



# ***EDUCATION AND HEALTH STANDING COMMITTEE***

## **INQUIRY INTO THE TOBACCO PRODUCTS CONTROL AMENDMENT BILL 2008**

**Report No. 1  
in the 38<sup>th</sup> Parliament**

**2009**

**Published by the Legislative Assembly, Parliament of Western Australia, Perth, March 2009.**

Printed by the Government Printer, State Law Publisher, Western Australia.



Education and Health Standing Committee

Inquiry Into the Tobacco Products Control Amendment Bill 2008

ISBN: 978-1-921355-53-0

(Series: Western Australia. Parliament. Legislative Assembly. Committees.  
Education and Health Standing Committee. Report 1)

328.365

99-0

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# ***EDUCATION AND HEALTH STANDING COMMITTEE***

## **INQUIRY INTO THE TOBACCO PRODUCTS CONTROL AMENDMENT BILL 2008**

### **Report No. 1**

Presented by:

**Dr J.M. Woollard, MLA**

Laid on the Table of the Legislative Assembly  
on 12 March 2009



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## COMMITTEE'S FUNCTIONS AND POWERS

The functions of the Committee are to review and report to the Assembly on:

- (a) the outcomes and administration of the departments within the Committee's portfolio responsibilities;
- (b) annual reports of government departments laid on the Table of the House;
- (c) the adequacy of legislation and regulations within its jurisdiction; and
- (d) any matters referred to it by the assembly including a bill, motion, petition, vote or expenditure, other financial matter, report or paper.

At the commencement of each Parliament and as often thereafter as the Speaker considers necessary, the Speaker will determine and table a schedule showing the portfolio responsibilities for each committee. Annual report of government departments and authorities tabled in the Assembly will stand referred to the relevant committee for any inquiry the committee may make.

Whenever a committee receives or determines for itself fresh or amended terms of reference, the committee will forward them to each standing and select committee of the Assembly and Joint Committee of the Assembly and Council. The Speaker will announce them to the Assembly at the next opportunity and arrange for them to be placed on the notice boards of the Assembly.



## INQUIRY TERMS OF REFERENCE

On 3 December 2008, the Education and Health Standing Committee resolved to report and make recommendations on the *Tobacco Products Control Amendment Bill 2008* with the following Terms of Reference:

- (1) To consider the adequacy of the proposed actions in the Bill to protect children and adults from the harmful consequences of passive smoking.
- (2) To consider the adequacy of the proposed actions in the Bill to protect children and adults from tobacco promotion.



## CHAIRMAN'S FOREWORD

I have great pleasure in tabling the first and unanimous report from the newly appointed Education and Health Standing Committee following a review on the Tobacco Control Amendment Bill 2008.

The review was conducted to assess the evidence on whether:

- ending displays of tobacco products at point of sale;
- banning smoking in outdoor eating and drinking areas;
- banning smoking in cars in which children under 18 are passengers;
- banning smoking in children's playgrounds; and
- banning smoking between the flags at beaches.

would protect children and adults from smoking and passive smoking.

The report presents a thorough review of the evidence, and of community attitudes and opinions towards support for the measures contained in the Bill.

Having reviewed the evidence, the Committee agrees that banning smoking in the identified places and ending displays of tobacco at point of sale will protect children and adults from smoking and passive smoking.

While supporting the Bill, the Committee have made suggestions to modify parts of it to encompass the submissions received, and following consultation with individuals, groups, and government departments. Some modifications are also required to ensure there is consistency with other parts of the *Tobacco Products Control Act 2006*. With these changes I would hope there is general support to adopt the measures addressed by the Bill.

The Committee have received local, national, and international submissions. The vast majority of these have supported and applauded the intent and purpose of the Bill. The Committee held hearings with individuals and groups from WA and national organisations. Attendees at the hearings included public and Aboriginal health groups, clinicians, scientists, government departments, industry representatives, local councils, professional bodies, and union representatives.

When considering this report and its recommendations, I urge Parliament to bear in mind that we have had conclusive evidence for over 50 years that:

- tobacco is a lethal product; and

- it has caused a global epidemic with over 100 million people dying from tobacco over the last century.

Further, if we do not curb the current consumption of tobacco, there could be an additional one billion deaths this century.

The dangers of smoking are not limited to active smoking. We have three decades of research on passive smoking also called second hand or involuntary smoking. In 2006 the United States Surgeon General said:

*.....the debate is over. The science is clear: secondhand smoke is not a mere annoyance, but a serious health hazard that causes premature death and disease in children and nonsmoking adults.*

Despite this, smoking is still the single largest and most preventable cause of death and disease. It kills over 15,000 Australians including 1,400 West Australians each year. In 2004-5 the estimated costs to Western Australia from smoking were over \$2 billion. It has also been suggested that a reduction in the rate of cigarette smoking may be the single most important short-term action that could be taken to reduce the gap in life expectancy between Aboriginal people and the rest of the population.

Fifty percent of regular smokers die early because of their smoking habits, half of them in middle age when they should be looking ahead to spending time with their children and grandchildren.

Smoking and second-hand smoke or passive smoking affects all age groups and causes sudden infant death syndrome, acute and chronic lung diseases, a multitude of cancers, cardiovascular disease and also damages the reproductive system. The United States of America's Surgeon General concluded that smoking harms nearly every organ of the body.

Nearly 300,000 Western Australian adults are smokers, and many more adults and children are exposed to the dangers of passive smoking. The 2005 Australian secondary schools alcohol and drug surveys identified 25,000 12 to 17-year-olds who had smoked in the past year with 9,000 reporting they were current smokers.

If the measures included in this bill are adopted, the Legislation will:

- reduce the number of people smoking and the costs related to both smoking and passive smoking;
- ban advertising at point of sale thus assisting to de-normalise the sale of tobacco to children, remove an inducement for children to commence smoking, and reduce one of the triggers to smoke for those who have stopped smoking;
- ban smoking in cars and therefore allow a child's alveoli (lungs) to develop normally and not be hindered by the toxic and carcinogenic substances in tobacco smoke; and
- benefit the community by increasing the number of smoke free environments, thus protecting people from exposure to secondhand smoke and from the temptation to re-start

smoking. Smoke free areas supported by the committee include alfresco eating and drinking areas, outdoor play areas, and safe swimming areas.

In tabling this report I would like to thank the individuals and groups who have given their time to contribute and assist this review by giving evidence, providing briefings and in forwarding written submissions.

I would also like to thank those people and groups who have done much to support tobacco control efforts in the past to help curb the global tobacco epidemic.

My personal thanks go to Professor Mike Daube, Professor of Health Policy and Director of the Public Health Advocacy Institute at Curtin University, the Cancer Council of WA, the Australian Medical Association (WA), the Heart Foundation and the Australian Council on Smoking and Health.

I would like to particularly thank my fellow Committee Members, Mr Peter Abetz, Mr Ian Blayney, Hon Mr Jim McGinty and Mr Peter Watson. The Committee have worked hard in a professional and collegiate manner to ensure a thorough enquiry. I would also like to thank them for the support they have given me in this new role.

As a newly elected parliamentary committee, we were very fortunate to have the experienced guidance and valuable assistance of Dr David Worth Principal Research Officer, and Mr Tim Hughes Research Officer. These two individuals worked extremely hard within a short time frame to gather data, organise the hearings, help the committee analyse the data and prepare this excellent report.

*Janet Woollard*

DR J.M. WOOLLARD, MLA  
CHAIRMAN





## ABBREVIATIONS AND ACRONYMS

AACS	Australasian Association of Convenience Stores
ABS	Australian Bureau of Statistics
ACOSH	Australian Council on Smoking and Health
AHA	Australian Hotels Association
AHC	Aboriginal Health Council
AIHW	Australian Institute of Health and Welfare
AMA	Australian Medical Association
ARAFMI	Association of Relatives and Friends of the Mentally Ill
ASH	Action on Smoking and Health (ASH) Australia
BAT	British American Tobacco
BMA	British Medical Association
BUGAUP	Billboard Utilising Graffitists Against Unhealthy Promotions
CARB	California Air Resources Board
CCWA	Cancer Council of Western Australia
CEO	Chief Executive Officer
CIAR	[US] Center for Indoor Air Research
COAG	Council of Australian Governments
COPD	Chronic Obstructive Pulmonary Disease
CTR	Council for Tobacco Research
CTUMS	Canadian Tobacco Use Monitoring Survey
DHA	Commonwealth Department of Health and Ageing
DOH	Western Australian Department of Health
DOSA	designated outdoor smoking areas
EHSC	Education and Health Standing Committee
EPA	US Environmental Protection Agency

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## EDUCATION AND HEALTH STANDING COMMITTEE

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ETS	environmental tobacco smoke (also known as SHS)
EU	European Union
FCTC	WHO Framework Convention on Tobacco Control
IGA	Independent Grocers Alliance
ITA	Imperial Tobacco Australia Ltd
LGA	Local Government Area
MCDS	Ministerial Council on Drug Strategy
MOU	Memorandum of Understanding
MP	Member of Parliament
MSA	Master Settlement Agreement
NARGA	National Association of Retail Grocers of Australia Pty Ltd
NHMRC	National Health and Medical Research Council
NPHT	Federal National Preventative Health Taskforce
NRT	nicotine replacement therapy
OTS	Outdoor tobacco smoke
PM2.5	fine particle decay rates
PMI	Philip Morris International
PML	Philip Morris Ltd (Aust)
PoS	point of sale
RACWA	Royal Automotive Club (Western Australia)
RSP	respirable suspended particles
SES	Socio-economic status
SHS	secondhand smoke (also known as ETS)
SIDS	Sudden Infant Death Syndrome
SPP	Specific Purpose Payments
TAB	Totalisator Agency Board
TI	Tobacco Institute
TIA	Tobacco Institute of Australia

TIRC	Tobacco Industry Research Committee
TSG	Tobacco Station Group Franchise Management Pty Ltd
$\mu\text{g}/\text{m}^3$	micrograms per cubic metre
UICC	International Union Against Cancer
US	United States of America
UWA	University of Western Australia
WALGA	Western Australian Local Government Association
WHO	World Health Organisation



## EXECUTIVE SUMMARY

The Education and Health Standing Committee resolved to conduct an Inquiry into the *Tobacco Products Control Amendment Bill 2008* on 3 December 2008 on its own motion. The Bill at the centre of the Inquiry was introduced to the Parliament on 26 November 2008, on motion by Dr Janet Woollard, MLA and read a second time.

Having a deadline of 19 March 2009 to report to Parliament meant the Committee had a comparatively short timeframe to advertise and seek public input. Even so, there was still great interest in this Inquiry with 60 submissions received. Input came from members of the public, non-government organisations, professional associations, and industry bodies from Western Australia, interstate and overseas. Several briefings and three days of public hearings supplemented the submissions, allowing the Committee to explore in greater detail the Inquiry's terms of reference:

- (1) To consider the adequacy of the proposed actions in the Bill to protect children and adults from the harmful consequences of passive smoking.
- (2) To consider the adequacy of the proposed actions in the Bill to protect children and adults from tobacco promotion.

To determine the adequacy with which the proposals in this Bill will serve to protect Western Australian children and adults from the dangers of passive smoking and tobacco promotion, Chapter One of this report will consider the magnitude of the health threat posed by active and passive smoking. The threat is so dire that the World Health Organisation has been compelled to call tobacco use a 'global epidemic' involving a product which "kills a third to half of all people who use it, on average 15 years prematurely" and "kills 5.4 million people a year from lung cancer, heart disease and other illnesses." The US Surgeon General's first report on tobacco in 1964 established a causal relationship between smoking and lung cancer. Since then the Surgeon General has undertaken seven further studies on the links between active smoking and serious disease and the findings are cited widely.

The most recent report of the US Surgeon General into passive smoking, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, confirms and expands upon the findings it made twenty years ago, that "the involuntary exposure of nonsmokers to tobacco smoke causes disease." The Californian Environmental Protection Agency (EPA) has also confirmed that 'secondhand smoke' (SHS) is "...a human carcinogen, responsible for 3,000 lung cancer deaths annually in the US." Evidence tendered to the Committee included robust scientific research demonstrating how children are particularly susceptible to passive smoke due to their "smaller airways...and greater oxygen demand" and the stresses exposure to tobacco smoke has on their developing immune systems. Professor Peter Sly, a Paediatrician at the Telethon Institute for Child Health Research, explained that children not only have smaller airways, but they also breathe 3-4 times as much air per minute relative to their bodyweight as do adults. Consequently, they receive higher doses of smoke and pollutants compared to adults, especially in enclosed

spaces such as cars and homes. These exposures are alarming, given that the US EPA now classifies SHS as a Group A carcinogen, along with materials such as asbestos.

In a similar fashion to their response between the 1960-90s to the developing science surrounding the health impacts of active smoking, tobacco industry groups have gone from denying the dangers of passive smoking, or attempting to subvert findings contrary to their interests, to acknowledging, in various degrees, the dangers now commonly associated with SHS. During the Inquiry, evidence emerged that 500 children are hospitalised in Western Australia each year with illnesses related to tobacco exposure, while a recent University of WA study has found that 384 of these admissions were for children under four years of age.

Even with the lowest smoking prevalence rate in Australia during 2004-05 (15% of the adult population aged 14 years and older smoking), WA still has 300,000 adult smokers with 9,000 children taking up smoking each year. For the 2004-05 period, Collins and Lapsley attributed 1,256 deaths and 67,370 hospital bed days to tobacco use, generating costs of about \$59.8 million for the WA hospital system.

Chapter One concludes by offering a short history of the tobacco control measures introduced in Western Australia and nationally over the past 30 years and examines the strategies currently cited as ‘international best practice’ in terms of further reducing the harms that tobacco continues to place on society. This is not time to be complacent. WA’s smoking participation rate has fallen from 70% (for men) in the 1950s to about 15% currently, however, smoking still claims over 15,500 lives in Australia each year, necessitating over 750,000 hospital bed days and costing \$31.5 billion dollars. Western Australia’s share of this burden is over \$2.4 billion in direct and indirect costs. According to the Cancer Council of WA, tobacco control measures introduced in WA since the mid-1980s have “already averted 876 deaths, 22,527 hospitalisations and \$116 million in hospital costs.”

The Federal Government is using the Council of Australian Governments (COAG) as an instrument to promote tobacco control policies with \$872million dedicated towards preventative health strategies countering the harms attributable to obesity, alcohol and tobacco. Under the COAG *National Partnership Agreement on Preventive Health 2008* (see Appendix Eight), additional Commonwealth funding will be made available to States that meet benchmarks for achieving lower smoking prevalence rates. Western Australia must make a 2% reduction on 2007 adult smoking prevalence rates by 2011, and a further 1.5% reduction by 2013. This means that Western Australia needs to get its adult prevalence rates to about 12% by 2013.

COAG will provide 50% of the program’s funds as facilitation grants and the remaining 50% as ‘reward’ payments. The implementation plan for this partnership has not yet been completed, but the Agreement indicates that over \$300million in bonus payments will be made to jurisdictions by 2014. WA’s opportunity to benefit from this bonus pool is contingent upon it meeting a variety of benchmarks outlined in the program, including the reduction of smoking prevalence rates.

This overview provides a lead-in to Chapter Two which describes the draft Bill. The Bill contains seven sections, several of which aim to instil the latest international best practice measures into law by amending the existing *Tobacco Products Control Act 2006*. For example, Section Five seeks to remove product displays from sight at the point of sale. Presently most vendors in WA are

allowed up to one square metre of display space. Similar bans have already been introduced in NSW and Tasmania. Section Six looks to expand Section 106 of the current Act to incorporate a variety of public and private domains where the act of smoking is to be prohibited. These include:

- Under s106A, in a passenger car when one or more passengers under the age of 18 years is present;
- Under s106B, in an outdoor eating or drinking area;
- Under s106C, in an outdoor playing area; and
- Under s106D, in safe swimming areas.

**Table ES.1- Proposed Amendments - Comparisons with State laws in other jurisdictions#**

	<b>Retail Display</b>	<b>Cars With Children</b>	<b>Outdoor Eating/Drinking</b>	<b>Play Areas</b>	<b>Beaches</b>
<b>WA</b>	< 1sqm <b>Under consideration</b>	<b>Under consideration</b>	<b>Under consideration</b>	<b>Under consideration</b>	<b>Under consideration</b>
<b>SA</b>	<b>No</b>	<b>Yes</b> - (under 16 years) Passed 2007	<b>No</b>	<b>No</b>	<b>No</b>
<b>VIC</b>	<b>Yes</b> (From 2011)	<b>Yes</b> (From 2010)	<b>Partial</b>	<b>Partial</b> (underage music events)	<b>No</b>
<b>TAS</b>	<b>Yes</b> (From 2011)	<b>Yes</b> - (under 18 years) Passed 2007	<b>No</b>	<b>Partial</b> (outdoor sporting/cultural events)	<b>No</b>
<b>NSW</b>	<b>Yes</b> (From 2009)	<b>Yes</b> - (under 16 years) Passed 2008	<b>No</b>	<b>No</b>	<b>No</b>
<b>QLD</b>	< 1sqm permitted	<b>Yes</b> (Bill tabled Nov 2008)	<b>Yes</b> (Passed 2006)	<b>Yes</b>	<b>Yes</b> - (includes public pools)
<b>ACT</b>	<b>Yes</b> (From 2010)	<b>Under consideration</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>NT</b>	<b>Yes</b> (From 2010)	<b>No</b>	<b>No</b>	<b>Partial</b> (outdoor public venues)	<b>No</b>

# Does not incorporate local government laws in these jurisdictions.

The Bill's proposed new sections are based on similar bans that exist in other Australian and United States' jurisdictions. Chapters Three to Six each focus on individual sections of the Bill- product display bans, bans on smoking with children in cars, bans in outdoor eating and drinking areas, and bans in outdoor play areas and safe swimming areas. These chapters discuss the science behind each proposal, consider examples of similar bans in other jurisdictions, and examine the public's attitude to these measures through the weighting of the submissions and evidence given at

public hearings. While there was overwhelming support for all proposals, the bans on product displays and smoking in alfresco areas were the most contentious.

Chapter Three analyses the proposed display ban on tobacco products. This proposal is needed because point-of-sale (PoS) displays remain a potent form of advertising for cigarettes. Increasingly tighter restrictions on tobacco advertising occurred throughout the 1970s and 1980s and PoS is the last outlet for tobacco promotion allowed under the existing Act. Several submissions argued that cigarettes remain more visible and more widely available than any other consumer product, including milk and bread. The National Preventative Health Taskforce (NPHT) argues that display bans are part of an overarching and comprehensive approach to effective tobacco regulation. For the NPHT a suitable outcome would be a scenario where products are still available to adults who choose to smoke, but are no longer highly visible. Surveys undertaken by the Cancer Council of WA show 77% of the public support removing tobacco products from sight in shops, with 57% of smokers also supporting the proposal. The Inquiry also received support for this ban from Woolworths and an IGA operator.

Chapter Four highlights the wide public support, over 90% in most Australian jurisdictions, for the ban on smoking in cars with children. Research has found that the level of air pollution in a car caused by smoke from a cigarette is so severe that breathing it is dangerous for anyone. Children breathe quicker than adults, are still developing physically, and as a result, face a greater risk of damaging health effects from the exposure to secondhand smoke (SHS). A Californian EPA study found very high SHS concentrations in vehicles when a smoker is present, even with the windows open.

A Tasmanian Memorandum of Understanding between the Police and the Department of Health was quoted in many of the submissions as a way of practically managing the implementation and enforcement of a prohibition on smoking in cars carrying children. In SA, Tasmania and NSW such bans are enforced by Police in an opportunistic fashion, as they do with mobile phones. Compulsory education classes as an alternative to infringement notices was raised by a number of witnesses, including the WA Police Commissioner. The Office of Road Safety wants the ban to be expanded to include all drivers of motor vehicles in order to reduce the impact that driver distraction, attributable to smoking, has on road deaths and trauma.

The proposed ban on smoking in outdoor eating and drinking areas was the most contentious section and Chapter Five describes the arguments of those against the ban, such as the Australian Hotels Association, as well as the large number of submissions in favour of it. Research has identified hazardous levels of secondhand smoke within 2 metres of smokers in hospitality venues. A Helsinki study found air pollution levels in outdoor cafes with many smokers were 5 to 20 times higher than on the sidewalks of busy streets polluted by bus, truck, and auto traffic.

In the United States 15 states and the self-governing territory of Puerto Rico have implemented '100% smokefree laws' in restaurants and bars. California led the way in indoor smoking bans in restaurants and bars, enacting a statewide ban more than a decade ago. Internationally, there are now 16 countries whose bars and restaurants are either smokefree, or have fully enclosed designated smoking areas in larger establishments. India became the latest in October 2008.



