

cancer among non-smokers. That is revealed in many scientific reports.

Chemicals present in tobacco smoke, or their metabolites, have been repeatedly detected in samples of blood, urine, saliva and even breast milk of non-smokers exposed to tobacco smoke. Furthermore mutagenic activity, which is cancerous, has been detected in cigarette-contaminated air and in urine samples from non-smokers exposed to such air.

Using data from American journals and other smoking surveys, Doctors Repace and Lowrey estimated that the proportion of non-smokers exposed to tobacco smoke at work or at home to be 86 per cent. They are also exposed to an average of 1.43 milligrams of tobacco smoke particulates per day. Dr. Donald Wigle and Neil Collishaw of the Health Protection Branch of the Department of National Health and Welfare wrote an article in 1984 in which they stated that for several of the components in tobacco smoke the recommended exposure in the work place was either zero or not assigned, suggesting that there may not be a safe level for involuntary exposure to tobacco smoke.

Another interesting statistic from those people who are concerned about the dangers of involuntary smoking, particularly in the workplace, is that an average cigarette burns 12 minutes, but the smoker puffs on it for only about 24 seconds. This means that only a small fraction of the smoke produced by the cigarette is directly inhaled by the smoker. Most of the smoke from a burning cigarette is discharged into the surrounding air to be inhaled by others. The other sad fact, as I mentioned before, is that gases are not filtered even by the better mechanical filters that exist in many buildings today. Those gases are recirculated in airtight buildings. Furthermore, most filters do not filter the minute particles in tobacco smoke, as they are smaller than one micron in size.

So, honourable senators, if filters in ventilation systems, particularly in airtight buildings, do not remove the tobacco-generated gases from the air, and let 99 per cent of the toxic particles pass through, I ask, what good are those filters? According to Dr. Repace, a non-smoker who finds himself in a typical workplace situation, with standard ventilation and an average distribution of smokers, can expect to inhale three cigarettes a day, which means that over a working lifetime a non-smoker's risk of lung cancer is 250 times the maximum lifetime value of tobacco smoke considered acceptable.

Dr. Repace also estimated that in order to reduce just the lung cancer risk to non-smokers to an acceptable level, an indoor work area with a typical mix of smokers and non-smokers would require 226 air changes per hour. I maintain that that is an impossible task. Yet, the guidelines of the Treasury Board of February 18, 1985, for minimizing the effects of tobacco smoke in the federal workplace and designed for an interim period of three years, state as follows:

It is not the intention to invoke a smoking ban, nor to incur expenses in reorganizing operational activities, or changing the layout of the work areas or installing or

supplementing ventilation systems in order to segregate smokers from non-smokers.

What a totally weak and inadequate effort by Treasury Board to protect smokers and non-smokers alike from the hazards of tobacco smoking! That is why, honourable senators, enforceable legislation is required to protect the health and lives of the workers.

● (1650)

Bill S-8, tabled by me on February 13, is but a first step to achieve better health protection in the federal workplace and in transport vehicles under federal jurisdiction. May I add here that municipalities such as Toronto, Vancouver and Winnipeg have already taken many steps and introduced ordinances to reduce the harm of tobacco smoke in public places, including restaurants. Mr. Sterling of the Ontario legislature introduced private bill No. 71 just a few weeks ago in which he envisages control of smoking in vehicles under provincial jurisdiction and in the provincial government workplace. Some Canadian airlines, such as Air Maritime and Torontair, have banned smoking on their flights altogether. Bill S-8 would ban smoking on flights of all Canadian airlines, excluding military aircraft, and prohibit smoking in all federal workplaces, as well as businesses under the Canada Labour Code, including Parliament. I believe that this is a first and necessary step.

I am at present working with my legal advisor in the Senate on other federal legislation to regulate the manufacture, promotion, sale and export-import of all tobacco products. This is the only way I believe we can achieve as soon as possible and as much as possible an environment free of tobacco smoke, which should be our ultimate goal in this very important health matter.

Speaking of other ill-effects of tobacco smoke, I think it is a tragedy to learn from Statistics Canada that deaths from lung cancer in women are predicted to surpass those from breast cancer, which is today the number one killer of women in Canada. After all, as I mentioned earlier, tobacco smoking alone took the lives of 32,623 of our fellow citizens in 1982 and cost the Canadian economy \$7.1 billion. But the suffering and disability of these people dying from terminal lung cancer and emphysema is very difficult to calculate. As a practising physician for the past 35 years, it is heart-rending to tell these patients dying from terminal cancer and emphysema that their conditions are incurable, that they only have a few weeks or months to live and that they should settle their affairs with themselves, their family and their God.

Honourable senators, I am asking why the Canadian government has not done something about this matter. Do you know that 32,623 deaths in 1982 due to tobacco related diseases is the equivalent of 100 Canadians dying in a plane crash every day? What a great tragedy. Indeed, it is a great national scandal that Canada tolerates—yes, and permits this to happen by allowing the unregulated production, promotion and sale of a harmful and unnecessary product. What a grave indictment of governments that fail to bring in effective legislation to prevent this enormous loss of lives and money. Honourable senators, I ask you, why are governments so slow,