



Tobacco

26 July 2019

Key facts

- **Tobacco kills up to half of its users.**
 - **Tobacco kills more than 8 million people each year. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke.**
 - **Around 80% of the world's 1.1 billion smokers live in low- and middle-income countries.**
-

Leading cause of death, illness and impoverishment

The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing more than 8 million people a year around the world. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke.

Around 80% of the 1.1 billion smokers worldwide live in low- and middle-income countries, where the burden of tobacco-related illness and death is heaviest. Tobacco use contributes to poverty by diverting household spending from basic needs such as food and shelter to tobacco. This spending behaviour is difficult to curb because tobacco is so addictive.

The economic costs of tobacco use are substantial and include significant health care costs for

treating the disease caused by tobacco use as well as the lost human capital that results from tobacco-attributable morbidity and mortality.

In some countries, children from poor households are employed in tobacco farming to boost family income. These children are especially vulnerable to "green tobacco sickness", which is caused by the nicotine that is absorbed through the skin from the handling of wet tobacco leaves.

Surveillance is key

Good monitoring tracks the extent and character of the tobacco epidemic and indicates how best to tailor policies. Only 1 in 3 countries, representing 38% of the world's population, monitors tobacco use by repeating nationally representative youth and adult surveys at least once every 5 years.

Second-hand smoke kills

Second-hand smoke is the smoke that fills restaurants, offices or other enclosed spaces when people burn tobacco products such as cigarettes, *bidis* and water-pipes. There are more than 7000 chemicals in tobacco smoke, of which at least 250 are known to be harmful and at least 69 are known to cause cancer.

There is no safe level of exposure to second-hand tobacco smoke.

- **In adults, second-hand smoke causes serious cardiovascular and respiratory diseases, including coronary heart disease and lung cancer. In infants, it raises the risk of sudden infant death syndrome. In pregnant women, it causes pregnancy complications and low birth weight.**
- **Almost half of children regularly breathe air polluted by tobacco smoke in public places.**
- **Second-hand smoke causes more than 1.2 million premature deaths per year.**
- **65 000 children die each year from illnesses attributable to second-hand smoke.**

Every person should be able to breathe tobacco-smoke-free air. Smoke-free laws protect the health of non-smokers, are popular, do not harm business and encourage smokers to quit.

Over 1.6 billion people, or 22% of the world's population, are protected by comprehensive national smoke-free laws.

Tobacco users need help to quit

Studies show that few people understand the specific health risks of tobacco use. For example, the 2015 Global Adult Tobacco Survey (GATS) in China revealed that only 26.6% of Chinese adults

believe smoking causes lung cancer, heart disease and stroke.

Among smokers who are aware of the dangers of tobacco, most want to quit. Counselling and medication can more than double a tobacco user's chance of successful quitting.

National comprehensive cessation services with full or partial cost-coverage are available to assist tobacco users to quit in only 23 countries, representing 32% of the world's population.

Pictorial health warnings work

Hard-hitting anti-tobacco mass media campaigns and pictorial health warnings protect children and other vulnerable groups from uptake of tobacco and increase the number of tobacco users who quit.

Graphic health warnings can persuade smokers to protect the health of non-smokers by not smoking inside the home and also increases the compliance with smoke-free laws. Studies carried out after the implementation of pictorial health warnings in Brazil, Canada, Singapore and Thailand consistently show that pictorial warnings significantly increase people's awareness of the harms from tobacco use.

Over half the world's population live in the 91 countries that meet best practice for graphic health warnings, which includes the warnings in the local language and cover an average of at least half of the front and back of tobacco product packs.

Mass media campaigns can also reduce demand for tobacco by promoting the protection of non-smokers and by convincing people to stop using tobacco.

Around 1.7 billion people live in the 39 countries that have aired at least one strong anti-tobacco mass media campaign within the last 2 years.

