COMENTÁRIO

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The Evolving Epidemic

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As European colonization took place, tobacco was brought from America to Europe, where it was adopted and re-exported to the rest of the world. At that time, tobacco was sniffed, smoked, chewed, eaten, drunk and was also used medicinally for its analgesic and antiseptic properties and a cure for a variety of illnesses, including cancer. Manufactured cigarettes were first marketed in England in the 1850s. Since then and especially after the First World War, cigarettes were widely available and their consumption levels increased, mainly in men, but being the habit also adopted by women (1). It is young women in higher socio-economic groups who have led the way into cigarette smoking in women in Europe (2). Although in the 1920s and 1930s, pathologists observed a rising incidence of lung cancer, the first major evidence of the effects of smoking on health was described during the Second World War, in Germany, where, by this time, a strong antismoking movement took place (3). Muller documented, in 1939, the causal effect of smoking on lung cancer and heart disease (3). Eleven years later, four retrospectives studies of smoking habits of lung cancer patients, reinforced the previous Nazi results (1).

Nowadays it is well known that cigarette smoking is a serious hazard to health and is identified as major cause of heart disease, stroke, peripheral vascular disease, chronic obstructive pulmonary disease, cancers of the lung, oral cavity, larynx, oesophagus, stomach, kidney, bladder and others (1). Besides the mixture of carcinogens, tumour promoters and co-carcinogens (4), tobacco contains nicotine, a substance that is recognized to be addictive by international medical organizations (5).

Tobacco is the second major cause of death in the world, after high blood pressure, killing one in two long-term users (6). Cigarette smoking has been identified as the single most important cause of premature death in developed countries (7). One hundred million deaths were attributed to tobacco during the 20th century, mostly in developed countries (6). If current trends persist, about five hundred million people active today will eventually be killed by tobacco, half of them in productive middle age, losing 20 to 25 years of life (5).

Smokers affect not only their own health but the health of those around them. Women who smoke during pregnancy are more likely to experience spontaneous abortion. Babies born to smoking mothers are significantly more likely to be low birth weight, to face higher risks of respiratory disease and to die in infancy. Adults chronically exposed to environmental tobacco smoke also face an increased risk of lung cancer and higher risk of cardiovascular disease, while smoker's children suffer a range of health problems and functional limitations. Non-smokers who are exposed to smoke include the children and the spouses of smokers, mostly within their own homes. Also, a substantial number of non-smokers work with smokers, or in smoky environments, where their exposure over time is significant (5).

In today's world, most deaths are attributable to non-communicable diseases (8). Half of non-communicable deaths are due to cardiovascular diseases and more than one-third occur in middle-aged adults. In developed countries, heart disease and stroke are the leading causes of death, being responsible for more than a fifth of all deaths worldwide (8, 9). In high income countries, where smoking is a major exposure and a leading cause of loss of healthy life, lung cancer is the third cause of death (9). In Portugal, non-communicable diseases accounted for 72% of all deaths in 2004, cardiovascular diseases causing 36% of all deaths (10).

As non-communicable diseases have a major impact on men and women of working age and their elderly dependents, they result in lost income, lost opportunities for investment, and overall lower levels of economic development (11). Moreover, most societies allocate a significant proportion of their health-care resources to treat people made ill by smoking. It has been argued that non-smokers live longer than smokers, and thus the heath care costs of non-smokers during the "extra" years of their lives (compared to smokers) would balance, to some extent, the higher costs smokers experience during the years of life. However, numerous studies on the social cost of smoking, showed that there is no such benefit, and the ethics of the research based on cost losses are unacceptable (12).

Although stable tobacco consumption, during the last decades, smoking prevalence in developed countries, vary considerably according to gender and population sub-groups. The prevalence of smoking has been

declining in Western Europe, Australia, New Zealand and United States, in both genders (13).

There is wide time trends in Europe: from big declines in UK, Sweden and Finland to a great increase in Portugal and smaller increases in several other countries (14). Therefore, the dynamic of the epidemic differs among populations. Northern European countries are considered to be in stage 4, characterized by reductions in smoking among men from all educated groups, but greater reductions among those from lower education groups. Southern European countries are thought to be in stage 3, which is depicted by declines in smoking among men but increases among women, and central countries are considered to lie somewhere in between (15, 16). Portugal presents, however, an earlier picture regarding the dynamic of the epidemic (17). Previous national health surveys showed a high prevalence of male smoking in Portugal, with a slight decrease from 34.9% in 1987 to 33.8% in 1998. However, in women, during the same period, the prevalence of smoking increased from 6.1% to 11.1% (18). Moreover, in contrast to the other EU countries, lung cancer mortality rates in Portugal have been rapidly increasing, in both genders (19-22). Therefore, according to these evidences, Portugal is still placed at end of stage 2 of the epidemic (23). However, good quality information on the social, demographical, behavioural and health determinants of smoking may help in defining policies to detain the growth of the epidemic.

Despite country variations in the stage of the smoking epidemic, inequalities in smoking seem to constitute a problem common to all European countries, contributing substantially to the educational differences in smoking related disease and mortality (16, 24). Nevertheless, a comprehensive public health approach to tobacco control effectively prevents the beginning of tobacco use and promotes its cessation, narrowing the inequalities within and between countries.

Tobacco control efforts may include a range of measures to reduce demand for tobacco. The most effective of all measures is the taxation (the higher the rate of taxation the more effective this intervention would be) (5). Nonetheless, restrictions on tobacco advertising, promotion and sponsorship; information dissemination on the health risks of tobacco; clean indoor air laws and cessation support services, proved to effectively contribute to the decrease of the consumption (5, 8, 25).

Besides tobacco use, two major sets of causes for non-communicable diseases epidemic are related to lifestyle behaviours: unhealthy diets and insufficient physical activity. These three factors tend to cluster (26), and exert their impact from early in life, leading to disease, disability and to premature death after decades of cumulative exposure (27). Therefore, it is essential to assess and quantify the distribution of those risk factors and to study how they cluster, in order to design public health policies aimed to address lifestyle factors as a block, for preventing chronic diseases.

Although there persists a widespread belief that "lifestyle diseases" are fully under the control of individual decisions, the reality is quite different (8). Reducing risk factors for many non-communicable diseases is already possible but requires concerted action from all stakeholders. Sustained initiatives joining government, public health organizations, consumer organizations and industry, are necessary to get the health message across. Only combining efforts we may be able to halt the growing of non-communicable diseases epidemic. The banning on tobacco smoking can only be a part of a strategy.

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