Victoria has prevented smoking in semi-enclosed outdoor dining and drinking areas and in 2006 Queensland became the first state to introduce smoking bans in all outdoor eating and drinking venues. However, it made provision for 'designated outdoor smoking areas' which cannot exceed 50% of the whole licensed outdoor area of the premises. In WA, six local government areas have already implemented an alfresco dining area ban, while another seven have the proposal under consideration. Collectively, these councils represent nearly 40% of WA's population. Cancer Council WA surveys between 2005 and 2008 show support for total alfresco dining area bans rising to 85%.

Chapter Six reviews the ban on smoking in outdoor play areas. Such bans are widespread in the US with 577 municipal jurisdictions across 40 states having ordinances banning smoking in parks and playgrounds. These policies were described as measures to protect children, youth, and non-smoking adults from secondhand smoke, and also to reduce litter, and prevent infants from ingesting discarded cigarettes. In WA, some local councils such as Vincent, Cockburn and Joondalup have already instituted such bans covering hundreds of parks.

The move to ban smoking at public beaches is a recent trend that seems to have commenced on the west coast of the US. Chapter Seven examines the ban on smoking in public swimming areas and highlights other Australian jurisdictions with similar bans, such as Manly and Bondi in NSW, and beaches in the Cities of Cockburn and Joondalup in WA. The Queensland Government enacted legislation four years ago for a similar ban on smoking between the flags on patrolled beaches.

Each of these chapters concludes with an assessment as to how adequately each proposal serves to protect children and adults from the harmful consequences of passive smoking, and from tobacco promotion. Where applicable, recommendations are also made regarding the best way the Bill could be modified to ensure that its intent can be realised without working to the detriment of the existing legislation.

Finally, Chapter Eight looks at issues that were not examined in depth during the Inquiry but need further legislative action by the WA Government, for example the high rate of smoking in prisons and Aboriginal communities. The Report concludes with some recommendations for the State to work more closely with the Federal Government to ensure that Western Australia's smoking participation rate can be brought under 10% within the next five to ten years.



## FINDINGS

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### **Finding 1**

The Committee finds that PoS displays remain a potent form of advertising for cigarettes that encourage young people to start smoking, while undermining the intention of smokers to quit. The proposal to remove tobacco product displays in WA reflects international best practice measures and is consistent with Australia's commitments to protect children and adults from tobacco promotion.

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### **Finding 2**

The Committee finds that exposure to secondhand smoke in vehicles represents a particularly dangerous form of passive smoking to which children are especially susceptible. The Bill's proposal to ban smoking in cars carrying young people is backed by robust scientific evidence, supported by a significant majority in the community, and is critical to protect children and adults from the harmful consequences of passive smoking.

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### **Finding 3**

The Committee finds that exposure to secondhand smoke in outdoor eating and drinking areas remains a health hazard for non-smokers including patrons and hospitality workers. The proposal to ban smoking in outdoor eating and drinking areas follows international best practise precedents that recognise there is no safe level of passive smoke. It will further protect West Australian children and adults from the harmful consequences of passive smoking.

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### **Finding 4**

The Committee finds that, given the disproportionate harm that passive smoking has on child development, children's play areas should be made smoke-free throughout WA. Such a ban will protect children and adults from the harmful consequences of passive smoking and further diminish the social acceptability of smoking in the eyes of children, helping to lower future youth participation rates.

**Finding 5**

The Committee finds that the proposed ban is widely supported by the community, reflects international trends and offers added protection from passive smoke exposures in popular outdoor areas where children and non-smoking adults congregate. Such a ban will further protect children and adults from the harmful consequences of passive smoking.

## RECOMMENDATIONS

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### **Recommendation 1**

The Committee recommends that the proposed section 22 to control the display of tobacco products be retained in the Bill and supports suggested amendments, including staggered implementation dates for different categories of retailers and the repealing of section 23.

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### **Recommendation 2**

The Committee recommends that the proposed section 106A to ban the use of tobacco products in a car at any time if one or more passengers is a young person be retained in the Bill and supports the proposed amendments from the Commissioner of Police to the title of the section, the definition of a 'motor vehicle', and a new subsection 106A (2) with the age of a young person as 17 years. The Committee endorses the concept of alternate penalty options such as smoking education sessions or community service. On the spot fines for this section be increased to \$200.

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### **Recommendation 3**

The Committee recommends that the proposed section 106B to ban the use of tobacco products in outdoor eating or drinking areas be retained in the Bill. A person must not smoke within 5 metres of an entrance to or opening of an outdoor eating or drinking area. The legislation be accompanied by a well-funded education and public awareness campaign.

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**Recommendation 4**

The Committee recommends that the proposed draft section 106C to ban the use of tobacco products in outdoor playing areas be retained in the Bill and supports amendments from the Department of Health to the title of the section to include the term 'smoke' and the definition of an 'outdoor playing area' to include sports venues and playgrounds. On the spot fines for this section be increased to \$200.

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**Recommendation 5**

The Committee recommends that the proposed draft section 106D to ban the use of tobacco products in safe swimming areas be retained in the Bill and supports amendments from the Department of Health to the title of the section to include the term 'smoke' and modifications to the definition of a 'safe swimming area'. On the spot fines for this section be increased to \$200.

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**Recommendation 6**

The Legislative Assembly and the Legislative Council resolve to ban smoking in the precincts of Parliament.

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**Recommendation 7**

The Minister for Health establish a Department of Health taskforce to plan future legislative initiatives (consistent with the research of the NPHT) to lower WA's smoking prevalence rates to below 10% by 2015.

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**Recommendation 8**

The Minister for Corrective Services direct the Director General to develop a plan to make all enclosed places within Western Australian prisons smoke-free by the end of 2009 and for prisons to be entirely smoke-free by the end of 2011.

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**Recommendation 9**

The Minister for Corrective Services make public the report into the management of smoking in prisons in Western Australia.

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**Recommendation 10**

The Minister for Indigenous Affairs develop a smoking reduction plan for Indigenous West Australians by the end of 2009 and provide additional funding to employ people to work in this area throughout the State.

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**Recommendation 11**

The Minister for Mental Health retain all smoking bans and smoking education programs aimed at mental health patients in Western Australia.

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**Recommendation 12**

The Minister for Mental Health make public the report into the impact of smoking in health institutions, with particular emphasis on mental health patients in Western Australia.

**Recommendation 13**

The Minister for Health negotiate with his counterparts on the Australian Health Ministers Council as to:

- (i) what steps can be implemented to phase out smoking in casino high roller rooms.
- (ii) developing a plan to make Federally-funded nursing homes and aged-care facilities smoke-free within two years.
- (iii) the introduction of a higher excise on tobacco products as a way of reducing smoking prevalence rates, especially for young people.
- (iv) amend duty-free laws to prevent overseas travellers purchasing cheaper tobacco products.



## **MINISTERIAL RESPONSE**

In accordance with Standing Order 277(1) of the Standing Orders of the Legislative Assembly, the Education and Health Standing Committee directs that the Minister for Health, the Minister for the Mental Health, the Minister for Corrective Services and the Minister for Indigenous Affairs report to the Assembly as to the action, if any, proposed to be taken by the Government with respect to the recommendations of the Committee.



## CHAPTER 1 INTRODUCTION

### 1.1 Establishment of the Inquiry

The Education and Health Standing Committee resolved to conduct an Inquiry into the *Tobacco Products Control Amendment Bill 2008* on 3 December 2008 on its own motion.. The Bill was introduced to the Parliament on 26 November 2008, on motion by Dr Janet Woollard, MLA and read a second time. The Committee had a short timeframe to advertise and seek public input to report back to Parliament by 19 March 2009.

Sixty submissions were received from members of the public, non-government organisations, professional associations, and industry bodies from Western Australia, interstate and overseas (see Appendix One for a full listing of submissions). Three days of public hearings supplemented the submissions (see Appendix Two for a full listing of witnesses). This assisted the Committee explore in greater detail the Inquiry's Terms of Reference, which were:

- (1) To consider the adequacy of the proposed actions in the Bill to protect children and adults from the harmful consequences of passive smoking.
- (2) To consider the adequacy of the proposed actions in the Bill to protect children and adults from tobacco promotion.

As part of its research, the Committee expressed in its media release a desire to “hear from as many people and organisations as possible about the measures proposed in the Bill. Are they sensible? Are they adequate? Will they work? Can they be improved?”

An advertisement calling for submissions was placed in *The West Australian* on 17 January 2009 and was accompanied by a press release. Written invitations were also sent to key stakeholder organisations. The Committee agreed that the Inquiry's submissions and hearing transcripts should be posted to the Committee's web site before this Report was tabled in Parliament to assist the debate on the draft Bill.

### 1.2 Magnitude of the problem

*Tobacco is the single most preventable cause of death in the world today. This year, tobacco will kill more than five million people – more than tuberculosis, HIV/AIDS and malaria combined.*<sup>1</sup>

World Health Organization – *WHO Report on the Global Tobacco Epidemic*, 2008

The impact on health attributable to tobacco smoking is so great that the World Health Organisation (WHO) has been compelled to call it a ‘global epidemic’. Describing tobacco as “the

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<sup>1</sup> World Health Organisation (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p8.

only legal consumer product that can harm everyone exposed to it”<sup>2</sup>, WHO established a Framework Convention on Tobacco Control (FCTC) in 2003. Member nations have “committed to protect the health of their populace by joining the fight against the tobacco epidemic.”<sup>3</sup> Australia ratified the treaty in October 2004 and is now one of the 161 nations who “recognise that scientific evidence has unequivocally established that exposure to tobacco smoke causes death, disease and disability.”<sup>4</sup> The dangers of exposure to tobacco come in two major forms – active and passive smoking.

## 1.3 Active smoking

### (a) The scientific link between smoking and illness

Active smoking is the direct inhalation of tobacco smoke by users of tobacco products<sup>5</sup> where “Cigarettes and other smoked products rapidly deliver the addictive drug nicotine to the brain immediately after smokers inhale....But because the effects of smoked tobacco last only a few minutes, smokers experience withdrawal symptoms unless they continue to smoke.”<sup>6</sup>

Many of the adverse health implications of this addiction are now beyond question. The Surgeon General is the primary health educator in the US and conducts exhaustive reviews of the available scientific material relating to health issues. The Surgeon General’s first report on tobacco in 1964 established a causal relationship between smoking and lung cancer. Cigarette smoking was also ‘associated’ with the development of cancers in the larynx, oral cavity, and esophagus<sup>7</sup>. Over the ensuing decades, the Surgeon General has undertaken seven further studies on the links between active smoking and serious disease and the findings have been cited widely. In addition to the conditions identified in 1964, the most recent report in 2004 finds the evidence is now “sufficient to infer a causal relationship” between smoking and an extended range of major ailments including:

- bladder cancer;

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<sup>2</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p8.

<sup>3</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p8.

<sup>4</sup> WHO (2003) *Who Framework Convention on Tobacco Control*, World Health Organisation, Geneva, Article VIII s1 p8.

<sup>5</sup> MedicineNet.com (2003) *Definition of Tobacco Smoking*, [www.medterms.com/script/main/art.asp?articlekey=13296](http://www.medterms.com/script/main/art.asp?articlekey=13296), accessed 22 January 2009.

<sup>6</sup> World Health Organisation (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p14.

<sup>7</sup> Department of Health and Human Services (2004) *The Health Consequences of Smoking: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, Chp 1, pp 12-14.

- cervical cancer;
- renal cell and renal pelvis cancers;
- acute myeloid leukaemia;
- cancers of the oral cavity and pharynx;
- pancreatic cancer; and
- gastric cancers

Addiction to tobacco smoking is related to a variety of other chronic conditions, including:

- abdominal aortic aneurysm, sub-clinical atherosclerosis, stroke and coronary heart disease;
- chronic obstructive pulmonary disease morbidity and mortality;
- a premature reduction of lung function in adulthood;
- poor asthma control;
- impaired lung growth and respiratory symptoms such as cough, wheezing and phlegm during childhood and adolescence for young smokers; and
- reduced lung function, low-birth weight and increased risk of pre-term delivery and Sudden Infant Death Syndrome (SIDS) in children whose mothers smoked during pregnancy.

The Surgeon General's 2004 Report also found smoking is linked to increased absenteeism from work, low bone density and heightened risk of post surgical complications<sup>8</sup>. It concluded "smoking harms nearly every organ of the body" and "quitting smoking has immediate as well as long-term [health] benefits."<sup>9</sup>

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<sup>8</sup> Department of Health and Human Services (2004) *The Health Consequences of Smoking: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, Chp 1, pp 4-8.

<sup>9</sup> Department of Health and Human Services (2004) *The Health Consequences of Smoking: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, Executive Summary, p8.

## Industry Response

A plethora of evidence has emerged which indicates that major international tobacco companies were aware of the addictive nature of tobacco, and many of the grave health risks associated with its use, as early as the 1950s<sup>10</sup>. The leaking of a collection of confidential industry documents in 1994 led to a wave of litigation cases against tobacco companies by US state governments. This culminated in a joint action in 1998 which led to the Master Settlement Agreement (MSA). One of the terms of the MSA was that tobacco companies would post more than 30 million internal correspondence items, dating back over four decades, on the Internet. These documents have provided a damning insight into the tobacco industry's response to the overwhelming weight of evidence that linked smoking with addiction and fatal diseases<sup>11</sup>. Trotter and Chapman have cited a 1976 document from WD and HO Wills entitled *Past Strategy and Tactics* which states that up until that year, "the fundamental policy of the industry was to buy time and avoid where possible confrontation with Governments or anti-smoking organizations on strictly medical arguments."<sup>12</sup> Such strategies imply that the tobacco manufacturers were aware of the adverse scientific arguments that had emerged since the initial US Surgeon General's report in 1964.

Despite public access to these primary documents, industry lobby groups such as the Tobacco Institute of Australia (TIA)<sup>13</sup>, and some individual manufacturers, including the R.J Reynolds Tobacco Company, continued to deny the addictive and harmful qualities of smoking. The R.J Reynolds Tobacco Company wrote to an elementary school in 1990 arguing that "Despite all the research going on, the simple and unfortunate fact is that scientists do not know the cause or causes of the chronic diseases reported to be associated with smoking."<sup>14</sup> These types of arguments reflect a commonplace approach which sought to cast doubt over scientific arguments contrary to the industry's own position. US District Judge Gladys Kessler, in a 1999 federal government lawsuit, found that the tobacco industry, through several lobby groups dating back to 1954<sup>15</sup>, had:

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<sup>10</sup> Cummings, K.M, Brown, A & O'Connor, R. (2007) "The Cigarette Controversy", *Cancer Epidemiology Biomarkers and Prevention*, Vol. 16 (6), June 2007, p 1071.

<sup>11</sup> Cummings, K.M, Brown, A & O'Connor, R. (2007) "The Cigarette Controversy", *Cancer Epidemiology Biomarkers and Prevention*, Vol. 16 (6), June 2007, p 1070.

<sup>12</sup> Trotter, L. & Chapman, S. (2003) "'Conclusions About Exposure to ETS and Health That Will Be Unhelpful to Us': How the Tobacco Industry Attempted to Delay and Discredit the 1997 Australian National Health and Medical Research Council Report on Passive Smoking", *Tobacco Control*, Vol. 12 (Supp III), p 103.

<sup>13</sup> Carter, S.M. (2003) "Cooperation and Control: The Tobacco Institute of Australia", *Tobacco Control*, Vol. 12 (Supp III), p 55.

<sup>14</sup> Cummings, K.M, Brown, A & O'Connor, R. (2007) "The Cigarette Controversy", *Cancer Epidemiology Biomarkers and Prevention*, Vol. 16 (6), June 2007, p 1074.

<sup>15</sup> Cummings, Brown & O'Connor report these as Tobacco Industry Research Committee (TIRC) [1954-1964]; Tobacco Institute (TI) [1958-1998]; Council for Tobacco Research (CTR)[1964-1998] and Center for Indoor Air Research (CIAR) [1988-1998].

*...sponsored and funded research that attacked scientific studies demonstrating harmful effects of smoking cigarettes but did not itself conduct research addressing the fundamental questions regarding the adverse health effects of smoking.*<sup>16</sup>

These tactics of the tobacco industry enjoyed some initial success in countering proposals for tobacco control legislation but ultimately led to a series of costly and unsuccessful court battles. Today, company websites offer varied concessions as to the dangers of tobacco. Philip Morris International (PMI) acknowledges the link between cigarette smoking and “lung cancer, heart disease, emphysema and other serious diseases in smokers”, while adding that smoking is ‘addictive’ and that currently “there is no such thing as a ‘safe’ cigarette.”<sup>17</sup>

Alternatively, British American Tobacco (BAT) is more tempered in its views. While they “accept the common understanding today that smoking is addictive”, they still argue that “smoking doesn’t take away anyone’s free will, and we believe it’s important that smokers realise they can quit, provided they have the necessary motivation and self-belief.”<sup>18</sup> They concur with PMI’s assessment as to the diseases caused by smoking<sup>19</sup>, but BAT emphasises the potential of a ‘less harmful cigarette’, although it concedes that “we still cannot be certain” what its constituent properties might be<sup>20</sup>.

## **(b) The costs of smoking**

### **International statistics**

While national smoking prevalence rates vary markedly, surveys submitted for the *WHO Report on the Global Tobacco Epidemic, 2008* indicate that almost two-thirds of the world’s smoking population is located in the ten countries listed in Table 1.1.

<sup>16</sup> Cummings, K.M, Brown, A & O’Connor, R. (2007) “The Cigarette Controversy”, *Cancer Epidemiology Biomarkers and Prevention*, Vol. 16 (6), June 2007, p 1074.

<sup>17</sup> Philip Morris International (2008) *Smoking and Health: A Clear and Consistent Message*, [www.philipmorrisinternational.com/PMINTL/pages/eng/smoking/S\\_and\\_H.asp](http://www.philipmorrisinternational.com/PMINTL/pages/eng/smoking/S_and_H.asp), accessed 22 January 2009.

<sup>18</sup> British American Tobacco (2008) *Can People Quit Smoking?*, [www.bat.com/group/sites/uk\\_\\_3mnfen.nsf/vwPagesWebLive/DO52AMFD?opendocument&SKN=1](http://www.bat.com/group/sites/uk__3mnfen.nsf/vwPagesWebLive/DO52AMFD?opendocument&SKN=1), accessed 22 January 2009.

<sup>19</sup> British American Tobacco (2008) *Cigarettes and Smoking*, [www.bat.com/group/sites/uk\\_\\_3mnfen.nsf/vwPagesWebLive/DO52AMD7?opendocument&SKN=1](http://www.bat.com/group/sites/uk__3mnfen.nsf/vwPagesWebLive/DO52AMD7?opendocument&SKN=1), accessed 22 January 2009.

<sup>20</sup> British American Tobacco (2008) *Is There a Less Harmful Cigarette?*, [www.bat.com/group/sites/uk\\_\\_3mnfen.nsf/vwPagesWebLive/DO52ANE2?opendocument&SKN=1](http://www.bat.com/group/sites/uk__3mnfen.nsf/vwPagesWebLive/DO52ANE2?opendocument&SKN=1), accessed 22 January 2009.

**Table 1.1 International Smoking Prevalence Rates (10 highest per-capita nations)<sup>21</sup>**

Country	Current Adult Smokers as percentage of population	Current Youth Smokers as percentage of population
Bangladesh	20.9%	5.8%
Brazil	16.2%	17.2%
China	31.4%	5.5%
Germany	27.2%	Not Available
India	32.7% (Male) 1.4% (Female)	14.1%
Indonesia	34.5%	13.5%
Japan	43.3% (Male) 12.0% (Female)	Not Available
Russian Federation*	60.4% (Male) 15.5% (Female)	27.3%
Turkey	34.6%	8.4%
United States	23.2%	18.4%

(\*Adult figures for Russian Federation based on 'daily' cigarette use. All other nations' figures are based on 'current' tobacco/cigarette smoking.)

According to WHO, “tobacco kills a third to half of all people who use it, on average 15 years prematurely.”<sup>22</sup> WHO estimates that “the tobacco epidemic [currently]...kills 5.4 million people a year from lung cancer, heart disease and other illnesses.”<sup>23</sup> They further argue that tobacco-related deaths totalled 100 million in the 20<sup>th</sup> Century and without rigorous action this figure could reach one billion in the current century<sup>24</sup>.

<sup>21</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, pp 74-170.

<sup>22</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p 14.

<sup>23</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p 7.

<sup>24</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p 6.



The US Surgeon General claims that smoking tops the United States' list of most preventable diseases, killing approximately 440,000 Americans a year; imposing a cost of \$157 billion in 'annual health-related economic losses' and depriving the nation of 5.6 million potential life years. The Surgeon General adds that there have been more than 12 million premature deaths attributable to smoking since the links to disease were first published in their 1964 report<sup>25</sup>. In terms of prevalence rates, a worrying US trend is that 23% of high school students currently smoke and 1,140 of 12-17 year olds become smokers each day<sup>26</sup>.

