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ON TOBACCO CONTROL

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# Control and prevention of waterpipe tobacco products

## Report by WHO

### INTRODUCTION

1. This document was prepared in response to decision FCTC/COP6(10) of the Conference of the Parties (COP) at its sixth session (Moscow, Russian Federation, 13–18 October 2014). The COP requested the Convention Secretariat to invite WHO to (a) develop a report on policy options and best practice in the control of waterpipe tobacco product use in relation to the WHO Framework Convention on Tobacco Control (WHO FCTC) to be submitted to the seventh session of the COP (FCTC/COP6(10) par. 2(i)); and (b) integrate reporting on the use of waterpipes in all relevant data collection (FCTC/COP6(10) par. 2(ii)).

2. Prior to the above request, the COP reviewed the issue at its sixth session (COP6), (FCTC/COP/6/11 and FCTC/COP/6/11 Corr.1), and subsequently requested that a comprehensive report based on the experience of the Parties on waterpipe tobacco products be submitted to its seventh session (COP7). That report was duly submitted to COP6, and the present report should be seen as complementary.

3. This report incorporates: (a) the second edition of the WHO Study Group on Tobacco Product Regulation (TobReg) advisory note<sup>1</sup> on waterpipe tobacco smoking which covers health effects, research needs and recommended action by Parties; and (b) the December 2015 deliberations and scientific recommendations of the WHO Study Group on Tobacco Product Regulation (TobReg)<sup>2</sup> at its eighth meeting (Rio de Janeiro, Brazil, 9–11 December 2015). It should be noted that in January 2016, the American University of Beirut (AUB) signed a Memorandum of Understanding with the Convention Secretariat of the WHO FCTC, making AUB the global knowledge hub for waterpipe smoking, in particular with respect to education, research, and the dissemination of information contributing to the implementation of the Convention.

### REGIONAL AND GLOBAL PATTERNS OF WATERPIPE SMOKING

4. The waterpipe tobacco market is projected to grow, and multinational tobacco companies have started to incorporate waterpipe tobacco in their business. Most of the products available on the market are manufactured by the waterpipe tobacco industry, and most of the known manufacturing is in the Middle East and North Africa.

5. The global rise in waterpipe use is attributed to the following factors: the introduction of flavoured tobacco; social acceptability relating to the café and restaurant culture; developments in

<sup>1</sup> Advisory note: waterpipe tobacco smoking: health effects, research needs and recommended actions by regulators – 2nd ed. Available at [http://www.who.int/tobacco/publications/prod\\_regulation/waterpipessecondedition/en/](http://www.who.int/tobacco/publications/prod_regulation/waterpipessecondedition/en/)

<sup>2</sup> [http://www.who.int/tobacco/industry/product\\_regulation/tobreg/en/](http://www.who.int/tobacco/industry/product_regulation/tobreg/en/)

mass communication and social media; affordability of waterpipe products; lack of waterpipe-specific policy and regulations; and a prevailing misconception that waterpipe smoking is safer than cigarette smoking, due to a widespread but unsubstantiated belief held by many waterpipe users that water filters the smoke<sup>3,4</sup>. Globally, regulations tend to focus on cigarettes, with little attention to waterpipe tobacco and the regulatory peculiarities unique to this type of tobacco product<sup>5</sup>.

6. Several studies cited in the advisory note on waterpipe tobacco smoking<sup>6</sup> found that based on recent figures, waterpipe use is increasing globally, particularly among schoolchildren and university students. The findings of these studies are explained below.

7. **African Region:** Studies conducted in South Africa demonstrate that waterpipe use fits the global pattern of acceptance by young people as a social experience, and anecdotal data indicates its proliferation in trendy urban hookah bars. In the Global Adult Tobacco Survey (GATS) in Nigeria in 2012, very low prevalence was found of current tobacco product use, other than cigarette smoking (0.8% overall, 1.6% males, 0.1% females) in the entire population aged 15 years and above. Although empirical evidence is lacking for other countries in this region, anecdotal evidence for Algeria, Ethiopia, Kenya, Nigeria, Uganda and the United Republic of Tanzania indicates a proliferation of fashionable hookah bars in the larger urban centres in all these countries, which are frequented mainly by the young and business people.

