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An Overview of Global Regulatory Practices in Controlling Waterpipe Tobacco Use

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Executive summary

This report, prepared by the WHO FCTC Secretariat's Knowledge Hub on Waterpipe Tobacco Smoking (KH-WTS), summarizes the global regulatory practices for waterpipe use, identifies the gaps in evidence on such practices, and provides key observations for the development of future policies that are aimed at regulating and controlling waterpipe use.

Available reports, peer reviewed manuscripts, grey literature, and policy briefs were carefully reviewed to produce this document. Experiences gained from fighting the tobacco epidemic to date, which is mostly cigarette-focused, has taught researchers, policymakers and governments that fast action is also needed to curb the waterpipe epidemic. Sufficient scientific evidence has been generated about the toxicology and harmful health effects of waterpipe smoking to justify swift action. What remains lacking is strong implementation, monitoring and enforcement of laws, policies, interventions, and rigorous evaluation pertaining specifically to waterpipe control.

Global regulatory practices

Experiences from thirty-nine countries – all but one Parties to the WHO FCTC – were reviewed. They have been identified as having regulations on waterpipe tobacco products and/or on waterpipe use. Information is also available from some of the countries on the enforcement of various measures, including those regulating health warnings on waterpipe tobacco packages, waterpipe use bans and bans in advertising, promotion and sponsorship of waterpipe tobacco. Turkey was found to have the most advanced waterpipe-specific regulations.

The information on these global regulatory practices, however, is limited and scattered in various resources. The reviewed documents also showcase the gaps between the legislations and regulations, and their implementation. This reinforces the need for appropriate documentation of implementation and evaluation. Further, reporting on how these countries benefitted from each other's experiences, the challenges faced by the law enforcement agencies, and the lessons learned from the process were absent in most reports.

More research will also be needed to explain the process for implementation of waterpipe regulations and experienced successes, and how challenges faced during implementation were addressed. Proper evaluation is also lacking in most cases, allowing only limited assumptions concerning the effectiveness, efficiency, sustainability, as well as short-term and long-term impact of these actions.

The KH-WTS lays out below some key observations by WHO FCTC articles:

Article 6 - Price and tax measures to reduce the demand for tobacco

A rise in taxation of cigarettes has shown to be effective in reducing cigarette consumption and increase government revenue due to cuts in tobacco-related health care costs. It can be assumed that such interventions can reduce waterpipe consumption; however, documentation of this impact would be needed once such regulatory practices are implemented by Parties.

Article 8 - Protection from exposure to tobacco smoke

Studies carried out so far prove the fact that waterpipe smoking is harmful to both smokers and non-smokers. This information can be used to persuade policy-makers to require and implement appropriate indoor smoking bans in the cafés, restaurants, and clubs offering waterpipe.

Articles 9 and 10 - Regulation of the contents of tobacco products and Regulation of tobacco product disclosures

Waterpipe tobacco and its use should be explicitly mentioned in existing policies, and there is need to adequately regulate the key contents of waterpipe tobacco such as nicotine, tobacco specific nitrosamines and humectants, including a ban of flavours in waterpipe tobacco. The latter is crucial because flavourings are a key motivator for initiation of waterpipe smoking.

Article 11 - Packaging and labelling of tobacco products

Regulating the labelling on the packaging of waterpipe tobacco and related paraphernalia, and documenting the right content of nicotine would eliminate information that misguides smokers into thinking they are not tobacco products. Health warnings tailored with waterpipe specific messages and pictorials can be suggested and applied on all waterpipe tobacco products and related accessories.

Article 12 - Education, communication, training and public awareness

Education programs implemented and integrated within a strong anti-tobacco policy for all educational premises, alongside mass public campaigns with evaluated messages specific to waterpipe, would encourage Parties to abide by this article.

Advocating against waterpipe smoking in various responsible media entities and through active civil society organizations can be effective in alerting citizens about the harms of its use. Many reviews have indicated that such communication efforts, together with the implementation of a broad range of policy interventions, including tobacco taxation and advertising bans, can be effective in changing individuals' smoking patterns and stimulating positive behavioural changes when it comes to tobacco cessation.

Article 13 – Tobacco advertising, promotion and sponsorship

Bans on tobacco advertising, promotion and sponsorship have been effective policy measures set by the WHO FCTC and need to be further extended to waterpipe smoking. This includes the waterpipe itself and the related smoking accessories.

Article 14 – Demand reduction measures concerning tobacco dependence and cessation

National cessation programs should support users of all types of tobacco products and should take into account the wide cultural acceptance of waterpipe use and means to counter it. In addition, comprehensive monitoring and evaluation of tobacco cessation programs can be carried out to include data on waterpipe smoking, motivation to stop and relapse prevention.

Article 16 – Sales to and by minors

Countries should implement minimum legal age for the sale or purchase of tobacco products, including a minimum age for using, selling or buying waterpipe tobacco and related accessories.

