D9.1 Report of tobacco endgame strategies for the European region

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González-Marrón A, Koprivnikar H, Tisza J, Cselkó Z, Lambrou A, Peruga A et al. Tobacco endgame in the WHO European Region: Feasibility in light of current tobacco control status. Tobacco Induced Diseases. 2023;21(November):151. https://doi.org/10.18332/tid/174360

Ollila H, Ruokolainen O, Laatikainen T, et al. Tobacco endgame goals and measures in Europe: current status and future directions. Tobacco Control. Published Online First: 17 June 2024. https://doi.org/10.1136/tc-2024-058606

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Abstract

Tobacco smoking continues to be one of the leading causes of morbidity and mortality worldwide. In the European Union (EU), around 24% of people smoked tobacco in 2020 and around 740,000 people die every year due to tobacco smoking. In the World Health Organization (WHO) European Region,[1] the smoking prevalence is even higher (29% in 2019) and tobacco smoking accounts for 25% of cardiovascular disease, 41% of cancer and 63% of respiratory disease deaths in men, and 6%, 10% and 37% of deaths in women, respectively. The Article 2.1 of the WHO Framework Control on Tobacco Control (WHO FCTC) encourages countries to implement measures that go beyond the requirements of the treaty in order to better protect human health. In the EU, the Europe's Beating Cancer Plan has set a goal of Tobacco-Free Generation, aiming to reduce the prevalence of tobacco use in the region to under 5% by 2040. Some non-EU countries have set similar goals. With the aim of achieving minimal level of use, and defined timeframe, these goals meet the general definition of tobacco endgame where the focus is being shifted from controlling tobacco epidemic to ending it.

To achieve tobacco endgame goals, countries need to adopt and implement comprehensive policies. The first step is the full implementation of the WHO FCTC and its guidelines. These can be supplemented with additional innovative measures, such as different market/supply and product-focused measures. In recent years, several innovative measures have been proposed in the literature, but their implementation is rare. Our analysis of the current status of tobacco control shows wide differences in the implementation of the WHO FCTC and its guidelines between WHO European Region countries. This shows that there is plenty of room for improvement in maximizing the implementation. In the light of facilitating the adoption of national tobacco endgame goals, most worrying is the finding that a large number of countries in the region are not investing in their tobacco control infrastructure and do not sufficiently protect themselves from tobacco industry influence. This hampers both the implementation of the WHO FCTC, as well as adoption of innovative tobacco endgame measures. A growing number of European countries have already adopted official tobacco endgame goals, or are taking steps towards it through relevant initiatives in their countries. In the countries that have adopted tobacco endgame goals, the expectations related to achieving the goal are moderately positive, while concerns are expressed especially in relation to non-combustible products and new nicotine products, cross-border marketing, high smoking prevalence in some population groups, and sustaining the political will. There is more variation in the expectations related to adopting such goal in countries without endgame goals. Concerns focus on lack of political will, challenges in the implementation or strengthening of the existing tobacco control regulations and on tobacco industry.

Overall, the feasibility of accomplishing supranational endgame goals in Europe, as the Tobacco-Free Generation goal in the Europe's Beating Cancer Plan, may be hampered by the low implementation of WHO FCTC in several countries. However, at the same time, establishing national tobacco endgame goals can provide the opportunity to bring the need for strengthened implementation of the WHO FCTC to the political agenda as part of the national measures for achieving the goal. Even the countries that have established official tobacco endgame goals have not implemented yet all the key WHO FCTC measures. These results warrant attention and action in these countries, as the effectiveness of innovative tobacco endgame measures can be undermined by lack of implementation of key evidence-based measures.

1 WHO European region consists of 53 countries: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Republic of North Macedonia, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan.

INTRODUCTION

Tobacco smoking continues to be one of the leading causes of morbidity and mortality worldwide. In the European Union (EU), around 24% of people smoked tobacco products in 2020 (1) and around 740,000 people die every year due to tobacco smoking (2). In the World Health Organization (WHO) European Region, the prevalence of tobacco smoking was 29% in 2019 and smoking accounted for 25% of cardiovascular disease, 41% of cancer and 63% of respiratory disease deaths in men, and 6%, 10% and 37% of deaths in women, respectively (3). Tobacco has also a significant environmental footprint throughout the cycle from growing, manufacturing and consumption (4). Together the negative health, social, economic, and environmental consequences of tobacco hamper the progress with the UN Sustainable Development Goals (5).

Globally, the Article 2.1 of the WHO Framework Control on Tobacco Control (WHO FCTC) encourages countries to implement measures that go beyond the requirements of the treaty to better protect human health (6). This provides also for tobacco endgame approaches, where the focus is being shifted from controlling the tobacco epidemic to ending it (7,8). Tobacco endgame is often generally defined as aiming for minimal level of use in the population within a defined timeframe preferably in near future (7,8). Some EU and non-EU countries in Europe have set their national tobacco endgame goals, and tobacco endgame goals exists also in other regions (e.g. New Zealand, Canada). The definitions and scope of included products varies from focusing on only combustible tobacco products to addressing also non-pharmaceutical nicotine products such as electronic cigarettes. In the EU, an important step was taken in 2021, when a Tobacco-Free Generation goal was launched in the Europe's Beating Cancer Plan to prevent tobacco-related morbidity and mortality (9). More specifically, this goal was defined as reaching less than 5% of tobacco use prevalence in Europe by year 2040. By its definition, the EU goal is not only for smoking but for all tobacco use. The Cancer Plan also sets an interim goal to reach the WHO target of a 30% relative reduction in tobacco use by 2025 as compared to 2010. This would correspond to a smoking prevalence of around 20% in the EU (9). According to the Cancer Plan, the European Commission will continue to prioritize protecting young people from the harmful effects of tobacco and related products.

