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Regulation of contents and disclosure of tobacco products (Articles 9 and 10 of the WHO FCTC)

Report by the World Health Organization

Purpose of the document

This report contains an update on the progress made by the World Health Organization (WHO) in technical work related to tobacco product regulation, in pursuance of implementation of Articles 9 and 10 of the WHO FCTC.

Action by the Conference of the Parties

The Conference of the Parties (COP) is invited to note the present report.

Contribution to the Sustainable Development Goals (SDGs): All SDGs; in particular, SDG 3 and Target 3.a.

Link to Workplan and Budget item: 1.1.1.3, 1.1.3.2.

Additional financial implications if not included in the Workplan and Budget: None.

Related document(s): FCTC/COP3(9), FCTC/COP7(14), FCTC/COP8(21) and FCTC/COP8(22).

Background

1. The World Health Organization (WHO), in its role in leading global efforts to achieve better health for all, supports WHO Member States, including Parties to the WHO Framework Convention on Tobacco Control (WHO FCTC), in reducing the overall burden of tobacco use, which causes over 7 million deaths globally every year.[1] As part of these efforts, WHO and its technical networks identify scientific, policy and regulatory gaps; they also build evidence and capacity to bridge these gaps. This supports the effective implementation of Articles 9 and 10 of the WHO FCTC and their Partial guidelines for implementation.

2. These Articles, which place obligations on Parties concerning the regulation of the contents, emissions and design features of tobacco products, as well as the regulation of tobacco product disclosures, are relatively poorly implemented tobacco demand reduction measures that fall under WHO's tobacco product regulation work. This was noted in report FCTC/COP/10/6 of the Expert Group established in decision FCTC/COP8(21) "to examine the reasons for low implementation of Articles 9 and 10 of the Convention, and related partial guidelines, by Parties", submitted to the Tenth session of the Conference of the Parties (COP) to the WHO FCTC. This classified the barriers for implementation of these Articles into five categories: (1) understanding requirements under Articles 9 and 10 of the WHO FCTC; (2) technical capacity and human resources; (3) financial needs; (4) legal and political challenges; and (5) interference by the tobacco industry. It is noteworthy that the increasing prevalence, wider diversity and easier accessibility of flavours in tobacco products has enhanced their appeal, especially among young people. This has escalated the public health challenge, reinforcing the critical need for stronger implementation of Articles 9 and 10 of the WHO FCTC, thus requiring urgent attention by regulators.

3. Although tobacco product regulation is a valuable tool that complements other tried and tested tobacco control interventions as part of a comprehensive tobacco control programme to reduce tobacco demand, it is underutilized. While implementation of the WHO FCTC, as supported through the MPOWER package,[2] has contributed to combating the tobacco epidemic, further acceleration is needed to meet the global voluntary target to reduce by 30% the prevalence of adult current tobacco use by 2025,[3] and to meet Target 3.a of the Sustainable Development Goals, which calls for strengthening implementation of the WHO FCTC.[4] When effectively pursued and implemented, tobacco product regulation has the potential to contribute significantly to efforts to reduce tobacco-related morbidity and mortality, and should therefore be part of any comprehensive tobacco control efforts.[5]

4. The Convention Secretariat invited WHO to report on its work on technical matters related to Articles 9 and 10 of the WHO FCTC. The present report gives an update on WHO's work on product regulation, pursuant to Articles 9 and 10 of the WHO FCTC, including activities related to decisions FCTC/COP7(14), FCTC/COP8(21) and FCTC/COP8(22), and the work of WHO's technical

[1] WHO report on the global tobacco epidemic, 2025: warning about the dangers of tobacco. Geneva: World Health Organization; 2025 (accessed 3 July 2025).

[2] MPOWER. World Health Organization; 2025 (accessed 3 July 2025).

[3] Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization; 2013 (accessed 3 July 2025).

[4] Resolution adopted by the General Assembly on 25 September 2015: Transforming our world: the 2030 Agenda for Sustainable Development. New York: United Nations; 2015 (A/RES/70/1; accessed 3 July 2025).