According to a 2006 European Union report, tobacco "is the main cause of death in Europe", claiming 650,000 lives annually and costing EU member states approximately 100 billion euros a year<sup>27</sup>. The Indian Health Minister, Dr Anbumani Ramadoss, argues that "40% of India's health problems stem from tobacco use."<sup>28</sup>

Smoking already kills more than 2,000 people (mostly men) every day in China. By 2050 this rate will be well over 8,000 per day. China now has the biggest number of deaths from smoking of any country, having recently overtaken the US. Annual smoking deaths in China are expected to be:

- 1 million by around the year 2000;
- 2 million around 2025; and
- 3 million around 2050.

Of those killed by tobacco in China:

- 45% die from chronic lung disease;
- 15% from lung cancer; and
- 5-8% from each of oesophagus cancer, stomach cancer, liver cancer, stroke, heart disease and tuberculosis.

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<sup>25</sup> Department of Health and Human Services (2004) *The Health Consequences of Smoking: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, Chp 1, p 9 and p 30.

<sup>26</sup> Department of Health and Human Services (2007) *Youth and Tobacco Use: Current Estimates*, [www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/youth\\_data/youth\\_tobacco.htm](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/youth_tobacco.htm), accessed 22 January 2009.

<sup>27</sup> European Union (2006) *For a Europe Without Tobacco*, [http://en.help-eu.com/images/mo\\_documents/dossier\\_pdf/Part1\\_Effects\\_of\\_PassiveSmoking\\_EN.pdf](http://en.help-eu.com/images/mo_documents/dossier_pdf/Part1_Effects_of_PassiveSmoking_EN.pdf), p 2, accessed 2 February 2009.

<sup>28</sup> Sinha, K. (2008) "From October 2, Head for the Road to Smoke", *Times of India Online*, <http://timesofindia.indiatimes.com/articleshow/msid-3464490,prtpage-1.cms>, accessed 28 January 2009.

Of the more than 300 million Chinese males now aged 0-29 years old, at least 100 million will eventually be killed by tobacco. Half of these deaths will take place between the ages 35 to 69 years old<sup>29</sup>.

### **Australian statistics**

As is consistent with these international trends, the greatest risk of death and disability for Australians comes from active smoking<sup>30</sup>. Research has found that “two of the top seven causes of disease burden [in Australia], lung cancer and chronic obstructive pulmonary disease (COPD), are mostly attributable to tobacco smoking.”<sup>31</sup> The current health impact of smoking in Australia can be found in three major reports:

- Australian Institute of Health and Welfare (AIHW) *2007 National Drug Strategy Household Survey*
- Department of Health and Ageing (DHA) *The Costs of Tobacco, Alcohol and Illicit Abuse to Australian Society in 2004/2005*
- National Preventative Health Taskforce’s (NPHT) *Tobacco Control in Australia: Making Smoking History*

These reports indicate that 18% of the Australian population aged over 14 years-old smoke at least weekly (over three million people), while 16.6% smoke daily. For the 14-19 year-old cohort, 7.3% were smoking daily in 2007. Students that responded to the AIHW survey had a mean consumption level of 55 cigarettes a week<sup>32</sup>. In demographic terms, the first quintile (or lowest socio-economic background) on the scale used by the AIHW had the greatest percentage of smokers - 25.9%. Furthermore, 38.1% of the unemployed are smokers. The prevalence of smoking amongst the Indigenous population (34.1%) is significantly higher than the non-Indigenous population (19%)<sup>33</sup>. This data confirms evidence provided by UWA researchers that there is a

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<sup>29</sup> Clinical Trial Service Unit (1998) *Three Million Tobacco Deaths a Year in China By Middle of Next Century*, [www.ctsu.ox.ac.uk/pressreleases/1998-11-19/three-million-tobacco-deaths-a-year-in-china-by-middle-of-next-century](http://www.ctsu.ox.ac.uk/pressreleases/1998-11-19/three-million-tobacco-deaths-a-year-in-china-by-middle-of-next-century), accessed 20 February 2009.

<sup>30</sup> Somerford, P. (2008) “Tobacco Use and Health”, in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, The Cancer Council of Western Australia, Perth, WA, p 7.

<sup>31</sup> AIHW (2008) *Australia’s Health 2008*, Cat. no. AUS 99, Australian Institute of Health and Welfare, Canberra, p56.

<sup>32</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra.  
[www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco](http://www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco), p 15, accessed 9 January 2009. AIHW (2007) *2007 National Drug Strategy Household Survey: Detailed Findings*, [www.aihw.gov.au/publications/index.cfm/title/10674](http://www.aihw.gov.au/publications/index.cfm/title/10674), pp 23-29, accessed 19 December 2008.

<sup>33</sup> AIHW (2007) *2007 National Drug Strategy Household Survey: Detailed Findings*, [www.aihw.gov.au/publications/index.cfm/title/10674](http://www.aihw.gov.au/publications/index.cfm/title/10674), p 28, accessed 19 December 2008.

“strong social gradient evident in the prevalence of smoking, increasing as the level of socio-economic disadvantage increases.”<sup>34</sup>

According to the National Preventative Health Taskforce, approximately half of those who smoke for a ‘prolonged period’, will die prematurely, half of these people in their middle age, during what should be the most productive years of their life. The Taskforce also forecast that the national death toll from smoking would exceed one million within the next decade. For example, during 2003, tobacco use claimed 15,511 lives while smoking remains “responsible for...20% of deaths in Indigenous Australians.”<sup>35</sup>

The Department of Health and Ageing estimated that the social costs of smoking for the year 2004-05 exceeded \$31.5 billion. This includes over \$19.4 billion in annual wages forfeited due to loss of life, \$8 billion in foregone production costs resulting from premature death or workforce absenteeism, and \$636 million in hospital costs covering the more than 689,000 bed days needed to treat smokers for tobacco-related ailments<sup>36</sup>.

### Western Australian statistics

The authors of the DHA report, Professor David Collins and Associate Professor Helen Lapsley, were commissioned by the Cancer Council of Western Australia (CCWA) in 2007 to provide financial estimates for WA similar to that provided at a national level. They found that WA had the lowest smoking prevalence rate in Australia during 2004-05, with 15% of the State’s adult population (14 years and older) smoking<sup>37</sup>. In the 14-19 year-old cohort, the rate was 9.5%<sup>38</sup>. This equates to 300,000 Western Australian adults smoking and 9,000 children starting to smoke each year<sup>39</sup>.

<sup>34</sup> Submission No. 47 from School of Population Health, University of Western Australia, 30 January 2009, p 1.

<sup>35</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra.  
[www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco](http://www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco), pp v-1. See also Submission No. 23 from AMA (WA), 30 January 2009, p 5.

<sup>36</sup> Collins, D.J & Lapsley, H.M (2008) *The Costs of Tobacco, Alcohol and Illicit Drug Abuse to Australian Society in 2004/05*, National Drug Strategy Monograph Series No. 64, Department of Health and Ageing, Canberra. pp 3-10.

<sup>37</sup> CCWA (2008) *Tobacco Control - Western Australia’s Great Public Health Success Story*, Media Alert 25 October, Cancer Council of WA, Perth.  
[www.cancerwa.asn.au/resources/81025\\_Tobacco\\_monograph\\_alert.pdf](http://www.cancerwa.asn.au/resources/81025_Tobacco_monograph_alert.pdf), accessed 15 January 2009.

<sup>38</sup> Somerford, P. (2008) “Tobacco Use and Health”, in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, The Cancer Council of Western Australia, Perth, WA, p 22.

<sup>39</sup> CCWA (2008) *Tobacco Control - Western Australia’s Great Public Health Success Story*, Media Alert 25 October, Cancer Council of WA, Perth.  
[www.cancerwa.asn.au/resources/81025\\_Tobacco\\_monograph\\_alert.pdf](http://www.cancerwa.asn.au/resources/81025_Tobacco_monograph_alert.pdf), accessed 15 January 2009.

For the period 2004-05, Collins and Lapsley attributed 1,245 deaths and 60,620 hospital bed days to tobacco use, generating costs of about \$53.9 million for the WA hospital system<sup>40</sup>. A report released by the University of Western Australia during this Inquiry offered a conservative estimate that 4,881 Western Australians presented to emergency departments each year with a health condition caused by smoking<sup>41</sup>. Collins and Lapsley have calculated that “smoking costs the Western Australian community \$2.4 billion per year.”<sup>42</sup> This figure includes \$400 million in lost productivity across the business and household sector. Despite a fall in the smoking prevalence rate over the last decade, these costs represent a 25% increase over this period due to the lagging impact of many smoking-related illnesses. Professor Collins equated reducing these costs of about \$2.4 billion per year to “turning around an ocean liner.”<sup>43</sup>

## 1.4 Passive Smoking

*I am...able to say unequivocally that the debate is over. The science is clear: secondhand smoke is not a mere annoyance, but a serious health hazard that causes premature death and disease in children and nonsmoking adults.*<sup>44</sup>

Dr Richard Carmona, US Surgeon General

### (a) The scientific link between passive smoking and illness

The main focus of this Inquiry is the health consequences of the global tobacco epidemic caused by passive smoking. The most recent report of the US Surgeon General into passive smoking, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, offers a comprehensive definition of passive smoking:

*The inhalation of tobacco smoke by nonsmokers has been variably referred to as “passive smoking” or “involuntary smoking.” Smokers, of course, also inhale secondhand smoke....This inhaled smoke is the mixture of sidestream smoke released by the smoldering cigarette and the mainstream smoke that is exhaled by a smoker. Sidestream smoke, generated at lower temperatures and under somewhat different combustion conditions than mainstream smoke, tends to have higher concentrations of many of the toxins found in*

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<sup>40</sup> CCWA (2008) *Smoking Costing WA A Massive \$2.4 Billion Per Year*, Media Release 18 September, Cancer Council of WA, [www.cancerwa.asn.au/resources/80901\\_Tobacco%20costs%20release\\_Final.pdf](http://www.cancerwa.asn.au/resources/80901_Tobacco%20costs%20release_Final.pdf), accessed 15 January 2008.

<sup>41</sup> O’Leary, C. (2009) “Passive Smoke Hits Under-Fives”, *The West Australian*, 16 February, p 9.

<sup>42</sup> CCWA (2008) *Smoking Costing WA A Massive \$2.4 Billion Per Year*, Media Release 18 September, Cancer Council of WA, Perth. [www.cancerwa.asn.au/resources/80901\\_Tobacco%20costs%20release\\_Final.pdf](http://www.cancerwa.asn.au/resources/80901_Tobacco%20costs%20release_Final.pdf), accessed 15 January 2008.

<sup>43</sup> CCWA (2008) *Smoking Costing WA A Massive \$2.4 Billion Per Year*, Media Release 18 September, Cancer Council of WA, Perth. [www.cancerwa.asn.au/resources/80901\\_Tobacco%20costs%20release\\_Final.pdf](http://www.cancerwa.asn.au/resources/80901_Tobacco%20costs%20release_Final.pdf), accessed 15 January 2008.

<sup>44</sup> Carmona, R.H (2006) *The Health Effects of Secondhand Smoke*, Office of the Surgeon General: Media Release, 27 June, [www.surgeongeneral.gov/news/speeches/06272006a.html](http://www.surgeongeneral.gov/news/speeches/06272006a.html), accessed 17 February 2009.

*cigarette smoke. However, it is rapidly diluted as it travels away from the burning cigarette....*<sup>45</sup>

The Surgeon General now prefers to use the term ‘secondhand smoke’ (SHS) in preference to Environmental Tobacco Smoke (ETS) because:

*The descriptor “secondhand” captures the involuntary nature of the exposure, while “environmental” does not. This report also refers to the inhalation of secondhand smoke as involuntary smoking, acknowledging that most nonsmokers do not want to inhale tobacco smoke. The exposure of the fetus to tobacco smoke, whether from active smoking by the mother or from her exposure to secondhand smoke, also constitutes involuntary smoking.*<sup>46</sup>

The Surgeon General’s Report in 1972 was the first to address the health impact of passive smoking. However, it was a survey conducted between 1966-79 of 91,540 Japanese housewives that first confirmed the dangers of passive smoking. The Takeshi Hirayama survey found that “wives of heavy smokers were found to have a higher risk of developing lung cancer”<sup>47</sup>, and that some heightened risk of death from emphysema and asthma was identifiable for wives exposed to passive smoke<sup>48</sup>. Since this survey, a greater range of links to poor health from passive smoking have been identified.

The US Surgeon General’s Report in 1986 concluded that the “involuntary exposure of nonsmokers to tobacco smoke causes disease.”<sup>49</sup> In 1992, a report by the Californian Environmental Protection Agency (EPA) confirmed that ETS was “a human carcinogen, responsible for 3,000 lung cancer deaths annually in the US”, as well as being causally associated with a range of respiratory illnesses in adults and children<sup>50</sup>. A range of major reports, in addition

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<sup>45</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 9.

<sup>46</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 9.

<sup>47</sup> Hirayama, T. (1981) “Non-smoking Wives of Heavy Smokers Have a Higher Risk of Lung Cancer: A Study From Japan”, *British Medical Journal*, Vol. 282, 17 January, p 183.

<sup>48</sup> Hirayama, T. (1981) “Non-smoking Wives of Heavy Smokers Have a Higher Risk of Lung Cancer: A Study From Japan”, *British Medical Journal*, Vol. 282, 17 January, p185.

<sup>49</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p iii.

<sup>50</sup> Environmental Protection Agency (1992) *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*, Office of Health and Environmental Assessment - Office of Research and Development, Washington, DC, p 1-1.

to those of the US Surgeon General, have since researched passive smoking in various countries and are summarised in Table 1.2 below.

**Table 1.2**      **Selected major reports addressing adverse health effects from exposure to tobacco smoke<sup>51</sup>**

Agency	Publication	Place/date of publication
National Research Council	<i>Environmental Tobacco Smoke: Measuring Exposures and Assessing Health Effects</i>	Washington, D.C, USA (1986)
International Agency for Research on Cancer (IARC)	<i>Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans: Tobacco Smoking (IARC Monograph 38)</i>	Lyon, France (1986)
National Health and Medical Research Council (NHMRC)	<i>The Health Effects of Passive Smoking</i>	Canberra, Australia (1997)
Scientific Committee on Tobacco Health	<i>Report of the Scientific Committee on Tobacco and Health</i>	London, UK (1998)
World Health Organisation	<i>International Consultation on Environmental Tobacco Smoke (ETS) and Child Health. Consultation Report.</i>	Geneva, Switzerland (1999)
IARC	<i>Tobacco Smoke and Involuntary Smoking (IARC Monograph 83)</i>	Lyon, France (2004)
California/EPA, Office of Environmental Health Hazard Assessment	<i>Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant</i>	Sacramento, CA, USA (2005)

The 2006 US Surgeon General's Report asserts that "Today, **massive and conclusive scientific evidence** [*emphasis added*] documents adverse effects of involuntary smoking on children and adults, including cancer and cardiovascular diseases in adults, and adverse respiratory effects in both children and adults."<sup>52</sup> The widely-accepted health issues now linked to passive smoking relate to the environment in which it is dispersed, the lethality of its chemical composition and conditions in which involuntary exposure is undertaken.

<sup>51</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 7.

<sup>52</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p iii.

The environments in which passive smoke exposure commonly occurs include “restaurants, bars, casinos, gaming halls, and vehicles.”<sup>53</sup> The Harvard School of Public Health, with extensive research experience in the field of tobacco exposure, submitted evidence to the Inquiry that argues that vehicles, in combination with the family home, now present the primary source of secondhand smoke exposure for children of smoking parents<sup>54</sup>. Children are particularly susceptible to passive smoke due to their “smaller airways...and greater oxygen demand” and stresses on their developing immune systems<sup>55</sup>. Professor Peter Sly, a paediatrician at the Telethon Institute for Child Health Research, explained that it is not only a matter of smaller airways, but that children breathe 3-4 times as much air per minute relative to their bodyweight as do adults, and hence receive higher doses of smoke and pollutants compared to adults.<sup>56</sup>

The gravity of this exposure is magnified by the toxins that have been identified in secondhand smoke. Secondhand smoke contains more than 4,000 chemical compounds<sup>57</sup>. The US EPA has classified secondhand smoke as a ‘Group A carcinogen’, classified with materials such as asbestos<sup>58</sup>. Significantly, more than 50 specific carcinogens have now been identified in sidestream and mainstream smoke. These include the lung carcinogens 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK)<sup>59</sup>. Other compounds, as identified by Winickoff *et al.*, include “hydrogen cyanide (used in chemical weapons), carbon monoxide (found in car exhaust), butane

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<sup>53</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 13.

<sup>54</sup> Submission No. 3 (Appendix 1) from G. N. Connolly DMD, MPH and Vaughan W. Rees PhD, Harvard School of Public Health, 22 January 2009, p 363.

<sup>55</sup> Submission No. 3 (Appendix 1) from G. N. Connolly DMD, MPH and Vaughan W. Rees PhD, Harvard School of Public Health, 22 January 2009, p363. See also AIHW (2008) *Australia's Health 2008*, Cat. no. AUS 99, Australian Institute of Health and Welfare, Canberra, p 134; Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 11; and submission No. 10 from Professor Peter Sly, 23 January 2009, p 1.

<sup>56</sup> Professor Peter Sly, Head, Division of Clinical Sciences, Telethon Institute for Child Health Research, *Transcript of Evidence*, 10 February 2009, p 2.

<sup>57</sup> Department of Health and Human Services (2007) *What is Secondhand Smoke?*, [www.surgeongeneral.gov/library/secondhandsmoke/factsheets/factsheet1.html](http://www.surgeongeneral.gov/library/secondhandsmoke/factsheets/factsheet1.html), accessed 9 February 2009.

<sup>58</sup> California Department of Public Health (2008) *Smoke-Free Cars*, [www.tobaccofreeca.com/Cars-FAQs.pdf](http://www.tobaccofreeca.com/Cars-FAQs.pdf), accessed on 9 January 2009.

<sup>59</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, pp 11-13.

(used in lighter fluid), ammonia (used in household cleaners) [and]...arsenic (used in pesticides).”<sup>60</sup>

The list of ailments and conditions linked to passive smoking has increased considerably since the publication of the findings of the Hirayama study in 1981. The US Surgeon General now argues that there is “sufficient evidence to infer a causal relationship between exposure to secondhand smoke and lung cancer ... among lifetime nonsmokers.” The same link is made with “coronary heart disease morbidity and mortality.”<sup>61</sup> The WHO adds that exposure to secondhand smoke can increase the risk of developing these conditions by as much as 30%<sup>62</sup>. A causal link has also been established for children who were exposed to secondhand smoke while in the womb and:

- small reductions in birth weight;
- Sudden Infant Death Syndrome; and
- illnesses in the lower respiratory area for infants, middle-ear infections, cough, phlegm and wheezing for school-aged children.

In addition, the US Surgeon General says evidence is now “suggestive but not sufficient to infer a causal relationship” between:

- pre-natal and post-natal exposure to secondhand smoke and childhood leukemias, lymphomas and brain tumours;
- secondhand smoke and breast cancer, risk of nasal sinus cancer and nasopharyngeal carcinoma among nonsmokers; and
- secondhand smoke and atherosclerosis, adult-onset asthma and an increased risk of stroke.<sup>63</sup>

Studies are emerging that suggest a possible association between SHS and impaired cognitive abilities in children<sup>64</sup>, although the US Surgeon General says this evidence is currently

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<sup>60</sup> Winickoff, J.P. *et al.* (2009) “Beliefs About the Health Effects of ‘Thirdhand’ Smoke and Home Smoking Bans”, *Pediatrics*, Vol. 123 (1), p e75.

<sup>61</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 15.

<sup>62</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organisation, Geneva, p 25.

<sup>63</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, pp 11-15.



“inadequate to infer the presence or absence of a causal link.” Carcinogenic risks remain far greater for active smokers, however it is now accepted that there is no safe level of exposure to secondhand smoke<sup>65</sup>. It has also been confirmed by a number of sources, including the British Medical Association (BMA), “that adverse effects can be seen at low levels of exposure”<sup>66</sup> and that “comparatively low levels of exposure...can cause a disproportionately high amount of damage.”<sup>67</sup>

Research is now being undertaken into another type of involuntary smoke exposure known as ‘thirdhand smoke’. In their 2009 study, Winickoff *et al.* describe this as invisible tobacco toxins that settle as particulate matter<sup>68</sup> on people and surfaces after cigarettes have been extinguished. Thirdhand smoke is commonly found in homes and cars and is particularly dangerous for children, “because they breathe near, crawl and play on, touch, and mouth contaminated surfaces.”<sup>69</sup> The testing of children’s urine cotinine levels, used to measure the tobacco metabolites in their bodies, has found levels six times lower in homes with strict anti-tobacco rules<sup>70</sup>.

