



NATIONAL ADVISORY COMMITTEE
ON HEALTH AND DISABILITY
HUNGA KAHITIRO | TE HAUORA O TE TANGATA

COMMITTEE REPORT

Title: ADVICE FROM THE PUBLIC HEALTH ADVISORY COMMITTEE ON THE SMOKE-FREE ENVIRONMENTS (ENHANCED PROTECTION) AMENDMENT BILL

Date: 26 September 2003 **File Ref:** HC 50-06-6

Attention: Hon Annette King (Minister of Health)

EXECUTIVE SUMMARY

This report provides you with advice from the Public Health Advisory Committee (PHAC) on the Smoke-free Environments (Enhanced Protection) Amendment Bill and the possible amendment of the Bill via the recent Supplementary Order Paper (SOP) introduced by the Honourable Peter Dunne. This SOP would relax the Bill's requirements regarding hospitality venues, allowing them exemption from the proposed smoking ban provided they met a specified clean air standard. It is expected that this standard would be achieved through the use of ventilation systems.

The PHAC believes that the measures proposed in the SOP will not adequately protect hospitality staff and patrons from the harmful effects of second hand smoke (SHS). There is no international evidence to demonstrate that ventilation systems are effective in reducing exposure to SHS to a safe level. Recent New Zealand research that has been presented as supporting the efficacy of ventilation systems as SHS exposure control tools suffers from a series of critical flaws and does not constitute valid evidence in favour of a ventilation-based approach to SHS exposure control.

The PHAC notes that there currently exists no acceptable air quality health standard for exposure to SHS, and developing and monitoring such a standard would be a highly complex process involving significant time and expense for regulators and venues themselves. In contrast, requiring hospitality venues to be smoke-free is a simple and low-cost strategy that ensures SHS cannot impact on the health of patrons or staff.

The fears of the hospitality industry regarding the potential financial impact of a total workplace ban on smoking are unfounded. All reliable research demonstrates that where such bans have been implemented elsewhere, they have had either no economic impact or have actually resulted in increased patronage and revenue.

The PHAC believes that implementing the proposals in the SOP would be a complex, time-consuming and expensive move that would be unlikely to result in adequate protection from the effects of SHS for patrons and hospitality workers. Conversely, subjecting such venues to the same standards as other workplaces is a simple, straightforward, inexpensive and above all effective method of protecting patrons and workers from the adverse health impact of SHS exposure. Members of the PHAC would be happy to provide you with a verbal briefing if you wish.

RECOMMENDATIONS

The recommendations are that you:

- (a) **note** that the Public Health Advisory Committee Yes / No recommends that you decline to support the amendment to the Bill contained in the Supplementary Order Paper put forward by the Honourable Peter Dunne.
- (b) **note** that the Public Health Advisory Committee believes Yes / No that the evidence to support the use of ventilation systems for the control of second hand smoke is flawed.
- (c) **note** that the Public Health Advisory Committee believes Yes / No that the fears of a negative financial impact on the hospitality industry stemming from a total smoking ban are unfounded.



Kevin Hague
Chair

MINISTER'S SIGNATURE:

DATE:

ADVICE FROM THE PUBLIC HEALTH ADVISORY COMMITTEE ON THE SMOKE-FREE ENVIRONMENTS (ENHANCED PROTECTION) AMENDMENT BILL

PURPOSE

1. The purpose of this document is to provide advice from the Public Health Advisory Committee (PHAC) on the Smoke-free Environments Amendment Bill, currently before the Committee of the Whole House, and particularly on the proposals contained in the Supplementary Order Paper put forward by the Honourable Peter Dunne.

BACKGROUND INFORMATION

The Smoke-free Environments Act 1990

2. The Smoke-free Environments Act 1990 established New Zealand as a world leader in the reduction of smoking-related health issues. The Act took significant steps toward protecting office workers and restaurant patrons, by making smoke-free all offices, apart from designated areas, and 50 percent of the floor area of restaurants. Both exposure to second hand smoke (SHS) and tobacco consumption levels fell significantly in the years after its introduction.¹

The Smoke-free Environments (Enhanced Protection) Amendment Bill and Supplementary Order Paper

3. The Smoke-free Environments (Enhanced Protection) Amendment Bill was introduced to Parliament in 1999 by Tukuroirangi Morgan, and taken over by Steve Chadwick in 2000. A Supplementary Order Paper was later prepared to amend the Bill.
4. In November 2001 the PHAC provided you with advice on the Bill and Supplementary Order Paper (ref: 20011534). While broadly supportive, the PHAC strongly recommended that the proposals be strengthened to introduce a total smoking ban across all indoor workplaces.
5. The Health Select Committee reported the amended Bill back to Parliament on 19 March 2003. A minority view, opposing the Bill in its entirety, was presented by Heather Roy, ACT member of the Health Select Committee. The Bill subsequently progressed through its second reading and is currently before the Committee of the Whole House. The Bill includes a provision extending protection for workers through requiring all indoor workplaces, including indoor sections of hospitality venues, to be smoke-free and the advice in this report will relate to this provision.

Supplementary Order Paper

6. United Future leader the Honourable Peter Dunne has recently introduced a Supplementary Order Paper (SOP) to amend the provisions of the Bill relating

¹ National Research Bureau 1996, Laugesen et al 2000.

to the hospitality industry. This SOP proposed removing the requirements for hospitality venues to be smoke-free, provided that they could demonstrate the achievement of a minimum air quality standard. This would be achieved through the installation of an appropriate ventilation system.

COMMENT

7. The PHAC is strongly in favour of all moves to strengthen smoke-free legislation, both to protect the health of the non-smoking public and decrease the overall level of smoking in New Zealand. The PHAC has consistently supported the overall thrust of both the Smoke-free Environments (Enhanced Protection) Bill and the previous SOP introduced while the Bill was before the Health Select Committee,² and welcomes the proposed amendments.
8. The likely health benefits stemming from the implementation of a total ban on smoking in indoor workplaces have been outlined in previous reports to you.³ In summary, it is the PHAC's view that such a measure would:
 - be more effective than a partial ban in decreasing tobacco consumption and increasing the rate of quitting;
 - have a greater impact on improving health and reducing health inequalities than a partial ban;
 - improve equity of opportunities for good health;
 - generate considerable cost savings to society; and
 - be simpler and more consistent.⁴

Key to the PHAC's position are the well-recognised and accepted dangers of second hand smoke (SHS) to non-smokers.⁵
9. The PHAC is therefore particularly supportive of the Bill's increased requirements regarding the smoke-free status of workplaces. In its previous advice to you, the PHAC identified the absence of a single smoke-free standard across all indoor workplaces as a significant flaw in the 1990 Act and previous versions of the current Bill (ref: 20011534). The PHAC welcomes the recognition that previous versions of the Bill, while clearly moving in the right direction, still contained important flaws impairing its ability to fully address the health impact of smoking in New Zealand.
10. The PHAC is, however, keen to address the SOP recently prepared by the Honourable Peter Dunne. This would amend the Smoke-free Environments Amendment Bill so that hospitality venues would be excluded from workplace smoke-free requirements provided that a minimum air quality standard was

² See, for example Public Health Advisory Committee. 2001.

³ National Health Committee 1998. Public Health Advisory Committee 2001, Public Health Advisory Committee 2002.

⁴ Public Health Advisory Committee 2001.

⁵ Public Health Advisory Committee 2001.

reached. It is likely that this would be achieved through the use of ventilation systems. The PHAC is strongly opposed to this proposal.

Efficacy of ventilation

11. The PHAC does not believe that ventilation systems can ensure an adequate level of protection for hospitality staff or patrons. There is no acceptable evidence that installing ventilation systems would sufficiently reduce exposure to the hazardous effects of SHS, and reputable international analysis has consistently found that commercially available ventilation systems are unable to lower health risks from the presence of SHS to an acceptable level.⁶ The United States Occupational Safety and Health Agency has concluded that general ventilation standards are not sufficient to protect against the harmful effects of SHS, and it has been estimated that achieving a potential standard of minimum health risk would require unrealistically high levels of airflow: three to four orders of magnitude (i.e.; 1000 to 10,000 times) greater than those provided by ventilation systems in hospitality venues.⁷
12. In this respect it is important to note the existence of a distinction between “comfort” and “health” standards of air quality. A comfort standard simply refers to removing the immediate discomfort SHS causes by, for example, reducing tobacco odour, visible smoke and similar irritants. In contrast, a health standard would be based on ensuring that air quality in a smoking-permitted area actually entailed a minimal possible risk of causing adverse health effects. Ventilation systems may be of use in achieving a comfort standard in smoking environments, but there is no reliable evidence to suggest that they are capable of achieving an acceptable health standard. For example, the American Society of Heating, Refrigeration and Air-conditioning Engineers standard on acceptable air quality in relation to ventilation systems explicitly states that “with respect to tobacco smoke and other contaminants, this standard does not, and cannot, ensure the avoidance of all possible adverse health effects.”⁸
13. The PHAC is aware of a recent research project carried out for Clubs NZ at the Bream Bay Club, Ruakaka, by the National Institution for Water and Atmospheric Research. It has been claimed by Clubs NZ that the report on this project has demonstrated that a recently installed ventilation system at the club provided a satisfactory level of protection from the effects of SHS. The PHAC does not believe that this research constitutes valid evidence for reconsidering the efficacy of ventilations systems, given the existence of severe flaws in the report’s methodology. A copy of the report on this research project is appended, together with a brief critique of the report and methodology.

Non-health implications

14. In addition to efficacy issues, the implementation of a ventilation exemption for hospitality venues would have important implications in terms of cost, complexity and ensuring the maintenance of an acceptable SHS-related health

⁶ See, for example Repace and Lowery 1985, Repace 2000, Roy 2001, Carrington et al 2003,

⁷ Repace, 2000.

⁸ ASHRAE 1999.

standard. The PHAC has identified four key issues that would need to be addressed, as described in detail below.

15. Firstly, there would be a need to determine effective air quality health standards for SHS in ventilated environments. No such acceptable standard currently exists, and determination of one would be both a time-consuming, complex and costly process. Discussions with the Ministry of Health have indicated that the overall cost of these processes could reach the figure of two million dollars.
16. Secondly, if SHS-related ventilation standards were to be meaningful in addressing health standards, then an appropriate monitoring agency would also need to be charged with monitoring this standard. At present, no regulatory authority in New Zealand has the staff, resources or expertise to adequately enforce even existing ventilation standards on a regular basis.⁹ Creating an appropriate body would therefore require significant further investments of money and time, whether it was to be an entirely new agency or part of an existing entity.
17. Thirdly, implementing ventilation systems would be a significant financial burden on hospitality venues. Ventilation systems must be planned and installed carefully and with regard to the specific conditions of the building concerned in order to function effectively. The costs associated with this, in addition to the initial outlay for the system itself, would be significant and actually operating and maintaining the ventilation system would also be an expensive undertaking.
18. Finally, operation of ventilation systems may reduce the comfort of patrons via noise pollution, lowering of temperatures and similar phenomena. In combination with operation and maintenance costs, the PHAC is concerned that many venues with ventilation systems installed may therefore use them only occasionally or in an ineffective manner. Practical experience of ventilation in hospitality venues suggests that this is a widespread problem, with unsatisfactory maintenance of ventilation systems in particular being a significant problem.¹⁰
19. In contrast, instituting a complete ban is a straightforward and reliable method of ensuring the existence of an SHS-related safe health standard with comparatively little cost to either central government or individual venues.

Addressing the concerns of the hospitality industry

20. The PHAC recognises that the hospitality industry has significant concerns regarding the impact of a total ban on their profitability. However, the PHAC believes that these fears are unfounded.
21. The key argument raised by the hospitality industry against requiring venues to be smoke-free is that this would result in decreased patronage and hence profitability. Evidence suggests this is an unfounded fear. Both opinion surveys and economic analysis of such bans in practice has found that at worst a total ban will have no impact on profitability, and that such a measure has the

⁹ Roy 2001.