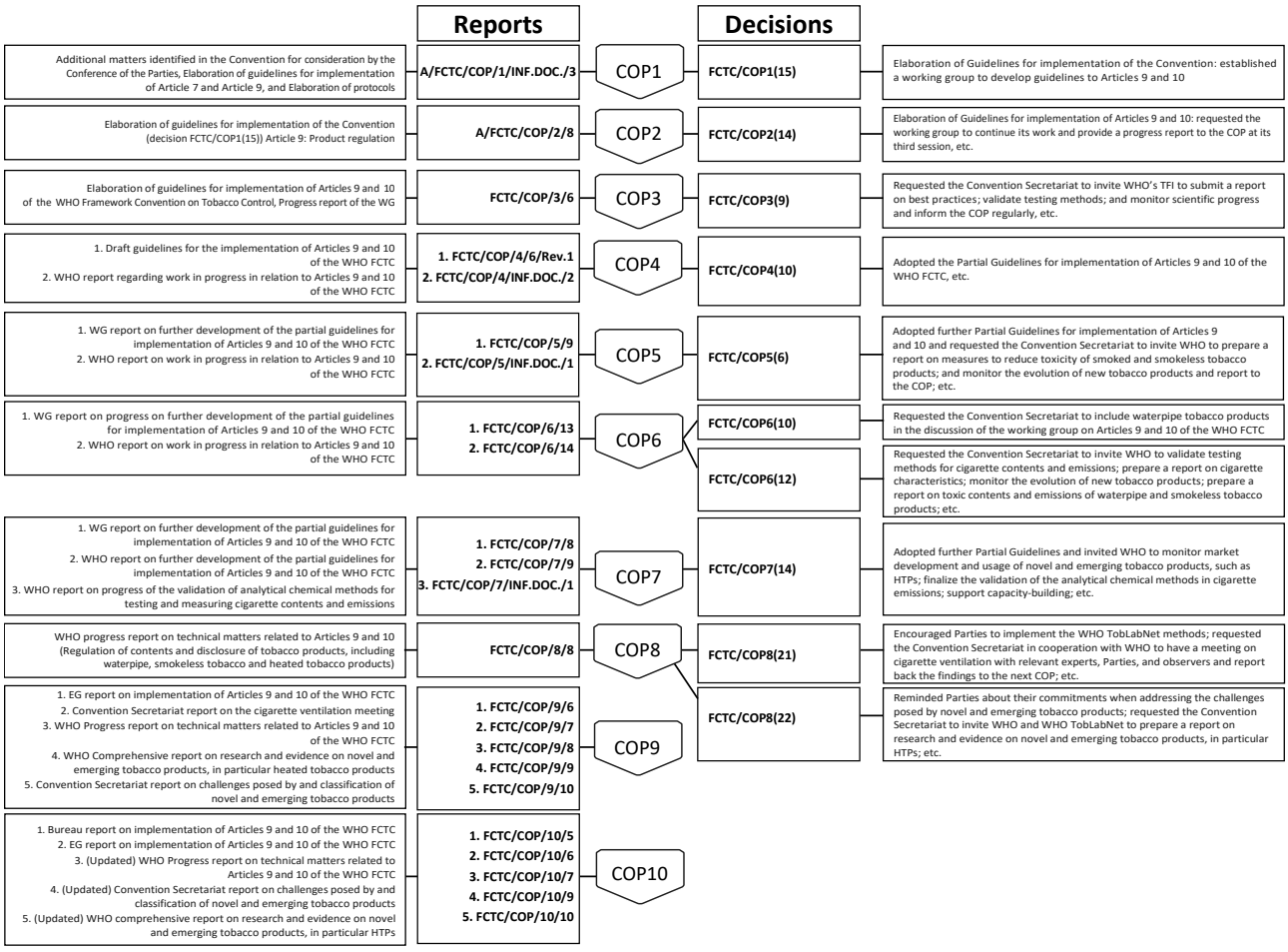
[5] Tobacco product regulation: basic handbook. Geneva: World Health Organization; 2018 (accessed 3 July 2025).

advisory groups – the WHO Study Group on Tobacco Product Regulation (TobReg)[6] and the WHO Tobacco Laboratory Network (TobLabNet).[7] This report also highlights WHO's capacity-building efforts, and notes relevant resources on product regulation – including the WHO collaborating centres on tobacco control[8] – for Parties' information.

Reports and decisions on technical matters related to Articles 9 and 10 of the WHO FCTC

5. WHO provides input and evidence-based guidance on technical matters related to Articles 9 and 10 of the WHO FCTC to relevant sessions of the COP. A timeline and summary of the reports by WHO and the Convention Secretariat, as well as reports of subsidiary bodies and decisions of the COP, are provided in Fig. 1.

Fig. 1. Timeline of WHO FCTC COP decisions and reports relevant to Articles 9 and 10



EG = Expert Group
HTP = Heated tobacco products
WG = Working Group
WHO = World Health Organization
WHO FCTC = WHO Framework Convention on Tobacco Control

[6] WHO Study Group on Tobacco Product Regulation (TobReg). World Health Organization; 2025 (accessed 3 July 2025).