To achieve tobacco endgame goals, countries need to adopt and implement comprehensive tobacco control policies. These are integrated in the WHO FCTC (6), its implementation guidelines (10) and the Protocol to Eliminate Illicit Trade in Tobacco Products (the Protocol) (11), including the "best buys" defined as part of the MPOWER package[2] (12). Over the years, the ratification of the WHO FCTC has been shown to increase the implementation of key tobacco control measures across several policy domains, which have also resulted in decrease of tobacco use (13,14). Yet, there is large variation in the implementation of different WHO FCTC articles and the comprehensiveness of the measures implemented under articles (15). In recent years, several innovative measures, such as different market/supply and product focused measures, have also been proposed in the literature (8, 16-17). Their implementation is still rare. As a first, in December 2022, New Zealand adopted the bill which included the ban on the commercial sales of combustible tobacco products to anyone born on or after January 1, 2009, accompanied with a drastic reduction of around 95% in the number of retailers, and the reduction of nicotine content in cigarettes (18).

Through the concerted effort of 21 EU Members States, the Joint Action on Tobacco Control 2 (JATC2) facilitates the exchange of good practices between Member States in order to improve implementation of the Tobacco Products Directive (TPD) and related delegated acts in a number of areas of tobacco product and e-cigarette regulation, including smokefree environments, laboratory capacity, analysis and assessment of current TPD implementation. The Work Package 9 (WP9) of JATC2, with 15 partners (13 EU Member States), focuses on best practices to develop effective and comprehensive tobacco endgame strategies. Under the Objective 9.1 "To identify and assess

2 The WHO FCTC, its guidelines and Protocol provide the foundation for countries to implement and manage tobacco control. To help make this a reality, WHO introduced the MPOWER package. These MPOWER measures are intended to assist in the country-level implementation of effective interventions to reduce the demand for tobacco, contained in the WHO FCTC. (https://www.who.int/initiatives/MPOWER)

tobacco endgame strategies and forward-looking tobacco control policies for the European region", the WP9 partners have utilized existing global tobacco control databases such as the WHO FCTC implementation reports and MPOWER reports, both from 2020, to assess current status of tobacco control in the WHO European region. Further, new information has been gathered on adopted and planned tobacco endgame goals and measures from the countries in this region with a questionnaire developed by WP9 partners in 2022. This first deliverable of the WP9, "Report of tobacco endgame strategies for the European region", provides a summary of the key findings from these activities. Detailed findings are published in separate journal articles[3]. The methods used in these activities are described in the indicator compendium (M9.1) which will be made available on the JATC2 website www.jaotc.eu.

CURRENT STATUS IN TOBACCO CONTROL

This chapter is based on an analysis conducted among the 53 WHO European Region countries (of which 50 are Parties to the WHO FCTC) with data from existing global tobacco control databases for the WHO FCTC[4] and MPOWER[5].

Capacity

Capacity was measured from the WHO FCTC indicators assessing the "infrastructure" for tobacco control (strategies, resources, enforcement mechanisms under Article 5 of the WHO FCTC and related articles; measures to prevent industry influence under Article 5.3; liability measures under Article 19). A clear need to improve the capacity was observed in the region. Only 5 out of 50 WHO FCTC parties achieved at least 80% of the maximum score, and 33 at least 50% of the maximum score. When focusing only on WHO FCTC Parties that belong to EU/EEA (29 countries[6]), the figures were 3 and 17 countries, respectively. The percentage of implementation ranged from 17% in Ukraine to 91% in Netherlands (Figure 1).

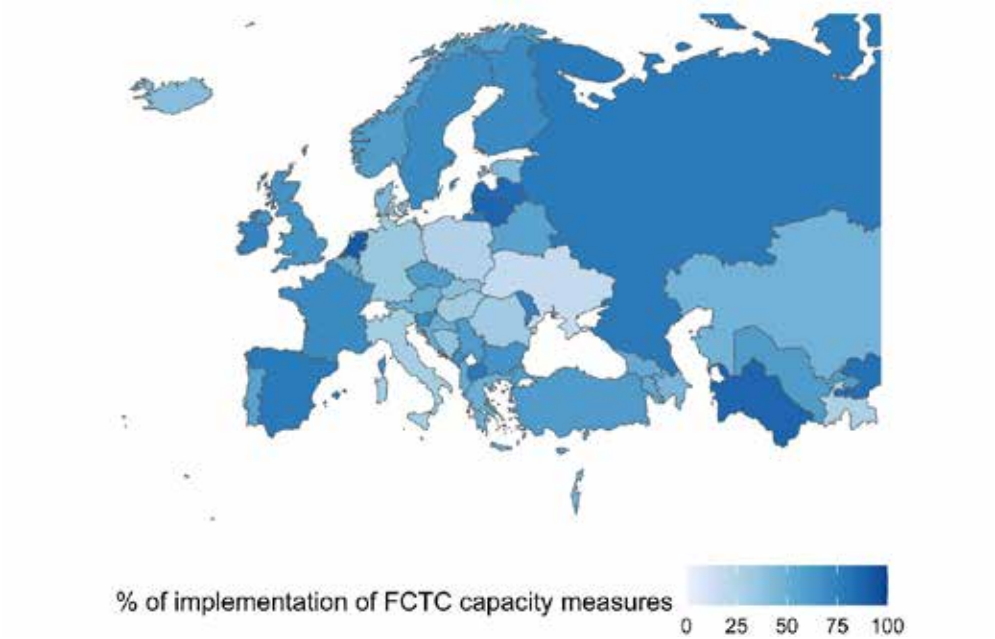
3 The references to the journal articles will be updated to this deliverable prior to public dissemination on the JATC2 website.

4 The officially submitted implementation reports of the Parties to the WHO FCTC are publicly available in the WHO FCTC Implementation Database https://fctc.who.int/who-fctc/reporting/implementation-database. Through participation of the WHO FCTC Knowledge Hub on Surveillance, full datasets for the 2020 reporting cycle deriving from the reporting platform of the WHO FCTC, including updated information provided by the Parties, were also utilized. The WP9 partners reviewed their country data and had the possibility to provide recent updates. The updates were minor and did not substantially change the general information gathered from the existing databases.

