

TOBACCO USE AND MENTAL HEALTH CONDITIONS

A POLICY BRIEF



World Health
Organization

REGIONAL OFFICE FOR Europe

> Abstract

This policy briefing focuses on the interplay between mental health conditions and tobacco use. It reviews the evidence behind tobacco control interventions targeting people with mental health conditions and explains why they should be implemented. The suggested key policy recommendations to reduce smoking prevalence in people with mental health conditions include ensuring completely smoke-free health services, targeting mental health professionals through awareness campaigns and investing in tobacco cessation tailored to individuals with mental health conditions.

Keywords

Tobacco control
Mental health
Policy
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> Contents

Acknowledgements	iv
<u>Tobacco use as a risk factor</u>	1
<u>Mental health conditions: prevalence and mortality rates</u>	3
<u>Interventions on tobacco use</u>	4
Smoke-free health services	4
Awareness campaigns targeting mental health professionals	5
Increased tobacco taxation	5
Tobacco-pack warnings of potential mental health risks	6
<u>Successful tobacco cessation</u>	7
Why target people with mental health conditions?	8
<u>Conclusions</u>	9
<u>References</u>	10

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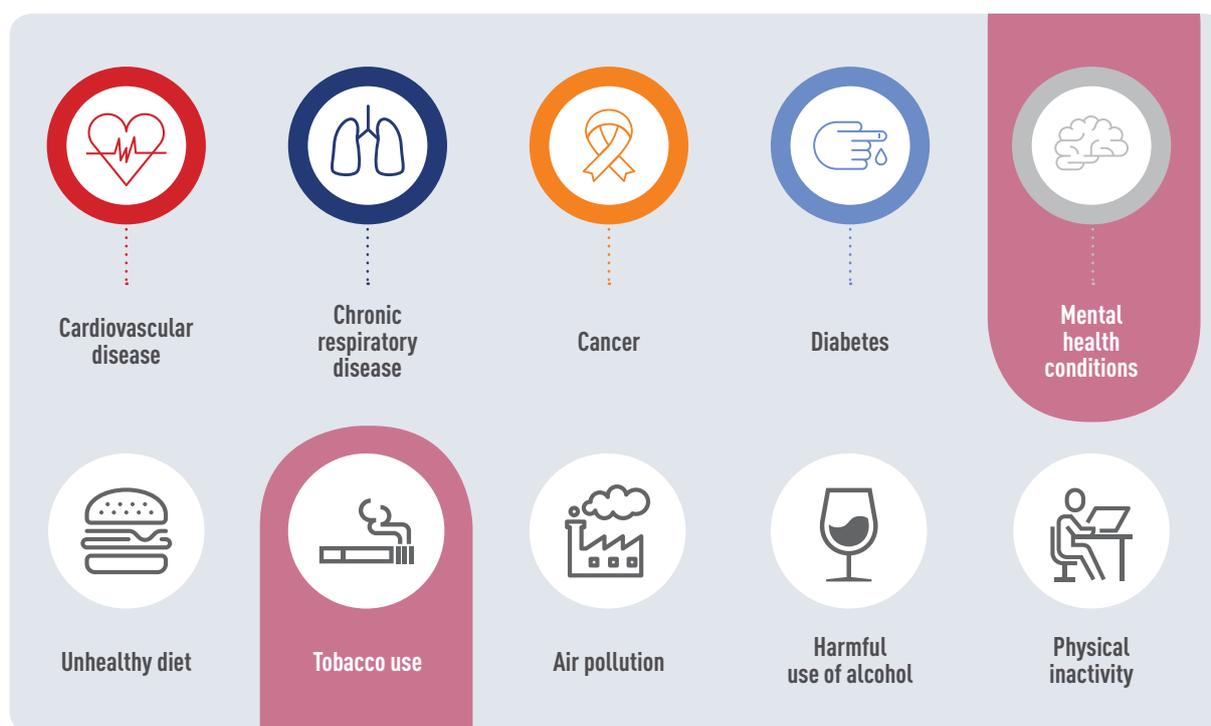
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> TOBACCO USE AS A RISK FACTOR

The WHO European Region is projected to miss its targets for tobacco-use reduction by 2025. Considering people with mental health conditions consume 44% of all cigarettes in western countries (1), addressing the needs of this group of people reveals unrealized potential in tobacco control and would contribute significantly to the movement towards a tobacco-free world.

