Supplementary Table 4: Average annual change* in lung function and symptoms domain of health status related to baseline sedentary time (multivariable linear regression model[†]), according to baseline moderate-to-vigorous physical activity (MVPA).

| | Low MVPA | High MVPA | |
|--|---|--|---------|
| | (<52 min.day ⁻¹) | (≥52 min.day ⁻¹) | |
| | Per hour.day ⁻¹ increase in sedentary time | Per hour.day ⁻¹ increase in sedentary | p-value |
| | Estimate (95% CI) | time | |
| | | Estimate (95% CI) | |
| ΔFEV_1 (ml.year ⁻¹) | -5.90 (-27 to 15) | -6.77 (-28 to 14) | 0.95 |
| $\Delta FVC (ml.year^{-1})$ | -23.22 (-63 to 17) | -0.87 (-30 to 28) | 0.39 |
| ΔDL _{co} (ml/min/mmHg.year ⁻¹) | -0.43 (-0.82 to -0.05) | -0.29 (-0.68 to 0.10) | 0.97 |
| Δ SGRQ _{symptoms} score (points.year ⁻¹) | 0.71 (-0.67 to 2.08) | 0.20 (-0.80 to 1.20) | 0.32 |

 $MVPA = moderate-to-vigorous physical activity, FEV_1 = forced expiratory volume in 1 second, FVC = forced vital capacity, DL_{co} = diffusion capacity of the lung carbon monoxide, SGRQ = Saint George's respiratory questionnaire.$

* Negative values represent a decline in the outcome measure.

† Every cell is a single multivariable model adjusted for baseline value of the corresponding outcome and (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).