8. **Region of the Americas:** In a U.S. national survey, 30.4% university students had used a waterpipe and 18% of high school senior students had used waterpipe in the past year. From available data in Latin America, current prevalence rates of waterpipe use among adults are low, with usage of less than 0.2% in Brazil (2008), Mexico (2009), Uruguay (2010), and Argentina (2012). In Brazil, data shows that waterpipe smoking prevalence is high among youths<sup>7</sup>.

9. **Eastern Mediterranean Region:** This region has the highest prevalence of waterpipe use in the world. Data from the 2008–2013 GATS showed that 7.5% of adults in Egypt and 17% of adults in Qatar use shisha, with usage higher among males than females in the region<sup>8</sup>. Usage is increasing among young people, whose waterpipe smoking prevalence increased from 13.3% to 18.9% from 2008 to 2010. The prevalence of waterpipe smoking in schoolchildren aged 13–15 was 9–15%. In the entire region (17 countries), the use of other tobacco products (mainly waterpipes) by schoolchildren aged 13–15 was more frequent than cigarette use.

10. **European Region:** Prevalence of daily waterpipe use is increasing across this region, however it remains lower than prevalence of daily cigarette use. For example, young users (18–24 years) most often lived in urban areas, were better educated and tended to be occasional rather than daily users.

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<sup>3</sup> Akl E, Ward KD, Bteddini D, Khaliel R, Alexander AC, Loutfi T, et al. The allure of the waterpipe: a narrative review of factors affecting the epidemic rise in waterpipe smoking among young people globally. *Tob Control* 2015;24(Suppl 1): i13–21.

<sup>4</sup> Maziak W. The global epidemic of waterpipe smoking. *Addict Behav* 2011;36:1–5

<sup>5</sup> Tobacco control laws [website]. Washington (DC): Campaign for tobacco-free kids; 2014 (<http://www.tobaccocontrol.org>).

<sup>6</sup> Advisory note: waterpipe tobacco smoking: health effects, research needs and recommended actions by regulators – 2nd ed. Available at [http://www.who.int/tobacco/publications/prod\\_regulation/waterpipesecondedition/en/](http://www.who.int/tobacco/publications/prod_regulation/waterpipesecondedition/en/)

<sup>7</sup> Szklo, André Salem, Sampaio, Mariana Miranda Autran, Fernandes, Elaine Masson, & Almeida, Liz Maria de. (2011). Perfil de consumo de outros produtos de tabaco fumado entre estudantes de três cidades brasileiras: há motivo de preocupação?. *Cadernos de Saúde Pública*, 27(11), 2271–2275. <https://dx.doi.org/10.1590/S0102-311X2011001100020>

<sup>8</sup> Global Adult Tobacco Survey, 2008–2013

11. **South-East Asia Region:** The highest recorded prevalence in this region was in Bangladesh (1.3%) among adults. 2009-2010 GATS data also showed that, inverse to global trends, India waterpipe use was more prevalent in people aged more than 50 years than in those aged under 30 years (2% vs 0.3%).<sup>9</sup> A study of high school students in Indore, India found a 7.6% prevalence of hookah smoking among young people. It also stated that the hookah was attracting adolescents at a very early age and that they were first introduced to its use because of the presence of hookah lounges in their locality<sup>10</sup>.

12. **Western Pacific Region:** The country in this region with the highest prevalence rates is Vietnam (13%). Like India, the highest prevalence of waterpipe use was in older age groups (40–54 years) living in rural areas and with less education. However, there is some anecdotal data demonstrating that traditional Middle Eastern hookah cafés are opening in the urban centres of the Western Pacific Region.

### SCIENTIFIC BASIS FOR REGULATION

13. There is sufficient clinical and experimental evidence on the health effects of waterpipe smoking to warrant control measures to decrease use and prevalence rates<sup>11, 12</sup>. Waterpipe tobacco smoke contains disease-causing toxicants, and at least some of these are absorbed by users<sup>13</sup>. Epidemiological data supports waterpipe use association with a plethora of diseases such as oral, oesophageal and lung cancers; respiratory, cardiovascular, and periodontal diseases; as well as maternal effects on the foetus. Biological research on cells and animals demonstrate that inflammatory and oxidative stress responses are plausible mechanisms for diseases like vascular disease and chronic obstructive pulmonary disease. Molecular to human studies all converge towards the conclusion that waterpipe tobacco smoking causes diseases, including addiction<sup>14</sup>.

