

## BACKGROUND

# Dispelling the Myths: Facts About Nicotine

### KEY TAKEAWAYS

- **Nicotine is a naturally occurring substance found in tobacco—it is addictive and not risk-free, but it is not the primary cause of smoking-related diseases.**
- Health damage from smoking is principally a result of the high levels of many toxic chemicals created when tobacco is burned.
- **Nicotine alternatives** that don't burn tobacco can significantly reduce emission of these harmful chemicals and **could lessen harm compared to smoking.**<sup>1</sup>
- Government risk-proportionate policies that support tobacco harm reduction are vital to shifting legal-age smokers to less harmful, smoke-free alternatives, as is access to smoke-free products (like those from PMI) that deliver nicotine with significantly lower levels of the harmful chemicals than found in tobacco smoke.<sup>2</sup>

### QUICK STATS

- Inhalation of tobacco smoke is reported to be responsible for more than 7 million deaths annually.<sup>3</sup>
- **Where better nicotine products are accessible, affordable, and appropriately regulated, smokers switch, and smoking rates drop.** For example, Sweden has long embraced oral nicotine products and now has the EU's lowest smoking rate.<sup>4</sup>

### DISPELLING NICOTINE MYTHS: A SUMMARY

Nicotine is a naturally occurring substance found in tobacco; it is addictive and one of the reasons that people smoke along with other factors such as taste, ritual and sensory experience. Nicotine also provides other transient physical and psychological effects: Many people who use nicotine products say they do so for reasons such as enjoyment, relaxation, and stress management.

#### About nicotine

The most common way to consume nicotine historically has been through burning tobacco and inhaling smoke (which is by far the most harmful way). Over time, other methods have been developed including nicotine replacement therapies (such as patches and gums) which are intended for smoking cessation treatment and considered safe and effective, or consumer products that deliver nicotine without combustion—e.g., via heated tobacco, vapes, nicotine pouches, and snus, all of which have the potential to be less harmful than smoking (albeit,

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<sup>1</sup> <https://www.pmiscience.com/en/smoke-free/nicotine/nicotine-health-harm-reduction/>

<sup>2</sup> <https://www.pmiscience.com/en/smoke-free/combustion/>

<sup>3</sup> <https://www.who.int/news-room/fact-sheets/detail/tobacco>

<sup>4</sup> <https://nnalliance.org/snus-facts>

addictive and not risk-free).

Several independent health organizations, including the Royal Society for Public Health (U.K.),<sup>5</sup> the U.K.'s Office for Health Improvement and Disparities,<sup>6</sup> and the U.S. Federal Drug Administration<sup>7</sup> have confirmed that nicotine, while addictive, is not the main cause of smoking-related illnesses. Health damage from smoking is not because of the nicotine itself—it is a result of the high levels of many harmful chemicals created (such as carbon monoxide, benzene and formaldehyde)—when tobacco is burned.

Nicotine alternatives that do not burn tobacco can significantly reduce the number and levels of these harmful chemicals, help adult smokers move away from cigarette smoking, and as a result, they represent a substantial opportunity to improve public health.<sup>8,9</sup> They are addictive and they are not risk-free but have the potential to reduce individual and population harm compared to smoking.

Without adequate nicotine delivery, alternative products may fail to satisfy users, leading them to return to cigarettes. Where less harmful nicotine products are accessible, affordable, and appropriately regulated, smokers switch, and smoking rates drop. For example, Sweden has long embraced oral nicotine products and now has the EU's lowest smoking rate—dropping from 15% to around 5% over the last 15 years.<sup>10</sup>

## **Policies and regulations**

Creating and promoting government policies that support tobacco harm reduction are vital to shifting legal-age smokers to better alternatives. For example, policymakers can revise public health policy by making a clear distinction between combustible and noncombustible nicotine products.

Appropriate regulation that enables availability of better alternatives to legal age adults can also guard against youth access, require minimum quality standards to ensure safety and generate revenues for the government. By supporting appropriate risk-proportionate policies, governments and public health bodies can help adult smokers who don't quit move to less harmful, smoke-free alternatives and accelerate the timeline to achieve a smoke-free generation.

## **ADDITIONAL RESOURCES**

PMI's Scientific Update: [here](#).

Article on nicotine on PMIScience.com: [here](#).

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<sup>5</sup> <https://www.rsph.org.uk/about-us/news/nicotine-no-more-harmful-to-health-than-caffeine.html>

<sup>6</sup> <https://www.gov.uk/government/publications/smoking-and-tobacco-applying-all-our-health/smoking-and-tobacco-applying-all-our-health>

<sup>7</sup> <https://www.nejm.org/doi/full/10.1056/NEJMp1707409>

<sup>8</sup> <https://www.pmisceince.com/en/smoke-free/nicotine/nicotine-health-harm-reduction/>

<sup>9</sup> Ibid.

<sup>10</sup> <https://nnalliance.org/snus-facts>