Article 20 – Research, surveillance and exchange of information

High impact health communication interventions, which promote nicotine- and tobacco-free norms and highlight the health risks specific to waterpipe tobacco smoking, should be designed and tested. Researchers interested in behavioural interventions that target the communities should consider creating multi-country partnerships, which can generate such evidence. When made available, such evidence can encourage the exchange of practices and lessons learnt among countries.

Article 21 – Reporting and exchange of information

Rigorous monitoring and evaluation on how the WHO FCTC requirements are being implemented, and how implementation challenges are being addressed, including those that are directly related to waterpipe use, should form part of research agendas of the countries that implement such policies. Parties should also report this information to the Conference of the Parties as part of their biennial implementation reports.

Definition of tobacco products

Reviews of tobacco-related legislative documents indicate that almost all countries rely on ‘generic’ tobacco definitions to address waterpipe use, which is not sensitive to the particularities of regulating it. The rapid spread of waterpipe use necessitates the updating and expansion of the definition of tobacco products. This will ensure that any newly introduced novel tobacco product is subjected to evidence-based and informed control regulations.

INTRODUCTION

The World Health Organization Framework Convention on Tobacco Control (WHO FCTC) addresses all tobacco products; however, most of the policies implemented under the aegis of the Convention only concern smoking tobacco products and traditional cigarette use. Accordingly, most of the evidence accumulated in tobacco control refer to cigarette use. With the global increase in waterpipe tobacco smoking, the importance of applying the WHO FCTC articles to non-cigarette tobacco products such as waterpipe, is evident.

The following document has been prepared by the WHO FCTC Secretariat's Knowledge Hub on Waterpipe Tobacco Smoking (KH-WTS), with the purpose of summarizing current global regulatory practices, and providing key observations that could support the adoption of future policies to address the waterpipe epidemic.

The presented information has been synthesized from available global literature pertaining to waterpipe smoking by careful review of available reports, peer reviewed manuscripts, grey literature and policy briefs. These sources were identified via internet search of the combination of key words such as "waterpipe", "regulatory experiences", "regulatory practices", "hookah", "shisha", and "waterpipe tobacco". The electronic database search was carried out through the usage of these key words on PubMed and Google scholar. All documents that were considered to be relevant were then thoroughly assessed, and any specific country with reported regulatory practices was further explored. Supplementing this search, reports received from the WHO FCTC Parties in the 2018 reporting cycle were also reviewed to identify any new regulatory practices. The generated data highlighted the current gaps in documenting waterpipe regulatory experiences.

The KH-WTS considers the term "**regulatory practices**" to entail:

- 1.) countries' conformity to their own laws and regulations related to waterpipe tobacco; and
- 2.) the documentation of implementation effectiveness and impact of such laws and regulations.

It is worth noting that the approach adopted for data collection excludes anecdotally reported regulatory practices, as well as those that lack any documentation on the process of their implementation and their effectiveness.

DEFINITION OF WATERPIPES

Waterpipe smoking refers to a tobacco use method where the smoke passes through water before reaching the mouth of the user. When compared with cigarettes, the waterpipe is different in shape and size, less portable and often a shared practice among individuals.

Different terms have been interchangeably used globally for waterpipe depending on the region. These include "shisha", "boory", "goza", "narghile", "nargile", "arghile",

“hookah”, and “hubble bubble” (1-6). The most known waterpipe tobacco product is known as Mo’assel, also named ma’assel, moassel, mu’essel, and mu’assel (7-12). This product is a mixture of tobacco (typically around 30%) and molasses. In the global markets, Mo’assel is available in different fruit and herb flavours. There are also the herbal flavoured non-tobacco mixtures, advertised as the ‘healthy’ alternative to Mo’assel (13).

A GLOBAL EPIDEMIC

Waterpipe use spiralled globally at the start of the 21st century, starting from the Middle East and spreading in the United States and Europe (8,14,15). In several parts of the world, waterpipe smoking has quickly replaced cigarettes as the primary mode of smoking, especially amongst the youth (16-18). The main misperception associated with this rise has been the assumption that waterpipe smoking is a ‘healthier’ tobacco product alternative because harmful substances get ‘filtered’ out by water (16,19-22). The addition of flavourings to the tobacco product has reduced its harshness, thus rendering it widely acceptable to youth. Waterpipe use is predominant among the youth, males and in urban settings. Waterpipe smoking is also characterized by its intermittent and social use (7). Significant motives for waterpipe smoking have been socialization, relaxation, pleasure and entertainment (13,16,23,24). And thus, the cafes and clubs serving waterpipe have become classified as hip among the youth (14,18).

A recent systematic review noted that the prevalence estimates of waterpipe use were high among youth in both the Eastern Mediterranean region and European countries (25). Kuwait national survey indicated that 57% of men and 69% of women had used waterpipe at least once (26). In Egypt, there is also a high report of waterpipe usage, with the initiation age to be very low (27,28). In Syria and Lebanon, half of the university students have smoked waterpipe, a quarter of those users being males (4,29). A 33% drop in cigarette smoking among high school students in the United States was reported in 2015, while smoking of non-cigarette products, including waterpipe, increased by 123% (16). Another study carried out in London within waterpipe serving premises, indicated that 98% of its customers were smoking Mo’assel tobacco (9), and that half of those who have ever smoked waterpipe first experienced it in waterpipe cafes (30).

