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EDITORIAL

Health care costs of smoking

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Each year ~500,000 inhabitants of the European Union die of diseases caused by smoking. Worldwide, tobacco already kills one in ten adults. It is calculated that by 2030, perhaps a little sooner, the proportion will be one in six or ten million deaths per year, more than by any other single cause [1]. Amongst the leading causes of death in the world, coronary artery disease is on top, followed by stroke. Chronic obstructive pulmonary disease (COPD) is in the sixth position, lung cancer in the tenth. The prognosis for 2020 is that COPD will rise to the third and lung cancer to the fifth position [2]. Already now, the life expectancy of smokers is 3–8 yrs shorter than that of nonsmokers, depending on smoking habits. As pneumologists, we are obliged together with the cardiologists and oncologists to stress the dangers of smoking to the public and to help develop strategies for effective smoking prevention [3]. Our main targets should be children and adolescents who should be convinced that not starting to smoke is their best option. Early education is therefore necessary and should be started at a young age at school. Studies have shown that this can be successful [4]. Children should become convinced that the hero is not the smoker who becomes an addict under the strong influence of the smoking industry but the nonsmoker who does not become addicted.

Other means of primary prevention the efficiency of which has been proven are comprehensive bans on advertizing and promotion of tobacco products as well as restriction on smoking in public places [5]. Further measures for tobacco control are increases in cigarette tax, which has been shown to be highly effective in reducing demand, especially among children and young people, in parallel with the fight against smuggling across borders. All this should be accompanied by nicotine replacement therapy and other cessation interventions [1]. All these measures have to be addressed by the governments. Germany, together with Austria and Spain, played a shameful role in the tobacco ban campaign accomplished in 1998, by opposing this tobacco ban. The campaign would have failed had Greece not at the last minute decided in favour of the tobacco ban. As is well known, the European Respiratory Society (ERS) played a decisive role through the initiative taken by its then (Greek) President who convinced his health minister [6, 7].

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It is quite obvious that the powerful cigarette industry has taken direct or indirect influence on several politicians, opinion leaders, and governments, either by playing down the dangers of smoking, or by threatening with the loss of jobs, tax income, and much more. That these arguments are not valid has been shown by the World Bank [1].

Up to now, there are only few investigations on the economic burden caused by smoking. In this context, it is of particular value that this issue of the *European Respiratory Journal* contains an investigation on the economic impact of smoking by investigators from Germany [8], a country where the first paper on the causal relationship between smoking and lung cancer was already published in 1940 [9]. It is a shame that Germany, under its former government led by Helmut Kohl, together with the company Salamander (makers of the "Camel boots") brought a legal suit against the tobacco advertizing ban, which has not been withdrawn under the new Schröder government. In addition, those German members of the European Parliament who play an important role in the committee discussions in the European Parliament are apparently opposing the new EU Directive on Tobacco Product Regulation.

In their paper, RUFF *et al.* [8] draw the conclusion that smoking-related health care costs in Germany amounted to 16.6 billion Euro in 1996, representing over 6% of the total German health care costs which corresponds to the estimates of the World Bank that state smoking-related health care in high-income countries accounts for 6–15% of all health care costs. It can be expected that these calculations will be questioned by medical and economic scientists with arguments from different directions, influenced or not by the cigarette industry. The authors of this paper therefore [8], also draw attention to some methodological uncertainties of their calculations, but bring forward meticulous arguments, which finally demonstrate that their calculations are probably underrather than overestimates. In addition, disease groups such as International classification of diseases (ICD) 492 (or 496), which are also largely smoking-related, are not included in the calculations as well as cancers of the oesophagus, pancreas, kidneys and other urinary organs. Furthermore, other health consequences indirectly related to tobacco consumption, such as medical care costs attributable to burns or diseases related to passive smoking, were not included due to a lack of reliable quantitative data. The same is true for the important aspect of the health impact of parental smoking on children. That the used calculation method, which takes the attributable risks from hard patient endpoint data (mortality) and extrapolates to morbidity, will more likely lead to an

underestimation has been shown by CAMILLI *et al.* [10], who found that death certificates provide information only about a small proportion of persons with COPD detectable in the living.

One major argument brought forward against the actual economic burden of smoking is that the lifetime health care costs for smokers may not be higher, but are possibly even lower, than those for nonsmokers because smokers die earlier than nonsmokers. It has also been argued that in high-income countries smokers "pay their way" by reducing pension costs due to an earlier death [11]. Apart from the fact that definite data on this are not available, the authors′ opinion that this question needs more of an ethical than an economic approach has to be strongly supported [8]. Potential benefits on public health from prevention measures certainly dominate [12].

Although primary prevention is a major objective, there will always be a proportion of adults that decide to begin and continue smoking up to a period in which they desire to quit: helping them to cease this noxious habit is the responsibility of pneumologists through the modern tools (*i.e.* bupropion, which has recently been approved by the European agency, or nicotine replacement therapy). The demonstration of the high costs of tobacco-related diseases should prompt health administrators to fund the implementation of a smoking cessation clinic in every pulmonary department, which should be considered an important task for the ERS.

The editors agree with the authors′ statement that their estimation of total health care costs can only be a first step in assessing the overall impact of smoking on health care costs in Germany, although they do not agree that further studies are needed to prove and justify prevention efforts. What is needed are refinements of the estimates that indeed already prove and justify prevention efforts, and it is hoped that the German public and the whole German government can be convinced that tobacco control is an important aim and that Germany will participate in the newly proposed World Health Organization Framework Convention on Tobacco Control.

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