

Supplementary Table 7: Average annual change* in lung function and symptoms domain of health status related to step count, sedentary time and moderate-to-vigorous physical activity (MVPA) at baseline (multivariable mixed model†).

	Step count		MVPA		Sedentary time	
	Per 1000 increase in steps.day ⁻¹ Estimate (95% CI)	p-value	Per 10 minutes.day ⁻¹ increase Estimate (95% CI)	p-value	Per hour.day ⁻¹ increase Estimate (95% CI)	p-value
Δ FEV ₁ (ml.year ⁻¹)	4.69 (0.3 to 9.1)	0.037	4.85 (1.56 to 8.14)	0.004	-8.81 (-19 to 1.5)	0.09
Δ FVC (ml.year ⁻¹)	5.12 (-1.8 to 12.1)	0.15	3.14 (-2.15 to 8.44)	0.24	-12.42 (-28.5 to 3.7)	0.13
Δ DL _{co} (ml/min/mmHg.year ⁻¹)	0.07 (-0.03 to 0.17)	0.17	-0.01 (-0.09 to 0.07)	0.74	-0.10 (-0.35 to 0.15)	0.41
Δ SGRQ _{symptoms} score (points.year ⁻¹)	-0.23 (-0.52 to 0.07)	0.12	-0.24 (-0.46 to -0.02)	0.04	0.68 (0.01 to 1.35)	0.05

MVPA= moderate-to-vigorous physical activity, FEV₁ = forced expiratory volume in 1 second, FVC = forced vital capacity, DL_{co} = diffusion capacity of the lung carbon monoxide, SGRQ = Saint George's respiratory questionnaire.

* Negative values represent a decline in the outcome measure.

† Every cell is a single multivariable model adjusted for (i) age, sex, exacerbation history ($\geq 1 / 0$), BMI, Charlson index, smoking status (current / not current), pack-years and duration of daylight for lung function variables, or (ii) age, sex, exacerbation history ($\geq 1 / 0$), smoking status, FEV₁% predicted, 6MWD and duration of daylight for SGRQ. The full list of potential confounders included: age, sex, education, marital status, work status, baseline smoking status, smoking history expressed as pack-years, medication (including long acting bronchodilators, inhaled corticosteroids and a combined inhaled therapy), diet (including vegetables, meat and fruit intake), Charlson index, BMI, FFM, FFMi, mMRC, COPD exacerbation history, FEV₁ % predicted, hand grip force, 6MWD and duration of daylight. Criteria for keeping them in the final model are detailed in the methods (complete version)