After more than three decades, research into the dangers of passive smoke exposure continues and the AMA suggest that:

*The scientific and medical consensus is clear. The evidence demonstrates that exposure to second-hand tobacco smoke both causes illnesses - including fatal illnesses - and worsens existing health problems.*<sup>71</sup>

<sup>64</sup> Yolton, K. *et al.* (2005) “Exposure to Environmental Tobacco Smoke and Cognitive Abilities Among US Children and Adolescents”, *Environmental Health Perspectives*, Vol. 113 (1), January, pp 100-101. See also Winickoff, J.P. *et al.* (2009) “Beliefs About the Health Effects of ‘Thirdhand’ Smoke and Home Smoking Bans”, *Pediatrics*, Vol. 123 (1), p e78.

<sup>65</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 668. See also Yolton, K. *et al.* (2005) “Exposure to Environmental Tobacco Smoke and Cognitive Abilities Among US Children and Adolescents”, *Environmental Health Perspectives*, Vol. 113 (1), January, p 102.

<sup>66</sup> Submission No. 23 (Appendix 1) from AMA (WA), 30 January 2009, p v.

<sup>67</sup> Submission No. 42 from Heart Foundation, 5 February 2009, p 2.

<sup>68</sup> The AMA, WA submission confirmed that “...the impact of [such] residues has still not been fully assessed.” Submission No. 23 from AMA (WA), 30 January 2009, p10.

<sup>69</sup> Winickoff, J.P. *et al.* (2009) “Beliefs About the Health Effects of ‘Thirdhand’ Smoke and Home Smoking Bans”, *Pediatrics*, Vol. 123 (1), p e78.

<sup>70</sup> Winickoff, J.P. *et al.* (2009) “Beliefs About the Health Effects of ‘Thirdhand’ Smoke and Home Smoking Bans”, *Pediatrics*, Vol. 123 (1), p e78. See also Rabin, R.C (2009) “A New Cigarette Hazard: ‘Third-Hand Smoke’”, *New York Times*, 3 January, [www.nytimes.com/2009/01/03/health/research/03smoke.html?em](http://www.nytimes.com/2009/01/03/health/research/03smoke.html?em), accessed 6 January 2009.

<sup>71</sup> Submission No. 23 (Appendix 1) from AMA (WA), 30 January 2009, p 2.

**(i) Industry response**

In a similar fashion to their response to the developing science surrounding the health impacts of active smoking, tobacco industry groups have alternated between denying the dangers of passive smoking or attempting to subvert findings contrary to their interests, to acknowledging, in various degrees, the dangers now commonly associated with secondhand smoke.

Documents released under the Master Settlement Agreement show that by the early 1980s, BAT was aware of the dangerous contaminants in sidestream smoke. These findings were not made public. Instead, BAT used this information as a commercial opportunity whereby they would look to pre-empt their competitors in developing products, such as low tar cigarettes, that might alleviate these risk factors,<sup>72</sup>. The futility of this strategy was shown when attempts at ‘mentholation’, which aimed to reduce the tar content of tobacco products, proved to be ineffective in lowering the toxicity of tobacco emissions<sup>73</sup>.

A BAT conference in 1984 also resolved to fund research projects that would anticipate and counter the arguments made about the health hazards facing non-smokers. In a similar vein, Philip Morris invited its competitors to join *Project Whitecoat*, an industry ETS research program established in 1988<sup>74</sup>. Evidence has since emerged showing that the findings of such groups were not always unanimous. For example, documents belonging to Brown and Williamson, a US subsidiary of BAT that was later taken over by R.J Reynolds, show that while the tobacco industry was attacking the research of Takeshi Hirayama, several of their own experts were agreeing with the Japanese doctor’s findings<sup>75</sup>.

In Australia, Mr John Dollisson, the Chief Executive Officer of the Tobacco Institute of Australia (TIA) from 1983-87, consistently asserted that passive smoking was not harmful. During this period, the TIA enjoyed success in lobbying to have a bill to restrict tobacco advertising in Western Australia defeated. However, the activities of the TIA were significantly curbed in 1991 when Justice Morling found that the TIA’s position on passive smoking was ‘misleading or deceptive’ and banned the group from contributing to the public debate on the issue<sup>76</sup>.

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<sup>72</sup> Barnes, D.E. *et al.* (1995), “Environmental Tobacco Smoke: The Brown and Williamson Documents”, *Journal of the American Medical Association*, Vol. 274 (3), 19 July, pp 249-250.

<sup>73</sup> Daisey, J.M, Mahanama, K.R & Hodgson, A.T (1994) *Toxic Volatile Organic Compounds in Environmental Tobacco Smoke: Emission Factors for Modelling Exposures of California Populations - Final Report*, [www.arb.ca.gov/research/apr/past/a133-186.pdf](http://www.arb.ca.gov/research/apr/past/a133-186.pdf), accessed 20 January 2009, p 9.

<sup>74</sup> Barnes, D.E. *et al.* (1995), “Environmental Tobacco Smoke: The Brown and Williamson Documents”, *Journal of the American Medical Association*, Vol. 274 (3), 19 July, pp250-251; and McDaniel, P.A, Intinarelli, G. & Malone, R.E (2008) “Tobacco Industry Issues Management Organizations: Creating a Global Corporate Network to Undermine Public Health”, *Globalization and Health*, Vol. 4 (2), p 8.

<sup>75</sup> Barnes, D.E. *et al.* (1995), “Environmental Tobacco Smoke: The Brown and Williamson Documents”, *Journal of the American Medical Association*, Vol. 274 (3), 19 July, pp 251-252.

<sup>76</sup> Carter, S.M. (2003) “Cooperation and Control: The Tobacco Institute of Australia”, *Tobacco Control*, Vol. 12 (Supp III), p 64.

The now-defunct TIA did enjoy some later success in having the release of the National Health and Medical Research Council's report into passive smoking delayed from 1995 to 1997. A successful court challenge meant that when the NHMRC report was released, its recommendations could not be made public. However, this result was not attributable to a victory over the scientific argument surrounding SHS. The NHMRC working group's failure to include non-peer reviewed material submitted by the tobacco industry in the draft report was what influenced the presiding judge, who expressed no concern with the "science [or]...public policy recommendations"<sup>77</sup> contained in the final paper.

Recently the position of the tobacco industry has become somewhat less confrontational. BAT's website acknowledges many of the health impacts associated with passive smoking, but argues that the relative risk weightings being attributed to lung cancer and heart disease would be classified as 'weak' by many epidemiologists<sup>78</sup>. This view, however, is at odds with the International Agency for Research on Cancer, which argues that the association with lung cancer risk is 'statistically significant' and the BMA which make similar assessments regarding the increased risk of heart disease<sup>79</sup>. In their submission to this Inquiry, BAT Australia stated:

*We accept that environmental tobacco smoke is an issue of public importance and believe that smokers should be mindful of others' comfort and should not smoke around young children.*<sup>80</sup>

As was the case with the health impacts of active smoking, Philip Morris International is more circumspect than their industry competitor, BATA, conceding that "The public should be guided by the conclusions of public health officials regarding the health effects of secondhand smoke [and that].... Particular care should be exercised where children are concerned, and adults should avoid smoking around them."<sup>81</sup>

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<sup>77</sup> Trotter, L. & Chapman, S. (2003) "Conclusions About Exposure to ETS and Health That Will Be Unhelpful to Us": How the Tobacco Industry Attempted to Delay and Discredit the 1997 Australian National Health and Medical Research Council Report on Passive Smoking", *Tobacco Control*, Vol. 12 (Supp III), pp 103-105.

<sup>78</sup> British American Tobacco (2007) *Second-hand Smoke*, [www.bat.com/group/sites/uk\\_\\_3mnfen.nsf/vwPagesWebLive/DO52AMJ4?opendocument&SKN=1](http://www.bat.com/group/sites/uk__3mnfen.nsf/vwPagesWebLive/DO52AMJ4?opendocument&SKN=1), accessed 28 January 2009.

<sup>79</sup> Submission No. 23 (Appendix 1) from AMA (WA), 30 January 2009, pp 4-7.

<sup>80</sup> Submission No. 21 from British American Tobacco Australia, 30 January 2009, p 6.

<sup>81</sup> Philip Morris International (2008) *Secondhand Smoke*, [www.philipmorrisinternational.com/PMINTL/pages/eng/smoking/Secondhand\\_smoke.asp](http://www.philipmorrisinternational.com/PMINTL/pages/eng/smoking/Secondhand_smoke.asp), accessed 28 January 2009.

## **(b) The costs of passive smoking**

### **(i) *International***

WHO has estimated that diseases related to passive smoke exposure kill four million people annually throughout the world<sup>82</sup>. The US Surgeon General reports that 60% of American non-smokers as having “biologic evidence of exposure to secondhand smoke.” This is estimated to lead to 3,400 lung cancer deaths, 46,000 cardiac-related deaths and 430 SIDS deaths each year. Other estimates of the health effects of passive smoking made by the Surgeon General include:

- between 24,300 and 71,900 low birth weight or pre-term deliveries;
- 202,300 episodes of asthma (new cases and exacerbations);
- 150,000-300,000 cases of lower respiratory illness in children; and
- 789,700 cases of middle ear infections in children.<sup>83</sup>

According to a US Society of Actuaries study, which did not take into account economic losses related to pregnant women and newborn babies, secondhand smoke contributes to over US\$5 billion in direct medical costs and a similar amount of indirect costs (usually associated with earnings foregone due to illness and premature death)<sup>84</sup>.

A report from the British Medical Association claims that 975 lives are lost throughout the United Kingdom each year at a cost to the National Health Service of £1.722 billion<sup>85</sup>. An earlier report from the BMA had also estimated that “each year, more than 17,000 children under five years are admitted to UK hospitals because of respiratory illness caused by exposure to other people’s cigarette smoke.”<sup>86</sup> Within Europe, the adult death toll from passive smoking across 25 countries was believed to exceed 19,000 people in 2006<sup>87</sup>.

<sup>82</sup> Submission No. 33 (Appendix 1) from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p3.

<sup>83</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p v and p 8.

<sup>84</sup> Behan, D.F, Eriksen, M.P & Lin, Y. (2005) *Economic Effects of Environmental Tobacco Smoke*, [www.soa.org/files/pdf/ETSReportFinalDraft\(Final%203\).pdf](http://www.soa.org/files/pdf/ETSReportFinalDraft(Final%203).pdf), accessed 30 January 2009.

<sup>85</sup> British Medical Association (2005) *The Human Cost of Tobacco. Passive Smoking: Doctors Speak Out on Behalf of Patients*, [www.bma.org.uk/images/tobacco\\_tcm41-21294.pdf](http://www.bma.org.uk/images/tobacco_tcm41-21294.pdf), accessed 29 January 2009, p 15.

<sup>86</sup> Submission No. 23 from AMA (WA), 30 January 2009, p 2..

<sup>87</sup> European Union (2006) *For a Europe Without Tobacco*, [en.help-eu.com/images/mo\\_documents/dossier\\_pdf/Part1\\_Effects\\_of\\_PassiveSmoking\\_EN.pdf](http://en.help-eu.com/images/mo_documents/dossier_pdf/Part1_Effects_of_PassiveSmoking_EN.pdf), accessed 2 February 2009.

**(ii) Australia**

An AIHW report claimed that in 1998, 128 deaths and 1,967 hospitalisations were caused by ETS<sup>88</sup>. The NHMRC's 1997 report estimated that passive smoking was contributing to "the symptoms of asthma in 46,500 Australian children each year and causes lower respiratory illness in 16,300 Australian children."<sup>89</sup> By 2004-05, estimates for annual deaths attributable to passive smoking in Australia were 149, with 36 of those in children aged 0-14 years of age. This latter DHA report added that 63,667 hospital bed days costing \$33.7 million were also needed to treat ailments of passive smokers, with more than 90% of these resources used for children<sup>90</sup>.

Given this disproportionate health impact of passive smoking on children, it is alarming that 600,000 are exposed to secondhand smoke in their home environment<sup>91</sup>. The recent NPHT figures indicate that 42% of teenage mothers who gave birth in 2004 smoked during their pregnancy<sup>92</sup>. The gravity of this situation in WA was confirmed by paediatric asthma specialist at the Telethon Institute for Child Health Research, Professor Peter Sly, who explained that "the lung function we are born with is a major determinant of the lung function throughout the rest of life." He added that in-utero, as well as post-natal, lung development is "particularly susceptible to a lot of environmental impacts, and particularly irritants such as cigarette smoking."<sup>93</sup> Professor Sly's concerns were echoed by the Professor of Paediatrics at University of Western Australia, Peter Le Souef, who told the Committee that smoking mothers were doubling the risk of their child being hospitalised with respiratory complaints<sup>94</sup>.

**(iii) Western Australia**

The Collins and Lapsley report commissioned by the Cancer Council of WA also looked at the effects of passive smoking and produced data that was consistent with these national trends. Between 2004 and 2005, they estimate that passive smoking led to 11 deaths and 6,750 hospital-bed days in WA at a direct cost of \$5.9 million, with over 96% of the hospital costs generated by

<sup>88</sup> AIHW (2003) *Statistics on Drug Use in Australia 2002*. Cat. no. PHE 43, Drug Statistics Series no. 12, Australian Institute of Health and Welfare, Canberra, pp 35-36.

<sup>89</sup> National Health and Medical Research Council (1997) *The Health Effects of Passive Smoking: A Scientific Information Paper*, Australian Government Publishing Service, Canberra, p 3.

<sup>90</sup> Collins, D.J & Lapsley, H.M (2008) *The Costs of Tobacco, Alcohol and Illicit Drug Abuse to Australian Society in 2004/05*, National Drug Strategy Monograph Series No. 64, Department of Health and Ageing, Canberra.  
[www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/mono66/\\$File/mono66.pdf](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/mono66/$File/mono66.pdf), accessed 24 December 2008, p 10.

<sup>91</sup> Submission No. 51 (Tabled Paper) from Cancer Council of WA, 11 February 2009, p 1

<sup>92</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra, pp 75-76.

<sup>93</sup> Professor Peter Sly, Head, Division of Clinical Sciences, Telethon Institute for Child Health Research, *Transcript of Evidence*, 10 February 2009, p 2.

<sup>94</sup> Professor Peter Le Souef, Professor of Paediatrics, University of Western Australia, *Transcript of Evidence*, 11 February 2009, p 7.

treating patients in the 0-14 age group<sup>95</sup>. Another paediatrician, Professor Stephen Stick, gave evidence that 500 children are hospitalised in WA each year with illnesses related to tobacco exposure, while a recent UWA study has found that in 2008, 384 of these admissions were for children under four years of age<sup>96</sup>.

## 1.5 Responding to the Crisis

*Tobacco is unique among today's leading public health problems in that the means to curb the epidemic are clear and within our reach.... The cure for this devastating epidemic is dependent not on medicines or vaccines, but on the concerted actions of government and civil society.*<sup>97</sup>

*WHO Report on the Global Tobacco Epidemic, 2008*

### (a) International best practice

The scale and scope of the tobacco epidemic prompted WHO to establish an 'evidence-based treaty' that would allow countries to respond together to the 'globalization of the tobacco epidemic'<sup>98</sup>. After eight years of negotiations, countries were invited to join the WHO Framework Convention on Tobacco Control (FCTC) in 2003. One of the general objectives of this Treaty is for its 161 parties, which include Australia, to wherever possible:

*...adopt and implement effective legislative, executive, administrative and/or other measures and cooperate, as appropriate, with other Parties in developing appropriate policies for preventing and reducing tobacco consumption, nicotine addiction and exposure to tobacco smoke.*<sup>99</sup>

The Articles to the FCTC cover a range of strategies designed to address the supply of, and demand for, tobacco products. These include, under Article VIII, efforts to ensure 'protection from exposure to tobacco smoke'<sup>100</sup>. In an effort to help countries 'fulfil the promise' of the FCTC,

<sup>95</sup> CCWA (2008) *Smoking Costing WA A Massive \$2.4 Billion Per Year*, Media Release 18 September, Cancer Council of WA, [www.cancerwa.asn.au/resources/80901\\_Tobacco%20costs%20release\\_Final.pdf](http://www.cancerwa.asn.au/resources/80901_Tobacco%20costs%20release_Final.pdf), accessed 15 January 2008.

<sup>96</sup> Professor Stephen Stick, Physician/Paediatrician, Department of Respiratory Medicine, Princess Margaret Hospital, *Transcript of Evidence*, 11 February 2009, p 2; and O'Leary, C. (2009) "Passive Smoke Hits Under-Fives", *The West Australian*, 16 February, p 9.

<sup>97</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organization, Geneva, p 7, and p 58.

<sup>98</sup> WHO (2003) *WHO Framework Convention on Tobacco Control*, World Health Organization, Geneva, p v.

<sup>99</sup> WHO (2003) *WHO Framework Convention on Tobacco Control*, Article V (2b), World Health Organization, Geneva, p 7.

<sup>100</sup> WHO (2003) *WHO Framework Convention on Tobacco Control*, World Health Organization, Geneva, pp iii-iv.

WHO has created *MPOWER*, an information package containing “the six most important and effective tobacco control policies.”<sup>101</sup> These are:

- raising taxes and prices;
- warning everyone about the dangers of tobacco;
- offering help to people who want to quit;
- banning advertising, promotion and sponsorship;
- protecting people from secondhand smoke; and
- carefully monitoring the epidemic and prevention policies.<sup>102</sup>

As at 2008, no country has ‘implemented all six at the highest levels’<sup>103</sup>, but the strategies have gained wide acceptance as the most comprehensive approach to countering the dangers presented by tobacco products.

**(i) Australia**

Elements of WHO’s *MPOWER* strategies are evident in the development of tobacco control measures in Australia over the past 30 years. At the federal level, laws were enacted in 1973 requiring Australians to be warned on packaging and in advertising that smoking was a health hazard. From 1976 cigarette advertising was banned on television and radio. The Commonwealth Public Service became a smoke-free workplace in 1986, while since 1987 it has been illegal to smoke in commercial aircraft in Australian airspace. The 1989 *Smoking and Tobacco Products Advertisements (Prohibition) Act* put an end to tobacco advertisements in newspapers and magazines. This legislation was superseded in 1992 when the *Tobacco Advertising Prohibition Act* placed tighter restrictions on the strategies and media channels that were still being exploited by tobacco companies. By 1995 the Ministerial Council on Drug Strategy (MCDS) had been established and a MCDS directive resulted in cigarette warnings being made larger and more explicit. The new warnings included ‘Smoking When Pregnant Harms Your Baby’ and ‘Your

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<sup>101</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organization, Geneva, p 8.

<sup>102</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organization, Geneva, p 8.

<sup>103</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organization, Geneva, pp 12-13.

Smoking Can Harm Others’<sup>104</sup>. Other inter-governmental initiatives have since been established. The National Tobacco Strategy was launched in 1997 in an attempt to formulate a policy framework by which the Commonwealth and State and Territory Governments could work in conjunction with non-government agencies to reduce the cost burden, and improve the health outcomes, linked to smoking.

The Federal Government is using the Council of Australian Governments (COAG) as an instrument to promote tobacco control policies with \$872 million dedicated towards preventative health strategies countering the harms attributable to obesity, alcohol and tobacco. Under the COAG National Partnership Agreement on Preventive Health 2008 (see Appendix Eight), additional Commonwealth funding will be made available to States that meet benchmarks for achieving lower smoking prevalence rates<sup>105</sup>. This new partnership is not exclusively based on reducing tobacco prevalence rates, and presently it is not clear what funds will flow to Western Australia solely for meeting tobacco reduction targets. However, the Agreement makes clear that jurisdictions must make a 2% reduction on 2007 adult smoking prevalence rates by 2011, and a further 1.5% reduction by 2013. This means that WA needs to get its adult prevalence rate to about 12% by 2013.

The total budget for this COAG initiative provides 50% of the funds as facilitation grants and the remaining 50% as ‘reward’ payments. The implementation plan for this partnership has not yet been completed, but the Agreement indicates that over \$300 million in bonus payments will be made to jurisdictions by 2014 for satisfying the requirements of COAG’s ‘Healthy children’ and ‘Healthy workers’ programs. The performance of all governments in achieving their mutually-agreed outcomes and benchmarks specified in each Specific Purpose Payment (SPP) will be monitored and assessed by an independent COAG Reform Council and reported publicly on an annual basis. Jurisdictions will receive proportional reward payments depending on how far they have progressed in meeting their targets. Traditionally, Western Australia has received about 10% of Federal funds for national programs. This implies that approximately \$30 million might be

<sup>104</sup> Carter, O. (2008) “Changes in the Attitudes and Beliefs of West Australian Smokers, 1984-2007”, in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, Cancer Council of Western Australia, Perth, p23; Swanson, M.G & Durston, B. (2008) “Tobacco Control Legislation and Public Policy in Western Australia”, in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, Cancer Council of Western Australia, Perth, pp 79-80; and Commonwealth of Australia (1995) *The Tobacco Industry and the Costs of Tobacco-Related Illness*, Senate Community Affairs References Committee, Canberra.  
[www.apf.gov.au/Senate/committee/clac\\_ctte/completed\\_inquiries/pre1996/tobacco/report/report.pdf](http://www.apf.gov.au/Senate/committee/clac_ctte/completed_inquiries/pre1996/tobacco/report/report.pdf), accessed 25 February 2009, pp 29-30.

