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The Lancet COPD Commission: broader questions remain

I have read with interest the comprehensive Commission on chronic obstructive pulmonary disease (COPD) by Daiana Stolz and colleagues.[1] The authors report that "The most efficient way to reduce the burden of COPD is to ban cigarette smoking in all its forms." However, only a few sentences later the authors downplay the importance of smoking: "risk factors unrelated to tobacco are increasingly responsible for the burden of COPD, and are likely to surpass the risk attributable to smoking within the next two decades". This information was not referenced, might be the authors' opinion, but is not true.

Zafari and colleagues have modelled the 20-year health and economic burden of COPD, from 2019 to 2038, in the USA.[2] The proportion of disease burden attributable to continued smoking was 34% in direct medical costs, 35% in indirect absenteeism costs, and 37% in losses of quality-adjusted life-years over 20 years. Costs are indeed much higher, considering the underdiagnosis of smoking-related COPD in primary care. Adult patients in Canada with a smoking history of more than 20 pack-years were asked to complete a screening questionnaire ascertaining any self-reported previous respiratory diagnosis.[3] Only 32·7% were aware of their COPD diagnosis before the spirometries performed during the study.[3] Another study also found that COPD diagnosis in primary care often occurs late and that patients are frequently undertreated.[4]

Moreover, Zafari and colleagues' projections were made with 2019 patterns for treatments and smoking rates. However, there is an epidemic of e-cigarette use in the USA and in many countries. Sales of disposable e-cigarette products increased considerably in the USA from 2019 to 2020.[5] These products are inexpensive, contain high nicotine concentrations, and are available in various flavours that appeal to young people, including tobacco product never-users and former smokers.[5] The authors have highlighted this point in the paper: "The risk of developing COPD from combustible cigarettes is doubled when combined with e-cigarette use, and use of e-cigarettes in never-tobacco-smokers doubles or triples the risk of self-reported COPD."[1]

The authors state that their Commission is a call for action. However, this Commission might indeed produce harm, as it could lead key stakeholders to divert attention and funding away from smoking-related COPD, which is by far the most relevant subgroup of COPD to tackle to eliminate the disease, both now and in the next decades.

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Paulo CRP Corrêa
paulo.correa@ufop.edu.br

Universidade Federal de Ouro Preto, Ouro Preto 35400-000; Brazilian Thoracic Society (SBPT), Brasilia 70398–900, Brazil

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Daiana Stolz and colleagues[1] in their proposed diagnostic algorithm (figure 11 of the Commission) list several alternative tests to aid in the diagnosis of chronic obstructive pulmonary disease (COPD) in people who have a forced expiratory volume in 1 s to forced vital capacity ratio of greater than or equal to 0·7, including diffusion, resistance, nitrogen washout, pathology, and the forced oscillation technique. Unfortunately, the authors did not include cardiopulmonary exercise testing (CPET) in this important list despite the growing body of literature showing that CPET can reveal considerable abnormalities in people with mild COPD and even in smokers with normal spirometry relative to healthy age-matched controls.[2–5] Some of the most consistent abnormalities detected with CPET, particularly in mild COPD, include ventilatory inefficiency as shown by an increased ventilatory equivalent for carbon dioxide, increased dead space to tidal volume ratio, elevated ventilatory requirements to attain a given work rate, dynamic hyperinflation, constraints on tidal volume expansion, increased resistive and total work of breathing, elevated neural respiratory drive, increased dyspnoea intensity ratings, and impaired exercise tolerance. All the listed responses to CPET consistently occur in individuals with advanced COPD and yet they can still be uncovered even in symptomatic patients with reasonably well preserved lung function. Stressing the respiratory system with CPET can uncover important abnormalities in physiology, exertional symptoms, and exercise