In September 2018, the third high-level meeting of the United Nations General Assembly on the prevention and control of noncommunicable diseases (NCDs) committed to the so-called 5X5 NCD agenda, which specifies five conditions and five risk factors common to all NCDs (Fig. 1) (2).

Fig. 1.
The 5X5 NCD agenda



Source: United Nations (2).

Tobacco use is one of the risk factors for NCDs and shows complex interactions with both the other risk factors and the NCDs. For example, tobacco use and harmful use of alcohol often co-occur (3), and smoking is two to three times more prevalent among people with mental illness compared to the general population (4). Smoking makes people more vulnerable to mental illness and mental illness makes people more likely to smoke.



20.2%

**of the world's adult
population were current
smokers in 2015**

WHO estimates that 20.2% of the world's adult population were current smokers in 2015, with the WHO European Region having the highest prevalence in the world of 29.9% of its population smoking (5). Current and daily tobacco or cigarette smoking are included in this estimate, while smokeless tobacco use, electronic cigarettes and other nicotine delivery devices are not.

Smoking is a leading risk factor for early death and disability, with 11.5 million deaths being attributable to tobacco use in 2015 (6). This is due to disabling and potentially fatal outcomes associated with smoking, such as ischaemic heart disease, for which smokers have between 1.6 and 6.4 times increased risk, and chronic obstructive pulmonary disease, where smokers have between 11.5 and 15.3 times increased risk compared to the general population (6). These are sobering statistics; tobacco control should be at the crux of action on NCDs to prevent morbidity and premature mortality.

The clear link between tobacco use and all NCDs forms the background for WHO setting the target of a 30% reduction in tobacco use by the year 2025 relative to the rate in 2010 (7). According to recent projections, the European Region is on course to miss this target by an estimated 3.9% and urgent interventions must be taken to alter these trends over the next six years (5). To achieve this target, it is essential to further the implementation of tobacco-control interventions with an equity lens focusing on populations at risk, including people with mental health conditions.

> MENTAL HEALTH CONDITIONS: PREVALENCE AND MORTALITY RATES

Mental health conditions affect and in turn are affected by other major NCDs (Infographic 1, (8)). Mental health conditions, for example, can be both precursors and consequences of other chronic conditions such as cardiovascular disease, lung disease, diabetes and cancer. Compared with the general population, adults with any mental health condition have a 5–10 year shorter lifespan (9) and are more likely to smoke (10). Population surveys suggest that having a mental health condition makes a person approximately twice as likely to be smoking, after adjusting for other factors affecting smoking behaviour (11).

The lifespan of people with severe mental conditions is a remarkable 15–20 years shorter than people in the general population. A large proportion of this excess mortality is due to the co-occurrence of other NCDs, all of which can be exacerbated by smoking (12). Smoking is believed to be one of the main causes of excess mortality among people with severe mental health conditions (13,14), who are more likely to smoke than the general population; two thirds are current smokers (15) and smoke more on average (20–30% smoke more than one pack per day, which is approximately double that of the general population) (16).

Remarkable progress has been made in global tobacco control. As of 2019, 136 countries have implemented at least one key policy measure to control tobacco usage (17). As a result, the global prevalence of tobacco-smoking among adults has been decreasing steadily over recent decades (5).

