



This material was produced by The International Union Against Tuberculosis and Lung Disease and is now supported by the Tobacco Control Division of Vital Strategies.

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Novel Products, Young People, and Policy

Electronic cigarettes and heated tobacco products (HTPs) are very different, but both are considered “novel products”; the tobacco industry sometimes calls e-cigarettes and HTPs “next generation products” (NGPs) and frequently alleges that they are safer than combustible cigarettes.¹ Both products have actually been around for some time: e-cigarettes were created in 2003 by Chinese pharmacist Hon Lik, and HTPs were invented in the 1980s.² What is new, however, is the popularity of these products—particularly among young people—which has grown significantly since 2010.³ And, while traditional combustibles still comprise the majority of the tobacco industry’s profits, multi-nationals have been producing, acquiring, and selling these products for nearly a decade⁴; they are now available in a wide range of flavors, in variable nicotine concentrations, and often regulated quite differently. Understanding these products—and the differences between them—is critical to developing tobacco control policy and countering tobacco industry messaging.



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E-CIGARETTES

E-cigarettes encompass a wide range of products that generally contain four components: a mouthpiece, a battery, a heating element, and a cartridge or tank that holds liquid, which is heated to produce an inhalable aerosol. This aerosol is often erroneously referred to as “vapor”—a substance converted to gas form—and the use of e-cigarettes is often described with the misleading term, vaping.

Fast Facts:

- **Usage:** These products can be reusable or disposable (single use) and do not contain tobacco but usually contain nicotine in varying quantities. When the products contain nicotine, they are also referred to under the umbrella term, ENDS—Electronic Nicotine Delivery Systems. Products without nicotine are classified as Electronic Non-Nicotine Delivery Systems (ENNDS).
- **Nicotine:** The nicotine content of e-cigarettes varies but increased nearly 107%—from 2.10% to 4.34%—over a five-year period between 2013 and 2018. The rapid increase was due to JUUL’s popularization during that period.⁵ E-liquid composition has also changed—from free-base nicotine, which is described as harsh and bitter—to nicotine salts. Because they are created with benzoic acid, nicotine salts produce an aerosol that is easier to inhale and more palatable.⁶
- **Ingredients:** E-cigarettes contain propylene glycol, glycerin or other solvents, and additives.
- **Names:** Vapes, e-cigs, vapor products, electronic nicotine delivery systems (ENDS).
- **Appearance:** Some e-cigarettes are quite small and resemble traditional cigarettes, cigars, pens, USB drives or other household objects. E-cigarette “mods” or tanks are larger units that come unassembled, allowing users to customize and build them out with different component parts.
- **Brands:** JUUL is the global market leader—it accounted for over 25% of all e-cigarettes sold worldwide in 2019, more than double its nearest competitor—and has been the subject of intense scrutiny, media attention, and a number of lawsuits.⁷ In

the United States, for example, the Massachusetts Attorney General announced in February 2020 that it sued the company “for creating a youth vaping epidemic by intentionally marketing and selling its e-cigarettes to young people.”⁸ Despite the controversy surrounding both JUUL and the product category in general, e-cigarettes are a booming business: there are over 450 different e-cigarette brands currently on the market.⁹ Several major tobacco companies now produce their own e-cigarettes—British American Tobacco (Vype), R.J. Reynolds (Vuse), Imperial Tobacco (blu), Japan Tobacco International (E-Lites, Logic), Philip Morris International (Mesh). Other popular brands include NJoy and Puff Bar.¹⁰ A large portion of e-cigarettes are produced by independent brands, of which there are over 400 globally.¹¹ Independent companies have over 56% of the total market share for e-cigarettes, although their share has decreased significantly over the past several years.¹² Over 95% of e-cigarettes are either manufactured in or sourced from China.¹³

Popular Brands By Country

Mexico: Vype

China: Relx, Myst, MOTI, vwid

Ukraine: JUUL, Eleaf, FLEX, FICH, VitaGig

Vietnam: Asvape, Vgod, Smoktech, Smoant, Joytech, Caliburn

Philippines: Relx



Photograph by E-Liquids UK / Unsplash

E-Cigarettes Flavors and Young People

- Unlike conventional cigarettes, whose flavors (e.g. menthol and clove cigarettes) are increasingly regulated, e-cigarettes are presently available in an astounding 15,000 flavors, with offerings available to taste like desserts, children’s cereals, candies, fruits, teas, and even peanut butter and jelly sandwiches.^{14 15}
- Flavor is delivered through an e-liquid—this is also called “vape juice”—that is stored in pods, cartridges, and bottles. E-liquid contains a variety of substances, including nicotine, flavoring agents (mainly diacetyl), and heavy metals (nickel, tin, lead). Some of the substances in e-liquids have been linked to lung diseases and cancers.¹⁶
- The number of unique e-cigarette flavors has expanded significantly in the last decade. A 2014 study, for example, found over 7,750 flavors across 250 brands. During the study period, the number of new flavors grew by about 242 per month.¹⁷
- In the US, there was a 78% increase in e-cigarette use among high schoolers between 2017 and 2018. Use of flavored products increased from 61% to 68% during the same period, indicating that young users are drawn to flavors.¹⁸

