a	0.59 (0.54-0.64) ^a	0.34 (0.32-0.37) ^b	0.19 (0.18-0.21) ^c	< 0.001
Lycopene , μmol/L	0.34 (0.32-0.36) ^a	0.40 (0.37-0.44) ^b	0.55 (0.51-0.59) ^c	0.18 (0.16-0.19) ^d	< 0.001
Lutein/Zeaxanthin , μmol/L	0.35 (0.34-0.37) ^a	0.41 (0.39-0.43) ^b	0.29 (0.28-0.31) ^c	0.27 (0.25-0.29) ^c	< 0.001
β-Cryptoxanthin , μmol/L	0.23 (0.22-0.25) ^a	0.15 (0.14-0.17) ^b	0.29 (0.27-0.32) ^c	0.12 (0.11-0.13) ^d	< 0.001
Protein Carbonyls , nmol/mg	0.41 (0.39-0.42) ^a	0.23 (0.22-0.24) ^b	0.27 (0.26-0.28) ^c	0.29 (0.28-0.31) ^c	< 0.001
3-Nitrotyrosine , pmol/mg	4.85 (4.54-5.17) ^a	8.82 (8.13-9.57) ^b	7.67 (7.16-8.21) ^b	10.4 (9.52-11.3) ^c	< 0.001

All results reported geometric means (95% confidence interval). Superscript letters indicate statistical significant differences between cohorts by unadjusted GLM; n=1448, except VD₃: n=1450, 3-NT: n=1441 and PrCarb: n=1455; *P* < 0.05.

Associations of vitamins D₃, A, E, carotenoids and biomarkers of oxidative stress with frailty status in the FRAILOMIC initiative

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