

SUPPLEMENTAL MATERIAL

Table S1: Univariate linear mixed regression models for prediction of running speed

Table S2: Comparisons of multivariate linear mixed regression models

Figure S1: Flow-chart showing the selection of the included participants.

Figure S2: Predicted speed of each participant according to model 5 against age, according to the baseline body mass index [BMI; A], fat-free mass index [FMI; B] or fat mass index [FFMI; C]. Each body composition parameter was dichotomized, based on the median value at baseline. Median values for women and men were 21.9 and 24.1 kg/m² for BMI, 15.7 and 19.2 kg/m² for FFMI, and 6.3 and 4.9 kg/m² for FMI, respectively.

Supplemental table 1: Univariate linear mixed regression models for prediction of running speed in women [377 participants, 1419 observations] and men [509 participants, 2161 observations]

	Women			p	Men			p
	β	95% CI			β	95% CI		
Age [years]				<0.001				<0.001
	15-24	0.00			0.00			
	25-34	-0.23	-0.51 0.06		-0.17	-0.46 0.11		
	35-44	-0.31	-0.63 0.01		-0.24	-0.55 0.08		
	45-54	-0.61	-0.94 -0.28		-0.58	-0.91 -0.25		
	55-64	-1.10	-1.45 -0.75		-1.50	-1.85 -1.15		
	≥ 65	-1.92	-2.32 -1.52		-2.92	-3.31 -2.53		
Body mass index [kg/m ²]	-0.23	-0.27 -0.20		<0.001	-0.41	-0.45 -0.37		<0.001
Fat-free mass index [kg/m ²]	-0.07	-0.14 -0.01		0.059	-0.20	-0.26 -0.14		<0.001
Fat mass index [kg/m ²]	-0.34	-0.39 -0.29		<0.001	-0.50	-0.54 -0.45		<0.001
Year of measurement [yrs]				<0.001				<0.001
	1999-2001	0.00			0.00			
	2002-2004	-0.01	-0.12 0.12		-0.26	-0.38 -0.13		
	2005-2007	-0.19	-0.32 -0.06		-0.48	-0.62 -0.35		
	2008-2010	-0.27	-0.41 -0.12		-0.73	-0.87 -0.60		
	2011-2013	-0.78	-0.93 -0.63		-1.43	-1.57 -1.28		
	2014-2016	-0.81	-0.96 -0.64		-1.49	-1.64 -1.33		
Temperature [°C]	-0.01	-0.02 0.01		0.267	0.01	0.01 0.02		0.017
Relative humidity [%]	0.01	0.01 0.02		<0.001	0.02	0.02 0.03		<0.001

Supplemental table 2: Comparisons of linear mixed regression models

	Model 1	Model 2	Model 3	Model 4	Model 5
Women [n=377, 1419 observations]					
Bayesian information criterion	3618.8	3501.1 ^a	3624.1	3450.9 ^a	3458.1 ^{a, b}
Men [n=509, 2161 observations]					
Bayesian information criterion	6136.2	5794.1 ^a	6115.2 ^a	5800.8 ^a	5755.6 ^{a, b, c}

Model 1: categories of age, categories of year of measurement, temperature, relative humidity

Model 2: model 1 + body mass index

Model 3: model 1 + fat-free mass index

Model 4: model 1 + fat mass index

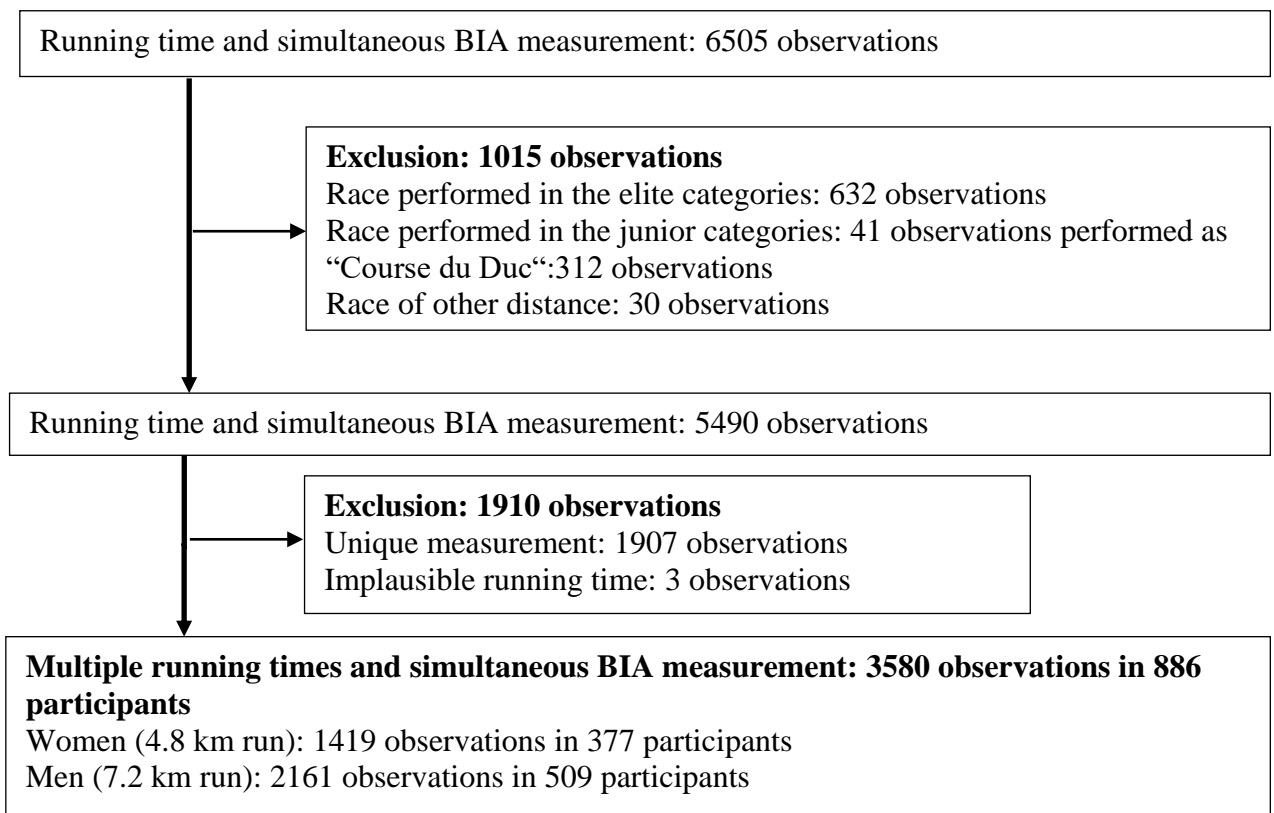
Model 5: model 1 + fat-free mass index + fat mass index

^ap<0.001 [likelihood-ratio test] vs. model 1

^bp<0.001 [likelihood-ratio test] vs. model 3

^cp<0.001 [likelihood-ratio test] vs. model 4

Supplemental figure 1



Supplemental figure 2

