

Issue Brief Global

Understanding HTPs: Current Issues and Recent Findings

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Heated tobacco products (HTPs) are a relatively new addition to the tobacco and nicotine product market. There is ongoing scientific and policy debate regarding the role of HTPs in tobacco harm reduction. with concerns around health effects, marketing and the involvement of the tobacco industry.^{1, 2} This explainer aims to highlight current issues around HTPs and findings from recent research, including STOP research, investigating these issues.

HTP basics: What are heated tobacco products?

Most HTPs consist of two elements: an electronic device and tobacco sticks. These can be purchased separately. The device heats tobacco sticks to produce an aerosol that users inhale. This aerosol contains nicotine and other chemicals, including toxicants and potentially harmful substances.³

Most HTPs use an electronic element to heat the tobacco, but some use a carbon-tip that must be lit like a combustible cigarette. With carbon-tip HTPs, there is no electronic element; tobacco is heated via heat-transfer from the lit carbon-tip.⁴

While Philip Morris International (PMI), the world's largest transnational tobacco company, holds the great majority of global HTP market share, other major tobacco companies make and sell HTPs, as well⁵:

Tobacco Company	HTP Brand	Estimated Global HTP Market Share ⁶
Philip Morris International	IQOS	71.5%
British American Tobacco	Glo	15.3%
Japan Tobacco International	Ploom	4.3%
Korean Tobacco & Ginseng*	Lil	2.9%
Other: Altria Imperial Brands China National Tobacco Corporation	PMI's IQOS in U.S. Pulze Mok	6%

By retail volume of sticks in 2021

*Lil, a Korean Tobacco & Ginseng (KT&G) product, is sold under license by Philip Morris International (PMI) outside of South Korea⁷

Conflation of HTPs and ENDS

Many newer electronic tobacco and nicotine products may look alike, and thus can be easily confused for one another. HTPs contain tobacco and are therefore different from e-cigarettes. While e-cigarettes may be addictive, they do not contain tobacco. E-cigarettes can be categorized as electronic nicotine delivery systems (ENDS) or electronic non-nicotine delivery systems (ENDS),⁸ depending on whether the product contains nicotine. ENDS and ENNDS contain "e-liquids" which the device turns into a vapor that the user inhales. Some hybrid devices, such as Japan Tobacco International (JTI)'s Ploom and KT&G's Lil Hybrid, contain both tobacco and "e-liquids." As these contain tobacco, they are classified as HTPs.

Some of this confusion appears to be propagated by the tobacco industry. A recent analysis of PMI's online promotion of its HTP brand IQOS in New Zealand showed that the company associated its HTP product (IQOS 3 and IQOS Multi) with its ENDS product (IQOS VEEV).⁹ In addition to confusion stemming from the use of "IQOS" in both product names, one PMI online promotion sold both as a "bundle," and suggested using the ENDS product "when you're on the go" and the HTP "when you have a moment to relax." This makes it appear as if PMI is both intentionally associating the two products, which creates confusion, and encouraging dual use of its HTP and ENDS.

Philip Morris Limited, the U.K. subsidiary of PMI, may also be confusing perceptions of HTPs and ENDS on its "Hold My Light" website. The website is part of its "Smoke-Free Future" initiative, which claims that the company's "goal is to replace cigarettes with smoke-free products that are a better choice than continuing to smoke."¹⁰ While the site does mention that HTPs heat tobacco, it claims HTPs are similar to e-cigarettes in that they produce "a nicotine-containing vapour." (See image below.)¹¹ In reality, the emissions from heating tobacco contain not only nicotine, but a variety of chemicals, including many known to be potentially harmful, including carcinogens.¹²

7 out of 10 smokers using heated to bacco stop using cigarettes completely $\!\!\!^*$

*PMI Market Research Japan, March 2018

Cigarettes burn. Heated tobacco doesn't. Without burning, there is no smoke.

Instead, heated tobacco devices work by heating the tobacco which then releases a vapour. Similar to most e- cigarettes, this is a nicotine-containing vapour with much lower amounts of harmful chemicals than found in cigarette smoke.

The key difference between heated tobacco and e-cigarettes is that heated tobacco devices heat tobacco whereas e-cigarettes heat a liquid. Heated tobacco has become very successful in countries such as Japan but is a relatively new alternative to smokers here in the UK.

Heated tobacco products are not risk-free. They deliver nicotine and are addictive. They are only for adults who smoke – not former smokers or for people who have never smoked.

Screenshot of the "Hold My Light" website in May 2022

Controversy around the "smoke-free" claim

A key controversy around HTPs is whether they are truly "smoke-free." British American Tobacco includes its HTP, glo, as part of its "noncombustible" product portfolio.¹³ JTI advertises its HTP, Ploom's, "smooth taste with no smoke."¹⁴ PMI has made consistent and prominent claims its product is "smoke-free."¹⁵ These terms have been contested.^{16, 17, 18}

New research by independent scientists specifically casts doubt on PMI's "smoke-free" claims around IQOS. The paper calls into question the basis on which HTP emissions are compared to cigarette emissions. The authors note that all comparisons to date have measured the harmful and potentially harmful constituents produced by an IQOS tobacco stick, which contains about 177-203 mg of tobacco, to a reference cigarette, which contains about 645 mg of tobacco.¹⁹ The authors highlight that this is not a "like against like" comparison, and that comparison on a "tobacco basis" is needed. The paper also calls for more analysis of repeated use for more reliable assessments of the toxicants released by IQOS.