5 Data available from the WHO Global Health Observatory, Tobacco control: MPOWER. https://www.who.int/data/gho/data/themes/topics/indicator-groups/indicator-group-details/GHO/tobacco-control---progress-towards-selected-tobacco-control-policies-for-demand-reduction

6 27 European Union (EU) member states, 2 European Economic Area (EEA) member states (Liechtenstein is not a Party to the WHO FCTC).

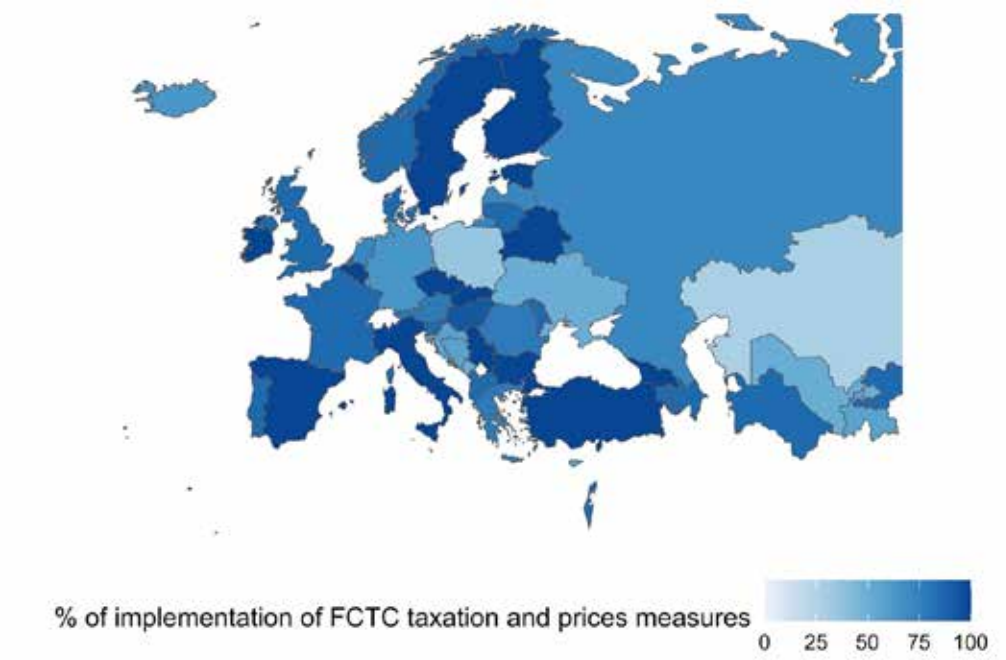
Figure 1. Proportion of implemented capacity measures required or recommended in the WHO FCTC among the countries in the WHO European region in 2020.



Taxation and price policies

Importantly, countries in this region are utilizing tax and price policies (Article 6 of the WHO FCTC) and support these policies with measures to control for illicit trade (Article 15 of the WHO FCTC). Almost all, that is 47 out of the 50 WHO FCTC Parties, reached at least 50% of the maximum score in this domain and 30 at least 80% of the maximum score. When focusing only on WHO FCTC Parties that belong to EU/EEA, the figures were 28 and 17 countries, respectively. The lowest implementation was observed in San Marino (21%), and altogether 14 countries implemented all the studied measures and reached 100% implementation (Figure 2).

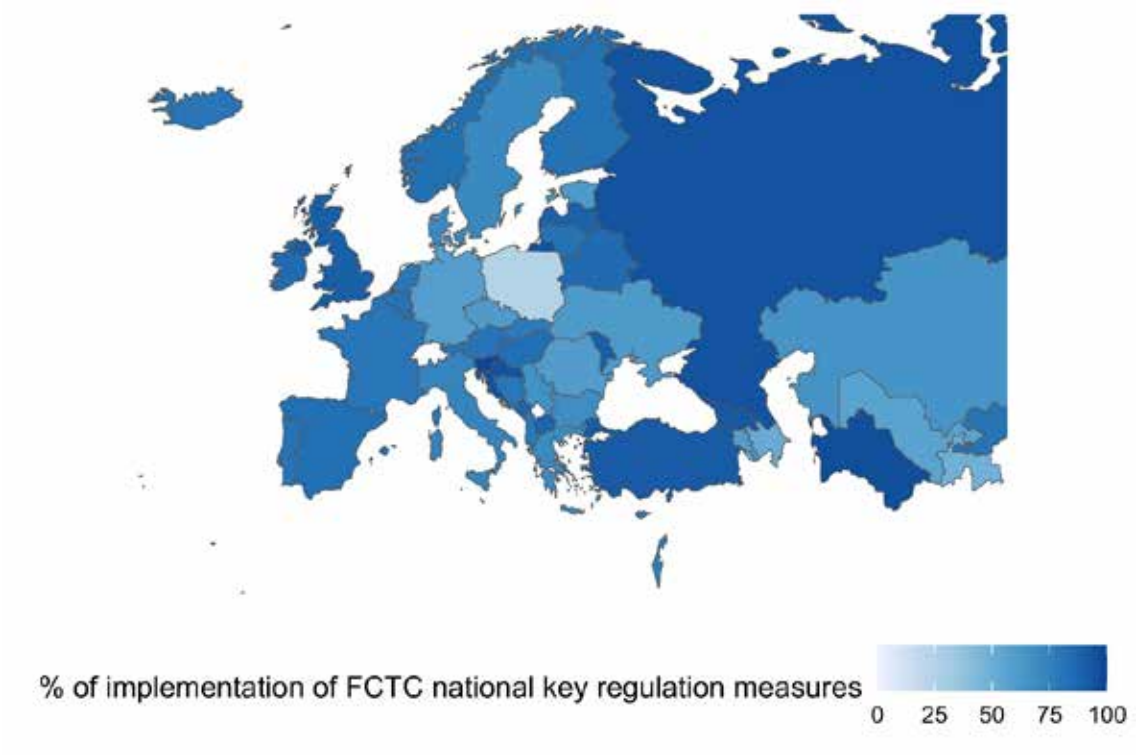
Figure 2. Proportion of implemented tax and price measures required or recommended in the WHO FCTC among the countries in the WHO European region in 2020.