[7] WHO Tobacco Laboratory Network (TobLabNet). World Health Organization; 2025 (accessed 3 July 2025).

[8] Collaborating centres. World Health Organization; 2025 (accessed 3 July 2025).

6. Matters related to tobacco product regulation, as outlined in previous decisions and reports of the COP, encompass all tobacco products – including smokeless tobacco, waterpipe tobacco and heated tobacco products (HTPs). It should be emphasized that the guidance provided in earlier COP decisions, including the recommended regulatory measures, should be applied equally to all forms of tobacco products.

Monitoring of market developments of novel and emerging tobacco products (paragraph 5a of decision FCTC/COP7(14))

7. In paragraph 5a of decision FCTC/COP7(14), the COP requested the Convention Secretariat to invite WHO to undertake, among other tasks, "to continue to monitor and examine market developments and usage of novel and emerging tobacco products, such as 'heat-not-burn' tobacco products".

8. WHO continues to monitor and examine market developments of these products as requested by the COP. The market for HTPs was estimated to be worth US$ 28.4 billion in 2023, with a compound annual growth rate of 24% from 2019. The projected rapid growth in HTP sales, coupled with the increasing use of these products in some jurisdictions, is a concern for regulators. The market is dominated by the multinational tobacco companies, with Philip Morris International's IQOS brand holding around a 75% share of the global market. The global presence of HTPs is estimated in over 70 countries. By 2023, nearly 90% of the global heated tobacco market value was concentrated within high-income countries.[9]

Flavours, flavouring agents and flavour accessories (paragraph 2b.iii of decision FCTC/COP6(12))

9. In paragraph 2b.iii of decision FCTC/COP6(12), the COP requested the Convention Secretariat to invite WHO to "prepare a report based on scientific evidence on specific cigarette characteristics of interest, including slim/super slim designs, filter ventilation, and innovative filter design features including flavour-delivering mechanisms such as capsules, to the extent that those characteristics affect the public health objectives of the WHO FCTC".

10. As noted in the information sheet on the role of flavours in increasing the appeal of tobacco, nicotine and related products[10] published by WHO in May 2025, flavours are prevalent across all product types, and are present in a variety of unique flavour categories, driving the demand for tobacco products. The commercial availability and marketing of flavoured tobacco products – particularly targeting children and young people – and their easy access pose significant public health challenges. Flavours are used by the tobacco industry to attract new consumers and to keep existing ones. They mask the harsh taste and irritation of tobacco and nicotine, thus making the products more palatable and easier to use. Flavours encourage experimentation and initiation of tobacco products, sustain use and long-term dependence, and make it more difficult to quit.

[9] Molina AL. A global overview and analysis of the evolution of the heated tobacco industry [blog]. in: TobaccoIntelligence; 13 March 2024 (accessed 3 July 2025).

[10] Information sheet: the role of flavours in increasing the appeal of tobacco, nicotine and related products. Geneva: World Health Organization; 2025 (accessed 2 July 2025).

Additionally, people who use flavoured products are more likely to use multiple products than those who use non-flavoured products.[11]

11. The tobacco industry continuously seeks ways to bypass increasing regulatory efforts to restrict flavours in tobacco products, including through product design modifications to circumvent flavour bans. One such method is the use of flavour accessories, which are specifically designed to add flavour to tobacco products. This is highlighted in the information sheet on flavour accessories in tobacco products enhance attractiveness and appeal[12] published by WHO in May 2025. This documents approximately 120 unique flavours across flavour accessories, based on a recent study. Examples of flavour accessories include flavour cards (which can be inserted into cigarette packs), filter tips and tubes for make-your-own cigarettes, flavour drops, sprays and flavour capsules (small crushable beads embedded in cigarette filters that release bursts of flavour when crushed).[13]

12. The market for flavour accessories has grown significantly over the past decade. A survey conducted by WHO in the first quarter of 2025, based on internally collected data, provides additional insight into the situation regarding regulation of flavours in 63 countries. Analysis of the responses shows that 25 countries (nearly 66% of those surveyed) report having flavour accessories on their market. Of those, the most common accessory, reported by 76% of the responding countries, was flavour capsules.

Update on the work of the WHO Study Group on Tobacco Product Regulation (paragraph 2(3) of decision FCTC/COP3(9))

13. In paragraph 2(3) of decision FCTC/COP3(9), the COP requested the Convention Secretariat to invite WHO's Tobacco Free Initiative to "monitor scientific progress; when appropriate, design and validate methods for testing and measuring the product characteristics identified in paragraph 33 of the progress report of the working group; and inform the Conference of the Parties, through the Convention Secretariat, on a regular basis of the progress made". In line with this mandate, TobReg publishes a series of reports to provide a scientific basis for tobacco product regulation. These reports, which identify evidence-based approaches to effective regulation of tobacco products, are based on the evaluation of evidence and deliberations of the Study Group at its meetings. The Twelfth meeting of TobReg, which was held on 10–13 December 2024, discussed nine background papers,[14] including three titled *Flavours in tobacco products, Cigarette filters and other characteristics with a potential impact on health* and *Merging trends of cigarettes*.