<sup>105</sup> Council of Australian Governments (2008) *National Partnership Agreement on Preventive Health*, [www.coag.gov.au/intergov\\_agreements/federal\\_financial\\_relations/docs/national\\_partnership/national\\_partnership\\_on\\_preventive\\_health.rtf](http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/national_partnership_on_preventive_health.rtf), accessed 10 February 2009.



available to WA in bonus payments, on top of its per capita facilitation payments, if it meets the benchmarks outlined for the program, including reducing smoking prevalence rates<sup>106</sup>.

To complement this agreement, the Federal Health Minister, Hon Nicola Roxon, established the National Preventative Health Taskforce (NPHT), which has a mandate to provide ‘evidence-based advice’ to governments and health providers on the optimal preventative programs and approaches that target COAG’s priority health areas<sup>107</sup>. The Chair of the NPHT, Professor Rob Moodie, outlined the evidence-based strategies that his team of experts endorsed for tobacco control. These include:

- ensure that cigarettes become significantly more expensive;
- further regulate supply of tobacco products and exposure to tobacco smoke;
- increase the frequency, reach and intensity of public education campaigns;
- ensure all smokers in contact with health services are given encouragement and support to quit; and
- ensure access to information, treatment and services for people in highly disadvantaged groups.<sup>108</sup>

For Professor Moodie a ‘comprehensive’ approach is the key, as there is no one ‘silver bullet’ policy likely to succeed. He told the Inquiry that “If we get this mixture of five things together, we think we can get down to less than 10% of Australians smoking by 2020.”<sup>109</sup>

## **(ii) Western Australia**

Like other States and Territories, Western Australia enjoys considerable autonomy in the development of its tobacco control policies. In the past, the track record of this state has been recognised nationally as exemplary<sup>110</sup>. For example, 1974 saw smoking prohibited on WA’s trains

<sup>106</sup> Council of Australian Governments (2008) *National Partnership Agreement on Preventive Health*, [www.coag.gov.au/intergov\\_agreements/federal\\_financial\\_relations/docs/national\\_partnership/national\\_partnership\\_on\\_preventive\\_health.rtf](http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/national_partnership_on_preventive_health.rtf), pp 8-9, accessed 10 February 2009.

<sup>107</sup> Preventative Health Taskforce (2008) *Preventative Health Taskforce*, [www.preventativehealth.org.au/](http://www.preventativehealth.org.au/), accessed 25 February 2009. See also Council of Australian Governments (2008) *National Partnership Agreement on Preventive Health*, [www.coag.gov.au/intergov\\_agreements/federal\\_financial\\_relations/docs/national\\_partnership/national\\_partnership\\_on\\_preventive\\_health.rtf](http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/national_partnership_on_preventive_health.rtf), accessed 10 February 2009, p 4.

<sup>108</sup> Submission No. 38 from Professor Rob Moodie, 4 February 2009, n.p.

<sup>109</sup> Professor Rob Moodie, Chair National Preventative Health Taskforce, *Transcript of Evidence*, 4 February 2009, p 4.

<sup>110</sup> Submission No. 47 from School of Population Health, University of Western Australia, 30 January 2009, p1; Professor Kingsley Faulkner, Director of Clinical Teaching, University of Notre Dame Australia, *Transcript of Evidence*, 11 February 2009, p6.

and the Metropolitan Transport Trust's fleet of buses, with the ban being extended to the Kalgoorlie rail service in 1991. In the 1970s a group of exasperated health professionals began defacing bill boards advertising cigarettes as part of the national campaign known as BUGAUP<sup>111</sup>. In 1984 the first Quit Campaign was launched in an attempt to help active smokers who were looking to break their addiction. Within two years, Hollywood's most famous cancer victim, Yul Bryner, was appearing in Quit commercials pleading "Whatever you do, don't smoke." In 1989, three years after their Commonwealth counterparts, WA public servants were afforded a smoke-free workplace.

In 1990, tobacco control legislation was passed. With the enactment of the *Tobacco Control Act* advertising was restricted to the immediate vicinity of the point of sale (PoS), limitations were placed on the size of the permissible adverts and the licensing requirements for retailers and wholesalers were tightened. The fines for selling tobacco to minors were also significantly increased. In addition to this, competitions and promotions involving tobacco products were forbidden and Healthway (formerly the Western Australian Health Promotion Foundation) was established to promote good health practices throughout the community while offering alternate funding for those groups who had previously obtained sponsorship money from tobacco companies.

Between 1991 and 1997 smoke-free policies were implemented across the Education Department, Totalisator Agency Board (TAB) and taxi services after amendments were made to the *Occupational Health, Safety and Welfare Act 1984*. All of the State's indoor and outdoor seated sporting venues were also made smoke-free in 1997, with the ban extended one year later to incorporate all enclosed workplaces including most within the hospitality industry<sup>112</sup>. The enclosed areas of hotels remained exempt from the 1998 laws until the enactment of the *Tobacco Products Control Act 2006*. With the passage of this Act, point of sales were restricted in number (one per outlet) and in size (less than 1 square metre for general retailers). In addition, confectionery items that were designed to resemble toys or tobacco products were made illegal.

Finally, during 2007, in response to the growing recognition of the dangers of secondhand smoke, the Cancer Council launched a public awareness campaign on television urging parents to make their homes and cars smoke-free environments for their children<sup>113</sup>. The internationally-renowned

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<sup>111</sup> For a sample of their graffiti, see <http://rushn.com.au/media/articles.php?area=media&page=health>, accessed 25 February 2009.

<sup>112</sup> An exemption was made at the time, and remains in place, for the International Room at Burswood Casino.

<sup>113</sup> See Swanson, M.G & Durston, B. (2008) "Tobacco Control Legislation and Public Policy in Western Australia", in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, Cancer Council of Western Australia, Perth, pp 77-83; Wood, L. (2008) "Kids and Smoking - Then and Now", in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, Cancer Council of Western Australia, Perth, pp 33-34; CCWA (2008) *Tobacco Control - Western Australia's Great Public Health Success Story*, Media Alert 25 October, Cancer Council of WA, Perth. [www.cancerwa.asn.au/resources/81025\\_Tobacco\\_monograph\\_alert.pdf](http://www.cancerwa.asn.au/resources/81025_Tobacco_monograph_alert.pdf), accessed 15 January 2009; and CCWA (2007) *New Campaign Targets Smoking in Homes and Cars*, Media Alert 27 October, Cancer Council of WA, Perth. [www.cancerwa.asn.au/resources/70527\\_Passive%20smoking%20campaign.pdf](http://www.cancerwa.asn.au/resources/70527_Passive%20smoking%20campaign.pdf), accessed 25 February 2009.

tobacco control advocate, Professor Simon Chapman from the School of Public Health at the University of Sydney, recognised the lead WA has taken in tobacco control and stated “By any world standard, Australia has done a lot of things right, and much of it has been pioneered in Western Australia.”<sup>114</sup> However, more is required to ensure that WA catches up with recent legislation in other Australian jurisdictions, that international best practices are consistently maintained, and that smoking prevalence levels are brought to below 10%.

## 1.6 No Time for Complacency

*...smoking prevalence is recognized in the public health field as being more analogous to a spring than a screw, needing to be ‘held down’ with continued effort.*<sup>115</sup>

School of Population Health, UWA

*Tobacco control history in Australia shows that during periods of relative inaction or assumptions that enough is being done, trends will plateau.*<sup>116</sup>

Public Health Advocacy Institute of WA

Australia has made large inroads into reducing the damage caused by tobacco. While 70% of Australian males and 30% of females smoked in the 1950s, the prevalence rate today is 16.6% (18.0% for males and 15.2% for females)<sup>117</sup>. Youth prevalence rates have also declined significantly. In Western Australia 14.8% of the adult population still smokes daily, while the number of smokers in the 14-19 year-old cohort has dropped from 19.7% in 2001 to 9.5% in 2004<sup>118</sup>. According to the Cancer Council of WA, tobacco control measures introduced since the mid-1980s have “helped avert 876 deaths, 22,527 hospitalisations and \$116 million in hospital costs.”<sup>119</sup>

There is a high public awareness of tobacco’s hazardous qualities, with adult and youth survey respondents citing it well above alcohol and other illicit substances as “the drug that caused most

<sup>114</sup> Chapman, S. (2008) “Introduction”, in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, Cancer Council of Western Australia, Perth, p 1.

<sup>115</sup> Submission No. 47 from School of Population Health, University of Western Australia, 30 January 2009, p 2.

<sup>116</sup> Submission No. 50 from Public Health Advocacy Institute of WA, 6 February 2009, p 3.

<sup>117</sup> AIHW (2007) *2007 National Drug Strategy Household Survey: Detailed Findings*, [www.aihw.gov.au/publications/index.cfm/title/10674](http://www.aihw.gov.au/publications/index.cfm/title/10674), p 25, accessed 19 December 2008.; and AIHW (2008) *Australia’s Health 2008*, Cat. no. AUS 99, Australian Institute of Health and Welfare, Canberra, p 132.

<sup>118</sup> Somerford, P. (2008) “Tobacco Use and Health”, in Cancer Council of Western Australia, *The Progress of Tobacco Control in Western Australia: Achievements, Challenges and Hopes for the Future*, The Cancer Council of Western Australia, Perth, WA, p 22; and Submission No. 32 from ACOSH, 30 January 2009, p5.

<sup>119</sup> CCWA (2008) *Tobacco Control - Western Australia’s Great Public Health Success Story*, Media Alert 25 October, Cancer Council of WA, Perth. [www.cancerwa.asn.au/resources/81025\\_Tobacco\\_monograph\\_alert.pdf](http://www.cancerwa.asn.au/resources/81025_Tobacco_monograph_alert.pdf), accessed 15 January 2009.

deaths in Australia.”<sup>120</sup> Yet, despite these trends and successes over the past 50 years, tobacco remains the largest preventable cause of death in Australia. Each year it claims over 15,500 lives, necessitating over 750,000 hospital bed days and costing \$31.5 billion dollars. WA’s share of this burden is over 1,250 lives lost, 67,000 hospital bed days and \$2.4 billion in direct and indirect costs.

Compounding the tragedy of these avoidable losses is the fact that exposure to involuntary smoke remains commonplace. While many restrictions have been put in place to protect non-smokers, a variety of worksites (including restaurants, bars, prisons and parts of the Burswood Casino) leave their workers exposed to others’ tobacco smoke. Of most concern is that children remain more prone than adults to exposures in the domestic environment, including the family car and home<sup>121</sup>. Formulating a response to this unacceptable situation is the Tobacco Working Group of the NPHT. In its *Technical Report*, the group argues that “we should move to international best practice in all aspects of tobacco control policy.” More specifically, they argue:

*...that if prevalence of daily smoking were to reduce to 9% or less by 2020, smoking would continue to decline until rates were so low that it would no longer be one of our most important health problems. Achieving this target will require a dramatic reduction in the numbers of children taking up smoking and a doubling of the percentage of smokers who are trying to quit.*<sup>122</sup>

A focus on youth appears to be the key to reducing future prevalence rates. The 2007 *National Drug Strategy Household Survey* surveyed the take up ages of Australians who smoke daily. For females aged 14 years and over, the average age they tried their first cigarette was 15.9 years while the average age at which it became a daily habit was 18.1. For males, the respective ages were 15.1 and 17.5<sup>123</sup>. Research has found that, of those youth who continue to smoke, half of them can expect to die by middle age<sup>124</sup>. With 9,000 West Australian children currently estimated to start smoking every year, it is clear that much more remains to be done.

<sup>120</sup> AIHW (2007) 2007 *National Drug Strategy Household Survey: Detailed Findings*, [www.aihw.gov.au/publications/index.cfm/title/10674](http://www.aihw.gov.au/publications/index.cfm/title/10674), accessed 19 December 2008, p 9 and p 13.

<sup>121</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 667.

<sup>122</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra, p v.

<sup>123</sup> AIHW (2007) 2007 *National Drug Strategy Household Survey: Detailed Findings*, [www.aihw.gov.au/publications/index.cfm/title/10674](http://www.aihw.gov.au/publications/index.cfm/title/10674), accessed 19 December 2008, pp 23-25.

<sup>124</sup> Submission No. 38 from Professor Rob Moodie, Chair National Preventative Health Taskforce, 4 February 2009, n.p.

The current decline in smoking prevalence rates is not sufficient to meet the NPHT target. Gartner Barendregt and Hall have argued that a doubling of current cessation rates is required for a 10% national prevalence rate to be achieved by 2020<sup>125</sup>. The NPHT concede that:

*Projections based on current patterns of uptake and quitting suggest that on our current course, prevalence of daily smoking will still be over 14% in 2020 and will remain close to 10% well past the year 2070.*<sup>126</sup>

Continued effort by the WA government is therefore required to ensure that prevalence rates do not plateau at today's levels. This task appears daunting, with the tobacco industry the world over spending tens of billions of dollars each year promoting their products and governments spending less than 0.2% of the US\$200 billion dollars they collect in tobacco excises on tobacco control initiatives<sup>127</sup>. However, US states such as California, where a prevalence rate of 9% has been achieved through concerted application of the strategies recommended by the MPOWER report, provide hope that similar results can be achieved in Australia<sup>128</sup>.

While WA's daily smokers' prevalence rate (14.8%) remains lower than the national figure (16.6%), this appears to be a function of the earlier policy initiatives summarised above. The common view of many witnesses in this Inquiry was that WA has now fallen behind the lead of most other jurisdictions in the fight against the tobacco epidemic<sup>129</sup>. This was reinforced by Professor Kingsley Faulkner, Surgeon and Director of Clinical Teaching (Private Health Sector), University of Notre Dame Australia:

*My main fundamental reason for being here is that I do not want to see this state lag behind the rest of the country. This state was leading this country in tobacco control legislation and leading the world.... We are in danger of slipping behind unless we do more.*<sup>130</sup>

<sup>125</sup> Gartner, C.E, Barendregt, J.J & Hall, W.D (2009) "Predicting the Future Prevalence of Cigarette Smoking in Australia: How Low Can We Go and By When?", *Tobacco Control*, 29 January. tobaccocontrol.bmj.com/cgi/content/abstract/tc.2008.027615v1, accessed 8 February 2009, pp 8-9.

<sup>126</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra, p v.

<sup>127</sup> World Health Organization (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, www.who.int/tobacco/mpower/gtcr\_download/en/index.html, accessed 24 December 2008, p 21 and p 59.

<sup>128</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra, pp 2-3.

<sup>129</sup> See for instance, Submission No. 5 from Professor C. D'Arcy J Holman, 21 January 2009, p 1; Submission No. 10 from Professor Peter Sly, Telethon Institute of Child Health Research 23 January 2009, p 1; Submission No. 23 from AMA (WA), 30 January 2009, p 6; and Submission No. 15 from Ms Michelle Scott, Commissioner for Children and Young People Western Australia, 29 January 2009, p 2.

<sup>130</sup> Professor Kingsley Faulkner, Director of Clinical Teaching, University of Notre Dame Australia, *Transcript of Evidence*, 11 February 2009, p 6.

The economic benefit of further lowering smoking prevalence rates in WA could save \$938 million dollars per annum or \$5,600 for every person who avoids taking up the habit<sup>131</sup>. The experience of tobacco control in Australia has shown that without constant policy reinvigoration, the prevalence rates in WA will plateau at an unacceptably high level. Consequently, the hard won public health and economic gains may be jeopardised<sup>132</sup>.

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<sup>131</sup> Social cost savings determined by Collins and Lapsley, based on a 5% prevalence rate within 15 years. See CCWA (2008) *Smoking Costing WA A Massive \$2.4 Billion Per Year*, Media Release 18 September, Cancer Council of WA, Perth. [www.cancerwa.asn.au/resources/80901\\_Tobacco%20costs%20release\\_Final.pdf](http://www.cancerwa.asn.au/resources/80901_Tobacco%20costs%20release_Final.pdf), accessed 15 January 2008.

<sup>132</sup> Professor Mike Daube, Public, *Transcript of Evidence*, 11 February 2009, pp 2-3.

## CHAPTER 2 THE *TOBACCO PRODUCTS CONTROL AMENDMENT BILL 2008*: AN EVALUATION

### 2.1 Introduction of the Bill

It is in the context of these assessments regarding the adequacy of local and international tobacco control measures that the *Tobacco Products Control Amendment Bill 2008* was introduced into the Western Australian Parliament on 26 November 2008 as a Private Member's Bill by Dr Janet Woollard MLA. The explanatory memorandum stated that the Bill "will enable Western Australian legislation to be more in line with best practice legislation."<sup>133</sup>

#### (a) Details of the Bill

The Bill seeks to amend the *Tobacco Products Control Act 2006* and contains seven sections.

Section One provides the Short Title of the proposed subsequent legislation, to be known as the *Tobacco Products Control Amendment Act 2008*. Section Two deals with the Commencement, and proposes that sections One and Two come into effect on the day in which the Act receives Royal Assent. The Bill recommends that the rest of the amendments come into effect six months from Assent.

The glossary of the 2006 Act is expanded in Section Four to define the new terms 'passenger car', 'outdoor eating or drinking area', 'outdoor playing area' and 'safe swimming area'. These amendments complement the expanded prohibitions for smoking that are proposed in Section Six. Also of a complementary nature is Section Seven, the purpose of which is to amend the penalty provision under the 2006 Act to include the new prohibitions.

The most substantial changes to the current Act are contained in Sections Five and Six of the proposed Act. Section Five removes the existing allowances in Section 22 for those licensed to sell tobacco products to have a one square metre product display. Under the proposed amendment to this section, licensees "must ensure that customers cannot see any of those products or implements from inside or outside of the licensed premises."<sup>134</sup> Exemptions are made in the proposed amendment for the display of products or implements either by the customer or at the customer's request.

While Section Five seeks to remove product displays from sight at the point of sale, Section Six looks to expand Section 106 of the current Act to incorporate a variety of public and private domains where the act of smoking is to be prohibited. These include:

- Under s106A, in a passenger car when one or more passengers under the age of 18 years is present;

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<sup>133</sup> Explanatory Memorandum *Tobacco Products Control Amendment Bill 2008* (Western Australia).

<sup>134</sup> Section 5 *Tobacco Products Control Amendment Bill 2008* (Western Australia).

- Under s106B, in an outdoor eating or drinking area;
- Under s106C, in an outdoor playing area; and
- Under s106D, in safe swimming areas.

Breaches are to be subject to a \$150 fine.

The explanatory memorandum argues that these proposals will bring Western Australia into line with other States in Australia which 'are now more advanced',<sup>135</sup>. A comparative table of current legislation throughout the various Australian jurisdictions, provided below, lends support to this argument.

**Table 2.1- Proposed Amendments - Comparisons with State laws in other jurisdictions#**

	<b>Retail* Display</b>	<b>Cars With Children</b>	<b>Outdoor Eating/Drinking</b>	<b>Play Areas</b>	<b>Beaches</b>
<b>WA</b>	< 1sqm <b>Under consideration</b>	<b>Under consideration</b>	<b>Under consideration</b>	<b>Under consideration</b>	<b>Under consideration</b>
<b>SA</b>	<b>No</b>	<b>Yes</b> - (under 16 years) Passed 2007	<b>No</b>	<b>No</b>	<b>No</b>
<b>VIC</b>	<b>Yes</b> (From 2011)	<b>Yes</b> (From 2010)	<b>Partial</b>	<b>Partial</b> (underage music events)	<b>No</b>
<b>TAS</b>	<b>Yes</b> (From 2011)	<b>Yes</b> - (under 18 years) Passed 2007	<b>No</b>	<b>Partial</b> (outdoor sporting/cultural events)	<b>No</b>
<b>NSW</b>	<b>Yes</b> (From 2009)	<b>Yes</b> - (under 16 years) Passed 2008	<b>No</b>	<b>No</b>	<b>No</b>
<b>QLD</b>	< 1sqm permitted	<b>Yes</b> (Bill tabled Nov 2008)	<b>Yes</b> (Passed 2006)	<b>Yes</b>	<b>Yes</b> - (includes public pools)
<b>ACT</b>	<b>Yes</b> (From 2010)	<b>Under consideration</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>NT</b>	<b>Yes</b> (From 2010)	<b>No</b>	<b>No</b>	<b>Partial</b> (outdoor public venues)	<b>No</b>

# Does not incorporate local government laws in these jurisdictions. \* Exemptions are made in a variety of states for Specialist Tobacconists (more than 80% of income derived from tobacco product sales). The information provided here pertains to general retailers (e.g. supermarkets, service stations and general stores).