WATERPIPE HEALTH RISKS

There is enough evidence to support the serious health risks associated with waterpipe smoking. The primary health risks include lung cancer, respiratory diseases, low birth weight, periodontal diseases, infectious diseases such as tuberculosis, and spreading of viruses such as hepatitis and herpes (31-35).

Waterpipe smoking also creates dependency due to the substantial amount of nicotine present in tobacco (5,32,36-51). This dependency makes it challenging for smokers to quit, mainly due to the withdrawal symptoms even when they have the motivation to do so (16).

The generated evidence also indicates that the health effects of waterpipe can mimic cigarette smoking for smokers and their surroundings (13,31,52-60). A waterpipe smoking session has been estimated to be equivalent to smoking 100 cigarettes; it lasts much longer than smoking a cigarette and each puff generates large volume of smoke, and sequentially leads to a prolonged inhalation of toxicants (8,61). In addition, second-hand smoke exposes non-smokers to hazardous levels of particles, carcinogenic polycyclic aromatic hydrocarbons and carbon monoxide; all of which can lead to serious health effects (62,63).

GLOBAL REGULATORY PRACTICES

Table 1 below summarizes the findings extracted from reviewed literature. The information on global regulatory practices to curb waterpipe smoking is limited and scattered in various resources. The reviewed documents also showcase the gaps between the legislative decisions regarding controlling waterpipe tobacco use and their implementation. This reinforces the need for proper regulations and documentation of effective practices. Country experiences analysed below are divided into subgroups following the World Health Organization Member States regional divisions.

Countries identified to have regulatory practices from the reviewed documents included (in alphabetic order): Afghanistan, Azerbaijan, Bahrain, Belize, Brazil, Bulgaria, Canada, Colombia, Czech Republic, Egypt, Estonia, Germany, Ghana, India, Israel, Jamaica, Japan, Kenya, Lebanon, Netherlands, Nigeria, Norway, Pakistan, Panama, Philippines, Portugal, Republic of Korea, Russian Federation, Rwanda, Saudi Arabia, Serbia, Slovakia, Slovenia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania and United States of America (non-Party). The country experiences were divided into subgroups following the World Health Organization Member States regional divisions.

Table 1. Overview of Identified Country Regulatory Practices.

Country	WHO FCTC Ratification Date	Smoke Free Policies	Text Warning Label	Pictorial Warning Label	Waterpipe Specific Health Warnings
<i>Afghanistan</i>	13 August 2010	Yes	Yes	Yes	No
<i>Bahrain</i>	20 March 2007	Yes	Yes	Yes	Yes
<i>Egypt</i>	25 February 2005	Yes	Yes	Yes	Yes
<i>Lebanon</i>	7 December 2005	Yes	Yes	No	Yes
<i>Pakistan</i>	3 November 2004	Yes	Yes	Yes	No
<i>Saudi Arabia</i>	9 May 2005	Yes	Yes	Yes	No
<i>United Arab Emirates</i>	7 November 2005	Yes	Yes	Yes	No
<i>Belize</i>	15 December 2005	No	Yes	No	No
<i>Brazil</i>	5 November 2005	Yes	Yes	Yes	Yes
<i>Canada</i>	26 November 2004	Yes	Yes	Yes	No
<i>Colombia</i>	10 April 2008	Yes	Yes	Yes	Yes
<i>Jamaica</i>	7 July 2005	Yes	Yes	Yes	No

<i>Panama</i>	16 August 2004	Yes	Yes	Yes	Yes
<i>United States of America</i>	N/A	Yes	Yes	No	No
<i>India</i>	5 February 2004	Yes	Yes	Yes	No
<i>Azerbaijan</i>	1 November 2005	Yes	Yes	No	Yes
<i>Bulgaria</i>	7 November 2005	Yes	Yes	Yes	No
<i>Czech Republic</i>	1 June 2012	Yes	Yes	Yes	No
<i>Estonia</i>	27 July 2005	Yes	Yes	Yes	No
<i>Israel</i>	24 August 2005	Yes	Yes	No	No
<i>Germany</i>	16 December 2004	Yes	Yes	Yes	Yes
<i>Netherlands</i>	27 January 2005	Yes	Yes	Yes	Yes
<i>Norway</i>	16 June 2003	Yes	Yes	Yes	No
<i>Portugal</i>	8 November 2005	Yes	Yes	Yes	Yes
<i>Russian Federation</i>	3 June 2008	Yes	Yes	Yes	No
<i>Serbia</i>	8 February 2006	Yes	Yes	No	No
<i>Slovakia</i>	4 May 2004	Yes	Yes	Yes	Yes
<i>Slovenia</i>	15 March 2005	Yes	Yes	No	No
<i>Turkey</i>	31 December 2004	Yes	Yes	Yes	Yes
<i>Ukraine</i>	6 June 2006	Yes	Yes	Yes	No
<i>United Kingdom of Great Britain and Northern Ireland</i>	16 December 2004	Yes	Yes	Yes	No
<i>Ghana</i>	29 November 2004	Yes	Yes	No	No
<i>Kenya</i>	25 June 2004	Yes	Yes	Yes	No
<i>Nigeria</i>	20 October 2005	Yes	Yes	No	No
<i>Rwanda</i>	19 October 2005	Yes	Yes	No	No
<i>Uganda</i>	20 June 2007	Yes	Yes	No	No
<i>United Republic of Tanzania</i>	30 April 2007	Yes	Yes	No	No
<i>Japan</i>	8 June 2004	Yes	Yes	No	No
<i>Philippines</i>	6 June 2005	Yes	Yes	Yes	No
<i>Republic of Korea</i>	16 May 2005	Yes	Yes	No	Yes

