



6. Tobacco industry influence and the COVID-19 crisis

COVID-19 attacks the lungs, and behaviors that weaken the lungs put individuals at greater risk. The harmful impact of smoking on the lungs is well-documented, and there is a growing body of evidence that e-cigarette use (vaping) can also harm lung health. Unsurprisingly there is mounting concern among leading public health organizations and experts that smokers and e-cigarette users may be at a higher risk for severe illness from COVID-19. In certain countries, this concern is already leading in strengthening tobacco and nicotine control measures and the industry is clearly fearing that this could be even more the case in future. (Hefler and Gartner 2020)

Big tobacco industry is continuing to influence the market and trying to counter the possible negative impact on sales, or even trying to profit from the current COVID-19 crisis, through actions in the usual fields of marketing, lobbying, spreading misinformation and philanthropy. Those behaviors of the industry are tracked and exposed (crf. <https://www.takeapart.org/campaigns/covid-19-activities> and <https://exposetobacco.org/news/covid-statement>). The focus of the industry during this crisis seems to have been on establishing a difference between tobacco and ENDS in order to promote the latter.

Riccardo Polosa, a well-know Italian scientist with historical strong links with the tobacco and nicotine industry (https://www.tobaccotactics.org/index.php/Riccardo_Polosa). He actively intervened to keep vape shops open during the COVID-19 crisis in Italy. (Redmond 2020)

An article that raises concern, is the one published online in late March by a well-know advocate of, in particular, the vaping industry. Through a systematic research of the literature, this review (initially published on 29 March 2020) identified 7 studies examining the clinical characteristics of a total of 2352 hospitalized COVID-19 patients that presented data on the smoking status. (Farsalinos et al. 2020a) in a later version of the same article (consulted online on 15 April 2020), the study included more articles for a total of 13. Farsalinos' article is published on the Qeios webpage, which is in no way an independent peer-review scientific journal. Changes can also be done anytime in the text and we have no assurance of the stability of the text.

In its conclusion Farsalinos states that "No studies recording e-cigarette use status among hospitalized COVID-19 patients were identified. Thus, no recommendation can be made for e-cigarette users." It is not because there is insufficient evidence of ENDS use among hospitalized COVID-19 patients that no conclusion can be done. Farsalinos aim is to avoid any recommendation against the use of ENDS during the current pandemic of COVID-19. However, there is already evidence on the general impact of ENDS vape on lung functions. We also continue to underline that absence of evidence is not evidence of absence.

However, regarding traditional cigarettes, authors go as far as, given the low prevalence of smokers in hospitalized and ICU patients in China as well as in the US, one should "raise a possible hypothesis that nicotine might reduce the risk for severe COVID-19. Hospitalization for COVID-19 will inevitably result in abrupt withdrawal of nicotine and its beneficial effect linked to this hypothesis in smokers or users of other nicotine products. This could, at least partly, explain the association between smoking and COVID-19 severity among hospitalized patients."

In a second version of the article (04.04.2020) the authors go even further. Not only they say that "no recommendation can be made for e-cigarette users" but they add "all the above-mentioned issues relevant to the hypothesis about the effects of nicotine and nicotine withdrawal on COVID-19 progression and severity

are equally applicable to e-cigarette users.” Thus, based mostly on the fact that in China smoking prevalence is higher (27%) than prevalence among COVID-19 patients, Farsalinos wants to raise the hypothesis that nicotine may have beneficial effects on COVID-19. Farsalinos warrants “an urgent investigation of the clinical effects of pharmaceutical nicotine on COVID-19 susceptibility, progression and severity.” Even if the author goes not as far as saying it explicitly, this seems to suggest the idea that nicotine and ENDS should be used as therapy for COVID-19. The article has been directly criticized online. (Sheltzer 2020)

In a post published on his own blog, Farsalinos explicitly promote the idea that e-cigarettes could have a beneficial effect in the context of COVID-19: “There is no evidence on any effects of e-cigarettes on coronavirus infectivity and disease progression, and we cannot exclude the possibility that the use of propylene glycol might have some beneficial effects.” (Farsalinos 2020b)

An element that should certainly promote caution in stating anything on ENDS effects on COVID-19 in Chinese patient is the fact that the prevalence of their use in China seems very low. According to the China Adult Tobacco Survey in 2015, 40.5% of adults aged 15 years and older had heard of e-cigarettes and 3.1% had ever tried them. (Wang et al. 2019) Given the lack of detailed stratified data, it is impossible to say anything doubting the possible negative impact of ENDS on COVID-19, as Farsalinos tries to imply.

On 24 March 2020, an analysis under the title “COVID-19 and Tobacco Industry Interference, 2020” was posted on the page of Global Center for Good Governance on Tobacco Control (GGTC). In this article, a table summarizes the tobacco industry-backed articles in relation to COVID-19. Farsalinos is among the authors cited in the industry-backed publications. (Global Center for Good Governance in Tobacco Control 2020)

On 17 April 2020, the French Alliance contre le Tabac published a press release warning against the hypothesis that tobacco and nicotine could have a protective effect against COVID-19 and the hasty conclusion that could be taken. Any nicotine protective effect remain to be proven and even if there was such an effect, the risk/benefit balance remains largely in favor of a complete cessation. (Alliance contre le Tabac 4/17/2020)

7. Systematic review

Only one article is yet available in order to attempt a systematic review of the evidence regarding COVID-19 and smoking. (Vardavas and Nikitara 2020) This review identified only 5 studies (Guan et al. 2020; Zhang et al. 2020; Liu et al. 2020; Zhou et al. 2020; Huang et al. 2020) and concluded that “smoking is most likely associated with negative progression and adverse outcomes of COVID-19”.

Current evidence was also examined and summarized in a short analysis. (Berlin et al. 2020) Its main conclusion were that stronger evidence about the association of smoking with COVID-19 is needed and that ongoing public health campaigns should include references to the importance of smoking cessation during the pandemic.

8. References pages

Several online webpages provide regularly updated information about the links between COVID-19 and tobacco and nicotine consumption. We provide here the main available such pages: