



OFFICE OF  
REGULATION REVIEW  
INDUSTRY COMMISSION

# The health effects and regulation of passive smoking

A submission to the NH&MRC Health Care Committee



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## *INTRODUCTION*

The Office of Regulation Review (ORR) — located within the Industry Commission — is responsible for administering the Commonwealth Government's regulation review program. Amongst other functions, the ORR is required to ensure that proposals for new or amended business regulation meet with the Government's policy on regulation. Details of the ORR and the regulation review procedures are attached.

The Health Care Committee of the National Health and Medical Research Council (NH&MRC) has published a Notice of Intent to issue guidelines or make regulatory recommendations regarding passive smoking, and has invited submissions on this issue. The regulation to be considered by Committee includes forms of business regulation, and thus falls within the scope of the regulation review policy.

Some issues concerning the regulation of passive smoking were discussed by the Industry Commission (1994) in its recent Draft Report on The Tobacco Growing and Manufacturing Industries. The ORR had input into that document.

In this submission, the ORR seeks to assist the Committee by:

- setting out aspects of the regulation review policy relevant to the Committee's deliberations;
- highlighting aspects of the Industry Commission's Draft Report relevant to the passive smoking issue; and
- expanding on those points in some cases.

## *HEALTH EFFECTS OF PASSIVE SMOKING*

The first two points in the Committee's terms of reference require it to:

- review the relevant scientific evidence linking passive smoking to disease in adults and children; and
- estimate the extent and impact of any illness found likely to be due to passive smoking in Australia.

The Industry Commission received several submissions to its inquiry which commented on this issue. The Commission noted that there are conflicting opinions and views, both amongst lay commentators and in the scientific literature, about the effects of passive smoking. At page 171 it stated:

There is some disagreement about the extent to which passive smoking results in ill health. For example, with regard to lung cancer Johnstone (1991) surveyed 26 studies and reported that 20 of these revealed no association. However, in the more general health context others have argued that there is strong evidence of adverse health effects. For example, the Australian Council on Smoking and Health (in association with a range of health organisations) stated:

Scientific reviews have found that passive smoking is a cause of acute respiratory illness in infants and young children. Passive smoking commonly causes irritation of the upper respiratory tract. Studies show that non-smoking adults who live with smokers have an increased risk of lung cancer, and this is generally held to be due to passive smoking. The United States Environmental

Protection Agency has classified environmental tobacco smoke as a known human carcinogen (Australian Council on Smoking and Health *et al*, sub. 24, p. 4.)

In its submission to the Commission, the Queensland Government stated:

A 1991 Federal Court decision by Justice Morling found that there was scientific proof that exposure to cigarette smoke by non-smokers causes lung cancer, asthma, and in young children, respiratory disease. Since this decision, the United States Environmental Protection Agency has classed environmental tobacco smoke (passive smoke) as a carcinogen as dangerous as asbestos and benzene (Sub. 47, p. 17.).

Against this, the Tobacco Institute of Australia (Sub. 41, pp. 33-38) presented several arguments suggesting that any adverse health effects of environmental tobacco smoke have been substantially overstated and referred to an article by Huber, Brockie and Mahajan (1993) which was strongly critical of various aspects of the United States Environmental Protection Agency study.

The Commission went on to point out that it is unable to judge the epidemiological or other scientific evidence on these matters.

While the ORR is also unable to judge this evidence, it draws attention to criticisms of traditional approaches to the development of health and safety regulation (including the scientific assessment of risk) which can sometimes bias policy development. These include:

- lack of transparency in decision-making,
- biases in data selection;
- incentives for regulatory agencies to ‘err on the side of caution’ by, amongst other things, unduly compounding cautious assumptions in scientific analysis; and
- failure to separate scientific judgments from policy judgments (see ORR 1992, p. 180).

Some submissions to the Industry Commission’s inquiry suggested that these types of problems have arisen in smoking policy.

While neither the ORR (nor the Commission) have formed a view on this in the smoking context, the ORR emphasises the need for sound and transparent scientific judgments as a starting point for policy analysis.

## ***REGULATION OF PASSIVE SMOKING***

The third point in the Committee’s terms of reference relates to recommendations to reduce illness found likely to be due to passive smoking.

### ***Government policy on regulation***

The Government’s policy is to encourage ‘minimum effective regulation’. Under the policy, a particular regulation will be supported only where a well defined social or economic problem exists, where other means of solution such as market mechanisms or self-regulation are inappropriate, and where expected benefits exceed costs. If regulation is necessary, efficient methods are to be used. Efficiency, in this respect,

refers to the overall impact on the community, not simply the costs of government administration. The policy does not prescribe exactly what type of regulation should be used in a particular circumstance. Rather, it sets out principles and analytical requirements to be followed in the development of regulation. In considering regulation, relevant issues include:

- is the objective of the regulation optimal?
- how do alternative mechanisms for achieving the objective compare?
- do the benefits of the regulation exceed its costs?

## *Objectives*

If the Committee concludes that passive smoking does cause a some level of illness amongst the community, regulation may be necessary to reduce the incidence of such illness. Whether regulation is warranted would depend on, amongst other things, whether the likelihood of illness due to passive smoking is significant compared to the level of other risks for which regulation is generally deemed necessary. If it is, the question would then arise as to what level and pattern of passive smoking regulation should seek to achieve.

The Industry Commission touched on this issue in its Draft Report. At page 179 the Commission stated:

While there are external costs associated with environmental tobacco smoke, it does not necessarily follow that all environmental tobacco smoke should be removed. Just as there exists a level of smoking that is optimal for society, so there exists an optimal level of passive smoking which, in some situations, is likely to be greater than zero...

To understand the notion of an optimal level of passive smoking, it is necessary to consider the benefits and costs involved with this activity and, indeed, those of smoking itself. The Commission stated at page 168:

The benefits people may gain by smoking include enjoyment of the product, a feeling of relaxation, and, for some, enhanced peer group acceptance. For people who are addicted to smoking, another benefit of continuing to smoke is the avoidance of the discomfort and other problems associated with attempting to quit smoking.

The costs of smoking to the individual include the price of cigarettes, the possibility of reduced quality and length of life and any costs of medical treatment borne by the smoker for smoking-related illness. For people who do not presently smoke, one cost of starting is the risk of becoming addicted to a substance they later find they want to stop consuming.

From an individual's perspective, it would be optimal to smoke only if the benefits derived from smoking were to exceed the costs incurred. For many people, the benefits of smoking at any level will never exceed the costs, so their optimal level of cigarette consumption would be zero. However, for others, it is quite plausible that the benefits of smoking, as viewed by the individual, outweigh the costs. These people would be better-off, notwithstanding the adverse health effects they may suffer, by smoking.

From society's perspective, whether it can be considered optimal for a particular individual to smoke depends not only on the benefits and costs to the person concerned, but also any benefits and costs incurred by others as a result of the individual's consumption of tobacco products. As discussed below, smokers impose costs on others, both through their use of the taxpayer-funded health system (towards which they contribute through Medicare) and

because of the costs to ‘passive smokers.’ These additional costs will mean that the optimal level of smoking is lower than it would otherwise be, but it is still plausible that it is optimal for some people to smoke.

In the case of people smoking in the presence of others (and thus causing some level of ‘passive smoking’), the following specific benefits and costs can be identified. Benefits accrue to the smokers themselves from being able to undertake an activity that they may gain benefits from while at the same time being able to interact with other smokers and non-smokers. Benefits may also accrue to passive smokers in the sense that they are able to enjoy the smokers’ company (or, at least, are able to enjoy it without ‘imposing’ on the smokers to modify their behaviour). At the same time, passive smokers will incur costs if environmental tobacco smoke reduces their physical or psychological wellbeing. Even if there were no actual adverse health effects from passive smoking, the fact that some passive smokers simply find it annoying means that they incur a cost, in an economic sense, from the activity.

The relative magnitudes of these benefits and costs will depend on several factors. The more important of these include:

- how significant are the adverse health effects of passive smoking?
- to what extent does smoking in a particular venue increase the level of environmental tobacco smoke in that venue (which presumably depends on the venue and its ventilation facilities)?
- how many smokers relative to non-smokers are there in a particular venue?
- to what extent are people willing to ‘put up with’ passive smoking to enjoy the company of people who are smoking (or, to put it another way, to what extent are smokers willing ‘to put up with’ not smoking to enjoy the others’ company)?

Passive smoking costs will increase (relative to the benefits) under the following conditions:

- the greater are the adverse health effects associated with passive smoking;
- the less effective is a venue’s ventilation;
- the smaller is the proportion of smokers to non-smokers at a venue; and
- the less willing are the non-smokers present to put up with passive smoking.

