Frequently Asked Questions: COVID-19 and Smoking
Version 3, 11 May 2020. This version supersedes previous versions.

The following questions are answered in this document:

1. **Are smokers more at risk of becoming infected with COVID-19?** *updated*
2. **Are smokers more likely to have severe complications from COVID-19?** *updated*
3. **What about vaping and COVID-19—are there specific or heightened risks for vapers?**
4. **People are already anxious and stressed, and nicotine withdrawal can be very unpleasant. Is this really the right time to quit smoking?**
5. **What can governments do to incentivise and facilitate smoking cessation efforts?**

1. Are smokers more at risk of becoming infected with the COVID-19?

There is substantial evidence that smoking negatively impacts lung health, inhibits the body's responsiveness to infections, and suppresses immunity. Sound epidemiological evidence that smoking increases the risk of viral lung and throat infections led researchers to posit that smokers are at increased COVID-19 risk.

Several early studies from China (see Guan et al) pointed toward smokers susceptibility to COVID-19 by showing that men—their smoking rate is twenty times higher than women—were contracting COVID-19 at much higher rates than women.

In addition, the World Health Organization (WHO) has noted that the physical act of smoking—bringing fingers to the lips—increases the possibility of hand-to-mouth virus transmission. Smoking products that are used in communal or social settings, such as water pipes, are also problematic because they are shared and can facilitate virus transmission from one user to another.

In summary, the hypothesis that cigarette smoking makes individuals more likely to contract COVID-19 needs to be supported by further evidence from epidemiological studies and laboratory data.

2. Are smokers more likely to have severe complications from COVID-19?

To date, scientists have not reached consensus on this issue though some data do support this hypothesis. It is also important to note that almost every study on this issue suffers some sort of major flaw—whether in design or by virtue of the fact that it is pending peer review. The bottom line is that the data are NOT conclusive.

The most important findings in support of this hypothesis appeared 28 February in *The New England Journal of Medicine*. The aforementioned Guan et al study, "Clinical Characteristics of Coronavirus Disease 2019 in China" shows that compared to non-smokers, smokers are 2.4 times more likely to be admitted to an intensive care unit, need mechanical ventilation or die. In this same study of nearly 1100 people with COVID-19, nearly 17 percent with the

most severe symptoms were current smokers and just over five percent were former smokers.

In the second largest study from China—"Host Susceptibility to severe COVID-19 and establishment of a host risk score: findings of 487 cases outside Wuhan"—Shi et al. (18 March), smokers accounted for 8 percent of the total cases but 12 percent of severe cases.

Also in March, Tobacco Induced Diseases published "COVID-19 and smoking: A systematic review of the evidence." The authors concluded "[A]lthough further research is warranted as the weight of the evidence increases, with the limited available data, and although the above results are unadjusted for other factors that may impact disease progression, **smoking is most likely associated with the negative progression and adverse outcomes of COVID-19."** (emphasis added).

In its *Morbidity and Mortality Weekly Report* (MMWR) from 3 April, the US Centers for Disease Control (CDC) builds on data from China and Italy, documenting risk factors for severe disease progression with COVID-19. In its discussion, the report finds: **"[P]atients with underlying health conditions and risk factors, including, but not limited to…smoking, might be at higher risk for severe disease or death from COVID-19."**

In mid-April, Stan Glantz and Roengrude Patanavanich conducted a meta-analysis of 12 published papers to determine the association between smoking and COVID-19 progression. The authors write: **"[S]mokers hav[e] 2.25 times the odds of severe COVID-19 outcomes than never smokers."**

3. What about vaping and COVID-19—are there specific or heightened risks for vapers?

Because vaping is still a relatively new practice, research is limited on its health effects, and it has not yet been determined if the practice contributes to conditions such as chronic obstructive pulmonary disease. There is, however, emerging evidence that exposure to the aerosols produced by e-cigarettes–regardless of whether the substance being vaped is nicotine, tetrahydrocannabinol or even just flavourings–harms lung cells, damages lung tissue and increases inflammation, thereby diminishing the ability of the lungs to respond to infections. This concern extends to COVID-19.

On a related note, there is concern that vapour may contain virus particles, posing a risk to people in proximity to people who are using e-cigarettes.

4. People are already anxious and stressed, and nicotine withdrawal can be very unpleasant. Is this really the right time to quit smoking?

There is no disputing that quitting smoking is difficult and that nicotine withdrawal is uncomfortable, but there has never been a better or more urgent time to stop using tobacco.

The good news—and the really encouraging piece—is that while it is difficult to undo all the damage from years of smoking, positive results from quitting tobacco are immediate, starting the second the lungs are no longer exposed to toxic chemicals. Within 20 minutes

of stopping smoking, heart rate and blood pressure drop; after 12 hours, the blood's carbon monoxide level drops; after two weeks, circulation improves and lung function increases; and after one month, cilia, which move mucus out of the lungs, begin to regain normal functioning, increasing the lung's ability to self-clean and reduce infection risks.

Because smoking has such adverse consequences on lung health, and because quitting smoking almost immediately improves lung health, The Union believes that tobacco cessation should be included among the preventive actions—washing hands, social distancing, avoiding contact with eyes, mouth and nose—that are frequently cited and urgently recommended as effective against COVID-19.

5. What can governments do to incentivise and facilitate smoking cessation efforts?

First, and perhaps foremost, governments have an obligation to make smokers aware that they may be at increased risk for both COVID-19 and adverse disease progression. This is particularly important in the low- and middle-income countries where The Union works, and where many people still don't understand that tobacco seriously compromises lung health and general immunity. Messaging must be disseminated in all kinds of communication channels—social media, radio programmes, television, print publications and in speeches and guidance from elected officials—to reach people with varying literacy levels and access to technology.

The Union also encourages governments to pay particular attention to the "O-W-E" portion of WHO's MPOWER package – a set of six policy measures recommended to reduce tobacco use. This means **offering** smokers help to quit tobacco, **warning** about the danger of tobacco and **enforcing** bans on tobacco advertising, promotion, and sponsorship. Governments must pay careful attention to the tobacco industry, making sure that it is not using the pandemic to push products by offering free delivery services or other incentives.

Finally, if they haven't already done so, where feasible, governments need to staff toll-free smoking cessation hotlines. They must also ensure that supportive counselling services are offered in conjunction with nicotine replacement therapies, such as patches, gums, lozenges, and prescription medications to help smokers contend with, and better manage, nicotine cravings.