



Figure S1

Table S1. Food consumption in male and female nonagenarians.

Foods	Mean rank		<i>P</i> -value (Mann–Whitney <i>U</i> test)
	Females (N = 89)	Males (N = 61)	
Beef/pork meat	1.82	2.30	0.004
Sheep/goat meat	2.07	2.50	0.040
Chicken meat	1.55	1.62	0.304
Fish	1.58	1.59	0.872
Pulses	3.82	3.61	0.024
Greens	3.31	3.26	0.777
Fresh fruit	3.82	3.23	0.001
Bread	4.88	4.64	0.019
Pasta	3.62	3.31	0.015
Potatoes	4.36	4.00	0.001
Olive oil	2.67	2.95	0.042
Lard	3.12	3.39	0.066
Sweets	2.46	2.02	0.018
Cheese	4.82	4.90	0.168
Milk	4.88	4.59	0.111
Coffee	3.55	3.82	0.069

Table S2. Mean value of health indicators.

Health indicators	Males (N=61)	Females (N=89)
Overall		
Self-rated health (1-5)	4.13	2.42
CIRS (0-6)	2.20	1.85
Mental health		
MMSE (0-30)	19.07 ± 6.61	20.28 ± 5.34
GDS (0-2)	0.50 ± 0.82	0.32 ± 0.69
Functional capacity in activities of daily living		
BADL (0-6)	3.79 ± 1.52	3.69 ± 1.53
IADL (0-11)	3.93 ± 3.42	3.87 ± 3.43
Mobility		
Composite score (0-4)	3.02 ± 0.93	2.01 ± 1.10
Sense organs		
Hearing score (1-4)	1.95 ± 0.92	2.31 ± 0.96
Vision score (1-4)	2.08 ± 1.11	2.60 ± 1.05
Anthropometry		
Weight (kg)	61.0 ± 8.1	56.6 ± 7.6
Height (cm)	163.5 ± 4.1	154.6 ± 3.0
Body mass index (kg/m ²)	22.8 ± 3.1	23.7 ± 3.3
Waist circumference (cm)	94.9 ± 9.7	100.4 ± 6.7
Arm circumference (cm)	28.1 ± 3.6	26.0 ± 3.0
Calf circumference (cm)	33.7 ± 3.1	30.9 ± 4.0
Leg length (cm)	41.2 ± 3.6	37.9 ± 2.9

* P<0.05; ** p<0.01

Table S3. Spearman’s coefficients for the association between food frequency and health indicators. Significant effects are highlighted in bold.

Health indicators	Beef /pork meat	Sheep /goat meat	Chicken meat	Fish	Pulses	Leafy greens	Fresh fruit	Bread	Pasta	Potatoes	Olive oil	Lard	Sweets	Mature cheese	Milk	Coffee
Overall																
Self-rated health	0.042	-0.135	0.072	-0.001	-0.115	-0.040	-0.194	-0.151	0.012	-0.143	0.070	0.217	-0.320	0.209	-0.004	0.098
CIRS	0.031	-0.109	-0.230	0.021	0.035	0.049	-0.093	-0.070	-0.362	-0.135	-0.065	0.077	0.000	-0.053	0.223	0.064
Mental health																
MMSE	-0.070	0.370	0.118	0.193	-0.251	-0.023	-0.018	0.016	0.223	-0.146	0.049	-0.004	-0.246	0.230	0.108	-0.027
GDS	-0.114	-0.199	-0.181	0.068	0.143	0.101	0.244	0.172	-0.067	0.186	-0.046	-0.213	0.039	0.166	-0.011	-0.010
Functional capacity in activities of daily living																
BADL	0.263	0.080	0.284	0.154	-0.050	0.093	0.217	0.210	0.055	0.178	-0.064	0.078	-0.183	0.224	-0.051	-0.112
IADL	0.155	0.092	0.245	0.156	-0.107	-0.034	0.199	0.168	0.091	0.130	-0.047	-0.055	-0.195	0.128	-0.009	-0.072
Mobility																
Composite score	0.072	-0.102	0.162	0.033	-0.140	-0.009	-0.058	0.071	0.085	-0.103	0.045	0.172	-0.286	0.141	0.004	0.049
Sense organs																
Hearing	-0.051	-0.113	-0.035	0.040	0.048	-0.012	-0.058	-0.056	-0.089	0.007	-0.152	-0.089	0.160	-0.163	0.094	0.073
Vision	-0.101	-0.213	-0.259	-0.172	0.060	-0.101	-0.204	-0.075	0.035	0.069	-0.145	0.106	0.140	-0.160	0.153	-0.082
Anthropometry																
Weight	0.287	0.050	0.302	0.069	-0.089	-0.042	0.048	-0.012	0.088	0.162	0.041	-0.063	-0.248	0.039	-0.134	0.013
Height	0.171	-0.096	0.099	0.019	-0.135	0.003	-0.119	-0.025	-0.139	-0.125	0.093	0.121	-0.173	0.138	-0.020	0.139
Body mass index	0.216	0.118	0.229	0.053	-0.014	-0.009	0.169	0.040	0.137	0.231	-0.007	-0.112	-0.179	-0.037	-0.089	-0.025
Waist circumference	0.039	0.094	0.112	-0.010	0.004	0.106	0.092	0.162	0.014	-0.096	-0.046	-0.120	-0.107	0.014	0.158	-0.069
Arm circumference	0.301	0.181	0.371	0.176	0.020	-0.002	0.077	0.026	-0.200	-0.143	-0.017	-0.153	0.026	0.149	-0.076	0.177
Calf circumference	0.308	0.062	0.301	0.179	0.078	-0.014	0.071	0.037	-0.107	-0.157	0.003	-0.041	-0.039	0.215	-0.059	0.089
Leg length	0.172	0.068	0.285	-0.030	-0.027	-0.009	-0.015	-0.005	-0.181	-0.230	0.166	-0.200	-0.013	0.160	0.092	0.051

Table S4. Spearman’s coefficients for the association between variation in food frequency and health indicators. Significant effects are highlighted in bold.

Health indicators	Beef /pork meat	Sheep /goat meat	Chicken meat	Fish	Pulses	Leafy greens	Fresh fruit	Bread	Pasta	Potatoes	Olive oil	Lard	Sweets	Mature cheese	Milk	Coffee
Overall																
Self-rated health	0.082	-0.036	-0.100	0.044	-0.005	0.042	-0.171	-0.196	-0.035	-0.092	0.519	-0.249	0.021	-0.095	-0.122	0.139
CIRS	0.066	-0.147	-0.424	-0.036	0.112	-0.119	-0.198	0.103	-0.331	-0.152	-0.174	0.167	-0.070	0.026	0.300	-0.060
Mental health																
MMSE	0.071	0.358	0.167	0.128	-0.259	0.110	-0.079	-0.006	0.177	-0.059	0.108	-0.211	-0.034	0.039	-0.172	0.173
GDS	-0.130	-0.089	-0.186	-0.035	-0.152	-0.052	0.098	-0.111	-0.069	0.102	-0.167	-0.082	-0.144	0.161	0.025	-0.074
Functional capacity in activities of daily living																
BADL	0.208	0.175	0.351	0.100	-0.019	-0.016	-0.002	-0.068	0.155	0.167	0.126	-0.217	0.020	-0.165	-0.100	0.150
IADL	0.116	0.229	0.333	0.047	-0.060	-0.071	-0.012	0.017	0.194	0.079	-0.057	-0.236	0.005	-0.237	0.012	0.130
Mobility																
Composite score	0.044	0.013	0.018	0.000	-0.038	-0.004	-0.005	-0.078	-0.029	-0.010	0.502	-0.198	-0.010	-0.157	-0.177	0.157
Sense organs																
Hearing	-0.087	-0.004	-0.118	0.122	-0.018	-0.016	-0.022	0.029	0.090	0.148	-0.314	0.160	-0.070	0.062	0.172	-0.204
Vision	-0.027	-0.041	-0.073	0.142	-0.006	0.015	-0.017	0.033	0.164	0.265	-0.227	0.121	-0.033	0.158	0.111	-0.270
Anthropometry																
Weight	0.392	0.181	0.331	0.146	-0.114	-0.082	-0.075	0.006	0.120	-0.093	-0.019	-0.058	-0.176	-0.018	0.051	0.009
Height	0.131	-0.185	-0.146	-0.178	0.158	-0.043	-0.323	0.015	-0.195	-0.223	0.036	0.162	0.027	-0.087	0.215	0.221
Body mass index	0.318	0.268	0.347	0.244	-0.242	-0.075	0.113	0.007	0.186	0.056	-0.012	-0.125	-0.207	0.058	-0.095	-0.104
Waist circumference	0.051	-0.105	0.002	0.107	-0.115	-0.030	0.066	0.137	-0.157	-0.239	-0.276	0.019	-0.142	0.147	0.295	-0.119
Arm circumference	0.204	0.025	-0.083	-0.017	-0.022	-0.059	-0.052	-0.211	-0.231	-0.150	-0.031	0.023	0.044	-0.139	0.093	0.063
Calf circumference	0.277	0.030	0.036	-0.037	0.034	-0.010	-0.132	-0.130	-0.118	-0.229	0.129	-0.060	-0.040	-0.103	0.159	0.121
Leg length	0.053	-0.063	-0.020	-0.290	0.061	0.029	-0.090	0.226	-0.373	-0.369	-0.226	0.223	0.013	0.106	0.276	0.230