Although a decrease in smoking prevalence among people with mental health conditions can also be seen, it is not as significant as for the general population. In fact, the difference in smoking prevalence between the general population and those with mental health conditions has been increasing (6). Work by Lê Cook et al. (18) investigated the percentage of self-reported smokers among people with and without probable¹ mental health conditions between 2004 and 2011. It showed that while the percentage of smokers without mental illness decreased from around 20% to just over 15%, the proportion of smokers among people with probable mental illness remained stable over the time period at around 28–29%. The percentage difference between the two groups therefore widened. This implies that tobacco-control policies have not worked as effectively for people with mental health conditions, who represent a demographic that is being left behind in the fight against tobacco. Urgent action must be taken to address this.

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¹ A probable mental health condition is defined as receiving mental health treatment, scoring above 12 points on the Kessler 6-Item Psychological Distress Scale, or scoring above two points on the Patient Health Questionnaire 2 (18).

INFOGRAPHIC 1. Mental health conditions

Mental health conditions, which affect more than one in ten of the population of the WHO European Region at any one time, are often split into common and severe mental conditions. Common mental health conditions include depression and anxiety, which are estimated to affect 5-10% of the population. Severe mental disorders include bipolar and psychotic disorders; they affect only a small percentage of the population, but have a much greater impact on quality of life and daily functioning.



INTERVENTIONS ON TOBACCO USE

INFOGRAPHIC 2. WHO FCTC

The WHO FCTC contains several tobacco-control measures for governments recommended by WHO, including:

- monitoring tobacco-use and prevention policies;
- protecting people from tobacco smoke;
- offering help to quit tobacco use;
- warning about the dangers of tobacco;
- enforcing bans on tobacco advertising, promotion and sponsorship; and
- raising taxes on tobacco.

The WHO Framework Convention on Tobacco Control (WHO FCTC) is an evidence-based treaty signed by 50 Member States of the WHO European Region (Infographic 2, (19)). Its implementation guidelines state several regulatory strategies to reduce the demand for tobacco. Most of these evidence-based tobacco-control measures target the whole of society, but there is a need to tailor policy and campaigns to specific communities and population groups, reflected in the increasing focus on women, lesbian/gay/bisexual/transsexual groups, prisoners and people with low socioeconomic status. This was emphasised at the 8th Conference of the Parties to the WHO FCTC in 2018 (20). The WHO *Roadmap of actions to strengthen implementation of the WHO Framework Convention on Tobacco Control in the European Region 2015–2025* also suggests certain interventions that focus on populations at risk (21), stating the importance of tobacco-control policies that consider people with mental health conditions.

Smoke-free health services

While many hospitals have a ban on tobacco use, psychiatric treatment units are sometimes exempt from smoking bans: only half of the European Union Member States, for example, have banned smoking completely in healthcare facilities (22). Similar situations in which mental health institutions are exempt from laws assuring smoke-free health services also exist in several countries in the European Region (23). In the absence of a universal smoking ban, hospitals risk failing to fulfill their healthcare mission and dedication to disease prevention, and can expose patients, staff and visitors to the harms of smoking and second-hand smoke.

To some extent, this situation is due to patient advocacy groups and the tobacco industry arguing for a self-medication hypothesis – that smokers need to smoke to manage their mental health symptoms (24). Many studies, however, indicate that quitting smoking is associated with improvements in mental health, and people with severe mental health conditions who smoke experience increased psychiatric symptoms (4). The gathered evidence suggests that smoking cessation is associated with reduced depression, anxiety and stress and improved quality of life for people with mental health conditions and those without (25).

Despite the overwhelming evidence for smoke-free legislation reducing harms from second-hand smoke and supporting the social norms of not smoking tobacco, over three quarters of countries in the European Region

had not implemented the recommended smoke-free policies, according to the WHO report *Taking stock: tobacco control in the WHO European Region in 2017* (26). Fifty countries in the Region nevertheless have ratified the WHO FCTC, which outlines measures for smoke-free spaces (27); countries must comply with these recommendations and fully implement the WHO FCTC. It is essential to protect people at the highest risk from tobacco smoke, which includes smoke-free psychiatric health services.