[11] Park H, Seo DC. Flavored tobacco user characteristics in U.S. young adults: Wave 5 of the Population Assessment of Tobacco and Health Study. Subst Use Misuse. 2025;60(1):148–54 (accessed 3 July 2025).

[12] Information sheet: flavour accessories in tobacco products enhance attractiveness and appeal. Geneva: World Health Organization; 2025 (accessed 2 July 2025).

[13] Havermans A, Pauwels CGGM, Bakker-'t Hart IME, Fayokun R, van Nierop LE, Hellmich IM et al. Across the world availability of flavour accessories for tobacco products. Tob Control. 2024:tc-2023-058255 (accessed 15 July 2025).

[14] See the Twelfth meeting of the WHO Study Group on Tobacco Product Regulation webpage (accessed 3 September 2025).

14. The main recommendations to policy-makers and other interested parties, as noted in the Director-General's report to the 157th session of the Executive Board on meetings of expert committees and study groups,[15] include but are not limited to:

(a) prohibiting the sale of all tobacco, nicotine and related products to children and young people;

(b) banning the manufacture and import of all tobacco, nicotine and related products with product characteristics that specifically appeal to children and young people; and

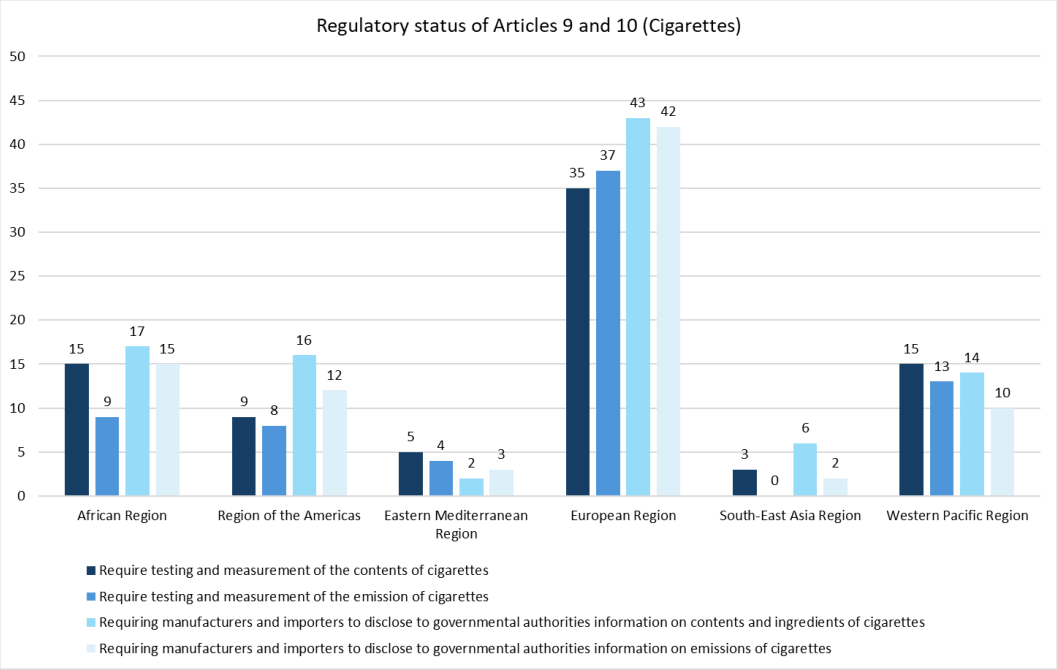
(c) banning filters to reduce the palatability and appeal of cigarettes, remove consumer misconceptions about filters substantially reducing health harms, and reduce a major source of toxic tobacco waste, including the microplastics deposited by cellulose acetate in filters.

The full report is expected to be published by November 2025.

Regulatory status of tobacco products and flavours

15. To continue providing timely technical and scientific assistance to countries, WHO collected data regarding the regulatory status of Articles 9 and 10 of the WHO FCTC in WHO Member States (Fig. 2) by reviewing legislation adopted by countries up to 31 December 2024. The data indicate that 82 Member States (42%) require testing and measurement of the contents of cigarettes, while 61 Member States (31%) have similar requirements for other smoked tobacco products. Among Member States that permit the sale of smokeless tobacco, 54 (28%) require testing and measurement of the contents of the products. WHO also collected data on emissions testing and measurement regulations. The data show that 71 Member States (36%) mandate testing and measurement of cigarette emissions, and 46 Member States (24%) require it for other smoked products.

