WHO-EM/TFI/188/E

Smoking and **Cardiovascular health**

World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

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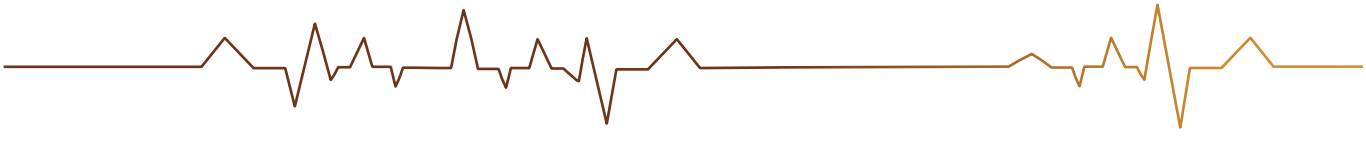
MESSAGES TO **THE PUBLIC, WOMEN, YOUTH AND CARDIOLOGISTS**

KEY **FACTS**

- Tobacco use has been identified by the World Health Organization (WHO) as one of the main causes of cardiovascular disease (CVD), premature death and disability worldwide (*1*).
- Tobacco use is set to cause more than 7 million deaths every year until 2030. Over 6 million of those who die will be tobacco users, with another million deaths linked to secondhand smoking (*2*).
- Smoking causes 12% of deaths from CVD globally, and 7% in the Eastern Mediterranean Region (*3*).
- The Region faces a rapid increase in the rate of smoking, especially among young people of both genders, up to 2025 (*4*).
- Tobacco is highly addictive. It kills up to half its users and can lead to a premature, slow and painful death (*5*).
- One of the recent hazardous behaviours in the Region is family smoking of waterpipes.

MESSAGES TO **THE PUBLIC**

- Tobacco users who die prematurely may cause financial hardship for their families.
- Even if you only smoke a few cigarettes every day, you are running a risk. Just 15 minutes' smoking a day amounts to 2 hours every week and 7 hours every month. That can cut 4 days off your life every year.
- All tobacco products contain dangerous chemicals, not just cigarettes. Smoking can clog your arteries and cause a heart attack, stroke or vascular obstruction in any part of your body. The only proven way to keep your heart and blood vessels safe is to quit (*2*).
- Even 30 minutes of secondhand smoke can interfere with your heart function, blood and vascular system. Similarly, it harms people around you, especially your spouse and children (*6*).
- Waterpipe use is rising among young men, women, boys and girls in the Region (*7*).
- People often think it is safe to smoke a waterpipe, but they are wrong. Waterpipe users are exposed to high levels of toxins and nicotine (*8*).
- In a typical hour-long waterpipe smoking session, you inhale 200 puffs compared to 20 puffs smoking a regular cigarette (*9*).
- Using waterpipes and other smokeless tobacco can cause acute adverse health effects such as heart attacks, stroke, high blood pressure, heart failure, arrhythmia and other cardiovascular events (*10*).



MESSAGES TO **WOMEN**

- The risk of coronary heart disease is 25% higher for females than for male smokers (*11*).
- Smoking a waterpipe is more prevalent than cigarette smoking among women and young people in the Region (*2*).
- Children who see adults smoking are more likely to start smoking.
- While smoking cigarettes in public places is still seen as a bad habit among women and young people, smoking a waterpipe is not.
- Exposure to secondhand smoke in children with at least one parent who smokes increases their chance of developing atherosclerosis and cardiovascular events in adulthood (*12*).
- While fewer women than men smoke, many non-smoker women suffer increased risk of heart disease from exposure to secondhand smoke through their smoker spouses or children.
- In adults secondhand smoke causes serious acute or chronic CVD, while in infants it causes sudden death and in pregnant women it leads to low birth weight and congenital heart defects in their fetuses (*2, 13, 14*).
- Even occasional smoking or exposure to secondhand smoke for a short time can substantially increase the risk of cardiac events (*2*).