### Relevant state legislation

WA - *Tobacco Products Control Act 2006*

ACT - *Tobacco Act 1927 & Smoking (Prohibition in Public Places) Act 2003*



SA - *Tobacco Products Regulation Act 1997*

VIC- *Tobacco Act 1987 & Victorian Tobacco Control Strategy 2008-2013*

TAS - *Public Health Act 1997*

NT - *Tobacco Control Act 2002 and Regulations*

NSW - *Public Health (Tobacco) Act 2008 & Smoke-free Environment Amendment Act 2004*

QLD - *Tobacco and Other Smoking Products Act 1998*

## **(b) Summary of responses**

In total, 60 submissions were received and 19 public hearing sessions were conducted. Of the submissions, 65% (39 of 60) were supportive of the Bill in its entirety, or in all of the areas that they commented upon. Conversely, only three submissions were not supportive of the intent of the Bill in any of the areas they chose to address.

Supporters of the Bill lauded its commitment to following the international best practice strategies advocated in WHO's *MPOWER* package and by Australia's NPHT<sup>136</sup>. For example, Professor C. D'arcy J. Holman, Chair in Public Health at UWA described the Bill as "a timely addition to tobacco control efforts in Australia...[that will] play an important role in reducing the prevalence of daily smoking to below 9% by 2020."<sup>137</sup> The National Heart Foundation of Australia added that the Bill would "help Australia fulfil its commitment to the WHO Framework Convention on Tobacco Control."<sup>138</sup>

Other supporters commented on the scientific vigour that underpinned the Bill's proposed actions. A submission from the staff at UWA's School of Population Health said the Bill was "congruent with the current and vast evidence base for effective tobacco control."<sup>139</sup> Similarly, the WA Department of Health confirmed that "The policy intent of the Bill is supported by sound evidence based public health policy."<sup>140</sup>

Of the financial savings that this Bill could generate, Mr Peter Jennings from the Australian Medical Association's WA Branch argued "If government wants to achieve a productivity dividend, then this is a genuine efficiency productivity dividend. It is as simple as that."<sup>141</sup> Other supporters espoused the benefits children stood to enjoy as a result of the proposed legislative amendment. WA's Commissioner for Children and Young People, Ms Michelle Scott, supported all proposals "as they consider the rights, health and best interests of children and young people in

<sup>136</sup> Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, pp 1-3; and Submission No. 29 from Ms Anne Jones, CEO ASH Australia, 29 January 2009, p 2.

<sup>137</sup> Submission No. 5 from Professor C. D'Arcy J Holman, 21 January 2009, p 1.

<sup>138</sup> Submission No. 42 from Heart Foundation, 5 February 2009, p 4.

<sup>139</sup> Submission No. 47 from School of Population Health, University of Western Australia, 30 January 2009, p 1.

<sup>140</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 4.

<sup>141</sup> Mr Peter Jennings, Deputy Executive Director, AMA (WA), *Transcript of Evidence*, 11 February 2009, p 5.

relation to smoking and tobacco promotions”, while Professor Peter Le Souef told the Committee that the legislation “has children at its heart [and] has to be supported.”<sup>142</sup>

Opposition to the Bill, perhaps not unexpectedly, came from tobacco industry groups and those who sell tobacco products. These groups were not opposed, in principle, to the regulation of tobacco products per se. However, they questioned the practicality, and motivation, of this particular piece of legislation. Imperial Tobacco Australia (ITA) said it supported “the sound, reasonable and practical regulation of tobacco products,....[not] initiatives designed for the purpose of scoring points on a National Tobacco Control Scoreboard.”<sup>143</sup> British American Tobacco Australia was more measured in its submission, offering qualified support for the ban on smoking in cars with children and in playgrounds but calling for what it termed ‘sensible regulation’ that was workable and enforceable<sup>144</sup>. Other opponents suggested that the current laws in place as a result of the 2006 Act were sufficient.

The arguments surrounding the Bill are considered in greater detail below, where the five major proposals to ban smoking and advertising displays are evaluated. What this detailed examination shows is that the scientific evidence behind the intent of the Bill is compelling and that significant public health benefits will be gained with its passage.

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<sup>142</sup> See Submission No. 15 from Ms Michelle Scott, Commissioner for Children and Young People Western Australia, 29 January 2009, p 2; and Professor Peter Le Souef, Professor of Paediatrics, University of Western Australia, *Transcript of Evidence*, 11 February 2009, p 8.

<sup>143</sup> ITA was referring to the AMA and Australian Council on Smoking and Health (ACOSH) National Tobacco Control Scoreboard, which rates the respective Australian states in terms of their tobacco control efforts. Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 2.

<sup>144</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 3.

## CHAPTER 3 SECTION 22 - PRODUCT DISPLAY BAN

### 3.1 Proposed amendment

Section 5 of the Bill proposes amendments to section 22 of the 2006 Act which regulates the display of tobacco products. The amendment reads:

*Delete section 22 and insert:*

#### **22. Display of tobacco products**

*(1) A person who is the responsible person in relation to licensed premises on which tobacco products or smoking implements are sold must ensure that customers cannot see any of those products or implements from inside or outside of the licensed premises*

*Penalty applicable: see section 115*

*(2) This section does not apply to:*

- (a) the display of tobacco products and smoking implements to a customer at his or her specific request; or*
- (b) the display of tobacco products and smoking implements by customers on licensed premises.*

The proposed new section 22 removes the allowance for limited product display areas, currently set at no more than one square metre for general retailers and ‘specialist retailers’ and no greater than three square metres for ‘50% retailers’.

### 3.2 Scientific arguments supporting the proposal

Underpinning this proposal is the fact that point-of-sale (PoS) displays remain a potent form of advertising for cigarettes. Several submissions from the tobacco industry argued that displays did not constitute advertising<sup>145</sup>. However, this argument was undermined by evidence provided in other submissions, data from recent research in WA<sup>146</sup> and ultimately fails in light of evidence now available from tobacco industry participants as a result of the 1998 Master Settlement Agreement (MSA). The placing of tobacco displays in the highly visible front and centre of many supermarket outlets also belies this argument. Increasingly tighter restrictions on tobacco advertising that occurred throughout the 1970s and 1980s left PoS as the last outlet for tobacco

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<sup>145</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 7; and Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 13.

<sup>146</sup> Submission No. 27 from Dr Owen Carter, 30 January 2009, pp 1-2.

promotion<sup>147</sup>. In 1995 WD & HO Wills conceded that “The right to continue to place material at point of sale in some form is critical for Australian manufacturers. It is the last means open to them.”<sup>148</sup> A document from BAT entitled ‘Merchandising’ explains the value of displays. The term ‘merchandising’ is defined as, “Featuring and displaying [*emphasis added*] your product at the point of purchase.” The aim of merchandising is “to communicate a simple message to all types of customer - that is to buy your products.” In terms of PoS, ‘position’ is described by BAT as the first principle of merchandising, and in this respect, “Eye level is buy level”. BAT suggests that “The end result of your merchandising work, should be the domination of the outlet, domination like Coca Cola dominates.”<sup>149</sup>

Given that several submissions to this Inquiry argued that cigarettes remain “more visible and more widely available than any other consumer product in Australia, including milk and bread”<sup>150</sup>, it appears as though tobacco manufacturers have defied the attempts of regulators to curb the industry’s advertising power. WHO has observed that “Widespread tobacco advertising ‘normalises’ tobacco, depicting it as being no different from any other consumer product. That makes it difficult for people to understand the hazards of tobacco use.”<sup>151</sup>

A significant body of research is now emerging which supports the theory that product displays ‘normalise tobacco’ in the minds of children. Wakefield and her colleagues conducted a survey of more than 600 Victorian Year 9 students in 2003-04 and found that, in the absence of other forms of advertising, PoS displays had “adverse effects on students’ perceptions about ease of access and brand recall.”<sup>152</sup> Appearing before the Committee, Dr Owen Carter endorsed the arguments of Wakefield’s research published in 2006 and submitted evidence on a recent survey of 10 to 12 year-old WA schoolchildren. These children had been born after tobacco advertising, in all other forms except PoS, had been banned, yet Carter also found significant majorities could identify most cigarette brands (e.g. 88% could recall the Winfield brand)<sup>153</sup>.

Both researchers advise that these factors create a false impression regarding the prevalence of tobacco use and increase the risk of smoking uptake. Their findings have been echoed by studies

<sup>147</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 6.

<sup>148</sup> Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 10.

<sup>149</sup> British American Tobacco (no date) *Merchandising- Bates No 301656387*, <http://legacy.library.ucsf.edu/tid/wih08a99>, accessed 4 February 2009.

<sup>150</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 2; and Submission No. 47 from School of Population Health, University of Western Australia, 30 January 2009, p 2.

<sup>151</sup> WHO (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, World Health Organization, Geneva, p 36.

<sup>152</sup> Wakefield, M.A *et al.* (2006), “An Experimental Study of Effects on Schoolchildren of Exposure to Point-Of-Sale Cigarette Advertising and Pack Displays”, *Health and Education Research*, Vol. 21 (3), p 346.

<sup>153</sup> Dr. Owen Carter, Senior Research Fellow, Curtin University, *Transcript of Evidence*, 10 February 2009, pp 2-3.

in the US, UK<sup>154</sup> and two recent studies conducted in New Zealand. Thomson *et al.* conducted a review of the current research in this field, and relevant internal industry documents, and concluded that tobacco displays “are an effective form of tobacco marketing that imply smoking is widespread (particularly to children), and encourage smoking experimentation and uptake.”<sup>155</sup> In addition, a 2009 review of the existing research argued that “The two methodologically strongest studies of the impact of PoS on children...found evidence of a positive association between PoS tobacco marketing and smoking susceptibility, initiation and uptake.”<sup>156</sup>

Research has also confirmed the ability of PoS displays to trigger impulse purchasing. BAT industry documents confirm the persuasive power of displays by advising that “Many impulse sales are lost when stock...cannot easily be seen or reached.”<sup>157</sup> Both Carter and Wakefield have conducted other separate studies in WA and Victoria that corroborate BAT’s statement. Carter’s study of WA smokers found that of the 22% who made impulse cigarette purchases at supermarkets, almost half were prompted by the PoS display<sup>158</sup>. Alternatively, Wakefield *et al.* found that over 25% of current smokers ‘at least sometimes’ made impulse purchases.

The Committee was concerned by Wakefield, Germain and Henriksen’s finding in 2007 that the 18-29 year-old cohort were most vulnerable to impulse purchases<sup>159</sup>. This research in two Australian jurisdictions confirms that PoS displays can exercise an unhealthy influence over a child’s decision to experiment with smoking, and the consolidation of their habit in early adulthood. Also worrying is the finding made by Thomson *et al.*, and echoed by a variety of health groups and professionals to the Inquiry, of the power of PoS displays to draw impulse purchases which seriously undermines the efforts of those who are trying to quit smoking<sup>160</sup>. Results of the Wakefield, Germain and Henriksen’s study showed that nearly two-thirds of the 38% of smokers who had tried quitting in the previous 12 months and had felt an urge to buy after seeing a product display, succumbed to the urge<sup>161</sup>. Figures from the US and Australia report that 60% of smokers

<sup>154</sup> Submission No. 50 (Appendix 3) from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 1.

<sup>155</sup> Thomson, G. *et al.* (2008) “Evidence and Arguments on Tobacco Retail Displays: Marketing an Addictive Drug to Children?”, *New Zealand Medical Journal*, Vol. 121 (1276), 20 June, pp 88-89.

<sup>156</sup> Paynter, J. & Edwards, R. (2009) “The Impact of Tobacco Promotion at the Point of Sale: A Systematic Review”, *Nicotine and Tobacco Research*, 27 January, p 1 and p 9.

<sup>157</sup> British American Tobacco (no date) *Merchandising- Bates No 301656387*, <http://legacy.library.ucsf.edu/tid/wih08a99>, accessed 4 February 2009.

<sup>158</sup> Submission No. 27 from Dr Owen Carter, 30 January 2009, p 1.

<sup>159</sup> Wakefield, M.A, Germain, D. and Henriksen, L. (2007) “The Effect of Retail Cigarette Pack Displays on Impulse Purchase”, *Addiction*, Vol. 103, pp 323-326.

<sup>160</sup> Thomson, G. *et al.* (2008) “Evidence and Arguments on Tobacco Retail Displays: Marketing an Addictive Drug to Children?”, *New Zealand Medical Journal*, Vol. 121 (1276), 20 June, pp 88-89. See also Submission No. 8 from Dr Peter Franklin, 27 January 2009, p 1; and Submission No. 42 from Heart Foundation, 5 February 2009, p 3.

<sup>161</sup> Wakefield, M.A, Germain, D. and Henriksen, L. (2007) “The Effect of Retail Cigarette Pack Displays on Impulse Purchase”, *Addiction*, Vol. 103, p 324.

are at least contemplating quitting smoking at any time<sup>162</sup>. It is unfortunate that these attitudinal changes are undermined by the pervasive nature of PoS displays.

### 3.3 Relevant international agreements

The submission from the WA Department of Health advised that Australia, through its ratification of the WHO FCTC is obliged to “implement comprehensive bans on tobacco advertising and promotion.”<sup>163</sup> This commitment is made under Article XIII of the FCTC which was amended in November 2008 to address the increasingly credible research regarding the dangers of product displays. Signatories to the treaty resolved to agree that “Young people are particularly vulnerable to the promotional effects of product display....Display and visibility of tobacco products at point of sale constitutes advertising and promotion and should therefore be banned.”<sup>164</sup> Compliance with this WHO article is consistent with the international best practice strategies, advocated by the MPOWER package.

### 3.4 Examples from other countries

Internationally the trend towards implementing full PoS display bans is gaining momentum. National bans have been enacted in Iceland (2001), Thailand (2005), British Virgin Islands (2007) and Ireland (2008). England and Wales have agreed to phase-in the removal of product displays from 2011 while New Zealand and Norway are currently considering similar bans. Canada is also considering banning PoS and 12 of its 13 provinces have already enacted their own bans<sup>165</sup>. Early indications suggest that these bans have made a positive contribution to the decrease in smoking prevalence rates among young people. Professor Simon Chapman endorsed the value of display bans saying pioneers of such bans such as Thailand and Canada “have among the fastest accelerating downward trends in tobacco smoking in the world.”<sup>166</sup> Smoking data from *Health Canada* support this view. In Saskatchewan, one of the first provinces to enact a display ban, the decline in prevalence rates in the 15 to 19 year-old cohort has accelerated, falling by almost one quarter since the ban was implemented in 2002 (see Figure 3.1 below).

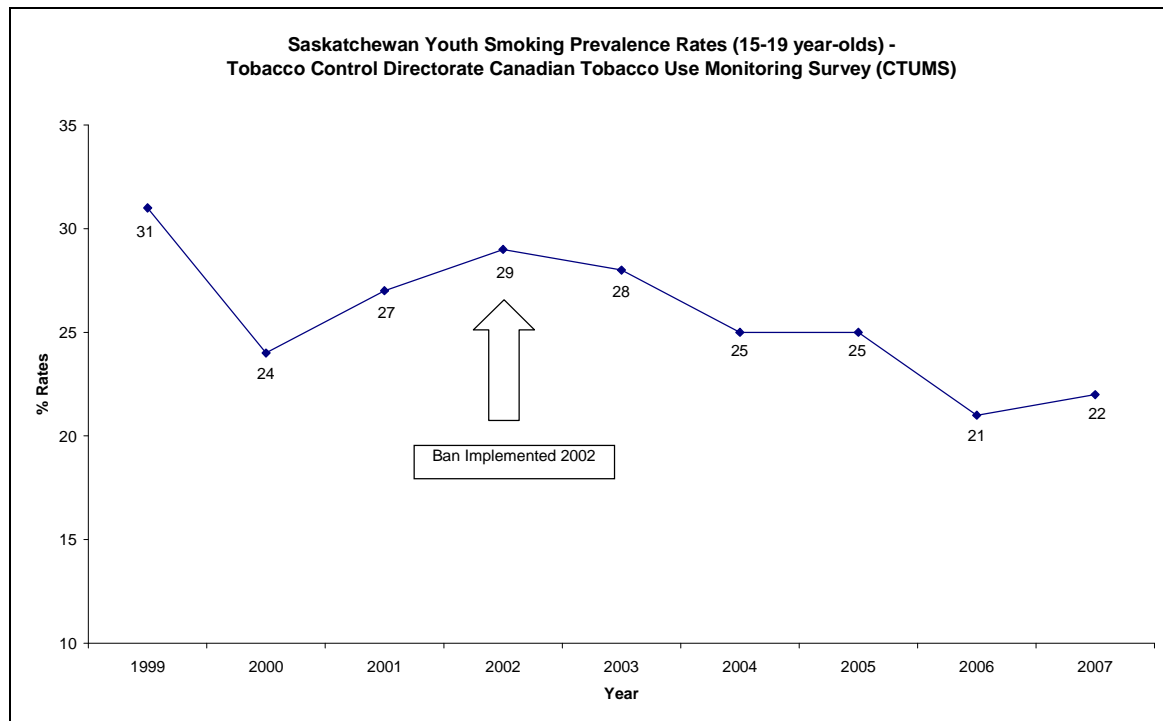
<sup>162</sup> Laforge, R.G *et al.* (1999) “Stage Distributions for Five Health Behaviours in the United States and Australia”, *Preventive Medicine*, Vol. 28, pp 61-63.

<sup>163</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 2.

<sup>164</sup> World Health Organization (2008) *Conference of the Parties to the WHO Framework Convention on Tobacco Control*, [www.who.int/gb/fctc/PDF/cop3/Draft\\_FCTC\\_COP3\\_22-en.pdf](http://www.who.int/gb/fctc/PDF/cop3/Draft_FCTC_COP3_22-en.pdf), p 14, accessed 19 February 2009.

<sup>165</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra, p17. See also Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 6.

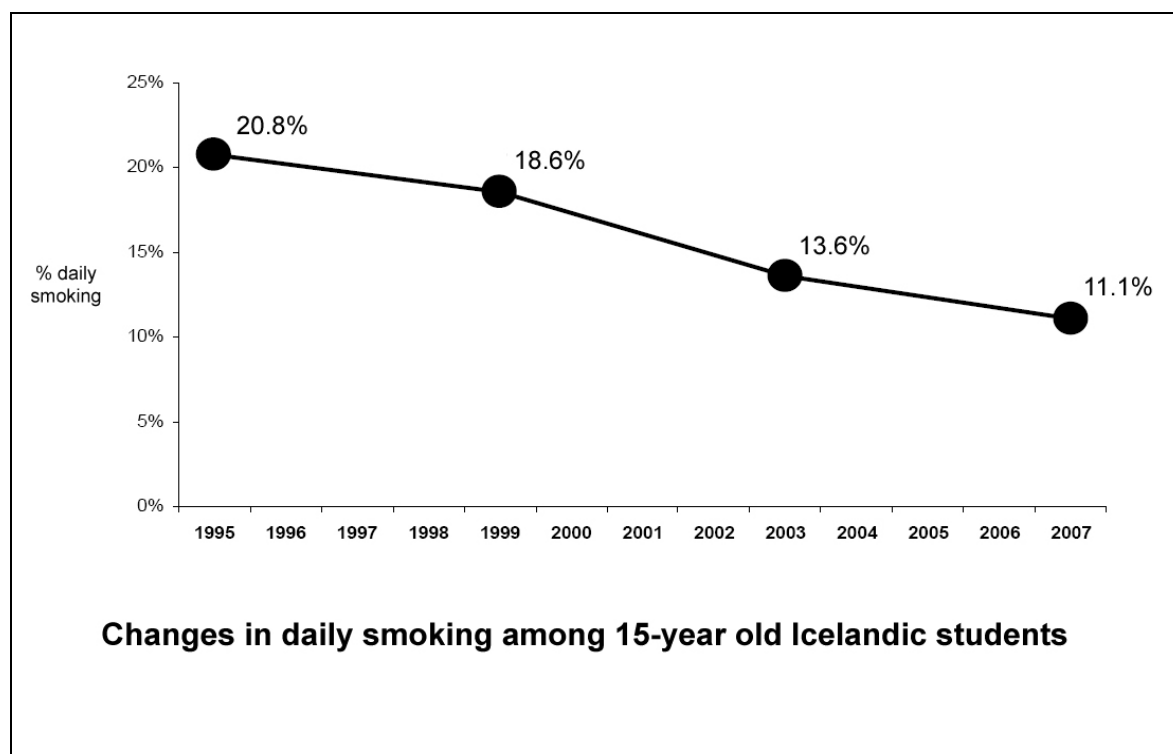
<sup>166</sup> Jackson, P. (2008) *Smoking Ban Lessons From Abroad*, [news.bbc.co.uk/2/hi/uk\\_news/7773232.stm](http://news.bbc.co.uk/2/hi/uk_news/7773232.stm), accessed 23 December 2008, n.p.

**Figure 3.1 - Youth Smoking Prevalence Rates- Saskatchewan, Canada<sup>167</sup>**

The impact of PoS bans also appears to be positive in Iceland, where declines in prevalence rates among 15 year olds has increased since the ban was enacted in 2001 (see Figure 3.2 below).

