### **Letter to the Editor**

# **COVID-19: A Policy Window for E-cigarette Regulation**

Dear Editor,

E-cigarette regulatory policies across countries have been universally inconsistent. Using Kingdon's Multiple Streams Framework, we explored the policy landscape of e-cigarette regulation, the public health problem posed by e-cigarettes, and the politics around regulating e-cigarettes.<sup>[1]</sup>

# POLICY STREAM

The policy landscape of e-cigarette regulation ranges from the introduction of new regulations to amending existing tobacco control policies. By imposing a complete ban on e-cigarettes, India, Brazil, Uruguay, and Argentina are on one end of the spectrum of those countries curbing e-cigarette use. Southeast Asian countries (Brunei and Malaysia) classified e-cigarettes under hazardous substances while European Union and Australia imposed strict product regulations including standards to govern the size of cartridges and refills, nicotine concentration and protonated nicotine additives. Regulatory bodies and policymakers have explicitly focused on monitoring e-cigarette production, import, distribution, vape-free public zones, marketing, and by imposing excise tax. Recently, policies to address the growing concern of lung disorders associated with flavoring agents in e-liquid were introduced.<sup>[2]</sup> As of December 2016, only 30 of the 195 member states to the WHO Framework Convention on Tobacco Control had banned Electronic nicotine delivery systems (ENDS).[3]

# PROBLEM STREAM

Most of the never-smokers and young adults pick up vaping amused by their appealing design and tempting flavors, assuming "It's just the water vapor!" they inhale. The constituents of e-liquid and the heavy metal components of the e-cigarette aerosols have detrimental effects on the respiratory system, and the varying content and addictive nature of nicotine in e-cigarettes can act as a catalyst for initiating cigarette smoking. Numerous cases of e-cigarette or vaping-associated lung injury have been attributed to Vitamin E acetate, a solvent in e-liquid. Rising evidence of upregulation of angiotensin-converting enzyme 2 receptors by nicotine, immune dysregulation, increased inflammatory response, damage to respiratory cells and alveoli by flavoring agents, and solvents in e-liquid, puts the vaping population at a greater risk of contracting COVID-19.<sup>[4]</sup>

# **POLITICS STREAM**

The discussion on e-cigarettes and ENDS was initiated way back in 2008 at the third session of the Conference of Parties (COP). Yet, even after 12 years, a consensus on the product definition

as well as regulation through a coherent policy direction is missing. Although countries have used a variety of approaches as stated above, owing to the politics around e-cigarette regulation, the ENDS market has only exponentially grown from 2.76 billion USD in 2014-8.61 billion USD in 2016 and is expected to grow to 26.84 billion USD in 2023.<sup>[3]</sup> While a "one size fits all" policy measure is neither possible nor ideal owing to the diverse contextual factors of the member states, a consensus on the matter is required. As noted in the eighth COP, a monograph by the International Agency for Research on Cancer is awaited for further direction on ENDS.

# WINDOW OF OPPORTUNITY

Does COVID-19 provide an opportunity to join these multiple streams (policy, problem, and politics) and move toward a coherent policy direction? Or would it be a missed opportunity to lament in hindsight?

We would like to join others who have called for a complete elimination of the tobacco industry as this is a critical period to re-examine existing e-cigarette policies worldwide.<sup>[5,6]</sup>

The disproportionate use of e-cigarettes among adolescents, emerging evidence of the associated lung damage, and COVID-19 susceptibility are a cause of concern. This puts an estimated 55 million e-cigarette users around the world at high risk of morbidity due to SARS-CoV-2 infection.<sup>[7]</sup> While imposing a complete ban on e-cigarette sales is arduous, it is essential to understand lessons learned from countries that have attempted such measures. As an important step to reduce the load on overstrained hospitals and a failing economy, regulatory policies should attempt for a global coherence for regulating e-cigarettes.

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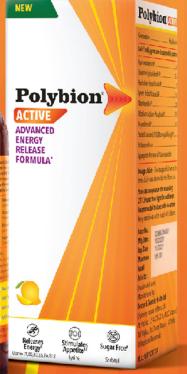


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