Awareness campaigns targeting mental health professionals

Cigarettes have been promoted in mental healthcare settings for some considerable time. The tobacco industry has been supplying either free or low-cost cigarettes to psychiatric institutions, with requests occurring up to and most likely beyond the year 2000 (24). A significant proportion of mental health professionals hold misconceptions, such as thinking patients are not interested in quitting and believing that quitting smoking is too much for patients to take on (28). This stands in contrast to evidence suggesting that people with mental health conditions are as motivated to quit smoking as the general population (29). In addition, many mental health professionals act as poor role models by, for example, using smoking breaks as a tool to build therapeutic relationships with patients (28).

The tobacco industry's marketing, research and public relations activities are a source of misinformation and governments have a responsibility to inform the community about harmful products and behaviours. The *Roadmap of actions to strengthen implementation of the WHO Framework Convention on Tobacco Control in the European Region 2015–2025* states clearly the need for investments in information campaigns about tobacco, and that mental health professionals should be one of the target groups for such campaigns (21). As medical professionals can be viewed as role models by patients, it is important that they hold the correct information about tobacco cessation to support measures to decrease smoking prevalence among patients. With a significant portion of health professionals holding misconceptions about tobacco use by patients in mental health services, it is essential for governments to invest in information campaigns to protect those at greatest risk of the negative health consequences of tobacco.

Increased tobacco taxation

Historically, tax increases are among the most effective measures for tobacco cessation. This whole-of-society intervention has positive effects for everyone, although some groups are more responsive to price increases than others.



27%

of monthly incomes was the median spending on cigarettes among people with schizophrenia

The efficacy of tobacco taxation depends on the disposable income of the consumer, so tax increases could have a significant impact on tobacco use for people with mental health conditions. Mental health conditions can affect an individual's ability to earn an income, meaning the economic burden of nicotine addiction is especially heavy on this group. A study of people with schizophrenia who smoke, for example, estimated that median spending on cigarettes was 27% of monthly incomes (30). Increased tobacco taxation could therefore improve cessation across the board and have a strong impact on reducing smoking prevalence in this group. It nevertheless is important for tobacco-control measures to have proponents in groups that support people with mental health conditions. Taxation measures are more likely to be supported when advocates are clear about what taxes will be spent on and how this will benefit people with mental health conditions. With tax increases, there must be simultaneous engagement with affected groups.

Tobacco-pack warnings of potential mental health risks

Evidence-based warnings on packaging are critical tools for tobacco cessation and prevention. Pictorial warnings are highly effective in communicating health risks of smoking to the public (31). Pack warnings, however, primarily have communicated the physical risks of smoking. Warnings should expand to include the mental health risks of tobacco use, such as "Second-hand smoke exposure is associated with increased risk of depressive symptoms" (32). Not only would these messages enable people with mental health conditions to see themselves represented on packaging and therefore perceive themselves as being at risk, but they would also educate the wider public about the serious mental health risks posed by tobacco use.

> SUCCESSFUL TOBACCO CESSATION

There is clear evidence that nonpharmacological interventions (such as supportive behavioural programmes) and pharmacological interventions (including varenicline, bupropion and nicotine replacement therapy) increase the chance for people in the general population to quit smoking, with a combined intervention typically increasing cessation success by 70–100% (33).

The efficacy of such interventions in people with severe mental health conditions was investigated in recent WHO guidelines on the management of physical health conditions in adults with these conditions (34). The guidelines conclude that two pharmacological interventions show moderate effects on tobacco cessation in this group, with quit rates similar to those in the general population. There are insufficient studies to show clear effects of other smoking-cessation interventions in this patient group, although the few that exist suggest there is an effect. A recent study, the largest of its kind to date, shows the benefit and effectiveness of bespoke smoking-cessation interventions among people with severe mental health conditions (35). Taken together, the WHO guidelines state there is no suggestion of inconsistency between the evidence for tobacco-cessation interventions in the general population and in people with severe mental health conditions, and while pharmacological smoking-cessation interventions in general can be considered safe, clinicians should be cautious of drug interactions with other psychotropic medication (34).