Table S5. Spearman’s coefficients for the association between variation in food frequency and health indicators in males. Significant effects are highlighted in bold.

Health indicators	Beef /pork meat	Sheep /goat meat	Chicken meat	Fish	Pulses	Greens	Fresh fruit	Bread	Pasta	Potatoes	Olive oil	Lard	Sweets	Mature cheese	Milk	Coffee
Overall																
Self-rated health	-0.257	-0.072	-0.111	0.429	-0.163	0.131	-0.091	-0.153	0.276	0.216	0.683	-0.513	-0.089	0.000	-0.325	-0.193
CIRS	-0.072	-0.078	-0.308	0.049	0.084	-0.028	0.030	0.211	-0.451	-0.176	-0.312	0.243	-0.373	0.044	0.314	0.137
Mental health																
MMSE	0.142	0.647	0.290	0.013	-0.401	-0.256	-0.137	-0.057	0.278	-0.183	0.071	-0.260	-0.173	0.000	-0.276	0.320
GDS	-0.121	0.425	-0.429	-0.404	-0.298	-0.120	0.186	-0.282	-0.299	-0.308	0.203	-0.024	-0.133	0.100	-0.130	0.110
Functional capacity in activities of daily living																
BADL	0.556	0.129	0.387	0.052	-0.218	-0.209	-0.114	-0.115	0.193	0.098	0.059	-0.096	-0.037	-0.299	-0.149	-0.012
IADL	0.396	0.160	0.453	-0.036	-0.317	-0.161	-0.194	0.015	0.129	-0.030	0.004	-0.044	-0.042	-0.294	-0.122	-0.050
Mobility																
Composite score	0.131	0.098	0.210	0.181	-0.202	-0.180	-0.271	-0.038	0.173	0.143	0.383	-0.371	-0.108	-0.264	-0.310	-0.064
Sense organs																
Hearing	-0.084	-0.119	-0.203	0.048	0.295	0.128	-0.075	-0.039	0.114	0.068	-0.241	0.291	0.083	0.209	0.244	0.228
Vision	-0.108	-0.248	-0.022	0.088	0.376	0.301	-0.229	-0.064	0.225	0.277	-0.272	0.185	0.249	0.177	0.247	0.117
Anthropometry																
Weight	0.418	0.276	0.245	0.297	-0.314	-0.201	-0.009	0.022	0.327	0.150	0.097	-0.178	-0.244	-0.166	-0.006	0.018
Height	-0.039	-0.236	0.123	0.132	-0.161	-0.212	-0.217	0.209	-0.120	0.106	-0.098	0.242	-0.042	-0.165	0.253	-0.107
Body mass index	0.446	0.385	0.200	0.225	-0.338	-0.186	0.061	-0.029	0.330	0.091	0.151	-0.268	-0.256	-0.143	-0.109	0.031
Waist circumference	0.224	-0.215	-0.087	0.001	0.164	0.201	0.163	0.075	-0.281	-0.445	-0.316	0.040	-0.224	0.451	0.503	-0.149
Arm circumference	0.105	-0.089	-0.285	-0.141	-0.292	-0.315	0.278	-0.259	-0.190	-0.086	-0.104	0.036	0.148	-0.216	-0.166	-0.147
Calf circumference	0.460	-0.087	0.022	-0.063	-0.386	-0.361	0.242	-0.074	-0.110	-0.128	0.057	-0.122	-0.060	-0.114	0.107	0.045
Leg length	-0.061	-0.029	-0.063	-0.217	-0.165	0.008	0.136	0.387	-0.439	-0.577	-0.319	0.310	-0.085	0.228	0.266	0.194