In such cases, the optimal level of smoking will be lower than in the converse cases, and is likely to be zero in certain circumstances. Where the foregoing conditions are reversed, the benefits of smoking will increase relative to the costs. This implies a higher optimal level of smoking than would otherwise be the case.<sup>1</sup>

While the first of these factors — the adverse health effects of a given level of passive smoking — will not vary depending on the venue in question, the last three are likely

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<sup>1</sup> This discussion is couched in terms of “degrees of passive smoking.” Of course, practical limitations mean that venues, if they allow any level of smoking, will not limit the amount of smoking. Nevertheless, the level of environmental tobacco smoke will be influenced to some extent by the number of smokers present, ventilation and devices such as smoke extractors, and the extent and effectiveness of smoker-nonsmoker segregation.

to be venue-specific. That is, different venues will have different ventilation characteristics, smokers may tend to congregate in certain classes of venue more than in others, and non-smokers are likely to be willing to put up with passive smoking in some venues or social circumstances more than in others.

The implications of the foregoing analysis are that, in considering regulations to modify current levels of passive smoking, the Committee needs to have regard to the factors which lead to differences in the benefits and costs of passive smoking between venues. The mechanism used should seek to modify smoking behaviour in a way which promotes an optimum level of passive smoking in the particular venue (or class of venues) concerned.

### *Alternative mechanisms*

Various mechanisms are available to attain a particular level of passive smoking. These include:

- allowing negotiation between people, underpinned by the common law, to determine the level of smoking and passive smoking that occurs;
- providing information about the health effects of passive smoking, thereby altering people's demand for smoke-free environments;
- imposing regulations about the use of devices such as smoke extractors in enclosed spaces;
- regulating to partition, or segregate, smokers and non-smokers in particular venues; and
- prohibiting smoking in particular venues, thereby eliminating all passive smoking in those venues.

The question which arises is which mechanism or combination of mechanisms is the most efficient means of promoting optimal levels of passive smoking?

The following discussion examines how these mechanisms would work and comments on some of the advantages and disadvantages of each.

### *Market mechanisms*

Under this approach, the level of passive smoking is determined by the people involved in each particular situation or by a venue proprietor considering the effects of his or her decision on the clientele and/or workforce. In the case of venues, the proprietors' decisions will reflect in part their common law duties of care to patrons

and employees. In discussing these issues, the Industry Commission at pages 179-180 stated:

Economic theory indicates that, under certain conditions, the interaction of people in the marketplace should produce an optimal level of smoking, including an optimal level of environmental tobacco smoke. This would be achieved if people could negotiate over how air should be used. This would require people to have property rights to ‘parcels’ of air which would allow them to exclude or sell to others the rights to use air. While in practice people can control what happens to air in their own homes, in virtually all other circumstances it is not feasible to apply this approach.

For venues such as restaurants and cinemas, efficient levels of smoking might be achieved through the owner’s decision on the venue’s smoking policy. As Tollison and Wagner (1992, p. 136) note:

The market for dining out, for example, will discipline firms in the restaurant industry to provide preferred eating and drinking environments. This involves...[using] smoker-nonsmoker segregation, smoke removal devices, price-environmental trade-offs and so on. If the owner bans smoking, smokers will only patronise the establishment if the price-quality combination offered is as attractive as that in alternative eating places where smoking *is* allowed. The opposite applies for nonsmokers if smoking is permitted. The owner can indulge his own preferences at a cost. Thus, a variety of smoking policies will arise in the marketplace...

Likewise, measures to deal with passive smoking in the workplace could be determined in negotiations between employers and employees, or simply through the employer setting the smoking policy for the firm. The efficacy of these approaches would depend on several factors, including the size of the firm, the flexibility of labour market arrangements, and employers’ legal duties to their workers.

The main advantages of the market-based approach are threefold. First, where feasible, it allows people to make their own choices rather than meeting an externally determined “average” standard. This allows the satisfaction of a greater diversity of people’s preferences than might be achieved under more prescriptive approaches. For example, those people who were voluntarily willing to accept the risk of higher levels of passive smoking would not be precluded from doing so. Second, the market-based approach is able to respond to changes in people’s preferences over time. For example, as (and if) people come to increasingly dislike passive smoking, the market can be expected to respond by providing a greater proportion of smoke-free environments. Third, this approach provides scope for a variety of solutions to the passive smoking problem, determined by people considering the localised costs and benefits of those solutions. In other words, the approach provides greater flexibility than regulatory prescriptions.