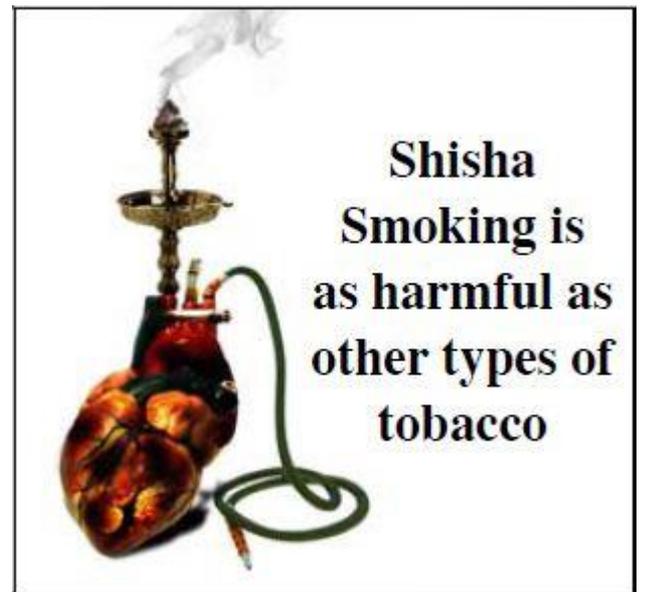
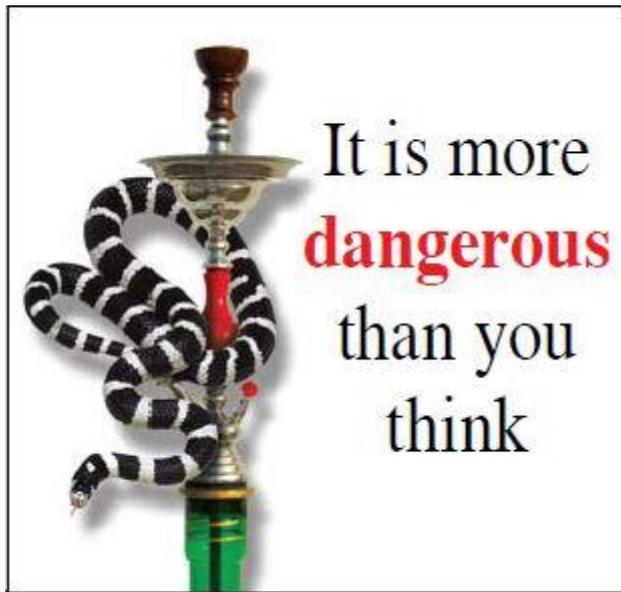
Eastern Mediterranean Region – Afghanistan, Bahrain, Egypt, Lebanon, Pakistan, Saudi Arabia, and United Arab Emirates

Afghanistan has implemented measures applicable to waterpipes by raising taxes, banning tobacco advertising, promotion and sponsorship, banning the use of waterpipes in hotels and restaurants, and showcasing warning signs regarding use of waterpipe in public places (64). Waterpipes are explicitly mentioned in most of the articles of the country's Tobacco Control Law (64).

Bahrain has reported to the WHO FCTC Secretariat that waterpipe tobacco is regulated under the national tobacco control law and that the country has adopted an approach similar to the controlling of cigarettes. Being a member of the Gulf

Cooperation Council¹, two out of six pictorial health warnings were specifically designed in 2012 for waterpipe tobacco (65).

On 9 August 2011, the GCC Standardization Organization adopted a standard for the labelling of tobacco product packages. This standard included a requirement for picture based health warnings to cover 50% of the package front and back, with an Arabic warning on the front and an English warning on the back. The new standard replaced the 1994 GCC standard, which required text-only bilingual (Arabic and English) warnings on the package front only. As of August 2012, the graphic warning is mandatory on cigarette packages in all GCC countries.



¹ The Gulf Cooperation Council (GCC) consists of six member countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates.

Smoking, including waterpipes, is prohibited in Egypt's health and educational facilities, governmental venues, sporting and social clubs, youth centres, and public transport (66). Textual and pictorial health warnings are to occupy 50% of the front and back of the tobacco products; these warnings have been specifically applied for waterpipe tobacco (66). In 2017, the Government of Egypt requested the use of a new set of pictorial warnings (66).

