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## Executive summary

Health Council of the Netherlands. The impact of passive smoking on public health. The Hague: Health Council of the Netherlands, 2003; publication no. 2003/21

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In 1990, a Health Council advisory report was published on the harmfulness of exposure to environmental tobacco smoke ('passive smoking'). We now know much more than we did then. This was sufficient reason for the President of the Health Council to appoint a committee, with the task of assessing the current level of knowledge concerning the damage caused to public health by passive smoking. In particular, the Committee should focus on the extent to which such damage can be quantified. This advisory report presents the result of its deliberations.

In the Committee's view, we now have a much better understanding of how inhaled environmental tobacco smoke can damage the body's cells and organs than we did thirteen years ago. Furthermore, many well designed epidemiological studies have been conducted into various harmful effects of passive smoking since then. Many meta-analyses (a quantitative type of literature survey in which the results of different epidemiological studies are combined) have also been carried out in the intervening years. The Committee has drawn up a list of links between the damage to health and passive smoking that have been investigated in the intervening years. It evaluated the characteristics of these links in terms of causality and, where possible, strength. The latter involves the so-called relative risk. This is the risk of exposed individuals acquiring a given disorder, divided by the corresponding risk in non-exposed individuals. The principal conclusions, which are applicable to an average exposure to environmental tobacco smoke, are as follows:

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- There is sufficient evidence that passive smoking can cause lung cancer. The increase in risk is approximately 20 percent.
- There is insufficient evidence that exposure to environmental tobacco smoke increases the risk of other forms of cancer.
- It has been convincingly shown that passive smoking leads to an increased risk of cardiovascular diseases. The increase in risk is 20 to 30 percent.
- Women who are active or passive smokers during pregnancy give birth to children with lower average birth weights and shorter average birth lengths. The increase in risk is approximately 20 to 40 percent.
- It is estimated that exposure to environmental tobacco smoke doubles the risk of sudden infant death syndrome (in other words, the increase in risk is approximately 100 percent).
- There are indications that both prenatal and postnatal exposure to environmental tobacco smoke adversely affect certain cognitive abilities (such as language capacity and learning capacity) and behavioural characteristics (such as activity and concentration capacity) of children. The true extent of this problem cannot yet be reliably assessed.
- Passive smoking leads to an increased risk of infections, or more severe infections, and to a higher frequency of respiratory tract symptoms in children with or without asthma. The increases in risk vary from approximately 20 percent to approximately 50 percent, dependent on factors such as the effects investigated, the nature and extent of exposure and the age of the children in question.
- There are indications that passive smoking increases the risk of chronic respiratory tract complaints in adults (especially in asthmatics).

The Committee went on to consider the significance of these relative risks in terms of the annual number of cases of illness and death in the Netherlands that can be attributed to passive smoking. Any such assessment would require information on the incidence rates of the associated disorders (and resultant deaths), broken down into age, sex and smoking status. It would also require prevalence rates for exposure to environmental tobacco smoke, broken down into age, sex and location. The Committee has found that many of the requisite rates are not directly available. Most of the data can probably be located, but this will involve further research. The Committee feels that it is important for this research to be completed. Its reasons include the need to monitor measures introduced to cut down on passive smoking.

The Committee believes that figures from the US make it possible to reach a verdict regarding the order of magnitude of the burden of disease and death involved. It is estimated that, each year, passive smoking in the Netherlands causes:

- several hundred deaths from lung cancer
- several thousand deaths from cardiovascular diseases
- about ten cases of sudden infant death syndrome
- several tens of thousands of cases of respiratory tract disorders (in varying degrees of severity) in children

These rough estimates do not characterise the full extent of the harmfulness of passive smoking. Accordingly, the risks of cardiovascular diseases do not relate to mortality alone, they also include morbidity. Harm resulting from prenatal exposure to tobacco smoke also has to be included. The associated smell and irritation also cause widespread annoyance.

Importantly, this is a burden of disease and death that can be curtailed. Reducing the exposure of non-smokers to environmental tobacco smoke will cut the incidence of disease and death in this group. For some disorders, such as lung cancer, the risk will decline very gradually. In other cases, health gains will be achieved almost straight away or within a short space of time. This would seem to apply to some cases of heart attack and to various respiratory tract complaints.

A tightening-up of the Tobacco Act should further reduce levels of passive smoking in the public domain. However, smoking at home while others (particularly children) are present, still poses a considerable problem. In this connection the Committee sees as a task for physicians, obstetricians and the staff of post-natal clinics. It feels that these individuals should warn people frequently and clearly about the hazards of passive smoking. Consideration should be given to the inclusion of such instruction in the basic job description of individuals working in child healthcare.