Fig. 2. Regulatory status of Articles 9 and 10 of the WHO FCTC, by WHO region



[15] Matters for information: report on meetings of expert committees and study groups: report by the Director-General. Geneva: World Health Organization; 2025 (document EB157/14; accessed 3 July 2025).

16. WHO also collected data on mandatory disclosure to governmental authorities, which show that 98 Member States (50%) require manufacturers to disclose information on the contents and ingredients used in the manufacture of cigarettes, and 89 Member States (46%) require the same for other smoked products. Among Member States that permit the sale of smokeless tobacco, 80 (41%) mandate disclosure of contents and ingredients used in the manufacture of smokeless tobacco products. Disclosure of emissions is required by 84 Member States (43%) for cigarettes and by 74 Member States (38%) for other smoked products. Furthermore, 38 Member States (19%) require manufacturers and importers to report on product characteristics (such as design features) in cigarettes. This requirement applies to other smoked products in 31 Member States (16%) and to smokeless tobacco products in 28 Member States (14%).

17. HTPs are banned (via a sales ban or another type of ban that restricts their availability) in 24 Member States (12%). Among the 94 Member States (48%) that specifically restrict (but do not ban) HTPs, 29 (15%) restrict the use of flavours in HTPs.

18. According to the data collected by WHO, as of 31 December 2024, 54 Member States (28%) had restrictions on flavours in cigarettes. However, the same restrictions do not always apply to other tobacco products; 48 Member States (25%) apply the same restrictions to other smoked products – including 29 Member States (15%) for HTPs – and only 19 Member States (9%) apply them to smokeless tobacco products. This information is displayed in Table 1 by WHO region, highlighting the differences in flavour restrictions across various tobacco products.

Table 1. Number of Member States that have restrictions on flavours in various tobacco products, by WHO region

Tobacco products with flavour restrictions	African Region	Region of the Americas	Eastern Mediterranean Region	European Region	South-East Asia Region	Western Pacific Region	Total
Cigarettes[a]	10	4	0	36	1	3	54
Other smoked products (HTPs)[b]	8 (1)	3 (0)	1 (1)	33 (25)	0 (0)	3 (2)	48 (29)
Smokeless tobacco	5	2	0	10	0	2	19

[a] Member States that have restrictions on flavours in cigarettes, by WHO region, are:
African Region – Cabo Verde, Congo, Ethiopia, Mauritania, Mauritius, Niger, Nigeria, Senegal, Sierra Leone and Uganda;
Region of the Americas – Antigua and Barbuda, Brazil, Canada and United States of America;
European Region – Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands (Kingdom of the), Norway, Poland, Portugal, Republic of Moldova, Romania, Slovakia, Slovenia, Spain, Sweden, Türkiye, Turkmenistan, Ukraine and United Kingdom of Great Britain and Northern Ireland;
South-East Asia Region – Sri Lanka;
Western Pacific Region – Australia, Kiribati and New Zealand.

[b] The numbers in parenthesis are for WHO Member States with flavour restrictions for HTPs.

19. Results of the survey conducted by WHO, referenced in paragraph 12, indicate that of the 26 Member States that reported having no regulations on flavouring additives, the majority (nearly 85%) expressed the desire to pursue a flavour/additive ban. Close to 60% noted that lack of knowledge posed the main barrier for not having a flavour ban in place, and almost all Member States with no regulations (nearly 90%) reported the need for support. The type of support most requested by Member States involved technical and scientific support to achieve a flavour ban.

Strengthening tobacco testing capacity and facilitating take-up of TobLabNet resources in countries (paragraph 7 of decision FCTC/COP8(21))

20. In paragraph 7 of decision FCTC/COP8(21), the COP requested the Convention Secretariat to invite WHO to "continue to provide support in synergy with other WHO FCTC work in facilitating take-up of the WHO Tobacco Laboratory Network [TobLabNet] resources and capacity-building activities, upon the request of Parties". To address this request, WHO continues to support Parties in their efforts to build capacity to regulate tobacco products effectively and to facilitate uptake of the TobLabNet resources.