In Lebanon, both textual and pictorial health warnings should occupy 40% of the overall area of any tobacco pack including waterpipe, with specific text for these warnings (67); however, only textual warnings have been applied since 2013 on cigarette and waterpipe so far. The suggested health warnings to waterpipe rely on evidence-based health outcomes (68).

In Pakistan, despite the adoption of policy and regulations against waterpipe smoking, implementation practices have been weak (69). Documentation indicates that law enforcement agencies have found it challenging to implement the Pakistani court decision regarding the banning of waterpipe use within restaurants and cafes (70).

Saudi Arabia has reported to the WHO FCTC Secretariat that waterpipe tobacco is subject to regulation just as any other tobacco product.

In the United Arab Emirates, zoning regulations have been placed for waterpipe serving premises throughout the country. Such premises should be at least 150 meters from residential, working and educational areas (69). The Government has enforced strict working hours, prohibited underage sales and acceptance of pregnant women into such premises (69). The country has also reported to the WHO FCTC Secretariat the following regulations: applying taxes to accessories used for waterpipe tobacco smoking; including waterpipe use in the ban of tobacco use in public places; banning delivery of waterpipes and accessories to homes; applying specific regulations on the disclosure of content of waterpipe tobacco; applying specific health warnings to waterpipe tobacco and accessories; mandating the placement of health warning signs in the open areas where waterpipe tobacco is served and consumed; implementing campaigns to educate the public on health hazards of waterpipe use; banning advertising and promotion of waterpipe tobacco and its use; implementing campaigns targeted specifically at waterpipe tobacco users; preventing access to waterpipe tobacco use by youths through legislation; and prohibiting sales of waterpipe tobacco and accessories to and by minors.

Region of the Americas – Belize, Brazil, Canada, Colombia, Jamaica, Panama and United States of America (non-Party)

Belize has reported to the WHO FCTC Secretariat about their draft Tobacco Control Bill, which intends to also regulate and control non-traditional tobacco products, including waterpipe tobacco.



Brazil adopted Decree No. 8.262 in 2014, which has banned the use of waterpipe in enclosed common areas, including aircrafts and public transportation vehicles, with a few exceptions observed. Commercial advertising has also been prohibited for these products in all national territory, although display at point of sale is still allowed. The country implemented a communication campaign on waterpipe tobacco use on the 2015 National Day Against Tobacco, 29 August. The slogan “It may look harmless, but smoking a waterpipe is like smoking 100 cigarettes” and related materials dismantled the misbelief that smoking waterpipe is innocuous, raising awareness on its harmful effects and promoting the enforcement of the regulations in place.

Canada has adopted waterpipe specific regulations and has been keen on their implementation. One example is how the court in Ottawa supported the city’s ban for waterpipe smoking in public places, despite the waterpipe premises’ objections and considerations that such an act violates the Charter of Rights and Freedoms, based on The Saskatchewan Medical Association dues Check-off Regulations, 1996, RRS c S-29 Reg 20 (Can.) (71). The country has also reported to the WHO FCTC Secretariat regarding the introduction of plain packaging requirements for all tobacco products, without the explicit mentioning of waterpipe tobacco.

In its report to WHO FCTC, Colombia refers to the Tobacco Control Law No. 1335 dated 2009, which regulates all tobacco products including waterpipe. The country has adopted the following regulations against waterpipe use: ban of waterpipe use in public places; request for specific regulations on health warnings to waterpipe tobacco packages and accessories; ban of advertising and promotion of waterpipe tobacco and its use; prevention of access to waterpipe tobacco use by youths through legislation, and prohibition of sales of waterpipe tobacco and accessories to and by minors.

Jamaica has reported to the WHO FCTC Secretariat the use of a generic definition for tobacco products to include waterpipe tobacco. Consequently, it applies its Tobacco Control Regulations on waterpipe tobacco in addition to other tobacco products. The regulations stipulate the banning of the waterpipe smoking in indoor places (72).

Panama has reported to the WHO FCTC Secretariat that special attention is being paid during routine inspections and special operations to reinforce compliance with tobacco control regulations pertaining to waterpipe. Panama also mentioned in their reporting the banning of waterpipe use in public spaces; the implementation of health warnings to waterpipe and accessories; and banning of advertisement and promotion of waterpipe tobacco and its use.

Within the United States of America (non-Party), Delaware has expanded the definition of smoking to include waterpipe by stating “*the burning of a lighted cigarette, cigar, pipe or any other matter or substance that contains tobacco*” (73). This has helped enforcing the ban of waterpipe use in areas where cigarette smoking is also banned.

South-East Asia Region – India

India has adopted regulations to curb waterpipe use. Newspaper articles have documented how India banned indoor and outdoor public consumption of waterpipe in some of its regions; the implementation of this ban was challenged in court. In fact, these articles reported that many waterpipe café owners were using policy advocacy to try to overrule the enforcement of the ban (74,75).