Barriers preventing access to these interventions for people with severe mental health conditions and appropriate policy actions to address them must be identified. Mental health professionals have stated that training in cessation counselling and community support options for patients are critical areas (36).

WHO recommends that countries integrate tobacco-cessation interventions in primary care, as this point of access provides a good platform for community support options for patients while they are quitting smoking. WHO has developed a training package to assist countries, *Strengthening health systems for treating tobacco dependence in primary care* (37), aimed at policy-makers, service managers and service providers. Primary care has been shown to be a feasible point of access to smoking-cessation interventions targeted specifically at people with mental health conditions (35). In light of recent evidence, countries should increase access to tobacco-cessation interventions in people with mental health conditions by, for example, integrating primary care-based smoking-cessation services into mental health services and offering tailored interventions for this patient group.



70-100%

**increased cessation
success compared
to no intervention**

INFOGRAPHIC 3. COST-EFFECTIVENESS

When calculating cost-effectiveness, the costs of an intervention (such as the price of a medicine or the cost of staff delivering an intervention) are weighed against the gains. The gains most commonly are quantified as the life-years gained compared with not intervening, with quality of life during these years taken into consideration. In the US, for example, a commonly used threshold to judge whether an intervention is cost-effective or not is if one life-year with full health gained costs less than US\$ 50 000.



**1.14
life-years**

**were gained for
each quit yielded**

Why target people with mental health conditions?

Studies have long established that most tobacco-cessation interventions are cost-effective in the general population (Infographic 3, (38)), and most WHO FCTC implementations are economically beneficial for countries, with tobacco taxation being the most cost-effective health intervention a government can implement (39). Cost-outcomes research in tobacco-control interventions for people with mental health conditions, however, is limited.

Studies of tobacco cessation suggest that treatment is as cost-effective when provided to smokers with mental health conditions as it is when provided to tobacco users without mental illness (40,41). Cessation interventions for people with mental health conditions are shown in these studies to be highly efficient, lowering mortality rates and increasing quality of life at a cost well below the threshold for judging cost-effectiveness; as an example, one study estimated that the cost per quit was US\$ 1272, where each quit yielded a gain of 1.14 life-years (corresponding to 0.83 life-years with full health) (40).

Evidence for the cost-effectiveness of information dissemination policies to healthcare providers and targeted smoke-free healthcare legislation for people with mental health conditions is limited. Such policies often have significant effects on denormalization processes and perceptions that are difficult to quantify. Broadly, however, these actions often translate into prevention of smoking and higher cessation rates, and therefore economic gains (15,42). Although economic benefit is an important factor to consider when investing in tobacco control for people with mental health conditions, there is also an intrinsic benefit to improved health and reduced human misery, which is something all Member States agreed to undertake when signing up to the United Nations Sustainable Development Goals. The Cochrane Tobacco Addiction Group priority-setting project defined people living with mental health conditions as a priority group, as the impact of improved physical and mental health for each person is likely to be high (43). Considering that the European Region will miss its prevalence targets by a wide margin if it continues on the current trajectory, addressing tobacco use in this group has immense potential that is yet to be fully explored.

> CONCLUSIONS

Table 1 summarizes challenges and policy options for decreasing tobacco use in people with mental health conditions.

Table 1. Challenges and policy options for decreasing tobacco use in people with mental health conditions

CHALLENGES	POLICY OPTIONS
Social norms of tobacco use in mental health services	Ensuring full implementation of the WHO FCTC through removed exemptions for mental health services in smoke-free legislation
Exposure to second-hand smoke during hospital stays	
Mental health professionals holding misconceptions about patients' willingness and ability to quit smoking	Awareness campaigns targeting mental health professionals Training in cessation counselling for mental health professionals
Low availability of tobacco-cessation programmes for people with mental health conditions	Integrating primary care-based smoking-cessation services into mental health services and offering tailored interventions for this patient group

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France	North Macedonia	United Kingdom
Georgia	Norway	Uzbekistan
Germany	Poland	

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