In addition to the obvious marketing and reputational benefits of offering a "smoke-free" product, leaked PMI documents suggest a key reason to market IQOS as "smoke-free" is to obtain favorable tax status.²⁰ When the tax rate on these products is lower, the tobacco companies have an opportunity to increase their profits. There is evidence of tobacco industry meddling on this issue. A 2020 report details one example in Italy, where Philip Morris Italy sent communications seeking to distinguish IQOS from cigarettes to government officials.²¹ The 2021 Global Tobacco Industry Interference Index indicated that, as of 2021, HTPs in Italy faced only about a quarter of the taxes imposed on cigarettes,²² a figure which reportedly leads to annual government revenue losses of nearly 400 million euros.23

Learn more about current HTP tax policies and regulations around the world with the following resources: "<u>Heated Tobacco Products Global</u> <u>Regulation</u>" (<u>Campaign for Tobacco-Free Kids</u>), "<u>Heated Tobacco Products Information Sheet"</u> (<u>World Health Organization</u>) and "<u>Countries that</u> <u>Regulate Heated Tobacco Products</u>" (<u>Institute for</u> <u>Global Tobacco Control</u>).

Ambiguity around risks

It is well established through the industry's own documents and extensive litigation that the tobacco industry's long and appalling history of scientific misconduct and misinformation about the harms of tobacco led to massive delays in effectively regulating cigarettes.²⁴

In order to accurately understand the health risks associated with HTPs, non-biased research conducted independently of the tobacco industry is needed. However, systematic reviews of studies assessing HTP risks have found the majority of HTP research is funded by the tobacco industry.^{25,} ^{26, 27, 28, 29, 30, 31} Furthermore, most clinical studies on the health risks of HTPs had at least some risk of bias.^{32, 33, 34}

In addition to uncertainties in the research, ambiguity around the health risks of HTPs is further generated by the companies' corporate communications. There is evidence some claims made by PMI could mislead consumers about the risks of its HTP.^{35, 36, 37, 38} In a new study, researchers investigated PMI communications with consumers via a live webchat service on the IQOS website. They analyzed 54 webchat conversations across 22 countries and found a variety of claims regarding the health risks of HTPs were made to potential consumers, some of which were inconsistent, or even contradictory, both within and across countries.³⁹

Do HTPs help smokers quit?

A 2022 Cochrane review concluded that the use of HTPs to help people quit smoking remains unclear, as they identified no published studies measuring this. The same review also investigated the impact of HTPs on smoking rates. The authors concluded that "[d]ata from two time-series studies showed that the rate of decline in cigarette sales accelerated following the introduction of heated tobacco to market in Japan." The authors note: "This evidence was of very low-certainty as there was risk of bias, including possible confounding, and cigarette sales are an indirect measure of smoking prevalence."40 It is important to note that e-cigarettes are banned in Japan, and thus HTPs do not face competition from other newer electronic products.

There is also increasing evidence emerging, both from industry and independent sources, that shows a high proportion of HTP users do not make a complete switch and in fact continue smoking cigarettes.^{41, 42, 43, 44, 45, 46, 47, 48}

There is evidence suggesting PMI is trying to portray IQOS as a cessation product, even though there is no scientific substantiation that IQOS helps users quit smoking.⁴⁹ The company has also set its own definitions for IQOS users, ranging from "situational users" to "predominant users" to "converted users."⁵⁰ PMI's definition of a "converted user" is someone who uses IQOS for over 95% of their tobacco consumption, and during a sevenday assessment only. By the end of 2020, PMI had reported that more than 12 million IQOS users had "switched" to IQOS, but this also only measured use over a seven-day period.⁵¹ Further, it remains unclear how PMI calculates its user estimates.

Conclusion

The benefits of HTPs to public health are yet to be demonstrated. This brings into question their use for tobacco harm reduction over other established harm reduction alternatives. However, the benefit of HTPs to the tobacco industry is evident: They offer another avenue for profit and can contribute to tobacco companies' ongoing "transformation" narrative, while they continue to manufacture and sell trillions of cigarettes every year.

Endnotes

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About STOP (Stopping Tobacco Organizations and Products)

STOP is a global tobacco industry watchdog whose mission is to expose the tobacco industry strategies and tactics that undermine public health. STOP is funded by Bloomberg Philanthropies and comprised of a partnership among the Tobacco Control Research Group (TCRG) at the University of Bath, The Global Center for Good Governance in Tobacco Control (GGTC), the International Union Against Tuberculosis and Lung Disease (The Union) and Vital Strategies. For more information, visit exposetobacco.org.



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