Facilitating take-up of TobLabNet resources

21. WHO, in collaboration with TobLabNet, develops and validates methods to test the contents and emissions of tobacco products. These methods (referred to as standard operating procedures) are made available to Member States in furtherance of the implementation of Articles 9 and 10 of the WHO FCTC. TobLabNet also supports WHO in building testing capacity in Member States, including conducting training workshops in countries on tobacco product testing. To date, 16 methods have been published on WHO's website to support countries in strengthening implementation of Articles 9 and 10 of the WHO FCTC. These are provided in Annex 1 for easy reference.

22. WHO is in the process of organizing a collaborative study to validate the standard operating procedure for the determination of flavouring agents in cigarettes using non-targeted analysis – gas chromatography mass spectrometry (WHO TobLabNet SOP 17).

Capacity-building activities, including building capacity for product testing

23. As part of WHO's capacity-building efforts, the Organization has developed four information sheets to summarize the current knowledge base on flavours, flavour accessories, design features and manipulation and marketing strategies used by the tobacco and nicotine industries to promote their products. These are available on the WHO website.[16]

24. WHO Member States created a yearly event, World No Tobacco Day (WNTD), in 1987 to draw global attention to the tobacco epidemic and the preventable death and disease it causes. The theme of the WNTD 2025 campaign is "Unmasking the appeal: Exposing industry tactics on tobacco and nicotine products". This is intended to be a year-long campaign that aims to raise awareness about the strategies used by the tobacco industry to increase the appeal of its products – especially to young people. The campaign also aims to advocate for stronger policies and to reduce demand, particularly among young people, ultimately lowering their exposure to tobacco, nicotine and related products. All WNTD 2025 campaign material is available on the WHO website.[17]

25. Ahead of WNTD 2025, WHO convened a virtual webinar titled "Exposing lies, protecting lives: Unmask the appeal of tobacco and nicotine products", which provided a platform to simplify the science and evidence, as well as to share country experiences in approaching challenges

[16] Tobacco control (TFI): Documents. World Health Organization; 2025 (accessed 15 July 2025).

[17] World No Tobacco Day 2025. World Health Organization; 2025 (accessed 15 July 2025).

related to flavours, product design and marketing strategies. The recording of the webinar is available on the WHO website.[18]

26. WHO further simplified the evidence about flavours, design features and marketing strategies for dissemination to the general public and other relevant stakeholders, as part of its *Science in 5* podcast series. The podcast recording is available on the WHO website.[19]

27. WHO collaborating centres provide strategic support to WHO to implement the Organization's mandated work and programme objectives, which are driven by Member State requests, and to develop and strengthen institutional capacity in countries and regions. Five WHO collaborating centres focus specifically on product regulation – in Burkina Faso, Japan, Netherlands (Kingdom of the), Singapore and the United States of America – and WHO leverages their expertise to conduct research, and to build evidence on effective regulation of tobacco products. In addition, more than 10 WHO collaborating centres focus on tobacco control in the six WHO regions, supporting countries in their efforts to strengthen and further accelerate tobacco control progress. Information about all the WHO collaborating centres and their focus areas is available on the WHO website.[20]

Policy options and approaches to meet Party obligations under Articles 9 and 10 of the WHO FCTC

28. To meet their obligations under Articles 9 and 10 of the WHO FCTC, Parties should consider the non-exhaustive list of regulatory options included in paragraphs 29–35.

Flavours

29. Reduce the appeal of tobacco products, using options such as regulating (including banning) flavours, especially to discourage youth use. Considerations include:

(a) banning flavours across all products, and banning flavour accessories, including flavour capsules;

(b) when banning of flavours is not feasible, adopting strong regulations restricting the use of flavouring agents and restricting the use of flavour images in packaging and marketing of tobacco products, and implementation of plain packaging across all product categories; and

(c) where flavour accessories are permitted, strictly regulating their marketing, promotion and points of sale.

[18] World No Tobacco Day webinar by WHO: Unmask the appeal of tobacco and nicotine products. World Health Organization; 2025 (accessed 15 July 2025).

[19] Science in 5: Episode #139 – The tobacco trap. World Health Organization; 2025 (accessed 15 July 2025).

[20] WHO collaborating centres database and portal. World Health Organization; 2025 (accessed 15 July 2025).

Product design

30. Implement policies to reduce the appeal of tobacco products by addressing product design, including by:

(a) prohibiting sales or, where that is not feasible, strictly regulating – for example, by:

(i) prohibiting or restricting product design characteristics that specifically appeal to children and young people, which could include standardized product design;

(ii) preventing unproven claims about tobacco products, including health claims, comparative ingredient/emission claims and reduction of disease risk claims;

(iii) banning filters to reduce the palatability and appeal of cigarettes, remove consumer misconceptions about filters substantially reducing health harms and reduce a major source of toxic tobacco waste, including the microplastics deposited by cellulose acetate in filters; and

(b) creating public awareness about product design features.