The European Region – Azerbaijan, Bulgaria, Czech Republic, Estonia, Israel, Germany, Netherlands, Norway, Portugal, Russian Federation, Serbia, Slovakia, Slovenia, Turkey, Ukraine, and United Kingdom of Great Britain and Northern Ireland

All 28 countries under European Union regulations must abide by the Tobacco Products Directive (2014/40/EU) (76), indicating that all waterpipe tobacco products, like cigarettes and roll-your-own tobacco, must carry combined health warnings consisting of a picture from the EU picture library, a text warning and information on stop smoking services. The warnings should cover at least 65% of the front and back of packages. Tobacco products with combined health warnings must also carry a general warning and information message. Despite the ban on flavoured tobacco required under the Directive, waterpipe tobacco is exempted from the prohibitions (Article 7.12). However, the European Commission specified the possibility for withdrawing the exemption.

A very clear definition of “waterpipe tobacco” is featured in Article 2.13: *‘waterpipe tobacco’ means a tobacco product that can be consumed via a waterpipe. For the purpose of this Directive, waterpipe tobacco is deemed to be a tobacco product for smoking. If a product can be used both via waterpipes and as roll-your-own tobacco, it shall be deemed to be roll-your-own tobacco.*

Azerbaijan reported to the WHO FCTC Secretariat that restrictions and bans within the new national tobacco control law have incorporated waterpipe tobacco products. The new decree was signed by the President of Azerbaijan on 29 December 2017. Thus, new regulations are to be applied to waterpipe tobacco marketing and packages.

Bulgaria reported to the WHO FCTC Secretariat that it also applies its policies to waterpipe tobacco as it included waterpipe in the definition of tobacco products. Tobacco experts from relevant ministries in the country have also been vocal regarding the need to ban waterpipe smoking for youth under 18 years of age (77).

Czech Republic reported to the WHO FCTC Secretariat to have carried out two audio spot broadcasts to discuss the waterpipe tobacco harms as part of its awareness raising

efforts within the country. An unofficial translation of the Act No. 100/1997 also indicates how waterpipe is defined to be considered as any other tobacco products and thus all measures related to advertising, promotion, and health warning labelling are to be also applied to waterpipe tobacco (78).

Estonia reported to the WHO FCTC Secretariat that the country applies the same regulations on waterpipe as they do on other smoking tobacco.

In Israel, health warnings are in the form of text only and are required to appear on smoked and smokeless tobacco products, as well as on waterpipe tobacco. The warnings must cover 30% of the tobacco package (69,79). In addition, the law forbids smoking of waterpipe in public spaces as indicated: *“Personally or by means of another on his behalf, approached a person smoking or holding a lit cigarette, cigarillo, hookah, cigar or pipe in a public place requesting that he desist from the prohibited act, or took all reasonable steps to ensure the prevention of offenses under subsections 1(A) and 1(B)”* (69).

Germany specified to the WHO FCTC Secretariat that health warnings are applicable to waterpipe tobacco within their national tobacco control law. Newspaper articles from 2016 also point out that plain packaging of waterpipe tobacco products is expected in an updated law (80).

The Netherlands reported to the WHO FCTC Secretariat the following specific regulations on waterpipe tobacco: banning waterpipe use in public places where use of other types of tobacco is banned; adopting specific regulations on the content of waterpipe tobacco; applying health warnings to waterpipe tobacco and accessories; implementing campaigns to educate the public on health hazards of waterpipe use; banning advertising and promotion of waterpipe tobacco and its use; implementing campaigns targeting specifically waterpipe tobacco users; preventing access to waterpipe tobacco use by youths through legislation, prohibiting sales of waterpipe tobacco and accessories to and by minors.

Norway reported to the WHO FCTC Secretariat that the manufacture, import and sale of waterpipe tobacco is banned in accordance with the requirements of the tobacco control act.

Portugal reported to the WHO FCTC Secretariat that since 20 May 2016 the country has compulsory text and pictorial health warnings that cover 65% of the waterpipe tobacco products in accordance with the EU Tobacco Products Directives. The country also mentioned to the WHO FCTC Secretariat that references to carbon-monoxide, tar, nicotine or any flavors are not allowed on the tobacco packages. Certain terms such as “organic” and “without additives”, or reference to benefits for lifestyle or environment in labeling of tobacco packages, are also prohibited; this would include the prohibition of misleading or deceptive elements on the tobacco packages.

The Russian Federation has specific laws that prohibit waterpipe tobacco advertising, sponsorship, and promotion (69). The legislation specifically refers to advertising of tobacco, tobacco products and smoking requisites, including pipes, hookahs..." (69).

Serbia reported to the WHO FCTC Secretariat that waterpipe tobacco is regulated under the Law on Tobacco set for the country in 2005, similar to all other tobacco products.

Slovakia reported to the WHO FCTC Secretariat that the country has banned waterpipe smoking in public places and adopted bans similar to other forms of tobacco smoking. The unofficial translation of the policy on the manufacture and labelling of tobacco products and related products indicates how health warning labelling for waterpipe tobacco is expected to be like other tobacco products (81).