<sup>167</sup>

Health Canada (2009) *Tobacco Control Directorate Canadian Tobacco Use Monitoring Survey (CTUMS)*, [www.hc-sc.gc.ca/hl-vs/tobac-tabac/research-recherche/stat/\\_ctums-esutc\\_prevalence/prevalence-eng.php](http://www.hc-sc.gc.ca/hl-vs/tobac-tabac/research-recherche/stat/_ctums-esutc_prevalence/prevalence-eng.php), accessed 19 February 2009.

**Figure 3.2 - Youth Smoking Prevalence Rates, Iceland<sup>168</sup>**

These international examples give support to the arguments that PoS restrictions are a valuable component of a comprehensive approach to tobacco control.

<sup>168</sup>

Submission No. 50 (Appendix 3) from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 4.



### 3.5 Examples from other Australian jurisdictions

**Table 3.1 PoS Bans in Australian Jurisdictions**

	<b>Retail Display</b>
<b>WA</b>	< 1sqm permitted, (Under consideration)
<b>SA</b>	<b>No</b>
<b>VIC</b>	<b>Yes</b> (from 2011)
<b>TAS</b>	<b>Yes</b> (from 2011)
<b>NSW</b>	<b>Yes</b> (from 2009)
<b>QLD</b>	< 1sqm permitted
<b>ACT</b>	<b>Yes</b> (from 2010)
<b>NT</b>	<b>Yes</b> (from 2010)

The National Preventative Health Taskforce (NPHT) argues that display bans are part of an overarching and comprehensive approach to effective tobacco regulation. For the NPHT a suitable outcome would be a scenario where products are still available to adults who choose to smoke, but are no longer highly visible<sup>169</sup>. Regulation of PoS is controlled by State governments, and NSW has been the first to formally legislate a ban on tobacco displays. Under the *Public Health (Tobacco) Act 2008*, retailers will have six months, and tobacconists twelve months, to remove their products from sight<sup>170</sup>. During 2008, the Northern Territory and ACT Government's also announced that PoS bans would be in place from 2010<sup>171</sup>. As part of the Victorian Tobacco Control Strategy 2008-2013, that state will follow suit from January 2011<sup>172</sup>.

In Tasmania, legislation banning all retail PoS tobacco displays will come into force one month after Victoria's ban<sup>173</sup>. Despite this delay in the ban, Tasmania should be seen as a pioneer in this area of tobacco control. In 2004, the Tasmanian Government passed a law compelling tobacco retailers to display A4-sized graphic health warnings on the counter at their point of sale. Those who did not want to place these warnings in their stores were allowed to voluntarily remove their

<sup>169</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra, pp 12-17.

<sup>170</sup> Santow, S. (2008) *NSW Moves to Cut Cigarette Sales*, [www.abc.net.au/am/content/2008/s2318438.htm](http://www.abc.net.au/am/content/2008/s2318438.htm), accessed 10 December 2008.

<sup>171</sup> Burns, C. (2008) *Hospitality and Gaming Reforms for Better Future*, Northern Territory Government Media Release, 18 July; and Section 10 *Tobacco Act (1927) 27 August 2008* (ACT).

<sup>172</sup> Department of Human Services, Victoria (2008) *Victorian Tobacco Control Strategy 2008-2013*, [www.health.vic.gov.au/tobaccoreforms/vtcs.htm](http://www.health.vic.gov.au/tobaccoreforms/vtcs.htm), accessed 13 January 2009.

<sup>173</sup> Section 72A(4a) *Public Health Amendment Act (2007) 19 December 2007* (Tasmania).

tobacco products from sight. By 2006, 73 retailers of various sizes, including all Coles Supermarkets and K-Mart stores, had accepted this compromise<sup>174</sup>. In his submission, Tasmania's Acting Health Minister, Hon David Llewellyn, MP, said that the Tasmanian experience to date in this area "has been positive and relatively smooth."<sup>175</sup>

This leaves only Queensland, South Australia and Western Australia as the states allowing tobacco displays to maintain a presence in the consumer environment. The failure of WA to implement PoS bans undermines the State's long-held reputation as a leader in tobacco control. The Cancer Council of Victoria questions WA's willingness, as a signatory party, to pursue the National Tobacco Strategy's goal of "dramatically reduc[ing] the visibility of tobacco products and their accessibility to young people....[and to regulating] supply so that tobacco products are available to those that use them, but are not highly visible and are not sold to children."<sup>176</sup>

### 3.6 Public opinion

The level support for the removal of tobacco product displays in Western Australia is significant and corresponds with data from other countries. Surveys undertaken by the Cancer Council of WA show 77% support for removing tobacco from sight in shops. Among smokers, 57% explicitly support the move with only 17% opposed<sup>177</sup>. Similar surveys among smokers by Dr Owen Carter at Curtin University found 88% expressing no opposition to the idea of bans on PoS with 49% actively welcoming it. Of these latter respondents, 28% report that the initiative may help them quit smoking<sup>178</sup>. Another survey conducted in WA by Edith Cowan University and TNS Social Research found that 73% of students also supported the removal of PoS displays<sup>179</sup>. These numbers are similar to a large UK survey of over 100,000 people from which an overwhelming majority backed a display ban<sup>180</sup>.

<sup>174</sup> Department of Health and Human Services, Tasmania (2006) *Strengthening Measures to Protect Children from Tobacco- Discussion Paper*, [www.dhhs.tas.gov.au/\\_\\_\\_data/assets/pdf\\_file/0017/13238/DISCUSSION\\_PAPER.PDF](http://www.dhhs.tas.gov.au/___data/assets/pdf_file/0017/13238/DISCUSSION_PAPER.PDF), accessed 18 February 2009, p 14.

<sup>175</sup> Submission No. 46 from Hon David Llewellyn, MP, 2 February 2009, p 1.

<sup>176</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 5.

<sup>177</sup> Submission No. 51 (Appendix 2) from Cancer Council of WA, 6 February 2009, n.p.

<sup>178</sup> Dr Owen Carter, Senior Research Fellow, Curtin University, *Transcript of Evidence*, 10 February 2009, p 8; and Submission No. 27 from Dr Owen Carter, 30 January 2009, p 2.

<sup>179</sup> Submission No. 41 from Ms Fiona Philips, Coordinator Smarter Than Smoking Project, 5 February 2009, p 2.

<sup>180</sup> BBC Online (2008) *Ban on Tobacco Displays Announced*, <http://news.bbc.co.uk/2/hi/health/7771210.stm>, accessed 19 February 2009.

The Cancer Council of WA has surveyed MPs in WA about a proposal to ban PoS and between 2005 and 2008 support for the proposal has increased from 87 to 93%<sup>181</sup>.

### 3.7 Weight of submissions

There is more opposition to this proposed amendment of the current legislation than any other aspect of the draft Bill. Even so, 55% of submissions offer unconditional support for the product display ban, while 24% are opposed. Conditional support is offered by 7% of respondents with the remainder expressing no opinion. Not surprisingly, the tobacco companies and the franchise management arms of several tobacco chains express their opposition to this, and several other of the Bill's proposals. For other organisations, mostly those representing independent businesses, this is the only aspect of the 2008 Bill that they would like to see removed (e.g. Australasian Association of Convenience Stores AACS, Master Grocers Australia, Independent Retailers Organisation and Peregrine Corporation). Many of the arguments against the proposal are economic and will be covered in greater detail in chapter 3.9 below.

### 3.8 Arguments for the draft proposal

Health groups, paediatricians, and tobacco control groups were amongst the Inquiry's contributors who praised the proposed PoS display ban. Professor David Hill, and his panel of experts at Cancer Council Victoria, called it "one of the most important population-wide interventions the government can take to reduce smoking rates in Western Australia."<sup>182</sup>

This proposal was commonly cited as a profoundly positive measure in terms of children's health. Reflecting the scientific research that has been conducted, Healthway said the ban "will make an important contribution to reducing the 'social acceptability' of smoking among children and young people."<sup>183</sup> The move to curb this form of advertising was also important to Professor Peter Sly:

*It is the most vulnerable people—it is the young people—who are going to be affected by that. I do not think point-of-sale advertising will make any adult take up smoking, but they are not aimed at adults; they are aimed at kids.*<sup>184</sup>

The impact of youth smoking uptake in WA was particularly alarming for girls. Professor Sly added:

<sup>181</sup> Submission No. 51 (Appendix 2) from Cancer Council of WA, 6 February 2009; and CCWA (2005) *MPs Support Tougher Tobacco Control*, Media Release 28 June, Cancer Council of WA, Perth. [www.cancerwa.asn.au/aboutus/documents/media/2806\\_MPs\\_survey\\_release.doc](http://www.cancerwa.asn.au/aboutus/documents/media/2806_MPs_survey_release.doc), accessed 15 January 2009.

<sup>182</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 5.

<sup>183</sup> Submission No. 34 from Healthway, 2 February 2009, p 4.

<sup>184</sup> Professor Peter Sly, Head, Division of Clinical Sciences, Telethon Institute for Child Health Research, *Transcript of Evidence*, 10 February 2009, p 8.

*...it is really important that we stop young girls taking up smoking, because once they have actually started smoking and become addicted to cigarettes—they do not give up but continue smoking during pregnancy—it is potentially setting up not only their children but also their grandchildren for increased health problems.*<sup>185</sup>

Removing what the Australian Medical Association termed “the last remaining promotional opportunity for the tobacco industry”<sup>186</sup> was supported by other submissions which argued that the industry had been able, through PoS displays, to circumvent all previously instituted attempts at restricting advertising<sup>187</sup>. Action on Smoking and Health (ASH) Australia expanded upon this point, arguing that “Cigarettes should not be displayed like lollies or football cards....[when] thousands of legal, and less addictive and harmful, pharmaceutical products are kept out of sight by law.”<sup>188</sup>

Other supporters of the proposal were enthusiastic about the assistance the ban would provide to those trying to quit smoking<sup>189</sup>. Mr Dishan Weerasooriya, Manager of the Tobacco Control Branch at the Department of Health, described how a PoS ban may facilitate an ongoing cultural shift away from tobacco retailing:

*If you consider that tobacco smoking is essentially a nicotine addiction and what we are trying to do is have a harm reduction strategy here and encourage people to quit, it would be a good model to think of the retailers as providing a product in a harm-reduction fashion to a group of already addicted people, because we feel that is reasonable, without further promotion of the product.*<sup>190</sup>

One of Australia’s leading retailers, Woolworths Limited, offered its qualified support to the ‘...introduction of initiatives aimed at reducing the take-up rate of smoking in Australia.’ In its submission Woolworths added that “we recognise the role we can play in limiting access to and visibility of harmful tobacco products.”<sup>191</sup> Their support for the ban, so long as it was applied equally across all sectors, was echoed by an IGA Franchise operator:

*From an independent’s perspective, we would not have too big a problem with your initiative in this proposed amendment, provided that it was very clearly understood that the level playing field would be maintained, whether that be done on a national or state basis. I guess from our micro-climate and a state perspective, we would just be very conscious*

<sup>185</sup> Professor Peter Sly, Head, Division of Clinical Sciences, Telethon Institute for Child Health Research, *Transcript of Evidence*, 10 February 2009, p 4.

<sup>186</sup> Submission No. 23 from AMA (WA), 30 January 2009, p 7.

<sup>187</sup> Submission No. 37 from Dr Stanton Glantz, 3 February 2009, p 1; and Submission No. 29 (Appendix 2) from Ms Anne Jones, CEO ASH Australia, 29 January 2009, p 4.

<sup>188</sup> Submission No. 29 (Appendix 2) from Ms Anne Jones, CEO ASH Australia, 29 January 2009, p 2.

<sup>189</sup> Submission No. 18 from ASH Australia, 30 January 2009, p 1; and Submission No. 42 from Heart Foundation, 5 February 2009, p 3.

<sup>190</sup> Mr Dishan Weerasooriya, Manager, Tobacco Control Branch, WA Department of Health, *Transcript of Evidence*, 10 February 2009, p 11.

<sup>191</sup> Submission No. 57 from Woolworths Limited, 11 February 2009, p 1.

*that it had to be applied equally and evenly, because we certainly would not want to see any further shift in market share across to the Coles and Woolworths of this world. With that proviso, I cannot see any problem.*<sup>192</sup>

### 3.9 Arguments against the proposal

Many reasons were offered by the tobacco industry, and a collection of retail representatives, against the PoS display ban. Despite this, the Committee did not support these arguments and found the likely health benefits of the ban far outweigh the perceived economic costs.

The main arguments against display bans broadly fall under three categories that were articulated by Philip Morris Australia in their submission. Despite agreeing “that reducing young people’s exposure and access to tobacco use are important policy objectives for governments to pursue”, PML nonetheless argued that regulation must be based on evidence; should not raise unintended consequences that are neither good for public health nor for the legitimate tobacco industry<sup>193</sup>. No submission offered a definitive argument supporting PML’s proposition that the removal of product displays would be detrimental to public health. However, a variety of arguments were offered in support of the two other points.

#### (a) Quality of supporting evidence

Arguments attacked the evidence of a link between PoS and smoking rates from several angles. Some submissions claimed, falsely given the evidence cited above, that “there is **no** [original emphasis] evidence from anywhere in the world that shows there is a link between ‘display bans’ and the reduction in the incidences of smoking”<sup>194</sup> or that there was “no concrete evidence in WA...[that would] accurately represent the views of Western Australian consumers”<sup>195</sup>. The former argument fails to adequately address the research that has been undertaken since display bans were introduced in Canada and Iceland, while the latter ignores the survey data from WA of Dr Owen Carter and Cancer Council WA regarding the attitudes of local smokers. Despite the early signs of promise from Canada and Iceland, PML suggests that the WA Government should not legislate until Australian data confirms that the ban would be effective here. Being well aware that the first legislated PoS ban will only go into force this year in NSW, it would seem that PML is replicating the tobacco industry’s historical strategy of trying to ‘buy time’ that was followed by the industry when advertising restrictions first began in the 1970s<sup>196</sup>.

<sup>192</sup> Mr Greg Brindle, Supermarket Manager, IGA Canning Bridge, *Transcript of Evidence*, 16 February 2009, p 6.

<sup>193</sup> Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, p 1 and p 9.

<sup>194</sup> Submission No. 4 from Australasian Association of Convenience Stores (AACS), 19 January 2009, p 1.

<sup>195</sup> Submission No. 19 from TSG Franchise Management Pty Ltd, 30 January 2009, p 4.

<sup>196</sup> See Footnote 12 citing the document from WD and HO Wills. Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, p 2.

The tobacco industry submissions also challenged the data showing improvements in the decline in prevalence rates in Iceland and Canada after bans on PoS were implemented. However, on all occasions it can be shown that the data was not adequately analysed by the tobacco industry. In the case of Iceland, PML and Imperial Tobacco Australia did not refer to data showing clearly declining prevalence rates among 15 year-olds, choosing instead to focus on the broader 15-19 year old cohort. Their submissions correctly highlighted that smoking prevalence rates for this broader cohort, particularly among the males, have oscillated since the ban was introduced<sup>197</sup>. However, analysis of the data source used by ITA shows that the average of these prevalence rates for the six years following the ban is lower than for the corresponding six years preceding the bans (15.8% versus 17% for males - 14.1% versus 17.3% for females)<sup>198</sup>. This would suggest that prevalence rates are still trending down for both sexes and the impact of the ban will take some time to appear in the statistics. The annual drop in prevalence rates since 2001 for female smokers is significant and bodes well for reductions in the number of Iceland's future generations who risk being exposed to tobacco smoke in-utero.

Similarly, poor analysis is evident in the industry arguments offered about Saskatchewan's prevalence rates. Saskatchewan was the first Canadian province to enact a display ban and industry submissions implied that display bans are ineffective due to an increase in youth prevalence rates between 2002 and 2004<sup>199</sup>. However, figures obtained from the same source cited by BAT, the Canadian Tobacco Use Monitoring Survey (CTUMS), show a clear downward trend in smoking rates for 15-19 year olds in that province between 2001 and 2007 (see Figure 3.1 above). Further arguments that Saskatchewan youth smoking rates were the highest of any province in 2005<sup>200</sup> fail to acknowledge that, as the third poorest Canadian province in terms of median income<sup>201</sup>, Saskatchewan's lower socio-economic statuses predisposes it to higher smoking prevalence rates and poorer health outcomes in general compared to wealthier provinces.

What is evident to the Committee is that, from the data available, and despite the arguments offered by the tobacco industry, there is reason to believe that display bans have proven to be a positive influence in the declining prevalence rates that are being witnessed among the youth in Iceland and Saskatchewan.

<sup>197</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 10; and Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, pp 3-4.

<sup>198</sup> Figures calculated using data from Statistics Iceland- see Appendix Five.

<sup>199</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, pp 14-15; and Submission No. 45 from Independent Retailers Organisation (IRO), 2 February 2009, p 2.

<sup>200</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 15.

<sup>201</sup> Statistics Canada (2008) *Median Earnings and Employment For Full-Year, Full-Time Earners, All Occupations, Both Sexes, For Canada, Provinces and Territories – 20% Sample Data*, Catalogue no. 97-563-XWE2006002.  
[www12.statcan.ca/english/census06/data/highlights/Earnings/Table801.cfm?Lang=E&T=801&GH=4&SC=1&S=1&O=A](http://www12.statcan.ca/english/census06/data/highlights/Earnings/Table801.cfm?Lang=E&T=801&GH=4&SC=1&S=1&O=A), accessed 21 February 2009.

Some of the research into the impact of PoS displays was attacked for its methodology, its statistical significance and the overall implications of its findings<sup>202</sup>. Wakefield's research was challenged by PML who implied that it failed to provide a definitive link between the viewing of a display and a change in belief or action by the young respondents<sup>203</sup>. Similarly, several submissions claiming that there is no definitive link between PoS and consumer behaviour use a quote from a Norwegian Health Ministry analysis of the Iceland PoS ban:

*...there are no indications to prove that this reduction is a result of the ban **more than other** [emphasis added] tobacco preventive measures introduced at the same time.*<sup>204</sup>

This statement does not deny the effectiveness of the PoS ban in Iceland, only that it cannot attribute the ban as the major causal component of the decline being witnessed. Those submissions which cite the Norwegian Health Ministry and attack Wakefield's research fail to recognise that PoS bans are not seen as the sole approach to tobacco control. The removal of tobacco displays are a valuable adjunct to a variety of strategies that, implemented as a whole, represent the international best practice model for protecting youth, and smokers trying to quit smoking.

## **(b) Commercial detriment and logistical difficulty**

Opposition to this section of the Bill also cited the supposed logistical difficulties a PoS ban would present, proposing that changes to counter configuration would be excessively costly, difficult for staff to adapt to, thus creating transaction inefficiencies and delays, as well as denying adult smokers information regarding product availability<sup>205</sup>.

While the Committee acknowledges these concerns, it feels that there are already a variety of effective alternative options available. These are best articulated in the 2006 Tasmanian Government discussion paper on tobacco control measures to protect children. This paper's primary recommendation was to implement display bans, arguing that this:

*...could be achieved by placing tobacco sales dispensers under or above the counter to face the sales person rather than the customer; by storing tobacco in closeable drawers/cabinets; or by installing moveable doors, shutters or curtains over existing display units which are closed except when removing a product to give to a customer. Retailers would still be able to communicate the availability of individual tobacco products by the currently allowed product availability notice and price board. Bar coded price tickets adjacent to each separate product line would continue to be permitted.... There*

<sup>202</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, pp 8-9.

<sup>203</sup> Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, p 4.

<sup>204</sup> Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, pp 3-4; and Submission No. 45 from Independent Retailers Organisation (IRO), 2 February 2009, p 2.

<sup>205</sup> Submission No. 4 from Australasian Association of Convenience Stores (AACS), 19 January 2009, p 1; Submission No. 17 from NARGA, 28 January 2009, p 3; Submission No. 19 from TSG Franchise Management Pty Ltd, 30 January 2009, p 2; Submission No. 6 from Master Grocers Australia, 28 January 2009, p 4; and Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 6.

*would be the additional option of a price catalogue on the counter that can be viewed by customers.*<sup>206</sup>

This approach appears to be a sensible one, much of which has been adopted with little difficulty throughout Canada. Supporters of the PoS display ban made mention of the Tasmanian recommendations in their submissions<sup>207</sup> and some included photos showing examples of how well and cheaply the reconfigurations can work.

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<sup>206</sup> Department of Health and Human Services, Tasmania (2006) *Strengthening Measures to Protect Children from Tobacco- Discussion Paper*, [www.dhhs.tas.gov.au/\\_\\_data/assets/pdf\\_file/0017/13238/DISCUSSION\\_PAPER.PDF](http://www.dhhs.tas.gov.au/__data/assets/pdf_file/0017/13238/DISCUSSION_PAPER.PDF), p 5, accessed 18 February 2009.

<sup>207</sup> Submission No. 29 (Appendix 2) from Ms Anne Jones, CEO ASH Australia, 29 January 2009, p 3; Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, pp 8-9; and Submission No. 20 from National Heart Foundation of Australia, WA Division, 30 January 2009, p 7.



