Online appendix 3: Analysis of variance for exposure and outcome variables

Parameter	σ^2_{Tot}	σ^2_{BF}	σ^2_{BP}	σ^2_{WP}	$(\sigma^2_{WP})/(\sigma^2_{BF} + \sigma^2_{BP})$
FEV_1 [L]	0.410	0.134	0.261	0.015	0.037
FVC [L]	0.596	0.178	0.394	0.025	0.043
FEV_1/FVC	0.005	0.000	0.003	0.001	0.336
PEF [L/s]	2.728	0.871	1.500	0.357	0.151
FEF_{25} [L/s]	2.246	0.675	1.133	0.439	0.243
FEF_{50} [L/s]	1.167	0.371	0.610	0.186	0.190
log(FEF_{75} [L/s])	0.235	0.069	0.116	0.051	0.273
FEF_{25-75} [L/s]	0.863	0.255	0.485	0.123	0.166
FEV_1 Z-score	0.985	0.179	0.702	0.105	0.119
FVC Z-score	1.019	0.078	0.807	0.134	0.152
FEV_1/FVC Z-score	1.051	0.113	0.620	0.317	0.432
FEF_{25-75} Z-score	0.758	0.211	0.396	0.151	0.249
AChE [U/mL]	0.307	0.018	0.219	0.070	0.295
Hb [g/dL]	1.917	0.433	0.853	0.631	0.490
AChE/Hb [U/g]	15.818	0.000	12.923	2.894	0.224

For FEF_{75}, variance have been calculated on the log scale, as the variable was lognormal.

Legend

- σ^2_{Tot} = total variance
- σ^2_{BF} = between-family variance
- σ^2_{BP} = between-person variance
- σ^2_{WP} = within-person variance
- $(\sigma^2_{WP})/(\sigma^2_{BF} + \sigma^2_{BP})$ = ratio between within-person variance and the sum of the between-family and between-person variances.