Disclosure of contents, emissions and design features

31. Require manufacturers and importers of tobacco products to disclose information on the contents, emissions and design features of their products.

Advertising, promotion and sponsorship

32. Ensure that comprehensive bans or restrictions on tobacco advertising, promotion and sponsorship – including digital marketing – apply to all categories of tobacco products, and that monitoring and enforcement are strengthened to address the aggressive marketing of flavoured tobacco products to children noted in paragraph 10.

Compliance monitoring, market monitoring and surveillance

33. To keep pace with changes to the product landscape and marketing, Parties should consider putting mechanisms in place to ensure compliance and prevent illicit trade, and to monitor the market – including trends in use, potential shifts and/or emergence of products and flavours – and the strategies used by the tobacco industry to promote its products, especially to children and young people.

Use of WHO resources

34. Noting WHO's ongoing work in facilitating take-up of the TobLabNet resources as stated in paragraphs 21 and 22, and considering paragraph 7 of decision FCTC/COP8(21), Parties should consider implementing the TobLabNet methods (Annex 1), as referenced in the Partial guidelines for Articles 9 and 10, to facilitate implementation of the Articles. This includes specifying these methods in national laws. Parties should also take into consideration TobReg's recommendations, as listed in the Study Group's reports (Annex 2).

35. Based on the regulatory status discussed in paragraphs 6 and 15–19, noting the uneven application of regulatory measures in various tobacco products and considering TobReg's recommendations, Parties should ensure that regulations on tobacco products are extended and applied to all forms of tobacco products, and not restricted to conventional cigarettes.

Action by the Conference of the Parties

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

Annex 1

List of published WHO Tobacco Laboratory Network standard operating procedures[1]

1. World Health Organization, WHO Tobacco Free Initiative. Standard operating procedure for intense smoking of cigarettes: WHO TobLabNet official method SOP 01. Geneva: World Health Organization; 2012 (https://iris.who.int/handle/10665/75261).

2. Standard operating procedure for validation of analytical methods of tobacco product contents and emissions: WHO TobLabNet official method SOP 02. Geneva: World Health Organization; 2017 (https://iris.who.int/handle/10665/254998). Licence: CC BY-NC-SA 3.0 IGO.

3. Standard operating procedure for determination of tobacco-specific nitrosamines in mainstream cigarette smoke under ISO and intense smoking conditions: WHO TobLabNet official method SOP 03. Geneva: World Health Organization; 2014 (https://iris.who.int/handle/10665/136000).

4. World Health Organization, WHO Tobacco Free Initiative. Standard operating procedure for determination of nicotine in cigarette tobacco filler: WHO TobLabNet official method SOP 04. Geneva: World Health Organization; 2014 (https://iris.who.int/handle/10665/102318).

5. Standard operating procedure for determination of benzo[a]pyrene in mainstream cigarette smoke under ISO and intense smoking conditions: WHO TobLabNet official method SOP 05. Geneva: World Health Organization; 2015 (https://iris.who.int/handle/10665/174003).

6. Standard operating procedure for determination of humectants in cigarette tobacco filler: WHO TobLabNet official method SOP 06. Geneva: World Health Organization; 2015 (https://iris.who.int/handle/10665/246228; https://apps.who.int/iris/bitstream/handle/10665/246228/9789241510479-eng.pdf;sequence=1).

7. Standard operating procedure for determination of ammonia in cigarette tobacco filler: WHO TobLabNet official method SOP 07. Geneva: World Health Organization; 2016 (https://iris.who.int/handle/10665/250089).

8. Standard operating procedure for determination of aldehydes in mainstream cigarette smoke under ISO and intense smoking conditions: WHO TobLabNet official method SOP 08. Geneva: World Health Organization; 2018 (https://iris.who.int/handle/10665/275357). Licence: CC BY-NC-SA 3.0 IGO.

9. Standard operating procedure for determination of volatile organics in mainstream cigarette smoke under ISO and intense smoking conditions: WHO TobLabNet official method SOP 09. Geneva: World Health Organization; 2019 (https://iris.who.int/handle/10665/275344). Licence: CC BY-NC-SA 3.0 IGO.

10. Standard operating procedure for determination of nicotine and carbon monoxide in mainstream cigarette smoke under intense smoking conditions: WHO TobLabNet official method SOP 10. Geneva: World Health Organization; 2016 (https://iris.who.int/handle/10665/252615). Licence: CC BY-NC-SA 3.0 IGO.

[1] All references were accessed on 15 July 2025.