¹⁰ Dingle et al 2002, Roy 2001.

potential to actually increase patronage and profits.¹¹ Indeed the implementation of a ventilation-based exemption is more likely to reduce the profits of hospitality venues by virtue of the costs noted above. Furthermore, instituting a total ban will create a level playing field and eliminate the potential for discrimination against those venues that choose to be smoke-free.

IMPLICATIONS FOR REDUCING INEQUALITIES

22. The PHAC believes that the arrangements instituted under the Smoke-free Environments Act 1990 had important implications for equity, as they endowed office-workers with a higher degree of protection against the effects of second hand smoking than hospitality workers. Given the over-representation of Māori, Pacific peoples and people on low incomes within “blue-collar” occupations such as the hospitality industry, and that smoking rates are higher amongst all these groups to begin with,¹² allowing laxer smoke-free standards in such workplaces would have significant equity implications for these groups.

Contact for telephone discussion (if required)

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¹¹ See for example Chapman et al 2001, CM Research NZ 2001, Cremieux and Ouellette 2001, Forsyte Research 2001, Glantz and Charlesworth 1999, Glantz and Smith 1994, Glantz and Smith 1997, Goldstein and Sobel 1998, Huang et al 1995, Scollo et al 2003.

¹² Public Health Advisory Committee 2001.

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Appendix

Critique of the report “Air Quality inside the Bream Bay Club, Ruakaka”

The report “Air Quality inside the Bream Bay Club, Ruakaka” was produced by Gavin Fisher and Lou Reddish, of the National Institute for Water and Atmospheric Research, for Clubs NZ. This report has been presented by Clubs NZ as supporting the position that ventilation and air purification systems are capable of producing an acceptable level of protection from the health impacts of second hand smoke. However there exist severe flaws in both the project’s research methodology and the report itself.

- The report contained no discussion of smoking levels during the measurement period. Furthermore, there was no discussion of overall patronage levels on the day of measurement in comparison to other days. It is reasonable to assume that the measurement period, an early Tuesday afternoon, was one of comparatively light patronage. These two factors critically limit the quality of the project’s conclusions. It is possible, for example, that few or no smokers were present during the measurement period.
- The report contained no discussion of the ventilation system being tested, the area included in the study, air movement patterns within the tested area, the placement of the ventilation system, or comparative levels of ambient air quality outside the club. All these factors could have significantly affected the readings on the measurement devices.
- The report included very little discussion of the placement of measurement tools. This is of significant concern, as the report does not indicate where measurement occurred in relation to possible pollutant sources, existing air movement patterns, the ventilation system, and, critically, the position of venue patrons and staff. All these factors could have significantly affected the readings on the measurement devices.
- The PHAC is particularly concerned at the use of a “static” measurement technique, in which the instruments were located in specific areas of the venue, rather than personal monitoring in which instruments would be worn by staff and/ or patrons. Static monitoring has been found to significantly underestimate the actual exposure of individuals to airborne substances, and personal monitoring is recommended by OSH as giving a more accurate exposure indicator.¹³
- The pollutants chosen for measurement, while present in tobacco smoke, can also be produced by other sources. The report does not provide any information regarding the operation of these other sources on any day.
- The report makes no reference to international literature on ventilation in relation to SHS, and notes that the measurement techniques used would

¹³ Occupational Safety and Health 2002.

not meet “the measurement standards for ambient air quality, or for regulatory purposes.”¹⁴

- The report demonstrated a reduction in measurement of some airborne pollutants while the ventilation system was operating. However the conclusion that measured levels were “acceptable” relates only to ambient air guidelines and general Workplace Exposure Standards for the presence of carbon monoxide and small particulates, and does not relate to adverse health effects on patrons and staff. This finding therefore cannot be used to support any conclusion that the ventilation system is effective in meeting an acceptable health standard for exposure to SHS. The PHAC is concerned that the report is being presented as though it does support such a conclusion.

In light of these issues, the PHAC believes that the Bream Bay Club research report is critically flawed and cannot be used as evidence for the efficacy of ventilation systems in reducing the health impacts of second hand smoke.

¹⁴ Fisher and Reddish 2003, p.2.