Other national key regulations

Besides taxation and price policies, other key tobacco control regulations that were assessed included: smoking bans applied in indoor settings (i.e., workplaces, public transport, indoor public places and other public places; Article 8 of the WHO FCTC); testing, measuring and regulation of contents and emissions of tobacco products (Article 9 and 10 of the WHO FCTC); packaging and labelling of tobacco products (Article 11 of the WHO FCTC); advertising, promotion and sponsorship (Article 13 of the WHO FCTC); and retail measures to prevent youth access (Article 16 of the WHO FCTC). Importantly, 27 of the 50 WHO FCTC Parties achieved 80% or more of the maximum score, while almost all, that is 47, achieved at least 50% of the maximum score. When focusing only on WHO FCTC Parties that belong to EU/EEA, the figures were 16 and 28 countries, respectively. The percentage of implementation ranged from 25% in Poland to 99% in Slovenia (Figure 3).

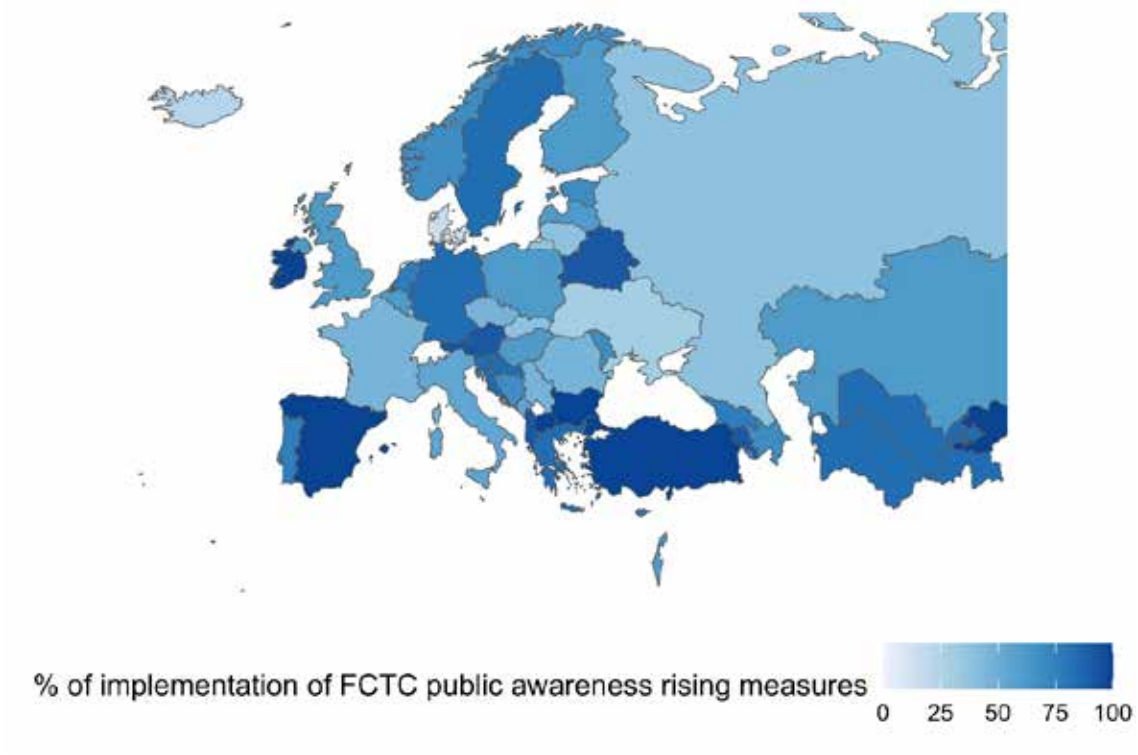
Figure 3. Proportion of implemented other key national tobacco control measures required or recommended in the WHO FCTC among the countries in the WHO European region in 2020.



Public awareness raising and communications

In the public awareness raising and communications domain which assessed for example campaigns, trainings, and publication of industry data in line with the Article 12 of the WHO FCTC, 19 out of 50 WHO FCTC Parties achieved at least 80% of the maximum score, and 39 at least 50% of the maximum score. When focusing only on WHO FCTC Parties that belong to EU/EEA, the figures were 10 and 21 countries, respectively. The percentage of implementation ranged from 21% for San Marino to 100% for 14 countries (Figure 4).