### LACK OF WATERPIPE-SPECIFIC POLICY AND REGULATIONS

14. Waterpipe smoking has thrived despite the remarkable success of public health policies in reducing cigarette smoking in many countries, and notwithstanding the express declaration in the WHO FCTC that the treaty covers all tobacco products. The lack of policies and regulations to specifically target waterpipe smoking has encouraged the proliferation of waterpipe use. For instance, while cigarette pack size and packaging are fairly uniform worldwide, this is not the case for waterpipes. These vary in shape and size, are less portable, comprise multiple parts, are often shared and involve diverse commercial stakeholders. Therefore, policy-related elements must be waterpipe-specific.

<sup>9</sup> GATS India Report 2009–2010. New Delhi: Ministry of Health and Family Welfare, Government of India; 2011.

<sup>10</sup> Anand NP, Vishal K, Anand NU, Sushma K, Nupur N. Hookah use among high school children in an Indian city. *J Indian Soc Pedod Prev Dent* 2013;31:180-3).

<sup>11</sup> El-Zaatari Z, Chami H, Zaatari G: Health effects associated with waterpipe smoking. *Tob Control* 2015;24 suppl 1:31-43.

<sup>12</sup> Akl Ea, Gunukala SK, Aleem S, Obeid R, et al: The prevalence of waterpipe smoking among the general and specific populations: a systematic review. *BMC Public Health* 2011;11:244.

<sup>13</sup> Shihadeh A, Schubert J, Klaiany J, El Sabban M, Luch A, Saliba NA. Toxicant content, physical properties and biological activity of waterpipe tobacco smoke and its tobacco-free alternatives. *Tob Control* 2014;24:e72–80.

<sup>14</sup> Jacob P, Raddaha AHA, Dempsey D, Havel C, Peng M, Yu L, et al. Comparison of nicotine and carcinogen exposure with water pipe and cigarette smoking. *Cancer Epidemiol Biomarkers Prev* 2013;22:765–72.

## POLICY OPTIONS AND SUGGESTED ACTIONS

15. In the second waterpipe advisory note<sup>15</sup>, and during its deliberations at its eighth meeting (Rio de Janeiro, Brazil, 9–11 December 2015), TobReg found that the guidelines for implementing WHO FCTC provisions must also be applied to waterpipe tobacco products. In fact, the WHO FCTC covers “all tobacco products”, which includes waterpipes.

16. In relation to Article 5.3 of the WHO FCTC, waterpipe tobacco and accessory companies which advocate for this product and which are against legislation and regulation, should be required to be transparent regarding their ties to the tobacco industry. No matter what role the tobacco industry plays in the production, distribution and sale of waterpipes and accessories, it can never be considered a legitimate public health partner or stakeholder.

17. In the application of WHO FCTC Article 6, waterpipe tobacco must be subjected to similar taxation schedules as cigarettes. TobReg suggests that waterpipe parts and accessories be taxed prohibitively and restricted in relation to tax- or duty-free sales, which is consistent with the guidelines for Article 6 of the WHO FCTC<sup>16</sup>. Implementation of tax policies must be carefully monitored to ensure that waterpipe products are properly labelled to prevent tax evasion and to ensure consumer safety. In Canada, where the majority of waterpipe products are imported, some waterpipe products are declared as food products to avoid taxation<sup>17</sup>.

18. For Article 8, TobReg recommended that clean indoor air legislation be applied to waterpipe cafés or lounges.

19. Articles 9 and 10 on testing and disclosure may likewise be applied to waterpipes. Policies should ensure that waterpipe tobacco is included in legislation requiring the testing, reporting and regulation of tobacco product contents and emissions. Waterpipe tobacco and waterpipe smoke should be tested using the same stringent standards that are applied to cigarette tobacco, and Parties can refer to FCTC/COP/7/9 for specific guidance on the applicability of TobLabNet Standard Operating Procedures (SOPs) for cigarettes to waterpipe tobacco products. Further recommendations are listed below:

- Waterpipes and waterpipe products should be regulated to minimize toxic contents and emissions. However, regulators should initially focus on the chemical composition of waterpipe tobacco products and charcoal.
- Standard TobLabNet operating procedures should be adapted for the measurement of nicotine, TSNAs and humectants in the contents of waterpipe tobacco products.
- Analytical methods should be adapted to determine pH and heavy metals in the content of waterpipe tobacco (and tobacco-free) products.
- Analytical methods should be adapted for measurement of heavy metals and polycyclic aromatic hydrocarbons (PAHs) in charcoal products used for waterpipe smoking.

