Preventing the lung cancer epidemic

There are approximately 11 million new cases of cancer diagnosed worldwide each year [1] of which one in eight is a lung cancer. Over one million people die from lung cancer each year. In Europe, in 2004, there were approximately 3 million new cases of cancer and 1.7 million deaths from cancer [2]. Lung cancer was the commonest incident form of cancer (375 000 new cases) and the commonest cause of death from cancer (340 000 deaths). Lung cancer is clearly one of the most important issues in oncology at the present time.

Although survival prospects are poor when lung cancer presents in an already advanced stage, as the majority do, and, consequently, the ratio of incident cases to deaths is close to unity, the great majority of lung cancer is preventable. There is an overwhelming body of evidence that lung cancer risk is greatly elevated in cigarette smokers as well as being raised in smokers of other tobacco products and non-smokers exposed to the cigarette smoke of others [3]. There is convincing evidence that the risk of lung cancer among those smokers who quit smoking will gradually approach that of lifelong non-smokers as the time passed since quitting grows [4].

In this issue of the *Annals of Oncology* there are two articles [5, 6] regarding the epidemiology of lung cancer that serve to focus attention on some key issues of this disease for the future.

The large and continuing increase in lung cancer mortality among women in many countries, the UK excepted, during the *Europe Against Cancer* programme (1985–2000) was one of the most notable failures apparent when the outcome of the programme was examined [7]. In contrast to the declines in lung cancer death rates in men in most European Union countries, although greatly varying by broad geographical region [8], the situation in women represents a failure for tobacco control. In some European countries, as in North America, lung cancer has overtaken breast cancer as the leading cause of cancer death in women (Figure 1) due to a combination of the increase in

![Figure 1](https://example.com/figure1.png)

*Figure 1. Mortality from lung cancer and breast cancer in women in USA, Canada, UK, Hungary and Denmark.*
lung cancer and the recent decline in mortality from breast cancer [9].

Bosetti et al. [5] point out that lung cancer mortality in women in most European countries is still increasing, and while there are more favourable trends becoming apparent among younger women, it will eventually mean that the levels of lung cancer in European women may not reach the same levels already experienced in the United States. While this is positive news, it must be taken with an important caveat that it cannot take account of the current cigarette smoking practices of young girls on the future risk of the disease.

Hu et al. [6] provide further confirmation of the association between lung cancer risk and cigarette smoking in China. China is one of the key battlegrounds in the war against lung cancer at present. The current population of China is 1.32 billion and this will rise to 1.45 billion by 2030 and will age considerably [9]. Even if the current age-specific rates of lung cancer remain constant, these two factors will combine to more than double the lung cancer burden by 2030. In addition, if the rates increase then the impact will be even greater.

Without effective prevention now, the global lung cancer burden will increase to 2.2 million new cases per annum by 2030. The crucial importance of tobacco control in cancer control programmes is obvious and must remain the number one priority area of action at the present time. Everyone has a role to play: those working in oncology should be setting a strong example [11]. In every country of the world effective measures against smoking must be taken and actions such as those taken in Victoria (Australia), New York, Ireland, Norway, Italy and Scotland in introducing bans on smoking in bars, restaurants and public places should be encouraged and strongly supported by the oncological community. Research in understanding what interventions are effective, and why they are effective, are top priorities. The entire oncological community should know about and give its strongest support to implementing the Framework Convention on Tobacco Control [12].

We need to work to create an environment that emphasizes the importance of non-smoking and smoking cessation. Not only should everyone in oncology be non-smokers, they should educate their colleagues in the same way by spreading the simple message. If you do not smoke, do not start smoking. If you are a smoker, you should stop smoking. If you cannot stop smoking, you should not smoke in the presence of others [13].

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References