11. World Health Organization, WHO Tobacco Free Initiative. Standard operating procedure for determination of nicotine, glycerol and propylene glycol in e-liquids: WHO TobLabNet official method SOP11. Geneva: World Health Organization; 2021 (https://iris.who.int/handle/10665/340503). Licence: CC BY-NC-SA 3.0 IGO.

12. Standard operating procedure for determination of nicotine content in smokeless tobacco products: WHO TobLabNet official method SOP12. Geneva: World Health Organization; 2022 (https://iris.who.int/handle/10665/353333). Licence: CC BY-NC-SA 3.0 IGO.

13. Standard operating procedure for determination of moisture content in smokeless tobacco products: WHO TobLabNet official method SOP13. Geneva: World Health Organization; 2022 (https://iris.who.int/handle/10665/353332). Licence: CC BY-NC-SA 3.0 IGO.

14. Standard operating procedure for determination of the pH of smokeless tobacco products: WHO TobLabNet official method SOP14. Geneva: World Health Organization; 2022 (https://iris.who.int/handle/10665/352852). Licence: CC BY-NC-SA 3.0 IGO.

15. Standard operating procedure for determination of nicotine, glycerol and propylene glycol content in the tobacco of heated tobacco products (HTPs): WHO TobLabNet official method SOP15. Geneva: World Health Organization; 2023 (https://iris.who.int/handle/10665/372577). Licence: CC BY-NC-SA 3.0 IGO.

16. Standard operating procedure for the determination of flavouring agents in e-liquids using non-targeted analysis: gas chromatography mass spectrometry: WHO TobLabNet official method SOP16. Geneva: World Health Organization; 2025 (https://iris.who.int/handle/10665/381758). Licence: CC BY-NC-SA 3.0 IGO.

Annex 2

List of reports to date by the WHO Study Group on Tobacco Product Regulation[1]

1. World Health Organization, WHO Tobacco Free Initiative. The scientific basis of tobacco product regulation: report of a WHO study group. Geneva: World Health Organization; 2007 (WHO technical report series 945; https://iris.who.int/handle/10665/43647).

2. World Health Organization, WHO Tobacco Free Initiative. The scientific basis of tobacco product regulation: second report of a WHO study group. Geneva: World Health Organization; 2008 (WHO technical report series 951; https://iris.who.int/handle/10665/43997).

3. WHO study group on tobacco product regulation: report on the scientific basis of tobacco product regulation: third report of a WHO study group. Geneva: World Health Organization; 2009 (WHO technical report series 955; https://iris.who.int/handle/10665/44213).

4. World Health Organization, WHO Study Group on Tobacco Product Regulation. WHO study group on tobacco product regulation: report on the scientific basis of tobacco product regulation: fourth report of a WHO study group. Geneva: World Health Organization; 2012 (WHO technical report series 967; https://iris.who.int/handle/10665/44800).

5. WHO study group on tobacco product regulation: report on the scientific basis of tobacco product regulation: fifth report of a WHO study group. Geneva: World Health Organization; 2015 (WHO technical report series 989; https://iris.who.int/handle/10665/161512).

6. WHO study group on tobacco product regulation: report on the scientific basis of tobacco product regulation: sixth report of a WHO study group. Geneva: World Health Organization; 2017 (WHO technical report series 1001; https://iris.who.int/handle/10665/260245). Licence: CC BY-NC-SA 3.0 IGO.

7. WHO Study Group on Tobacco Product Regulation. Report on the scientific basis of tobacco product regulation: seventh report of a WHO study group. Geneva: World Health Organization; 2019 (WHO Technical Report Series 1015; https://iris.who.int/handle/10665/329445). Licence: CC BY-NC-SA 3.0 IGO.

8. WHO study group on tobacco product regulation: report on the scientific basis of tobacco product regulation: eighth report of a WHO study group. Geneva: World Health Organization; 2021 (WHO Technical Report Series 1029; https://iris.who.int/handle/10665/341113). Licence: CC BY-NC-SA 3.0 IGO.

9. WHO study group on tobacco product regulation. Report on the scientific basis of tobacco product regulation: ninth report of a WHO study group. Geneva: World Health Organization; 2023 (WHO Technical Report Series 1047; https://iris.who.int/handle/10665/372463). Licence: CC BY-NC-SA 3.0 IGO.

10. WHO study group on tobacco product regulation. Report on the scientific basis of tobacco product regulation: tenth report of a WHO study group. Geneva: World Health Organization; 2025 (WHO Technical Report Series 1066; under preparation). Licence: CC BY-NC-SA 3.0 IGO.

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[1] All references were accessed on 15 July 2025.