Global Policies and Practices on E-Cigarette Flavors—and Industry Pushback

- In January 2020, the United States’ Food and Drug Administration (FDA) issued a policy to limit e-cigarette flavors—including fruit and mint—that specifically appealed to youth.¹⁹ Because it was restricted to cartridge-based products, the policy did not affect disposable e-cigarettes like Mojo and Puff Bar, which continued selling a variety of flavors, leading to the products’ popularity, especially among youth.²⁰ In 2020, the U.S. FDA issued warning letters to several companies, including Puff Bar, to remove their flavored products from the U.S. market.²¹
- Publicly, JUUL purports to welcome flavor restrictions; it vowed to take a close look at advertising strategies to ensure youth were not being targeted.^{22 23} In 2019, JUUL voluntarily pulled some of its flavors in the US market and instituted an age verification process on its websites. The company continues to sell mint and menthol flavors.²⁴
- Not surprisingly, Vape-shop owners and vape juice producers have not supported any restrictions on flavors and have argued that bans could encourage e-cigarette users to switch back to or start smoking combustible cigarettes.²⁵
- The availability and sale of flavored products is greatly influenced by the regulatory market in the sale location. Globally, 13 countries outside of the U.S. regulate e-cigarette flavors, according to a 2017 policy review.²⁶ All are in Europe; twelve countries have regulations concerning child safety, but only seven have a minimum age of sale in place.²⁷ Some countries, such as Argentina, have classified e-cigarettes as tobacco products, and regulate them pursuant to existing tobacco control laws. Others, such as South Africa, regulate e-cigarettes as medical devices, to be used for cessation. Many countries, such as Greece and Ukraine, have classified e-cigarettes as separate from other tobacco products, with different regulations than traditional combustibles.²⁸

HEATED TOBACCO PRODUCTS

Heated tobacco products (HTPs) are battery powered devices that heat—rather than burn—processed tobacco leaf to a temperature sufficient to release nicotine.²⁹ Also marketed as “heat-not-burn” products, the World Health Organization identifies four types of HTPs: 1) a cigarette-like device with an embedded heat source that aerosolizes nicotine; 2) a device that uses an external heat source to aerosolize nicotine from specially designed cigarettes; 3) a device with a heated, sealed chamber like a micro oven; and 4) a hybrid product that uses a technology similar to ENDS and ENDS.³⁰ In contrast to e-cigarettes, there are just a handful of HTP brands, and most of them are produced by large tobacco companies. The most widely known is IQOS, which is produced by Philip Morris International. IQOS debuted in Japan in November 2014 and is now available in approximately 35 countries.^{31 32}

Fast Facts:

- **Usage:** HTP use increased over 100% between 2014 and 2019, when 12.8 million devices and nearly 70 billion sticks were sold.³³ Despite significant growth, HTP use is much lower when compared to use of conventional and e-cigarettes. In the U.S., 2.4% of adults used heated tobacco products in 2018. It should be noted that 6.7% of current smokers in the US were among those also using heated tobacco products.³⁴ Prevalence is higher in some countries—particularly South Korea (4.4%) and Japan (11.3%)—but HTP sales still remain a small portion of the global tobacco market.^{35 36}
- **Nicotine:** HTPs contain similar amounts of nicotine to conventional cigarettes (around 0.3-0.8mg), but because tobacco is heated to a temperature below combustion, users absorb more nicotine upon inhalation.³⁷
- **Ingredients:** With the exception of hybrid HTP products—BAT’s iFuse and JTI’s Ploom TECH—which also contain a liquid, heated tobacco products contain just tobacco and any added flavoring elements.³⁸
- **Names:** HTPs, Heat-Not-Burn (HNB).
- **Appearance:** HTPs can look like e-cigarettes, with a main body made of plastic, which contains the heating element. A small, wrapped portion of tobacco (similar to a mini cigarette) is then inserted into the plastic portion.³⁹ HTPs can also be thicker, resembling a small tank.
- **Brands:** Other brands, beside IQOS, include ZeroStyle (JTI), iFuse (BAT), PloomTech (JTI), glo (BAT), and Pulze (Imperial).⁴⁰