Bans on tobacco advertising lower consumption

Tobacco advertising promotion and sponsorship increases and sustains tobacco use through the effective recruitment of new tobacco users and by discouraging tobacco users from quitting.

Comprehensive bans on tobacco advertising, promotion and sponsorship can reduce tobacco consumption. A comprehensive ban covers both direct and indirect varieties of promotion. Direct forms include, among others, advertising on television, radio, print publications and billboards, while

indirect forms include, among others, brand stretching, free distribution, price discounts, point of sale product displays, sponsorships and promotional activities masquerading as corporate social responsibility programmes.

Only 48 countries, representing 18% of the world's population, have completely banned all forms of tobacco advertising, promotion and sponsorship.

Taxes are effective in reducing tobacco use

Tobacco taxes are the most cost-effective way to reduce tobacco use, especially among youth and low-income people. A tax increase that increases tobacco prices by 10% decreases tobacco consumption by about 4% in high-income countries and about 5% in low- and middle-income countries.

Even so, high tobacco taxes is a measure that is rarely implemented. Only 38 countries, with 14% of the world's population, have introduced taxes on tobacco products so that at least 75% of the retail price is tax.

Tobacco tax revenues are on average 250 times higher than spending on tobacco control, based on available data.

Illicit trade of tobacco products must be stopped

The illicit trade in tobacco products poses major health, economic and security concerns around the world. It is estimated that 1 in every 10 cigarettes and tobacco products consumed globally is illicit. The illicit market is supported by various players, ranging from petty peddlers to organized criminal networks involved in arms and human trafficking.

Tax avoidance (licit) and tax evasion (illicit) undermine the effectiveness of tobacco control policies, particularly higher tobacco taxes. These activities range from legal actions, such as purchasing tobacco products in lower tax jurisdictions, to illegal ones such as smuggling, illicit manufacturing and counterfeiting.

The tobacco industry and others often argue that high tobacco product taxes lead to tax evasion. However, the evidence shows that non-tax factors including weak governance, high levels of corruption, poor government commitment to tackling illicit tobacco, ineffective customs and tax administration, and informal distribution channels for tobacco products are often of equal or greater

importance.

While publicly stating its support for action against the illicit trade, the tobacco industry's behind-the-scenes behaviour has been very different. Internal industry documents released as a result of court cases demonstrate that the tobacco industry has actively fostered the illicit trade globally. It also works to block implementation of tobacco control measures, such as tax increases and pictorial health warnings, by misleadingly arguing they will fuel the illicit trade.

Experience from many countries demonstrate that illicit trade can be successfully addressed even when tobacco taxes and prices are raised, resulting in increased tax revenues and reduced tobacco use. Implementing and enforcing strong measures to control illicit trade enhances the effectiveness of significantly increased tobacco taxes and prices, as well as strong tobacco control policies, in reducing tobacco use and its health and economic consequences.

There is broad agreement that control of illicit trade benefits tobacco control and public health and result in broader benefits for governments. Critically, this will reduce premature deaths from tobacco use and raise tax revenue for governments. Stopping illicit trade in tobacco products is a health priority, and is achievable. But to do so requires improvement of national and sub-national tax administration systems and international collaboration. The WHO FCTC Protocol to Eliminate the Illicit Trade of Tobacco Products (ITP) is the key supply side policy to reduce tobacco use and its health and economic consequences.

New tobacco products

Heated tobacco products (HTPs)

HTPs are tobacco products that produce aerosols containing nicotine and toxic chemicals upon heating of the tobacco, or activation of a device containing the tobacco (examples include iQOS from Philip Morris International, Ploom from Japan Tobacco International, glo from British American Tobacco, and PAX vaporizers from PAX Labs). These aerosols are inhaled by users during a process of sucking or smoking involving a device. They contain the highly addictive substance nicotine, non-tobacco additives and are often flavoured. The tobacco may be in the form of specially designed cigarettes (e.g. "heat sticks", "Neo sticks") or pods or plugs. HTPs are marketed across all six WHO regions, in more than forty countries as of July 2019 via the internet, promotional events, flagship stores, supermarkets, shopping malls and social media.