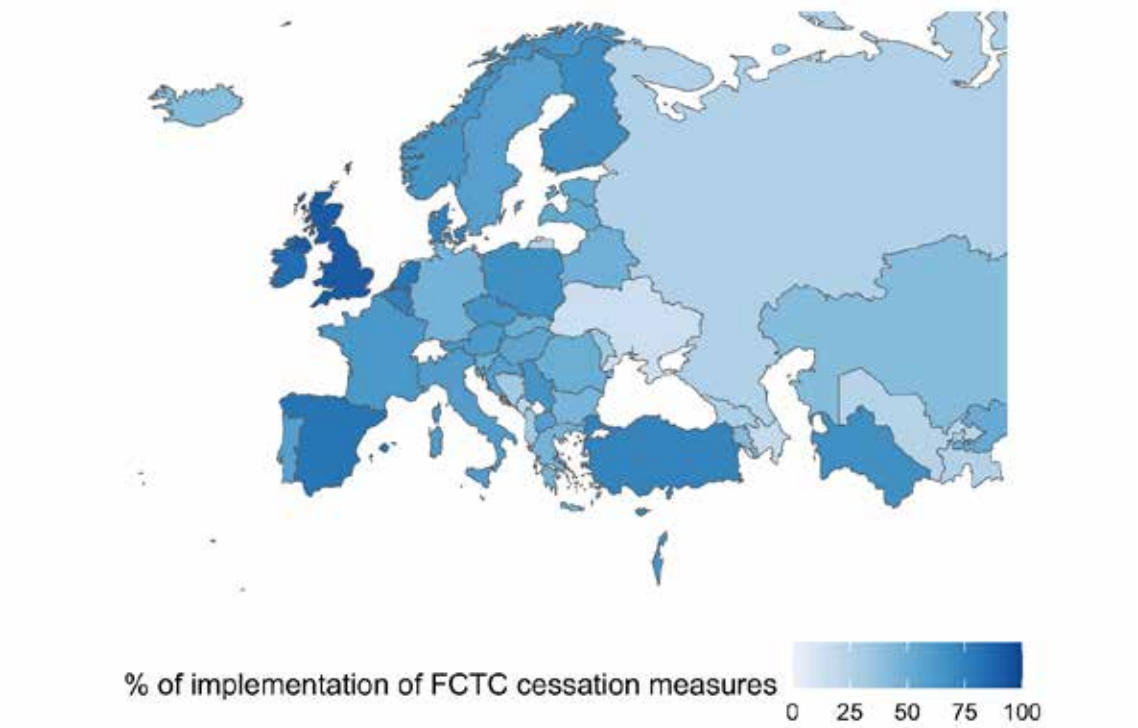
Figure 4. Proportion of implemented public awareness and training measures required or recommended in the WHO FCTC among the countries in the WHO European region in 2020.



Tobacco use cessation

A clear need for improvement was observed in tobacco use cessation support (Article 14 of the WHO FCTC). In this domain, only 3 out of 50 WHO FCTC parties achieved at least 80% of the maximum score, and 31 at least 50% of the maximum score. When focusing only on WHO FCTC Parties that belong to EU/EEA, the figures were 2 and 24 countries, respectively. The percentage of implementation ranged from 6% in San Marino to 91% in United Kingdom (Figure 5).

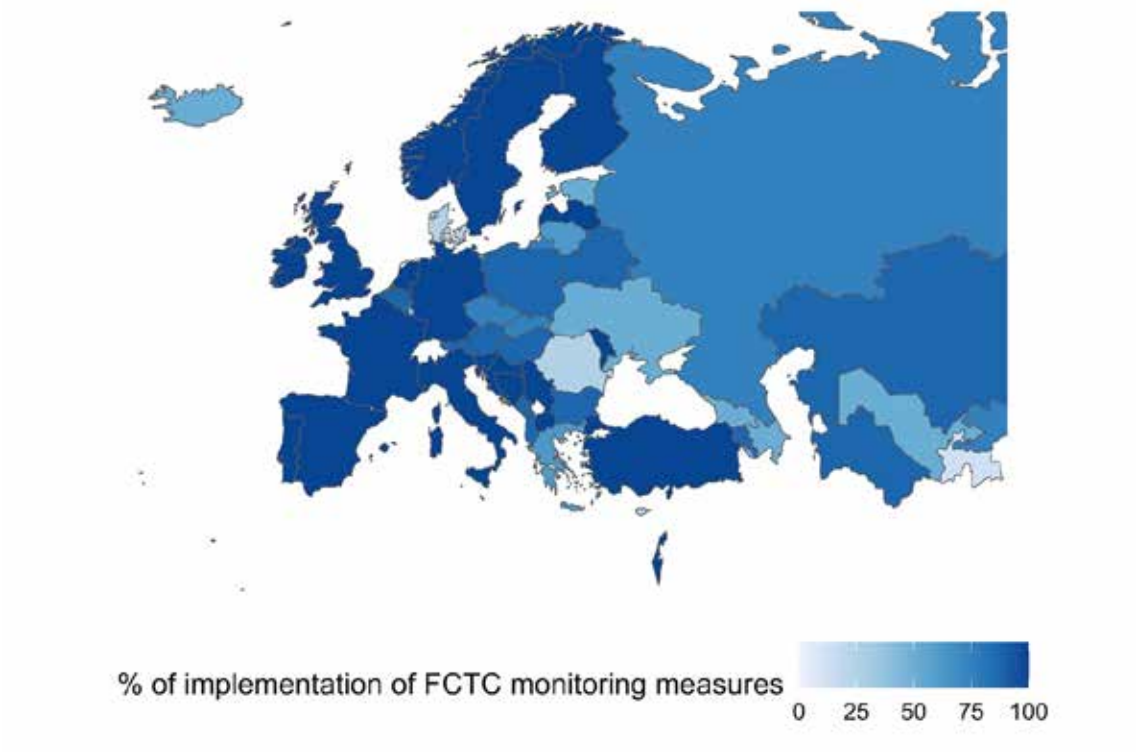
Figure 5. Proportion of implemented cessation measures required or recommended in the WHO FCTC among the countries in the WHO European region in 2020.



Monitoring

Finally, tobacco control monitoring was assessed through the availability of key population data and promotion of research for tobacco control. Monitoring was better implemented than other assessed domains, as 32 of the 50 WHO FCTC Parties achieved 80% or more of the maximum score, and 44 achieved at least 50% of the maximum score. When focusing only on WHO FCTC Parties that belong to EU/EEA, the figures were 19 and 25 countries, respectively. The percentage of implementation ranged from 0% in San Marino to 100%, reached by altogether 21 countries (Figure 6).

Figure 6. Proportion of implemented monitoring measures required or recommended in the WHO FCTC among the countries in the WHO European region in 2020.



Overall implementation of the WHO FCTC

When assessing the implementation of the selected measures under the WHO FCTC as a whole, we observed that altogether 45 out of the 50 WHO FCTC Parties reached at least 50% implementation of the measures. Only 8 countries had the percentage of implementation of at least 80%.

