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Effects of meeting MPOWER requirements on smoking rates and smoking-attributable deaths

Yemen

This factsheet presents estimates of the effect of implementing MPOWER policies consistent with the WHO Framework Convention on Tobacco Control (WHO FCTC). The estimates are based on the *Abridged SimSmoke* model *(1)*.

World Health Organization

REGIONAL OFFICE FOR THE Eastern Mediterranean

Smoking prevalence

Yemen is a lower-middle-income country, with an estimated population (ages 15 and above) of 8 million males and 7.9 million females in 2015 *(2)*. About 26% of people were employed in agriculture and herding, and 29% were unemployed in 2012 *(3)*. Based on data from the most recent nationally representative survey, the 2013 National Health and Demographic Survey, the overall smoking rate (ages 15 and above) was 13.3% (20.7% of males and 6.0% of females) *(4)*.

Tobacco control policies

Protect people from tobacco smoke

Based on data from the 2015 WHO report on the global tobacco epidemic *(5)*, which includes data from 2014, Yemen has smoke-free legislation covering health care facilities, education facilities and universities, government facilities, indoor offices and public transport; however, it does not cover restaurants. There are fines for violations of these laws, which consist of fines on the patron but not on the establishment. However, subnational bans do not exist and there is no space for citizen complaints and investigations. There are funds dedicated for enforcement. The compliance score was 4 out of 10.

Offer help to quit tobacco use

Cessation treatment services are available, but are not cost-covered. Nicotine replacement therapy is available, but is not cost-covered. Quit lines are not available. According to 2014 data, Yemen is classified at level 2 out of 4.

Warn about the dangers of tobacco

According to 2014 data, Yemen is classified at level 3 out of 4 for health warnings, as warnings are large but missing some appropriate characteristics. Health warnings are mandated to cover 50% of the principal display area. There have been four health warning approved by law. They describe the harmful effects of tobacco use on health, mandate font size, font style and colour of health warnings, are rotating, include a photograph or graphic, and are written in the principal language(s). However, the warnings do not appear on each package and any outside packaging and labelling used in the retail sale. Health warnings are considered at the second highest level. Government expenditure on tobacco control was US$ 35 500. This is considered a low level tobacco control campaign.

Enforce bans on tobacco advertising, promotion and sponsorship

According to 2014 data, Yemen is ranked 4 out of 4 for marketing restrictions. There are bans on direct tobacco advertising on national/international television and radiotelevision, local/international magazines and newspapers, billboards and outdoors, point of sale and the internet, and fines for violations of these bans. The compliance score of direct advertising bans is 7 out of 10. For indirect advertising, there are bans on the free distribution of tobacco products, promotional discounts, non-tobacco goods/services identified with tobacco brand names, brand names of non-tobacco goods/services used for tobacco products, display at point of sale, appearance of tobacco brands in television and/or film (product placement and non-product placement), televisionand sponsored events. However, there are no bans on tobacco companies/ industry/other entities publicizing their activities, tobacco companies funding or making contributions to smoking prevention media campaigns including those directed at youth, and no requirement to present prescribed anti-tobacco ads before, during, or after the broadcasting or showing of any visual entertainment, and fines for violations of these bans. The compliance score of indirect advertising bans is 6 out of 10. The overall compliance score of advertising bans is 7 out of 10.

Raise taxes on tobacco

In accordance with MPOWER policies, we consider the effect of increasing excise taxes (including ad valorem taxes or specific taxes directly on cigarettes) to 75% of the retail price. Value added tax (VAT) applies to all goods, not just cigarettes, but amplifies the effect of an excise tax on cigarette price. The change in excise taxes is first translated into the implied percentage change in price. The prevalence elasticity is applied to the percentage change in price to obtain the percentage change in prevalence. In Yemen, a pack of cigarettes is 280.00 Yemeni rials (US$ 1.30), of which 53.80% is taxes (47.37% VAT and 6.43% excise taxes) according to 2014 data.

Key findings

Based on current smoking rates of 20.7% among men and 6% among women, smoking-attributable deaths are predicted to be more than 1.05 million (830 000 men and 240 000 women) of the 2.1 millionsmokers alive today, and the numbers are likely to continue to rise each year in the absence of stronger policies.

- Increasing cigarette excise taxes from its current level of 6.4% to 75% of retail price would prevent much youth smoking and reduce smoking prevalence by 29.3% within 5 years, increasing to 58.5% in 40 years, and ultimately avert more than 627 000 premature deaths.
- Comprehensive smoke-free laws are in place, but stronger enforcement is predicted to reduce smoking prevalence by 5.3% in 5 years, increasing to 6.6% in 40 years, and avert55 000 premature deaths.
- A well-publicized and comprehensive cessation policy can reduce smoking prevalence by 2.5% within 5 years, increasing to 6% in 40 years, and avert 51 000 premature deaths.
- Strong health warnings can reduce smoking prevalence by 6% within 5 years, increasing to 12% in 40 years, and avert more than 99 000 premature deaths.
- A high-level mass media campaign is projected to reduce smoking prevalence by 5.5% in 5 years, increasing to almost 7% in 40 years, and avert over 55 000 premature deaths.
- A comprehensive marketing ban with enforcement is projected to reduce smoking prevalence by 2.5% in 5 years, increasing to 3.3% within 40 years, and avert more than 16 000 deaths.

Implementing the stronger set of policies suggested above, in line with the WHO FCTC, could reduce smoking prevalence by 43% within 5 years, increasing to 58% within 20 years and 71% within 40 years. About 750 000 deaths could be averted. A large tax increase accompanied by comprehensive marketing restrictions, strong health warnings, a comprehensive cessation programme, and a mass media campaign would reduce smoking prevalence about 58% by 2025, thus meeting the global target.

Limitations

Abridged SimSmoke has been developed based on an extensively validated simulation model, providing support for the estimates given above. However, the model has certain limitations.

- It does not consider tobacco products other than cigarettes, such as smokeless tobacco, e-cigarettes and shisha (waterpipe). If tax increases and other policies are only directed at cigarettes, smokers may substitute to other tobacco products, which would offset some of the health gains from reduced smoking. If policies are also targeted toward the use of non-cigarette products, then substitution to these products may be reduced.

- Smoking prevalence data for Yemen are from 2013. However, as a lower-middle-income country, smoking rates may increase as incomes rise, especially among women.

- It does not include deaths from second-hand smoke exposure. In addition, there are costs associated with morbidity and productivity loss due to premature death.

- Mortality risks for smoking are based on studies for the United States of America. As a lower-middle-income country, the effects of reductions in tobacco use on smoking-attributable deaths may be lower than projected for Yemen, due to higher background health risks and lower levels of smoking intensity and duration.

- It has been developed to use data from the biennial WHO global tobacco epidemic reports. The tobacco control policy data are restricted to a specific set of policies and definitions. The model does not consider policies directed at cost-minimizing behaviour, enforcement against smuggling, product regulation and youth access.

References

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