Slovenia reported to the WHO FCTC Secretariat that they apply the EU regulations on waterpipe tobacco products. Thus, the use of waterpipe tobacco is banned in public places and workplaces, and all provisions that apply to other tobacco products also apply to waterpipe products.

Turkey has documented the most advanced waterpipe specific laws and regulations (69). The country has specific health warnings concerning waterpipe to be placed on all waterpipe apparatuses in addition to the use of generic tobacco warnings (82). Furthermore, Turkey has advertising, sponsorship and promotion laws specific to waterpipe-serving premises, which specifies that "*no type of advertisement, introduction, campaign, promotion or any type of activity whatsoever that promotes or encourages the consumption of tobacco products shall be organised in the area/areas belonging to the business where hookah tobacco is provided for consumption*" (69). An evaluation on tobacco control policies in Turkey reported a 65% decline in the prevalence of waterpipe tobacco smoking between 2009 and 2012 based on data from the Global Adult Tobacco Survey (83). Additionally, the country reported to the WHO FCTC Secretariat the following regulatory measures: mandating the placement of health warning signs in the open areas where waterpipe tobacco is served and consumed; implementing campaigns to educate the public on health hazards of waterpipe use; implementing campaigns targeted specifically at waterpipe tobacco users; and preventing access to waterpipe tobacco use by youths through legislation.

Ukraine's Law No. 4844 mentions that "*smoking of tobacco products as well as electronic cigarettes and hookahs is prohibited*" (69).

In the United Kingdom of Great Britain and Northern Ireland, waterpipe serving premises are forbidden in enclosed areas as per the law (69); smoking is allowed in open terraces, which are only 50% covered. The country also implements the following waterpipe-specific regulations: applying taxes to accessories used for waterpipe tobacco; applying health warnings to waterpipe tobacco and accessories; banning advertising and promotion of waterpipe tobacco and its use; preventing access to waterpipe tobacco use by youths through legislation; and prohibiting sales

of waterpipe tobacco and accessories to and by minors. These policy and regulations are covered under the EU Tobacco Products Directive, which has been transposed into UK's "Tobacco and Related Products Regulations 2016". Enforcement of these bans should still be carried out in a more effective manner (84).

The African Region – Ghana, Kenya, Nigeria, Rwanda, Uganda, and United Republic of Tanzania

The listed countries have taken steps to ban waterpipe tobacco use in commercial establishments. Reporting on how these countries benefitted from each other's experiences, the challenges faced by the law enforcement agents while applying the ban, and the lessons learned from the process have yet to be documented.

Ghana informed the WHO FCTC Secretariat that waterpipe is being regulated as a tobacco product, despite not being mentioned explicitly in the law.

In 2017, Kenya banned the importation, manufacture, advertising, sale and use of waterpipe in commercial establishments, such as restaurants and night clubs (85, 86).

The Government of Nigeria have shown commitment to ban flavored tobacco used for waterpipe smoking. During a press conference on 4 June 2018, the Minister of Health called upon law enforcement agents to act and enforce the ban against flavored tobacco within waterpipe cafes in Nigeria, which are targeting young people (87).

In 2017, Rwanda banned the use, advertisement and importation of waterpipe tobacco. The Minister of Health declared that any violation of this ban will be subject to legal sanctions (88, 89).

In 2012, Uganda adopted a total ban on waterpipe tobacco (90).

The United Republic of Tanzania was the first nation in Africa to prohibit the importation, manufacture, advertising, sale and use of waterpipes in commercial establishments in 2016 (91).

The Western Pacific Region – Japan, Philippines, and Republic of Korea

Japan has reported to the WHO FCTC Secretariat that waterpipe is regulated under the Tobacco Business Act, taxed under the Tobacco Tax Act, and included in other relevant laws.

The Philippines has reported to the WHO FCTC Secretariat that it regulates waterpipe tobacco at a sub-national level.

The Republic of Korea has reported to the WHO FCTC Secretariat the development of textual warnings to be applied on all waterpipe tobacco products.

CONCLUSIONS AND KEY OBSERVATIONS

In most cases, the literature reviewed only refers to the adoption of laws and regulations intended to be applied to waterpipe tobacco products and waterpipe use. Implementation of waterpipe regulations and related experiences, including successes and challenges, are less well documented. Proper evaluation of policies, their implementation, and the assessment of their impact is also lacking, allowing only limited assumptions on the effectiveness, efficiency, sustainability, as well as short-term and long-term impacts of these actions.

Inconsistencies were also observed as to how waterpipe tobacco products were considered by the Parties. In many cases, waterpipe tobacco products were considered as any other tobacco products and included in the relevant regulations, while in other cases, they were excluded from certain regulations. Many national laws and regulations do not have a clear definition of waterpipe tobacco, which has led to in conflicting interpretation of measures, and therefore their implementation.