HTP Marketing and Young People

- While heated tobacco products are available in fewer flavors than e-cigarettes, the tobacco industry gives flavors ambiguous names that might appeal to young people. IQOS’ HeetSticks, for example, come in “Warm & Citrus,” “Balanced & Roasted,” and “Zesty” & Fresh” flavors.⁴¹ Similarly, JTI’s new flavor for its Ploom product line is called “Menthol Purple.”⁴²
- The industry uses specific marketing tactics to interest young people in HTPs. These are marketed as high tech, innovative, and aspirational, and frequently appeal to young professionals. Industry marketing also tends to refer to HTPs as Heat-Not-Burn (HNB) products.⁴³



Photograph by Sven Kucinic / Unsplash

- While HTP use is lower than e-cigarette use among middle- and high-school students, a 2019 study showed that both awareness and use of products is growing among U.S. students.⁴⁴ Researchers have seen a similar trend in Japan, which saw lower rates of HTP use than e-cigarette use among adolescents but high rates of dual use.⁴⁵ Sophisticated advertising and product promotion is likely to accelerate youth usage of these products.⁴⁶
- The tobacco industry leveraged the COVID-19 pandemic in 2020—using promotional activities and relaxed age restrictions—to attract new, young users.⁴⁷ In Russia, PMI partnered with a delivery app to provide customers easy access to IQOS.⁴⁸ BAT ran promotions for its Glo product in Kazakhstan, offering discounts, contests, and branded PPE materials.⁴⁹ In Mexico, tobacco companies engaged in illegal marketing strategies, including product discounts up to 80%.⁵⁰

Global Policies and Practices on HTPs

- Heated tobacco product regulation varies by country, depending on existing tobacco control laws. In Japan, for example, HTPs, including IQOS, are regulated as tobacco products under the Tobacco Business Act, as they contain tobacco (rather than an e-liquid).⁵¹ In South Korea, the Ministry of Health regulates HTPs as unique products; they are subject to new guidelines for tax and graphic health warnings, both of which are less severe than those applied to combustible products.⁵² Globally, at least 17 countries have banned the sale, use, or import of HTPs. In addition to South Korea, at least seven other countries have created specific legislation that only regulates HTPs.⁵³
- In 2020, the US FDA authorized IQOS to be marketed as a “reduced exposure” product. PMI is mandated to conduct surveillance and studies to ensure that marketing meets FDA guidelines, but this was a major win for the company; there can be little doubt that PMI will continue to leverage this decision to appeal to governments in low- and middle- income countries, pushing for lenient IQOS regulations; this has already happened in the Philippines.⁵⁴

OTHER NOVEL PRODUCTS

Snus

Snus is a moist, smokeless tobacco product that comes in either a pouch or as loose tobacco; it can be flavored, and its taste and texture vary depending on how it was produced.⁵⁵ It was first introduced in Sweden in the 16th century but was not regulated as a food product until 2007.⁵⁶ Snus is popular in Sweden, where over 30% of men report its use.⁵⁸ The European Union banned snus in 1992 in response to several new products—Skoal, for example—which was targeting young people.⁵⁹ While the tobacco industry initially favored the ban—it helped protect combustible product sales—opposition grew in the early 2000’s and remains strong today.⁶⁰

Velo and Lyft

BAT recently introduced two tobacco-free nicotine pouches in the UK and the US that are similar to snus, but do not contain tobacco.⁶¹ They are marketed as Lyft and Velo.⁶² The lack of tobacco in these products presents a challenge in some countries, as existing regulations may not cover nicotine-only products. In Pakistan, for example, there are almost no restrictions on Velo’s marketing, even as it pertains including to youth. Popular snus brands include Swedish Match, LD (JTI), Nordic Spirit (JTI), Epok (BAT), Camel (BAT), Zyn (Swedish Match), Skruf (Imperial), and On! (Altria)⁶³

Nicotine gum

There are several new nicotine gums, which are not marketed as nicotine replacement therapies. Lucy is a new brand that is advertised as “the cleaner nicotine alternative.”⁶⁴ The product has been said to disrupt how people access nicotine and has been compared to JUUL.⁶⁵ The company’s mission statement echoes the tobacco industry’s messaging around harm reduction.⁶⁶ Products come in wintergreen, pomegranate, and cinnamon, and buyers can benefit from a cost-saving subscription service.⁶⁷

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