The main limitations of the market-based approach occur where people have insufficient information about the effects of passive smoking to make optimal decisions, where the number of people in a venue is too great to allow negotiation *and* the structure of the market is such that venues are unable to differentiate their services with respect to smoking, or where other interventions, such as labour market arrangements, largely over-ride market processes.

### *Provision of information*

As noted, one possible limitation of the market-based model is that people may have insufficient information about the adverse health effects of smoking to make optimal decisions when deciding on their acceptance or otherwise of passive smoking.

Were this the case, there could be a role for government to provide such information. By changing people's risk perceptions, their bargaining positions (or willingness to put up with passive smoking) could be expected to change.

One issue that arises in this context is whether people currently under-estimate or over-estimate the health risks associated with passive smoking. Part of the Committee's task is to make judgments about the magnitude of the risks. Surveys would need to be undertaken to determine how people's own risk perceptions compare. If people's perceptions of risk are significantly less than the actual risk levels determined by the Committee, a case could be made for using information campaigns to increase them.

Another issue is how this information might be disseminated. Unlike the case with health warnings about the deleterious effects of smoking contained on cigarette packs, passive smokers don't 'buy' the product and thus are unable to be informed through labelling requirements. Hence, broader based media campaigns may be required.

Another issue is the accuracy of the information provided and how people interpret it. In its Draft Report, the Industry Commission (pp. 172-173) noted that people currently over-estimate the health effects of smoking. This appears to be partly due to the nature of current anti-smoking messages which give short statements such as 'Smoking causes lung cancer' without including information on the probability of such outcomes (p. 182). Information campaigns to enhance people's perceptions of the health risks of passive smoking should ideally aim to give people more accurate perceptions, rather than higher risk perceptions per se.

### *Regulation of air quality*

Under this approach, the aim would be to encourage minimum levels of air quality (or maximum levels of environmental tobacco smoke) in venues. This could be achieved using either prescriptive standards or performance standards. Prescriptive standards would require that all venues (or all venues allowing smoking) fit certain ventilation or smoke extraction devices. Performance standards would simply specify a level of air quality that venues would need to meet.

Prescriptive standards are less flexible than performance standards. They require the venue owner to undertake an action (eg installing smoke extractors) which may not be the least-cost way of meeting the desired level of air quality — in some cases it might be equally effective and much cheaper to open some windows rather than install a smoke extractor! Performance standards, on the other hand, give the venue owner this flexibility. However, they may be more costly to monitor and enforce.

### *Mandatory segregation of smokers and non-smokers*

Under this approach, prescribed classes of venues would be required to cater for both smokers and non-smokers. It would be mandatory, rather than voluntary, for such venues to provide separate smoking and non-smoking facilities.

This approach would impose costs on venue operators who do not currently provide separate facilities. These costs would essentially reflect the cost of making the requisite structural changes to their premises, or moving to a more suitable premises. The magnitude of these costs would depend on what level of partitioning or segregation was mandated.

For some venues, these costs could be offset by an increase in patronage by non-smokers. However, it is likely that the costs would exceed the additional revenue to owners because, were this not the case, the owners would already have a prevailing commercial incentive to provide the separate facilities.

Non-smokers would benefit in that the range of smoke-free venues would increase. However, the additional cost of providing these facilities could be expected to be reflected in the prices charged by venue operators to cover the additional costs.

### *Prohibition of smoking in certain venues*

Under this approach, smoking would be completely banned in certain classes of venue. This, of course, would eliminate all passive smoking in those venues.

This approach confers benefits to non-smokers in that their choice of smoke-free venues would be substantially increased. Further, because structural modifications to premises would not be necessary, they might not face the same increase in prices as they would under the mandatory segregation approach.

However, this approach would impose costs on both smokers and venue owners. Smokers would have their consumption choices curtailed. Venue owners would likely incur a reduction in patronage and possibly sales of tobacco products. In theory, this could result in the closure of some venues, particularly those which are currently reliant on smokers for a large proportion of their patronage.

This approach would be most likely to promote or reinforce optimal outcomes in venues where the proportion of smokers to non-smokers is already small. However, it would preclude venue owners from catering for situations where the benefits of allowing people to engage in smoking exceed the costs involved, or where other mechanisms such as the segregation of smokers and non-smokers allow a better balance between the benefits and costs involved.

### *Combinations of mechanisms*

Various combinations of these mechanisms could be implemented. For example, market mechanisms could be used in conjunction with information campaigns about the risks of passive smoking. At the other extreme, a general prohibition on smoking in certain venues might be accompanied by a provision allowing venue owners the option of providing segregated facilities for smokers.

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