

Productivity loss associated with chronic cough in working Swedish adults

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Background: Chronic cough is associated with increased sick-leave, but cost estimates of productivity loss are not known.

Aim: To estimate productivity loss among Swedish working adults with chronic cough compared with the general working population.

Methods: In this retrospective cohort study (2016–2018), adults aged 18–69 years with ≥ 1 cough diagnosis (ICD-10 R05) and/or ≥ 2 dispensed cough-related prescriptions were identified in national Swedish registers ($n=45,887$). Individuals with expected known causes of cough (ACE inhibitors, acute infections, cancer, structural lung disease) were excluded. This was compared with aggregated data for all working adults ($n=6,405,901$) stratified by sex and age (in five years age increments).

Results: Individuals with chronic cough experienced more often sick-leave episodes (36.1% vs 22.0%) and more cumulative sick-leave days (median no. of days (IQR): 84 (25-268) vs 62 (19-194)) than the general-population. Sick-leave days increased with age and were consistently higher among females. Similarly, productivity loss over three years per sick leave person was greater in the chronic cough cohort (mean (95% CI): 222 300 (216 900 – 227 700) SEK) than in the general population (mean (95% CI): 158 400 (158 000 – 158 900) SEK, $p < 0.001$). This was consistent after adjusting for age and gender. This accumulated to a total surplus in the cough cohort of about 803 million SEK (SD 35 million) over the 3 years.

Conclusions: The magnitude of the extra productivity loss due to chronic cough in the Swedish adult working population reveals a substantial economic burden from chronic cough. Thus, it calls for further research and exploration of possible mitigation strategies.