For MPOWER measures which contain a smaller package of measures from the WHO FCTC recognized as “best buys” in tobacco control, we observed that in 40 out of 53 WHO Euro countries that are Parties to the WHO FCTC the percentage of implementation of all measures was at least 50%. 15 countries had the percentage of implementation of at least 80%. When focusing only on WHO FCTC Parties that belong to EU/EEA, the figures were 23 and 10 countries, respectively.

TOBACCO ENDGAME – CURRENT STATUS AND FUTURE DIRECTIONS

This chapter is based on an analysis of data derived from a questionnaire distributed to the WHO FCTC focal points and/or other relevant national tobacco control experts in the WHO European Region in September 2022. Altogether 24 out of the 50 WHO FCTC Parties in the WHO European region (19 of the 27 EU member states) responded to the WP9 questionnaire on tobacco endgame. Thus, the response rates were 48% in the Region and 70% within the EU. The responding countries were, in alphabetical order: Austria, Azerbaijan, Belgium, Czechia, Cyprus, Denmark, Estonia, Germany, Finland, France, Hungary, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Republic of North Macedonia, Serbia, Slovenia, Spain, Sweden and Uzbekistan.

Most of the responses were provided by mid-October, but to accommodate sufficient time for coordination of national responses, more time was given if needed. Last response was received early January 2023. Participants were contacted in March 2023 to ask for potential updates since their response. Two countries (Finland, Uzbekistan) provided updates which have been taken into account in the analysis. Respondents were informed that their country would not be named in connection with planned measures where no information was publicly available. This was decided among the WP9 partners in order to protect these countries from tobacco industry influence following the publication of the results.

Tobacco endgame goals

Among the respondents, four countries had official tobacco endgame goals[7] aiming for <5% prevalence level in tobacco use (with differing definitions) in the general population: Ireland and Sweden by 2025, Finland by 2030 and Slovenia by 2040. Further, four countries had tobacco endgame goals framed as smoke-free or tobacco-free generation goals. France aims for children born since 2014 being the first generation to reach <5% smoking prevalence as adults by 2032. The Netherlands aims at 0% smoking prevalence among youth and pregnant women, and <5% smoking prevalence among people aged 18 years and above, by 2040. Belgium aims for no or almost no new tobacco users and <5% prevalence of daily use of tobacco-among people aged 15 years and above by 2040. In Norway, the Tobacco Control Act contains a goal for a "tobacco free society" and the tobacco control strategy has a vision of a "tobacco free generation", but they lack further specification.

Norway and Finland are the only countries where the endgame objective is in the Tobacco Act, whereas other countries present their goals in governmental strategies. All the endgame countries reported that the definition of their goal covered cigarettes and combustible tobacco products. While the wording in prevalence goals referred often to smoking, the definition was reported to cover also some other than combustible tobacco products in all countries except Sweden. France reported including heated tobacco products (HTPs), Ireland smokeless tobacco, and Norway both smokeless and heated tobacco products. Belgium, Finland, the Netherlands and Slovenia reported that they cover all tobacco products (including smokeless tobacco and HTPs), electronic cigarettes (e-cigarettes) and non-pharmaceutical nicotine products (e.g., nicotine pouches) in their goal.

An additional three countries responded having an official tobacco endgame goal. However, a closer examination of their definitions showed that these goals consisted of important but more general prevalence reduction goals, where the target was still above 10%. These were therefore not considered as tobacco endgame countries.

Tobacco endgame proposals

Altogether six countries, all from EU, reported that governmental bodies or other relevant organizations or entities (e.g., NGOs, political parties, public health organizations) have proposed a tobacco endgame goal in their country. Denmark, under a previous government, agreed on a goal of a smoke free generation 2030, which is still supported. In 2022, a proposal of Nicotine-Free Generation was included as part of health reform proposal (19). This was defined as a goal where no one born in or after 2010 should start smoking or use other nicotine products. This proposal has not yet progressed. In Germany, the German Cancer Research Center (Deutsches Krebsforschungszentrum, DKFZ) has published a strategy supported by several entities for tobacco-free Germany, which includes a goal of reaching <5% tobacco and non-pharmaceutical nicotine use prevalence in the adult population and <2% prevalence among youth by 2040 (20). Additionally, in the German strategy for the UN Sustainable Development Goals (Deutsche Nachhaltigkeitsstrategie), under Target 3, there already exists a goal of reaching a 7% prevalence of smoking among young people by 2030

7 Adopted or acknowledged by the government.

(21). This strategy contains also a goal for the general population aged 15 and older, but it is not yet aiming at minimal level of use. In Italy, scientific societies have formed an alliance to promote and call for the development of a national tobacco endgame strategy in the country (22). In Spain, nongovernmental entities and research organizations have published an endgame declaration calling for the government to adopt as a long-term strategy the goals of achieving a smoking prevalence rate of 5% or below by 2030 and 2% by 2040 (23). An additional two countries reported that there has been a proposal for an endgame goal/objective, but no information was yet publicly available. One of these six countries with proposals had already a draft governmental plan including defined prevalence goals awaiting approval.

In summary, altogether 8 countries from the WHO European region (7 from EU) reported having officially adopted or acknowledged tobacco control goals that can be considered as tobacco endgame objectives aiming for a minimal level of use in the population. Additional six countries from EU reported having similar proposals from government, civil society or research entities but had not yet set any plans.