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<sup>15</sup> Advisory note: waterpipe tobacco smoking: health effects, research needs and recommended actions by regulators – 2nd ed. Available at [http://www.who.int/tobacco/publications/prod\\_regulation/waterpipessecondedition/en/](http://www.who.int/tobacco/publications/prod_regulation/waterpipessecondedition/en/)

<sup>16</sup> For example, Morocco, Tunisia and the West Bank and Gaza have relatively high percentage taxes on waterpipes.

<sup>17</sup> Royal Canadian Mounted Police. RCMP seize large quantity of shisha tobacco. 23 April 2010. <http://www.rcmp-grc.gc.ca/qc/nouv-news/com-rel/2011/03/110310-2-eng.htm>

- Waterpipe tobacco and products should also be regulated to minimize acute nicotine toxicity, minimize CO toxicity from heated charcoal and impede product alteration to include other drugs.
- Following the Partial Guidelines for Articles 9 and 10, Parties should prohibit or restrict ingredients in waterpipes which: (a) increase palatability (e.g. flavours, sugars and sweeteners, spices and herbs); (b) are used to create the impression that products have health benefits (e.g. fruit juices); (c) have colouring properties, (except when used for tax-related markings or for health warnings and messages) and (d) are associated with energy and vitality (e.g. caffeine)<sup>18</sup>.

20. Applying the guidelines for the implementation of Article 11, Parties should prohibit manufacturers and third parties from making health claims for waterpipe tobacco and should prohibit deceptive descriptors on packages relating to health or safety (e.g. “contains 0% tar or 0.05% nicotine”). Warning labels must be placed on waterpipe tobacco packaging and also on all accessories and on the waterpipes themselves. Labelling waterpipe tobacco packages is not enough, packaging is not always seen by smokers, especially if they smoke in a bar or café. As waterpipe parts, charcoal, filters and mouthpieces can be sold separately, warning labels should be affixed to all packaging. For example, in Turkey, health warning labels are placed on the waterpipe bowls<sup>19</sup>, covering at least 65% of the principal display area, excluding the bottom<sup>20</sup>. However, waterpipe bowls are not always visible to smokers as some are placed below the table. Hence, visible health warnings must be mandated to appear on either the base, mouthpiece or stem of the waterpipe<sup>21</sup>.

**Figure 1. Illustration of waterpipe tobacco with graphic health warnings in Turkey<sup>22</sup>**



<sup>18</sup> Please see 3.1.2.2(i) to (iv) of the Partial Guidelines for Implementation of Articles 9 and 10 of the WHO FCTC.

<sup>19</sup> Examples of graphic health warnings are uploaded on <http://www.tapdk.gov.tr/tr/anasayfa/nargile-siselerine-uygulanacak-saglik-uyarilari.aspx#>

<sup>20</sup> Cevdet Erdöl, et. al, Waterpipe Tobacco Smoking in Turkey: Policy Implications and Trends from the Global Adult Tobacco Survey (GATS) Int. J. Environ. Res. Public Health **2015**, 12, 15559–15566

<sup>21</sup> Islam F, Salloum RG, Nakkash R, Maziak W, Thasher JF. Effectiveness of health warnings for waterpipe tobacco smoking among college students. Int J Public Health 2016.

<sup>22</sup> Available at <http://www.tapdk.gov.tr/tr/anasayfa/nargile-siselerine-uygulanacak-saglik-uyarilari.aspx>

21. Given the widespread misinformation surrounding the health dangers of waterpipe tobacco smoking, education and training must be included in wider tobacco education and public awareness programmes and media campaigns implemented by Parties.