Table S6. Spearman’s coefficients for the association between variation in food frequency and health indicators in females. Significant effects are highlighted in bold.

Health indicators	Beef /pork meat	Sheep /goat meat	Chicken meat	Fish	Pulses	Greens	Fresh fruit	Bread	Pasta	Potatoes	Olive oil	Lard	Sweets	Mature cheese	Milk	Coffee
Overall																
Self-rated health	0.100	0.254	0.166	−0.030	−0.080	0.091	0.101	0.074	0.076	0.101	0.445	−0.389	0.029	−0.033	−0.148	0.208
CIRS	0.081	−0.144	−0.494	−0.061	0.079	−0.135	−0.264	0.050	−0.180	−0.085	−0.121	0.080	0.124	0.048	0.265	−0.193
Mental health																
MMSE	0.101	0.292	0.061	0.177	−0.145	0.218	−0.112	0.096	0.110	−0.026	0.111	−0.228	−0.023	0.027	−0.097	0.113
GDS	−0.069	0.072	−0.255	0.033	0.076	−0.076	−0.252	0.081	−0.196	−0.062	−0.475	0.045	−0.147	0.137	0.330	0.005
Functional capacity in activities of daily living																
BADL	0.104	0.170	0.274	0.094	0.197	0.083	−0.045	0.036	0.043	0.229	0.170	−0.258	0.031	−0.101	−0.035	0.213
IADL	0.032	0.261	0.188	0.086	0.190	−0.032	0.013	0.061	0.181	0.135	−0.096	−0.325	0.043	−0.201	0.182	0.208
Mobility																
Composite score	−0.036	0.033	0.013	0.020	−0.003	0.129	0.280	0.092	−0.037	0.172	0.577	−0.182	0.013	−0.090	−0.173	0.149
Sense organs																
Hearing	−0.043	−0.137	−0.164	0.108	−0.142	−0.100	−0.160	−0.021	−0.112	−0.030	−0.332	0.217	−0.138	−0.054	0.241	−0.292
Vision	0.053	−0.133	−0.311	0.076	−0.101	−0.176	−0.158	0.016	−0.039	0.047	−0.169	0.208	−0.149	0.120	0.131	−0.330
Anthropometry																
Weight	0.337	0.216	0.446	0.084	0.001	−0.018	−0.070	0.049	0.036	−0.096	−0.129	−0.054	−0.153	0.077	0.060	−0.092
Height	−0.010	0.141	−0.062	−0.136	0.197	0.213	0.005	0.080	0.162	0.229	−0.018	−0.101	0.018	0.084	0.028	0.046
Body mass index	0.347	0.148	0.429	0.168	−0.074	−0.103	−0.022	−0.065	−0.078	−0.194	−0.092	0.096	−0.155	0.051	−0.020	−0.051
Waist circumference	0.049	−0.157	−0.031	0.126	−0.125	−0.111	0.001	0.093	−0.124	−0.230	−0.200	0.006	−0.044	0.030	0.263	−0.087
Arm circumference	0.184	0.309	0.275	0.187	0.067	0.160	−0.115	0.087	0.048	0.080	0.023	−0.142	−0.039	−0.081	0.212	0.012
Calf circumference	0.208	0.319	0.260	0.275	0.128	0.214	−0.045	0.102	0.093	−0.038	0.145	−0.188	−0.144	−0.049	0.051	0.069
Leg length	0.018	0.141	0.313	−0.150	0.136	0.119	0.011	−0.012	−0.008	0.132	−0.199	−0.084	0.088	0.109	0.175	0.123