List of countries:

Show more

Despite claims of “risk reduction”, there is no evidence to demonstrate that HTPs are less harmful than conventional tobacco products. HTPs contain chemicals not found in cigarette smoke and may have associated health effects. Independent assessment of industry data shows that more than 20 harmful and potentially harmful chemicals are significantly higher than in reference cigarette smoke. Additionally, these products are highly variable and some of the toxicants found in the emissions of these products are carcinogens. Currently, there is also insufficient evidence on the effects of second-hand emissions produced by HTPs, though the emissions from these products contain harmful and potentially harmful chemicals (1). Independent studies are needed to assess the risk posed to bystanders exposed to emissions released from HTPs.

Tobacco is inherently toxic and contains carcinogens even in its natural form. WHO considers that all forms of tobacco use are harmful, including HTPs. Therefore, HTPs should be subject to policy and regulatory measures applied to all other tobacco products, in line with the WHO Framework Convention on Tobacco Control (WHO FCTC) and national law. This is supported by the [decision](#) at the recent 8th session of the Conference of the Parties to the WHO FCTC and countries are encouraged to pursue full application of the WHO FCTC, to HTPs, to the extent possible.

Electronic Nicotine Delivery Systems (ENDS)

For WHO, ENDS do not constitute tobacco products because they do not contain tobacco, only nicotine*. However, they are still a serious public health concern. ENDS are devices which heat a solution (e-liquid) to create an aerosol which is then inhaled by the user. The main constituents of the solution by volume are propylene glycol, with or without glycerol, and flavouring agents. Electronic cigarettes (also called “e-cigs,” “vapes,” “e-hookahs” or “vape pens”) vary in the ways in which they produce toxicants and deliver nicotine, due to differences in design, battery voltage, unit circuitry, possibilities for modifications, and adaptability for use with substances other than nicotine.

ENDS sales have increased rapidly since their introduction on the market in 2012: they are projected to reach US\$ 26.84 billion by 2023 (2). Advertising, marketing and promotion of ENDS has likewise grown rapidly, through channels which rely heavily on internet and social media (3). Much of the marketing around these products gives rise to concern about deceptive health claims, deceptive claims on cessation efficacy, targeting towards youth (especially the use of flavours).

Long-term health effects of ENDS are still unknown, and further research is required. Reviews to date of empirical evidence from chemical and toxicological studies and, to a lesser degree, clinical

studies have led various authors to conclude, with more or fewer caveats, that ENDS are not harmless but are generally less dangerous than cigarettes. Particular caveats include:

- **The use of products containing nicotine in any form among youth and pregnant women, including ENDS, is unsafe.**
- **For all ENDS users, the aerosol that they inhale contain toxic substances that may increase the risk of cancer or cardiovascular or pulmonary disease**
- **Inhaling the aerosol exhaled by ENDS users increases exposure of non-smokers and bystanders to nicotine and a number of toxicants over existing background levels.**
- **There are safety concerns related to explosion of ENDS artifacts as well as the accidental nicotine poisoning. There have been cases of defective e-cigarette batteries being charged that have resulted in fires and explosions.**

There is substantial debate on the questions of whether ENDS are an effective cessation tool and whether they provide a gateway to smoking. For both questions, it is too early to tell.