Innovative tobacco endgame measures

Adopted measures

In Europe, a few of the proposed tobacco endgame measures are already being implemented to some extent. Most common **product-oriented measures**[8] reported by the respondents were flavour bans and nicotine regulation, which is explained mostly by the implementation of the EU Tobacco Products Directive (TPD). TPD sets maximum nicotine levels for cigarettes and e-cigarette liquids, which several countries did report in the questionnaire, but none of the countries have regulated nicotine/pH on levels that actually make tobacco products less or non-addictive (e.g., very low nicotine cigarettes, VLNC), which would be the real innovative measure. Norway had already partially addressed a ban on combustibles through their ban on imports and sales of waterpipe tobacco. Further, they address a ban on new tobacco brands, variants or packaging through an authorization scheme for novel tobacco and nicotine products. Until now, all applications for nicotine pouches and HTPs have been rejected. In open-ended answers, authorization scheme for new tobacco products was also reported by Germany. In Portugal, new nicotine products need to be authorized by the medicines' agency before market entry. As for **retail-oriented measures**, restrictions to points of sales locations were the most reported, often (in France, Czechia, Lithuania and Spain) specified to address locations near schools. Some relevant examples were also indicated in the open-ended answers. In France, a protocol to support tobacconists in their transformation to other local shops was signed between the confederation of tobacconists and the Ministry of Finance. Finland introduced high annual supervisory fees to tobacco and e-cigarette retail license holders. In Czechia, the sale of tobacco products, smoking accessories, herbal smoking products and electronic cigarettes was prohibited in events intended for persons under 18 years of age. None of the countries reported having already implemented **user-oriented measures** such as raising the age limit above 18. As for **market-oriented and other innovative measures**, one country, Sweden, had introduced price caps for curtailing industry to set its own retail prices. Each year, the producers (or in some cases the importer) have to set a retail price for the product. This price is used to calculate excise duty, even if the product is actually sold cheaper. If retailers sell the product at a higher price, they need to pay additional excise duty based on the actual selling price. The other market-oriented measures – gradual phase-out approach on combustibles or other products, regularly reduced quota on tobacco manufacture and imports ("sinking lid") and regulated market model were not implemented nor planned in any country.

8 In the questionnaire, the questions concerning measures usually referred to tobacco product regulation. Respondents were asked to provide description of the nature and scope of the adopted/planned measures in their local context in free text, and the examples here are based on these answers.

Planned measures

As a reminder for the reader, the respondents were informed that their country would not be named in connection with any planned, not public measures to prevent tobacco industry influence after the publication of the results. As for **product-oriented measures**, altogether three countries reported planning implementation of different flavour bans, and some others referenced related plans only in open-ended answers. Altogether four countries specified that these bans would consider flavours in e-cigarettes. With regards to ban on combustibles, one country reported planning it without further specifications. Two countries reported planning for a ban on new types of tobacco products. Of these, one specified considering prohibition of new types of tobacco products which do not fall into existing product categories or are placed on the market after a certain date. Three countries reported planning for prohibition of new non-pharmaceutical nicotine products, and two of these specified oral nicotine products such as nicotine pouches. One country reported planning for prohibiting disposable e-cigarettes. As for **retail-oriented measures**, four countries reported planning the reduction in the number of sales points, three restricting sales to particular retail categories, and two regulating the location of sales points. One was planning to increase the cost of retail license or supervisory fee. Among the countries that specified their plans, one country was planning to introduce gradual bans on internet sales, supermarket sales, petrol station sales and finally a restriction of sales to special shops only. Another country was also planning for stepwise reduction and restriction of points of sales, ban on sale of tobacco and nicotine products via vending machines, in hospitality sector (HORECA), temporary points of sales (e.g., at music festivals) and in large supermarkets (>400m²). One country was planning to prohibit sales of tobacco products from temporary or mobile units and at events intended for children as part of the introduction of licensing system. One country was planning to propose a reduction in the number and types of tobacco points of sale, by considering to allow tobacco sales only in grocery stores and specialist stores, not in kiosks, gas stations, and bars. Restrictions for existing specialist shops were also considered in two countries. Several countries were planning **user-oriented measures**, and these plans related mostly to age limits. One country was planning to introduce a "nicotine free generation", where the age limit for tobacco and nicotine products would be raised from 18 to 20, and later on also ban tobacco sales to those born in 2010 or later. An additional three countries were also planning to increase the age limit above 18. Smokers' license or permit for purchasing tobacco, or prescription to purchase tobacco, were not planned in any country. As for **market-oriented and other innovative measures,** none of the countries were considering substantial increase in income taxes paid on the profits earned, or tobacco supplier profits surtax. One country reported planning for performance-based regulation and two countries reported planning for introducing large fines on tobacco companies based on the quantity of their products consumed by minors. These plans were not specified further.

Likelihood of adopting or achieving tobacco endgame goal

The respondents of the questionnaire were also asked how likely they believe it is to achieve their official endgame goal, or how likely they regard that their country would adopt such a goal. The assessment was on a scale from 0 (very unlikely) to 10 (very likely). Not all countries provided this estimate or reasoning for it. Among the countries which had official tobacco endgame goals, estimates for the likelihood of achieving the goal ranged from 6 to 7. While several emphasized the positive trend in decreasing smoking, the respondents expressed concerns in relation to other than combustible tobacco products and new nicotine products. Some were also still experiencing high rates of smoking, and differences between population groups were mentioned. Tobacco industry, cross-border marketing and sales and sustaining political will were noted as challenges. Further, there were concerns about estimating the impact of the currently proposed measures.

Among the countries which did not yet have official tobacco endgame goals, the likelihood of adopting such goal ranged from 0 to 10. The responses from the countries which reported having tobacco endgame goals that were prevalence reduction goals, or not yet publicly approved goals, are also presented in this section. Several respondents mentioned challenges related to lack of political

will or momentum. Having already established clear prevalence reduction goals in a cross-cutting way in the government was seen as a strength for moving tobacco endgame forward. Challenges were seen in current processes and level of implementation in regular tobacco control legislation, and tobacco industry influence. Shifting the focus from tobacco control to the COVID-19 pandemic were mentioned as a challenge, but one country was also seeing that this challenge was overcome. Some countries referenced current more general addiction or non-communicable disease prevention strategies, to which tobacco endgame goals were not seen suitable or not included so far. Current high prevalence was also seen as a challenge.