The key observations listed as follows have thus been made by the KH-WTS by linking them to the relevant WHO FCTC articles when applicable:

Article 6 - Price and tax measures to reduce the demand for tobacco

Increase in taxation of cigarettes has been shown to be effective in reducing cigarette consumption and increasing government revenue due to cuts in tobacco-related health care costs (7,92-97). It can be assumed that price and tax measures could also reduce waterpipe consumption; however, further research and documentation of such impact would be needed once such regulatory practices are implemented by Parties.

Article 8 - Protection from exposure to tobacco smoke

The studies carried out so far and referenced in this document can be used as evidence to persuade policy-makers that waterpipe smoking is harmful to both smokers and non-smokers, in order to implement proper indoor smoking bans in premises serving waterpipe (7, 16, 69, 93). Many countries have already taken measures to protect people from waterpipe second-hand smoke emissions.

Articles 9 and 10 - Regulation of the contents of tobacco products and Regulation of tobacco product disclosures

The European Union has taken the initiative to ban flavoured tobacco; however, waterpipe tobacco products were excluded from the suggested banning regulations (69, 94, 98-100). Considering that flavouring is a key motivator for waterpipe smoking,

including its ban in waterpipe related tobacco regulations within existing country policies can be suggested, in accordance with decision FCTC/COP7(4) (100-101). Furthermore, regulating the toxic contents and emissions of waterpipe tobacco products can be enhanced by applying standard testing procedures for measuring nicotine, tobacco specific nitrosamines and humectants, pH and heavy metals in these products (102).

Article 11 – Packaging and labelling of tobacco products

The lack and/or misleading descriptions found on the waterpipe tobacco packages and related accessories can be countered by specific labelling (17). Ample documentation is available on how warning labels can be applied to waterpipe body parts, hose, charcoal, tobacco mixture, filters, and mouthpieces (7, 17, 18, 69, 84, 93). There is also an emerging body of knowledge on effectiveness of health warnings on waterpipe tobacco products that can serve to form appropriate policy (104-106); thus, when conformed with the WHO FCTC guidelines, the documented misinformation on the low tar and nicotine content on waterpipe tobacco packages would end (16, 20, 69, 103). Also, Parties which have already adopted health warnings on waterpipe tobacco and related accessories can share their experiences with other Parties to facilitate introduction of such textual and pictorial warnings.

Article 12 – Education, communication, training and public awareness

Worldwide, there are examples of successful educational programs focused on waterpipes. However, these programs have not been well documented. Documenting such experiences can ease the process of sharing experiences with and the lessons learned from such programs. Also, educational programs implemented as part of comprehensive policies and mass public campaigns can be beneficial, especially when properly monitored and evaluated.

Media advocacy through interested media outlets, active civil society organizations could help in alerting citizens on the harms of waterpipe use and can also help in dispelling of many misconceptions related to it. Many reviews have indicated that such efforts along with a comprehensive implementation of policies applied to waterpipe tobacco products, including price and tax measures, advertising and promotion bans and other policies, can be effective in changing individuals' smoking patterns. This can stimulate positive behavioural changes when it comes to smoking cessation (107-108).

Article 13 – Tobacco advertising, promotion and sponsorship

Bans on tobacco advertising, promotion and sponsorship have shown to be effective tobacco control measures if implemented in accordance with the requirements of the WHO FCTC and its guidelines. It should be ensured that such bans are extended to waterpipe tobacco and paraphernalia.

Article 14 – Demand reduction measures concerning tobacco dependence and cessation

Established cessation programs within the countries can support users of all types of tobacco products who want to stop. In addition, proper monitoring and evaluation of tobacco cessation programs implemented in healthcare and educational institutions can also be used to identify important factors and mechanisms that encourage users to stop waterpipe smoking and prevent relapse.

Article 16 - Sales to and by minors

It would be beneficial if countries apply the minimum legal age for the sale or purchase of tobacco products, including a minimum age for the use, selling or buying of waterpipe tobacco and related accessories. Furthermore, documenting effective interventions and enforcement of such regulations will be necessary to ensure broad dissemination and shared learning.

Article 20 - Research, surveillance and exchange of information

Waterpipe-related research should be strengthened, especially in relation to implementation and impact of specific measures to control waterpipe tobacco products and use. Researchers interested in behavioural interventions targeting communities should consider creating multi-country partnerships. This can generate such evidence, including comparison of impact in the various settings and jurisdictions. The documented practices should then be exchanged and shared in an open and accessible forum.

Article 21 - Reporting and exchange of information

It is crucial to carefully monitor and evaluate how the regulations that put in place the requirements of the WHO FCTC are being implemented, and how implementation challenges are being addressed with a particular focus on the waterpipe use.

Definition of tobacco products

Reviews of tobacco-related legislative documents indicate that almost all Parties rely on 'generic' tobacco definitions to address waterpipe use, but this is not sensitive to the particularities of regulating it (69). The experience from the rise in waterpipe consumption can be used as a lesson learned to modernize and expand the definition of tobacco products. This ensures that any newly introduced novel tobacco product are subjected to evidence-based and informed control regulations.

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