MESSAGES TO **YOUTH**

- Smoking light cigarettes rather than regular cigarettes does not reduce the risk of CVD (*15*).
- Electronic cigarettes may have adverse effects on cardiovascular health (*16*).
- On average, cigarette smokers die 10 years younger than non-smokers (*17*).
- Smoking just two or three cigarettes a day is enough to cause addiction within two weeks in 25% of adolescents aged 11 to 13 years, and others will become addicted soon after (*18*).
- The idea that flavoured waterpipes are less toxic is completely wrong. Unfortunately, this false claim encourages smoking by adolescents of both genders (*19*).
- The amount of smoke inhaled in a regular hour-long waterpipe session is equivalent to smoking 100–200 cigarettes (*5*).

MESSAGES TO **CARDIOVASCULAR SPECIALISTS**

- Tobacco control is a major element in achieving WHO's global target of a 25% decrease in premature deaths related to CVD by 2025 (*5*).
- A vicious cycle exists between tobacco use, premature death caused by CVD and poverty in low-income settings (*20*).
- Smoking can cause thrombosis through its pro-thrombotic effect. It can accelerate the onset and progress of atherosclerosis through endothelial dysfunction, coronary vasoconstriction and increasing inflammation biomarkers like white blood cells and C-reactive protein. In addition, it increases homocysteine, fibrinogen, insulin resistance and oxidized LDL-cholesterol *(2, 12, 21)*.
- Smoking can cause a variety of types of CVD including myocardial infarction, stroke, peripheral vascular disease, aortic aneurysm and rupture, increased blood pressure and decreased heart rate variability. Angina is more than 20 times more likely to occur in smokers than in non-smokers (*22*).
- Exposure to secondhand smoke may cause fatal and non-fatal heart attacks and stroke in adults, sudden death in infants and congenital heart disease during pregnancy (*2, 13, 14*).
- Smoking has both a causal effect and synergistic interaction with other major CVD risk factors, like hyperlipidemia, hypertension and diabetes mellitus (*2*).
- Waterpipe smoking results in higher emissions of carbon monoxide, polycyclic aromatic hydrocarbons and volatile aldehydes than cigarette smoking (*8*).
- Smoke from tobacco-free waterpipe products is dangerous. Apart from the absence of nicotine, it has the same toxicant content and biological activity as tobacco-based products (*8*).
- Enforcing smoke-free polices is one of the most cost-effective ways of preventing CVD events by reducing exposure to secondhand smoke.
- Counselling and medication can more than double the chances of success for a smoker

who is trying to quit (*23*).

- Treatment for tobacco dependence should combine a behavioural change programme to address the tobacco habit with medication for cessation to address physiological aspects (*23*)
- Tobacco cessation and nicotine replacement therapy are safe in cardiac patients with both stable and unstable coronary heart disease like unstable angina or recent myocardial infarction. Both therapies can be started during hospitalization (*24*).
- Three general classes of FDA-approved drugs for tobacco cessation can be prescribed in cardiac patients: nicotine replacement therapy, bupropion SR and varenicline (*24*).

STOP SMOKING TO **CUT YOUR RISK OF CARDIOVASCULAR DISEASE**

- Half of smokers who decide to quit succeed, so you can quit too.
- Quitting smoking at the age of 50 will halve your risk of developing CVD. Quitting at 30 will avoid it altogether (*25*).
- Even long-term smokers can enjoy a rapid improvement in their health when they quit. Your risk of coronary heart disease will halve within a year of cessation and reach the level of a non-smoker in 15 years. Stroke risk will reduce to the level of someone who never smoked within 5 to 15 years. In patients with ischaemic heart disease, the risk of death from any cause falls by 36% two years after quitting smoking (*26*).
- Quitting smoking after an acute coronary syndrome can lower the risk of death by 80% compared to continuing to smoke (*27*).
- Quitting smoking will mean that your blood pressure and heart rate become normal, and your circulation will improve within 20 minutes. In addition, quitting will increase your blood oxygen levels and reduce the risk of a heart attack within 8 hours (*28*).
- Even if you already have heart disease, stopping smoking is the single most effective action you can take to reduce your risk of further events (*29*).

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