

Supporting information

S1 Table. Specific cutoff values for the OGTT and further information used to define normal glucose regulation, pre-diabetes, and diabetes.

No diabetes	Normal glucose regulation	fasting glucose < 110 mg/dl AND 2-hour glucose < 140 mg/dl
Pre-diabetes	i-IFG - Isolated impaired fasting glucose	110 mg/dl ≤ fasting glucose < 126 mg/dl AND 2-hour glucose < 140mg/dl
	i-IGT- Isolated impaired glucose tolerance	fasting glucose < 110 mg/dl AND 140 mg/dl ≤ 2-hour glucose < 200 mg/dl
	IFG+IGT	110 mg/dl ≤ fasting glucose < 126 mg/dl AND 140 mg/dl ≤ 2-hour glucose < 200 mg/dl
Diabetes	Newly diagnosed diabetes by OGTT	fasting glucose ≥ 126 mg/dl OR 2-hour glucose ≥ 200 mg/dl
	Known diabetes	validated by physician or taking antidiabetic medication
Unclear	Unclear diabetes status, no validation possible	unclear self-reported diabetes status, no clear medication use, missing OGTT

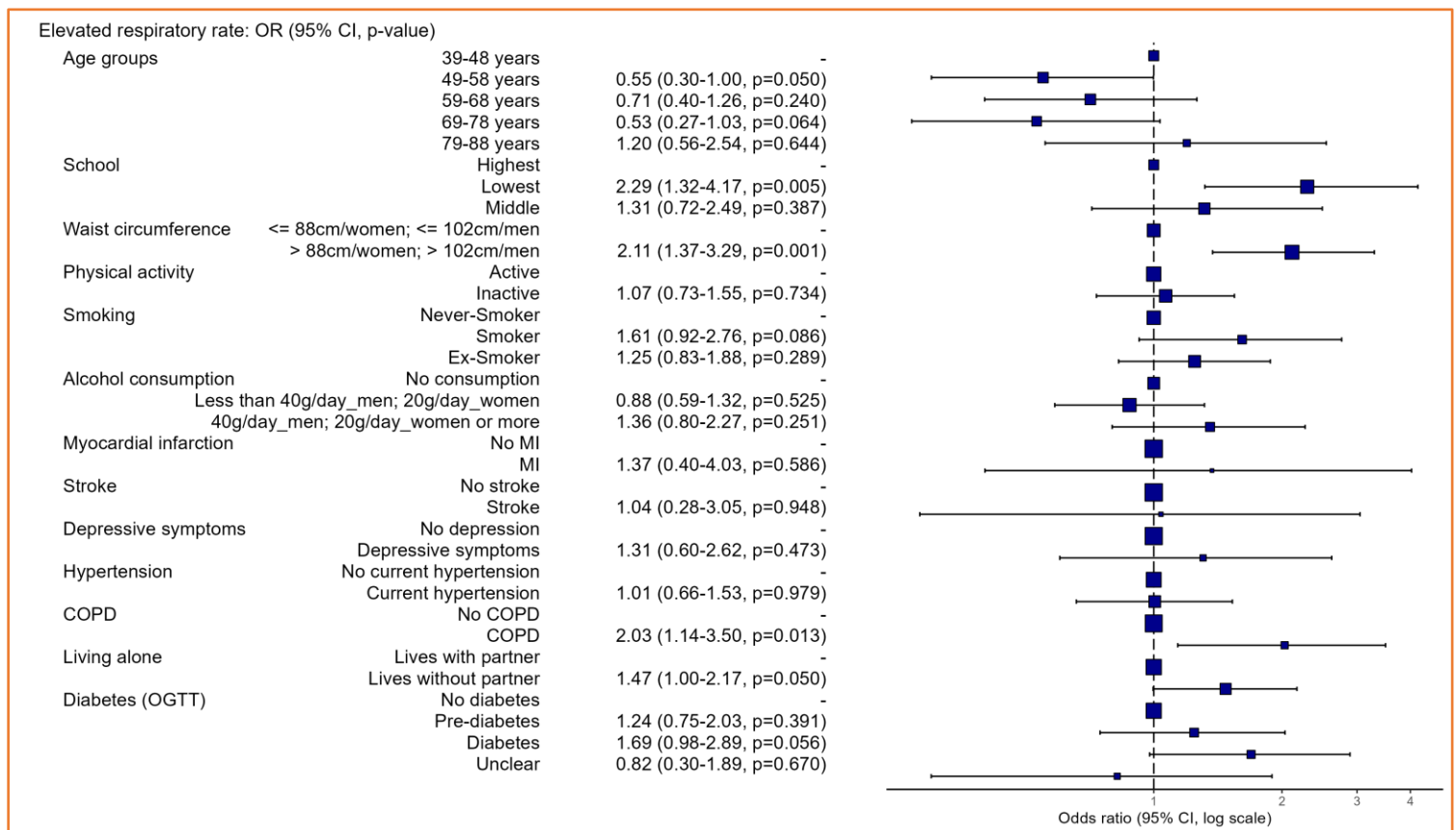
S2 Table. Characteristics of the study population stratified by respiratory rate.

		< 18.6 brpm N = 1,916 (86.2%)	≥ 18.6 brpm (elevated) N = 308 (13.8%)
Sex	Women	1001 (52.2)	154 (50.0)
	Men	915 (47.8)	154 (50.0)
Age	39-48 years	417 (21.8)	55 (17.9)
	49-58 years	490 (25.6)	52 (16.9)
	59-68 years	478 (24.9)	78 (25.3)
	69-78 years	383 (20.0)	74 (24.0)
	79-88 years	148 (7.7)	49 (15.9)
School education	Highest	519 (27.2)	50 (16.2)
	Middle	509 (26.6)	63 (20.5)
	Lowest	883 (46.2)	195 (63.3)
Living alone	Lives with partner	1500 (78.3)	216 (70.1)
	Lives alone	416 (21.7)	92 (29.9)
Waist circumference	≤ 88cm in women, ≤ 102cm in men	987 (51.5%)	86 (27.9%)
	> 88cm in women, > 102cm in men	928 (48.4%)	220 (71.4%)
Physical activity	Active	1134 (59.2)	139 (45.1)
	Inactive	782 (40.8)	169 (54.9)
Smoking	Never-smoker	807 (42.1)	119 (38.6)
	Ex-smoker	826 (43.1)	130 (42.2)
	Smoker	283 (14.8)	59 (19.2)
Alcohol intake	No consumption	507 (26.5)	100 (32.5)
	Less than 40g/day	1182 (61.7)	170 (55.2)
	40g/day or more	226 (11.8)	38 (12.3)
Hypertension	No current hypertension	1201 (62.8)	154 (50.2)
	Current hypertension	711 (37.2)	153 (49.8)
Myocardial infarction	No myocardial infarction	1853 (97.0)	292 (94.8)
	Myocardial infarction	58 (3.0)	16 (5.2)
Stroke	No stroke	1874 (97.9)	290 (94.8)
	Stroke	41 (2.1)	16 (5.2)
Cancer	Never cancer	1705 (89.0)	271 (88.0)
	Cancer	211 (11.0)	37 (12.0)
Depressive symptoms	No/little depressive symptoms	1840 (96.1)	286 (93.2)
	Depressive symptoms	74 (3.9)	21 (6.8)
COPD	No COPD	1786 (93.5)	263 (85.9)
	COPD	124 (6.5)	43 (14.1)
Asthma	No asthma	1743 (91.1)	279 (91.2)
	Asthma	171 (8.9)	27 (8.8)
Diabetes mellitus (OGTT)	Normal glucose tolerance	1287 (67.2)	142 (46.1)
	Prediabetes	319 (16.6)	70 (22.7)
	Known or new diabetes	239 (12.5)	80 (26.0)
	Unclear	71 (3.7)	16 (5.2)
Heart rate	Mean (SD)	64.4 (8.9)	74.1 (12.4)
	Median (IQR)	64.2 (11.4)	73.9 (16.1)

COPD: chronic obstructive pulmonary disease; OGTT: results of the oral glucose tolerance test