22. Following the guidelines on Article 13 implementation, Parties should consider a comprehensive ban on advertising, promotion and sponsorship of waterpipe tobacco, including use in drama productions, phone ordering, home delivery and point of sale advertising, or where waterpipes are smoked in the open air. Other forms of indirect promotion such as restaurants offering free waterpipe use with meals or organizing “ladies’ nights”, where waterpipe use is free for women, must also be prohibited by the law. Laws and regulations should be adapted to the peculiarities of waterpipe vending: for instance, most advertising and promotion, and sales through the Internet. The appropriate authority must rigorously monitor enforcement of the ban so as to prevent inappropriate marketing. Parties should regulate and monitor how waterpipe tobacco products are depicted in the media, following the guidelines for implementing Article 13 of the WHO FCTC.

23. Tobacco cessation programmes should include dependence on waterpipes. The interventions should target the unique features that make waterpipe smoking appealing and thus difficult to quit: the appeal of the aroma, the distinctive bubbling sound and the social atmosphere or bonding linked to waterpipe sharing.

24. As for the reporting of waterpipe use in relevant data collection (FCTC/COP6(10) par. 2(ii)), WHO and other partner agencies have supported WHO Member States in the reporting of relevant data for waterpipe tobacco. Data on prevalence is collected as part of the Global Tobacco Surveillance System (GTSS) which includes GATS<sup>23</sup>, Global Youth Tobacco Surveys (GYTS)<sup>24</sup>, while tax and retail price data is collected as part of the Report on the Global Tobacco Epidemic (GTCR)<sup>25</sup>. The information is collected by a majority of WHO Member States where prevalence of waterpipe tobacco is high and/ or where governments have a policy to regulate waterpipe tobacco. Countries are urged to analyze data on waterpipe smoking collected through the GTSS to assist policy development, and to conduct further research as appropriate.

25. It is also recommended that Parties integrate information on waterpipes in all ongoing surveillance at all levels (subnational or national). TobReg also noted that charcoal is a fire risk, posing

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<sup>23</sup> GATS is a nationally representative household survey that was launched in February 2007 as a new component of the ongoing GTSS. GATS enables countries to collect data on adult tobacco use and key tobacco control measures. GATS results assist countries in the formulation, tracking and implementation of effective tobacco control interventions, and countries are able to compare results from their surveys with results from other countries. GATS has been implemented in more than 25 low- and middle-income countries with highest burden of tobacco use. The specific questions under the GATS are: (1) Number of water pipe sessions per day? (2) The last time you smoked a water pipe, about how many rocks were smoked while you were participating in the session? (3) The last time you smoked a water pipe, how many other people did you share the same pipe with during the session?

<sup>24</sup> The GYTS is a school-based survey designed to enhance the capacity of countries to monitor tobacco use among young people and to guide implementation and evaluation of tobacco prevention and control programmes. GYTS is composed of 56 “core” questions designed to gather data on: (1) Knowledge and attitudes of young people towards cigarette smoking; (2) Prevalence of cigarette smoking and other tobacco use among young people; (3) Role of the media and advertising in young people’s use of cigarettes; (4) Access to cigarettes; (5) Tobacco-related school curriculum; (6) Environmental tobacco smoke (ETS) and (7) Cessation of cigarette smoking. The specific question on waterpipe use is: During the past 30 days (one month), did you use any form of smoked tobacco products other than cigarettes (e.g. cigars, water pipe, cigarillos, little cigars, pipe)

<sup>25</sup> The GTCR is a periodic report about the extent and character of the tobacco epidemic and measures to stop it. Specific questions on waterpipe tobacco include questions on price of most popular brand, types of taxes applied and applicable tax bases.

a regulatory challenge which should also be assessed. Parties should consider monitoring systems for that purpose.

26. In conclusion, there is sufficient evidence to support the enactment and implementation of waterpipe-specific regulations. However, the unique features of waterpipes continue to impede implementation of the WHO FCTC in Eastern Mediterranean Region countries. Policy recommendations must target the particular social and cultural environment surrounding waterpipe use. Best practice from countries and scientific evidence supporting waterpipe regulation are explained in this report, the waterpipe report submitted at COP6 (FCTC/COP/6/11) and the TobReg waterpipe advisory note for waterpipe tobacco.

**ACTION BY THE CONFERENCE OF THE PARTIES**

27. The COP is invited to note this report and provide further guidance.

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