CONCLUSIONS

In our analysis of current status of tobacco control, we observed wide differences between WHO European Region countries, meaning there is plenty of room for improvement in maximizing the implementation of measures from WHO FCTC, its implementation guidelines and the Protocol, including MPOWER "best buys". On a positive note, it seems that some countries are implementing the **tax and price measures** relatively well when assessed with the available indicators, while many countries could still improve their implementation. However, our indicators included limited information of the level of taxation and especially prices, and some additional and more in-depth indicators could strengthen the analysis to show the actual differences in pricing of tobacco products. The WHO data show wide differences in cigarette prices in international dollars at purchasing power parity between the countries in the European region. In **other key national regulations** addressing among others, protection from exposure to tobacco smoke and tobacco advertising and promotion, less comprehensive implementation is already visible in our results. In the light of facilitating the adoption of national tobacco endgame goals, most worrying is the finding that a large number of countries in the region are not investing in their **tobacco control capacity** and do not sufficiently protect themselves from tobacco industry influence. This hampers both the implementation of required measures in the WHO FCTC, as well as adoption of any innovative tobacco endgame measures.

Countries in the European region are performing relatively well in **tobacco control monitoring**, which provides an important basis for the evaluation of tobacco endgame goals and measures. Monitoring systems are well established in the majority of countries, including data availability on smoking prevalence and other relevant indicators for argumentation of new measures or evaluation of implemented ones. With regards to **public awareness** raising and communications, most countries are relatively active, but in **smoking cessation support** the situation is very different with clearly less attention paid to these measures. Public funding or reimbursement schemes are essential in order to achieve a higher rate of implementation of the cessation support in line with the Article 14 of the WHO FCTC.

Importantly, there are relevant within-country variations in the implementation of measures included in different domains. As a result, there is not any country that would be among the top ten in the implementation of measures within all the **six domains**. This provides great opportunities for different countries to participate in information exchange exercises to share lessons learnt and benefit from the experiences of others, which supports the implementation of effective tobacco control measures throughout the region. Taking into account that the prevalence of tobacco use is mainly reduced when comprehensive tobacco control policies are implemented, and that synergistic effects are observed when those policies are implemented simultaneously, further tobacco control efforts should be taken in individual countries. Considering that this analysis is based mostly on a self-reported data, it is possible that some countries have evaluated their situation more positively than others, while some have been more critical. In real-life, some countries may need to strengthen the implementation more than our results indicate.

Interestingly, the countries that have also established official tobacco endgame goals have not yet implemented all the key tobacco control measures included in this assessment. These results

warrant attention and action in these countries, as the effectiveness of innovative tobacco endgame measures can be undermined by lack of implementation of key evidence-based measures. Overall, there is a growing number of European countries that have already adopted official tobacco endgame goals or are taking steps towards it through relevant initiatives in their countries. These countries serve as important examples that can share information on their experiences and provide different approaches for other countries to use to initiate processes that are suitable given their tobacco control contexts and capacities. In Europe, the innovative tobacco endgame measures proposed in the literature are also being partially implemented, but in a limited extent. Based on the adopted and planned measures reported in the WP9 questionnaire, more wide-spread implementation is awaited especially for retail- and user-oriented measures that reduce the number of sales points and increase age limits in Europe.

In the countries that have adopted tobacco endgame goals, the expectations of the WP9 questionnaire respondents related to achieving the goal are moderately positive, while concerns are expressed especially in relation to non-combustible products and new nicotine products, cross-border marketing, high smoking prevalence in some population groups, and sustained political will. There is more variation in the expectations related to adopting such goals in countries which do not yet have any. Concerns focus on lack of political will and challenges in the implementation or strengthening of the existing tobacco control regulations and tobacco industry. Having set already clear prevalence reduction goals was seen by some as a strength in order to continue towards tobacco endgame goals. Some respondents found that current more general addiction or non-communicable disease prevention strategies in their countries were not suitable for including tobacco endgame goals.

Overall, and according to our results, the feasibility of accomplishing supranational endgame goals in Europe, as the Tobacco-Free Generation goal in the Europe's Beating Cancer Plan (6), may be hampered by the low implementation of WHO FCTC including MPOWER measures in several countries. However, at the same time, establishing national tobacco endgame goals can provide the opportunity to bring the need for strengthened implementation of the WHO FCTC including MPOWER to the political agenda as part of the national measures for achieving the goal.

In WP9, these results will also be utilized in the later deliverable D9.3 "EU Tobacco Endgame Toolkit to disseminate best practices in the development, implementation and evaluation of tobacco endgame strategies." The online toolkit will feature policy options for countries at different levels of implementation of the key tobacco control measures, and potential best practices identified under other tasks of WP9. Practical tools to support regulators and policymakers in developing and implementing relevant objectives and measures for tobacco endgame in their own national context will also be made available.

Strengths and limitations

Our results should be interpreted considering some limitations. Firstly, the WHO FCTC implementation reports are completed by national focal points and do not go through a formal validation process, even though the reporting process includes feedback from the Convention Secretariat. In this sense, inter-reporter validity may be low, which may bias comparisons between countries and between WHO FCTC and MPOWER assessment. For example, a WHO FCTC Party reporting on smoking bans may indicate complete protection, even though smoking cabins are allowed in certain enclosed places. However, in MPOWER, such a situation is assessed by WHO as incomplete protection as part of the validation process.

Also, the lack of available evidence in the WHO FCTC indicators on compliance with tobacco control measures, missing data in MPOWER indicators regarding compliance with smoke-free spaces and with bans on advertising, and the different indicators used for assessing taxation between MPOWER and WHO FCTC, may be the reason for the differences between the estimation obtained for both groups of measures.

In the WP9 questionnaire, the responses are subjective assessments of the WHO FCTC focal points and/or other national tobacco control experts from health ministries or other public agencies in the respective country. While an opportunity to provide updates was given to all respondents, it is possible that some more recent policies have been adopted or planned which are not reflected in our results.

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