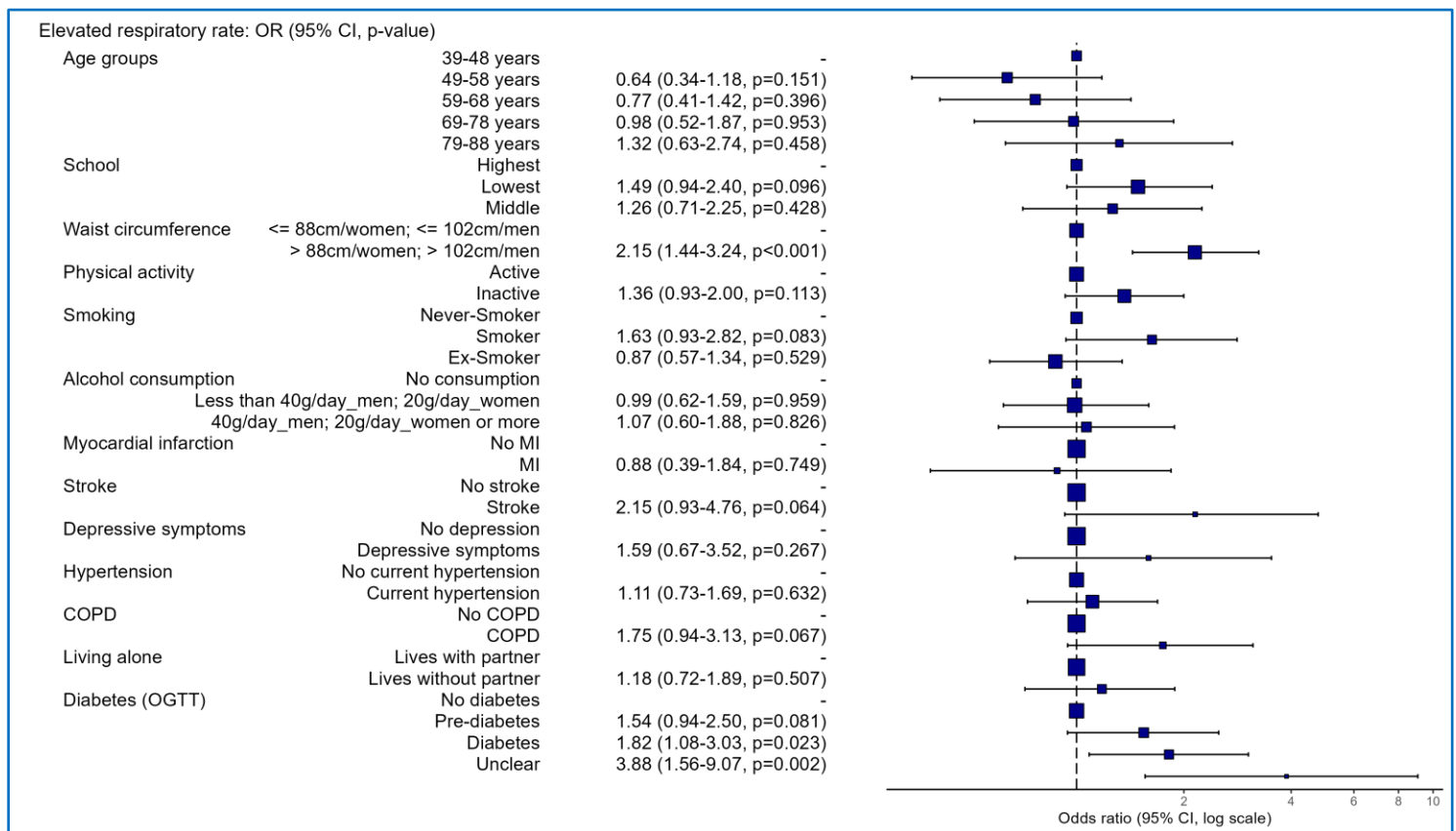
S3 Table. Heart rate by age and sex.

Age	Sex	N	Min	Max	Median	IQR	quantile 5	quantile 25	quantile 75	quantile 95
39 - 48 y.	Men	221	45.11	98.68	63.31	12.13	50.49	57.26	69.39	82.27
	Women	251	48.57	92.76	65.25	10.59	52.43	60.35	70.95	80.25
49 - 58 y	Men	254	39.37	95.18	63.84	13.20	48.27	58.10	71.29	81.93
	Women	288	48.84	90.80	64.82	10.60	54.24	59.90	70.49	81.56
59 - 68 y.	Men	254	36.82	120.33	63.46	13.20	48.31	56.81	70.01	83.81
	Women	302	41.78	119.04	66.33	12.29	52.23	60.26	72.55	81.76
69 - 78 y.	Men	234	40.80	97.93	64.79	16.65	50.91	57.22	73.86	88.26
	Women	223	46.15	111.74	67.36	11.26	50.66	61.27	72.52	83.73
79 - 88 y.	Men	106	45.63	103.31	64.33	12.86	49.66	57.60	70.45	80.17
	Women	91	46.54	90.59	66.19	12.18	51.10	59.37	71.55	87.61