COP7 adopted decision FCTC/COP7(9) inviting the Parties to consider applying some regulatory measures (suggested in the report presented to the same session) including prohibition or restriction of the manufacture, importation, distribution, presentation, sale and use of ENDS/ENNDS, as appropriate to the Parties' national laws and public health objectives. WHO recommends that when countries choose to allow ENDS on their markets, the products are regulated in accordance with four key objectives:

- **Prevent initiation of non-smokers, minors and vulnerable groups;**
- **Minimize health risks for ENDS users and protect non-users from exposure to their emissions;**
- **Prevent the use of unproven health claims being made for ENDS; and**
- **Protect tobacco control from all commercial and other vested interests related to ENDS, including interests of the tobacco industry.**

WHO response

The scale of the human and economic tragedy that tobacco imposes is shocking, but it's also preventable. Big Tobacco — along with all manufacturers of tobacco products — is fighting to ensure the dangers of their products are concealed, but we are fighting back: In 2003, WHO Member States unanimously adopted the WHO Framework Convention on Tobacco Control (WHO FCTC). In force since 2005, it has currently 181 Parties covering more than 90% of the world's population.

There is a fundamental and irreconcilable conflict between the tobacco industry's interests and public health policy interests. The tobacco industry produces and promotes a product that has been proven scientifically to be addictive, to cause disease and death and to give rise to a variety of social ills, including increased poverty. Therefore, countries should protect the formulation and implementation

of public health policies for tobacco control from the tobacco industry to the greatest extent possible.

The WHO FCTC is a milestone in the promotion of public health. It is an evidence-based treaty that reaffirms the right of people to the highest standard of health, provides legal dimensions for international health cooperation and sets high standards for compliance.

In 2007, WHO introduced a practical, cost-effective way to scale up implementation of the main demand reduction provisions of the WHO FCTC on the ground: MPOWER. Each MPOWER measure corresponds to at least 1 provision of the WHO Framework Convention on Tobacco Control.

The 6 MPOWER measures are:

- **Monitor tobacco use and prevention policies**
- **Protect people from tobacco use**
- **Offer help to quit tobacco use**
- **Warn about the dangers of tobacco**
- **Enforce bans on tobacco advertising, promotion and sponsorship**
- **Raise taxes on tobacco.**

WHO has been monitoring MPOWER policies since 2007. For more details on progress made for tobacco control at global, regional and country level, please refer to the series of WHO reports on the global tobacco epidemic.

[WHO report on the global tobacco epidemic 2019](#)

The Protocol to Eliminate Illicit Trade in Tobacco Products requires a wide range of measures relating to the tobacco supply chain, including the licensing of imports, exports and manufacture of tobacco products; the establishment of tracking and tracing systems and the imposition of penal sanctions on those responsible for illicit trade. It would also criminalize illicit production and cross-border smuggling. The Protocol to Eliminate Illicit Trade in Tobacco Products, the first Protocol to the Convention, was adopted in November 2012 at the fifth session of the Conference of the Parties in Seoul, Republic of Korea, and came into force in June 2018.

References

- (1) [iQOS: evidence of pyrolysis and release of a toxicant from plastic](#)
- (2) [Electronic Cigarette Market by Product Type, Flavor and Distribution Channel – Global Opportunity Analysis and Industry Forecast, 2017–2023](#)
- (3) Huang J, Kornfield R, Szczypka G, Emery S. A cross-sectional examination of marketing of electronic

cigarettes on Twitter. Tobacco Control. 2014; 23 (suppl 3): iii26-iii30

* WHO's Framework Convention on Tobacco Control defines tobacco products as "products entirely or partly made of the leaf tobacco as raw material which are manufactured to be used for smoking, sucking, chewing or snuffing".

Guide

- **[Plain packaging of tobacco products: evidence, design and implementation](#)**

Publications

- **[WHO global report on trends in tobacco smoking 2000-2025](#)**
- **[WHO report on the global tobacco epidemic 2019](#)**
- **[WHO global report: mortality attributable to tobacco](#)**

More about tobacco

- **[Tobacco Free Initiative](#)**
- **[WHO Framework Convention on Tobacco Control](#)**
- **[Global Health Observatory \(GHO\) data - Tobacco control](#)**
- **[More about tobacco: topical overview](#)**