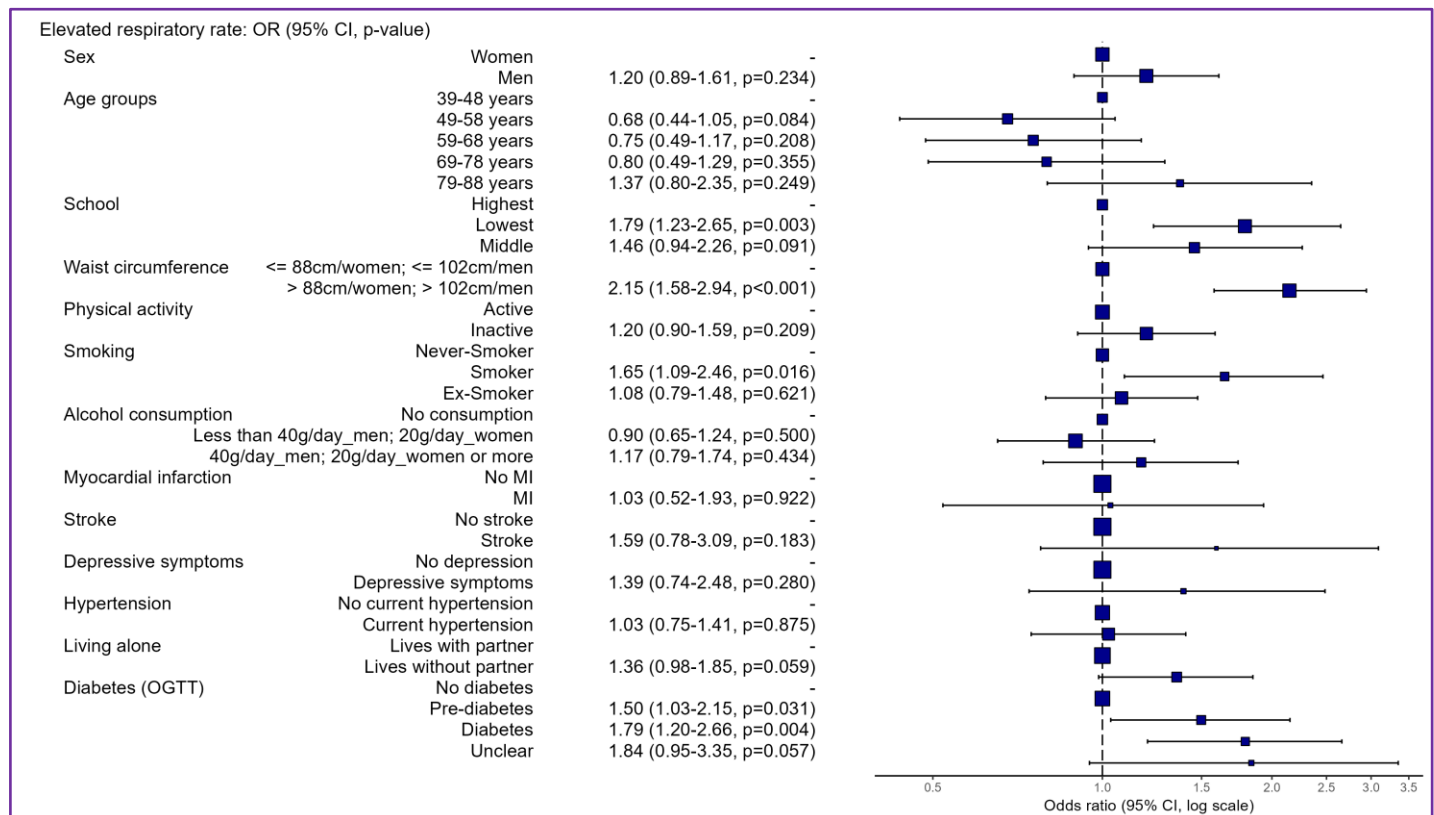
S1 Fig. Multivariable logistic regression model with the outcome elevated respiratory rate in women (N = 1,143 women with complete data).

Further model information: Number in data frame = 1155, Number in model = 1143, Missing = 12, AIC = 858.4, C-statistic = 0.709, H&L = Chi-sq(8) 5.86 (p=0.663)



S2 Fig. Multivariable logistic regression model with the outcome elevated respiratory rate in men (N = 1,051 men with complete data).

Further model information: Number in data frame = 1069, Number in model = 1051, Missing = 18, AIC = 830, C-statistic = 0.718, H&L = Chi-sq(8) 5.53 (p=0.699)



S3 Fig. Sensitivity Analysis: Multivariable logistic regression model excluding 167 participants with COPD - Association of various disease and lifestyle factors with elevated respiratory rate (N = 2,030 participants with complete data).

Further model information: Number in data frame = 2049, Number in model = 2030, Missing = 19, AIC = 1484.1, C-statistic = 0.699, H&L = Chi-sq(8) 3.94 (p=0.862)

Further model information for Figure 4:

Fig 4. Multivariable logistic regression – Association of various disease and lifestyle factors with elevated respiratory rate (N = 2,194 participants with complete data).

Further model information: Number in data frame = 2224, Number in model = 2194, Missing = 30, AIC = 1662.9, C-statistic = 0.704, H&L = Chi-sq(8) 2.35 (p=0.968)