**Figure 3.3 - Smoking Display at Coles Forrestville, NSW**

Professor Simon Chapman describes the image in Figure 3.3 as showing “ the dispensers behind the counter, covered so as to not display the packs. Each is clearly marked with the name of the brand and the price. The shop assistant simply reaches behind them and selects the brand requested from the drawer.”<sup>208</sup> One of the Coles stores in Tasmania implemented a voluntary display ban four years ago<sup>209</sup>. Barcodes and product labels are still visible for staff to help access cigarette packs (see Figure 3.4 below). These are used in conjunction with a catalogue or a black and white product availability list for the customers.

**Figure 3.4 - Smoking Display at Coles store in Tasmania**



Below is a selection of images from other retailers in Tasmania who have complied shows how display bans can be workable for both retailers and customers.

<sup>208</sup> Submission No. 32 from ACOSH, 30 January 2009, p 12.

<sup>209</sup> ASH (2005) *Coles Myer Supermarkets Put Tobacco Displays Out of Sight in National First*, Media Release 7 April, [www.ashaust.org.au/mediareleases/mr\\_20050407.htm](http://www.ashaust.org.au/mediareleases/mr_20050407.htm), accessed 8 January 2009.



**Figure 3.5 - Tasmanian Retailers Complying with PoS Bans - Dispensers Above the Counter (Open and Shut)**



**Figure 3.6 - Tasmanian Retailers Complying with PoS Bans - Dispensers Below the Counter (Open and Shut)**





Coles Australia argued in its submission that “team members (especially casuals) have reported difficulty in locating tobacco products for customers.”<sup>210</sup> Woolworths Limited, however, suggested that if the concept were introduced into the WA, they would not envisage much difficulty with the extension of their store display ‘flippers’, which are used to hide tobacco products exceeding the one square metre exemption currently allowable under WA’s existing Act. Ms Nathalie Samia, Group Manager Government Relations, explained that ‘flippers’:

*... are like a flap that you just lift up and take the cigarette packet out of. Instead of lifting up and exposing all of the packets, it is just a small area. You lift it up and it flips back down again.*

In terms of any store reconfiguration under the proposed changes in the Bill, Ms Samia suggested:

*To be perfectly frank, the fastest and cheapest way we could deliver this outcome would be just to extend those flaps along from where we have them to take in that one square metre that is currently exposed*<sup>211</sup>

Similarly, speaking in his capacity as an individual IGA franchise owner, Mr Greg Brindle told the Committee “It is no great imposition to [smaller independent] retailers in introducing your amendment.”<sup>212</sup>

Arguments were also put forward suggesting that retailers would suffer financially in terms of funding store reconfigurations<sup>213</sup>. However, it is widely known that tobacco companies have historically funded PoS displays. Tobacco Station Group Franchise Management (TSG) conceded that tobacco companies “pay for the supply and installation of the Tobacco Storage Units”<sup>214</sup> for its franchisees. Professor Simon Chapman argued that:

*...tobacco companies will pay for, install and modify these merchandising systems in all retail tobacco outlets as fast as the law requires, lest they lose their ability to have stores selling tobacco products.*<sup>215</sup>

Other financial concerns that were cited by retailers and tobacco groups pertained to the risk of declining sales revenues and impaired market competition. In terms of profitability, several submissions argued that the proposal to ban displays would lead to reduced sales and would have a disproportionately harmful effect on small businesses<sup>216</sup>. The Independent Retailers Organisation extrapolated figures from a British Centre for Economic and Business Research

<sup>210</sup> Submission No. 31 from Coles, 2 February 2009, p 1.

<sup>211</sup> Ms Nathalie Samia, Group Manager, Government Relations, Woolworths Ltd, *Transcript of Evidence*, 16 February 2009, p 5.

<sup>212</sup> Greg Brindle, Supermarket Manager, IGA Canning Bridge, *Transcript of Evidence*, 16 February 2009, p 6.

<sup>213</sup> Submission No. 6 from Master Grocers Australia, 28 January 2009, p 4.

<sup>214</sup> Submission No. 19 from TSG Franchise Management Pty Ltd, 30 January 2009, p 3.

<sup>215</sup> Submission No. 32 (Appendix 2), from ACOSH, 30 January 2009, p 12.

<sup>216</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 7; and Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 14.

study to estimate that 360 small retailers would close throughout WA at a cost of over 1,000 jobs<sup>217</sup>. The experience from other jurisdictions suggests that these concerns may be misplaced.

Cancer Council Victoria stress that any declines in revenue “would be gradual and not form an immediate impact of any significance.”<sup>218</sup> This was implicitly acknowledged by several retailer groups<sup>219</sup>. The Liquor Stores Association of WA, for example, did “not agree that the non-display of tobacco products will have any effect on purchasing patterns as an addicted smoker is just that.”<sup>220</sup> The experience in Saskatchewan shows that retailer concerns are unfounded with studies showing no store closures or job losses since the implementation of their PoS ban<sup>221</sup>. Thomson *et al.* studied Canadian sales data and found that “tobacco display bans have had little short term effect on store profitability.”<sup>222</sup> Submissions to a Parliamentary Inquiry in New Zealand have offered a similar evaluation for the impact of the PoS ban in Iceland<sup>223</sup>.

Incentive payments made by tobacco companies to retailers to supply their products have continued to flow in Canada after the PoS ban. In Saskatchewan, incentive payments to retailers dropped marginally from C\$874,492 in 2004 to C\$857,963 in 2005, while figures for Manitoba have increased significantly after PoS displays were removed<sup>224</sup>. Retailers may actually stand to gain from the distributors of other consumer products who are likely to offer incentives of their own to fill the display space vacated by tobacco products<sup>225</sup>.

In terms of the impact on market competition, several tobacco groups were concerned that their inability to display their latest products would impede their ability to increase market share in Australia against their competitors<sup>226</sup>. The Committee was not persuaded by this argument. Cigarette smokers are the most loyal of retail customers, with only between 5% and 10% changing their brand annually<sup>227</sup>. Given the public health benefits in terms of reduced youth smoking

<sup>217</sup> Submission No. 45 from Independent Retailers Organisation (IRO), 2 February 2009, p 3.

<sup>218</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 10.

<sup>219</sup> Submission No. 6 from Master Grocers Australia, 28 January 2009, pp 3-4.

<sup>220</sup> Submission No. 44 from from Liquor Stores Association of WA Inc (LSAWA), 4 February 2009, p 3.

<sup>221</sup> Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 9.

<sup>222</sup> Thomson, G. *et al.* (2008) “Evidence and Arguments on Tobacco Retail Displays: Marketing an Addictive Drug to Children?”, *New Zealand Medical Journal*, Vol. 121 (1276), 20 June, p 90.

<sup>223</sup> Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 9.

<sup>224</sup> Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, pp 9-10; Submission No. 50 (Appendix 3) from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 4.

<sup>225</sup> Thomson, G. *et al.* (2008) “Evidence and Arguments on Tobacco Retail Displays: Marketing an Addictive Drug to Children?”, *New Zealand Medical Journal*, Vol. 121 (1276), 20 June, p 91.

<sup>226</sup> Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, p 6; and Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 6.

<sup>227</sup> Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 6; and Submission No. 27 from Dr Owen Carter, 30 January 2009, p 2.

prevalence rates that a PoS ban will encourage, it seems reasonable to offer smokers that wish to switch their brand of cigarette information such as catalogues and plain product lists.

The other aspect of competition raised by the smaller retailers was their likely susceptibility to supermarkets being able to stock a broader range of products and, therefore, more likely to supply a required brand. The AACS said a survey of its members thought that 81% of smokers would shift to larger supermarkets<sup>228</sup>. Given smokers brand loyalty and addiction to nicotine, the fears of these small retailers may be overstated. Dr Peter Franklin said “smokers who are not ready to quit...know where to buy tobacco products and what products they want.”<sup>229</sup>

Finally, submissions from retailers groups argued that the move was ‘ill-timed’ in the current economic climate, given the impacts that they felt these changes would have<sup>230</sup>. The Master Grocers Australia said:

*Although we are aware of the affects that advertising may have on the influence of children’s responses to smoking, there is also the impact on retailers that must be taken into consideration.*<sup>231</sup>

The Committee acknowledges these concerns but feels that, in light of the findings emanating from Canada and other jurisdictions, display bans offer the chance to contribute to a positive public health outcome while maintaining the viability of the retail environment. The Committee supports the view of Professor Peter Sly:

*...I do not think that we can really take the moral position of saying we are not going to be too hard on small business so that they can get kids to take up smoking. I do not think that is a tenable position.*<sup>232</sup>

### 3.10 Proposed regulatory amendments

Several submissions noted deficiencies in the drafting of the original Bill that need to be corrected in order to ensure that the implementation of a PoS display bans is done in a manner that is consistent with existing legislation. The Department of Health made practical suggestions that will assist in defining with greater clarity which persons or businesses will be liable under a breach of section 22<sup>233</sup>.

<sup>228</sup> Submission No. 4 from Australasian Association of Convenience Stores (AACS), 19 January 2009, p 2.

<sup>229</sup> Submission No. 8 from Dr Peter Franklin, 27 January 2009, p 2.

<sup>230</sup> Submission No. 44 from Liquor Stores Association of WA Inc (LSAWA), 4 February 2009, p 3; and Submission No. 45 from Independent Retailers Organisation (IRO), 2 February 2009, p 7.

<sup>231</sup> Submission No. 6 from Master Grocers Australia, 28 January 2009, p 2.

<sup>232</sup> Professor Peter Sly, Head, Division of Clinical Sciences, Telethon Institute for Child Health Research, *Transcript of Evidence*, 10 February 2009, p 11.

<sup>233</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, pp 10-11.

Despite their opposition to the proposed new section, Coles also made an argument regarding the potential liability they, and other 24-hour operators, faced when having to restock shelving while their stores (in this case Coles Express) remained open<sup>234</sup>. While the Committee acknowledges this scenario may occur, providing this restocking was done in an expeditious manner it was not felt that this would be a significant problem.

Peregrine Corporation observed that the Bill makes no reference to section 23 of the 2006 Act, which provides exemptions to 'specialist tobacconists' and '50% retailers'. These are defined respectively as businesses whose annual tobacco sales for 2004-05 exceeded 80% or 50% of their total revenues. Peregrine recommended that this section be maintained in any amended legislation. They argued that specialist tobacconists are:

*...destination driven stores with a customer base existing almost exclusively of existing tobacco smokers....[who] visit specialist tobacconists with an intention to purchase tobacco products formed prior to entry of a store. In WA, 95% of Smokemart [Peregrine Corporation's trading name] store sales come from tobacco products.*<sup>235</sup>

This proposal was supported by a variety of tobacconist companies and related industries<sup>236</sup>. The Committee was concerned about how any exemptions given in the Bill regarding product displays might be exploited. In NSW, the *Public Health Tobacco Act 2008* provides no exemptions to specialist tobacconists. Images submitted to the Inquiry showed tobacconist stores located in South Australian shopping centres with displays known as 'power walls' clearly visible to passing consumer traffic.

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<sup>234</sup> Submission No. 30 from Coles, 2 February 2009, p 2.

<sup>235</sup> Submission No. 7 from Peregrine Corporation, 27 January 2009, pp 2-3.

<sup>236</sup> Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, p 7; Submission No. 19 from TSG Franchise Management Pty Ltd, 30 January 2009, p 1; Submission No. 25 from FreeChoice Tobacconist Stores, 30 January 2009, pp 3-4; and Submission No. 13 from Swedish Match, 29 January 2009, p 2.



**Figure 3.7 - Exempt Tobacconists Displays Visible To Children in Streets and Malls<sup>237</sup>**



Also of concern to the Committee are images from South Australia, where product displays of three square metres are still permitted. In that state, Smokemart franchises have been established in what were formerly drive-through bottle shops<sup>238</sup>. In WA, FreeChoice franchises have established themselves in newsagents, with large external signs<sup>239</sup>. Passengers in cars, particularly children, who travel through or past such venues, are again exposed to these powerful forms of advertising (see Figure 3.8 below of FreeChoice tobacconist franchise in a petrol station).

<sup>237</sup> Submission No. 29 (Appendix 1) from Ms Anne Jones, CEO ASH Australia, 29 January 2009, p 1.

<sup>238</sup> Mr Maurice Swanson, Chief Executive, National Heart Foundation, WA Division, *Transcript of Evidence*, 11 February 2009, p3.

<sup>239</sup> Submission No. 59 from Mr John Hyde, MLA, 16 February 2009, p 2.

**Figure 3.8 - Exempt Tobacconists Displays Visible To Children in Streets and Malls**

The Committee was concerned about any loophole in the Bill that would allow a proliferation of similar retail formats in WA<sup>240</sup>. The Committee felt that such exemptions as a dispensation for perceived loss of market share are unwarranted. The NSW Government seems to be of a similar opinion, deciding with the *Public Health Tobacco Act 2008* to become the first jurisdiction to deny exemptions to specialist tobacconists.

The final issue of contention surrounding the ban on PoS displays was the timing of its implementation. PML, Coles and Woolworths all suggested that a one year grace period should be allowed for reconfiguration of counters to comply with the legislation<sup>241</sup>. The Committee is aware that NSW has given general retailers, including supermarkets, up to twelve months to comply with its new law, while specialist tobacconists have received a four year grace period<sup>242</sup>. Given the frequency with which children are exposed to existing PoS displays in many retail outlets, the

<sup>240</sup> Ms Nathalie Samia, Group Manager, Government Relations, Woolworths Ltd, *Transcript of Evidence*, 16 February 2009, p 7; and Mr Greg Brindle, Supermarket Manager, IGA Canning Bridge, *Transcript of Evidence*, 16 February 2009, p 7.

<sup>241</sup> Submission No. 2 from Philip Morris Limited, 13 January 2009, p 12; Submission No. 31 from Coles, 2 February 2009, p 1; and Submission No. 57 from Woolworths Limited, 11 February 2009, p 2.

<sup>242</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 6.

Committee feels that the removal of tobacco products from sight in these environments is most pressing. However, the Committee also accepts that adequate time is required to allow reconfigurations to take place. Consequently, it recommends that all holders of tobacco retailers' licenses be given 12 months from the date of Royal Assent to comply with the amendment to section 22.

For 'specialist tobacconists' as defined under the 2006 Act, for whom tobacco sales are the major revenue item, a 24 month grace period from the date of Royal Assent is recommended. The Committee considered this a reasonable compromise for traders who have been on notice for years that stricter tobacco control measures will be pursued in WA to improve public health outcomes.

**Finding 1**

The Committee finds that PoS displays remain a potent form of advertising for cigarettes that encourage young people to start smoking, while undermining the intention of smokers to quit. The proposal to remove tobacco product displays in WA reflects international best practice measures and is consistent with Australia's commitments to protect children and adults from tobacco promotion.

**Recommendation 1**

The Committee recommends that the proposed section 22 to control the display of tobacco products be retained in the Bill and supports suggested amendments, including staggered implementation dates for different categories of retailers and the repealing of section 23.



## CHAPTER 4 SECTION 106A CHILDREN IN CARS

### 4.1 Proposed amendment

The draft Bill proposes to insert two new sections into the existing Act. The proposed sections are:

***106A. Use of tobacco products in passenger cars an offence***

*(1) A person must not use tobacco products in a passenger car at any time if one or more passengers is a young person.*

*Penalty applicable: \$150.*

*(2) For the purposes of this section, a young person has the meaning given to it in section 98.*

The draft Bill defines a ‘passenger vehicle’ as having “the same meaning as in the Motor Vehicle Dealers Act 1973”.

### 4.2 Scientific arguments supporting the proposal

The US Surgeon General’s 2006 Report concluded that “Exposure to secondhand smoke continues in restaurants, bars, casinos, gaming halls, and **vehicles** [*emphasis added*].”<sup>243</sup> Professor Peter Sly gave evidence as to why this issue of passive smoking in a car is so important:

*Young children are particularly vulnerable to environmental stimuli that they breathe because they have a higher need for oxygen. They breathe more air relative to body size than does an adult. Consequently, if we look at per unit of body weight, a toddler breathes about **three to four times as much air per minute as does an adult** (emphasis added) relative to their size. Similarly, if an adult and a child are exposed to the same level of cigarette smoke, the child will get a much higher dose simply because he breathes in more relative to body size.*<sup>244</sup>

The California Department of Public Health agree with this assessment that “The level of air pollution in a car caused by smoke from a cigarette is so severe that breathing it is dangerous for anyone. Children breathe quicker than adults, are still developing physically and have little or no

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<sup>243</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 13.

<sup>244</sup> Professor Peter Sly, Head, Division of Clinical Sciences, Telethon Institute for Child Health Research, *Transcript of Evidence*, 10 February 2009, p 2.

control over their indoor environments. As a result, children exposed to secondhand smoke run a greater risk of damaging health effects.”<sup>245</sup>

Rees and Connolly interpreted data from a US study conducted under normal driving conditions with a range of ventilation scenarios where the level of respirable suspended particles (RSPs) were measured. They found:

*While smoking, mean RSP concentrations of 272 µg/m<sup>3</sup> (closed [window]) and 51 µg/m<sup>3</sup> (open) were attained, with even higher peak levels observed briefly (505 µg/m<sup>3</sup> closed, and 104 µg/m<sup>3</sup> open’. To put this in context....A mean PM2.5 concentration of 206 µg/m<sup>3</sup> was found among 27 bars in eastern Massachusetts....Health standards that would enable adequate characterisation of risk from SHS-generated RSPs, based on present data, are not available.*<sup>246</sup>

Rees and Connolly argue that “these data reveal alarming RSP levels generated from smoking a single cigarette for only 5 minutes in a private car.”<sup>247</sup> Connolly has over twenty years experience in the field of researching tobacco products, tobacco use, public health, and policy. These authors compare their findings on the RSP concentrations to those found in bars and describe the PM2.5 levels found in cars of people who smoke as ‘alarmingly high’.<sup>248</sup>

A Californian EPA study found very high ETS concentrations in vehicles when a smoker is present, with levels of RSP ranging from 92 µg/m<sup>3</sup> (with windows opened and vents closed) to 1,195 µg/m<sup>3</sup> (windows and vents closed)<sup>249</sup>. Ott, Klepeis and Switzer conducted a study using air change rates measurements under a variety of conditions for stationery and moving cars, with air-conditioning and ventilation systems on and off. Among their findings were that:

*The high particle concentrations inside cars with smokers are due to the small volumes of the passenger compartments, and the concentrations become extremely high with the low air change rates caused by closing windows and air conditioning. These extremely high particle concentrations constitute a serious health risk for adults and children who are passengers in a car with a smoker.*<sup>250</sup>

<sup>245</sup> California Department of Public Health (2008) *Secondhand Smoke*, [www.tobaccofreeca.com/secondhand\\_smoke.html#smokefreecars](http://www.tobaccofreeca.com/secondhand_smoke.html#smokefreecars), accessed 9 January 2009.

<sup>246</sup> Rees, V.W & Connolly, G.N (2006) “Measuring Air Quality to Protect Children from Secondhand Smoke in Cars”, *American Journal of Preventative Medicine*, Vol. 31 (5), p 366.

<sup>247</sup> Submission No. 3 from G.N. Connolly DMD, MPH and Dr Vaughan W. Rees, Harvard School of Public Health, 22 January 2009, p 1.

<sup>248</sup> Submission No. 3 from G.N. Connolly DMD, MPH and Dr Vaughan W. Rees, Harvard School of Public Health, 22 January 2009, p 1.

<sup>249</sup> Environmental Protection Agency, California (2005) "Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant", *Tobacco Control. Surveys and Program Evaluations from Outside UCSF*, 24 June, [repositories.cdlib.org/tc/surveys/CALEPA2005](http://repositories.cdlib.org/tc/surveys/CALEPA2005), p V-41, accessed 16 January 2009.

<sup>250</sup> Ott, W., Klepeis, N. & Switzer, P. (2007) “Air Change Rates of Motor Vehicles and In-Vehicle Pollutant Concentrations from Secondhand Smoke”, *Journal of Exposure Science and Environmental Epidemiology*, p 13.



Sly and Flack report that children may receive higher doses of pollutants because they are closer to the floor, where concentrations can be 5-10 times higher than in the 'adult zone'. They also propose that children may receive higher doses because of the rapid development in lung alveolar formation that occurs, particularly between birth and the first 24 months. A child's lung doubles in capacity within the first 18 months of life and again by the time they reach 5 years of age. This means "that adverse influences on lung growth in early life... have life-long consequences."<sup>251</sup>

A study in Perth completed in 2007 confirmed the level of exposure to ETS in cars was linked to wheezing in children aged 14 years of age. The authors added that teenagers and younger children "have no choice but to travel with their parents in the car, especially given the phenomenon of 'mum's taxi' transporting children to school and extracurricular activities. Smoke-free cars are important for all children."<sup>252</sup>

A study in Greece in 2006 found second smoke exposure levels in cars were "much higher than the levels found, for example in hospitality venues, such as casinos, bars and restaurants" where similar testing had been undertaken<sup>253</sup>.

Jonathan Winickoff has recently defined a new term- 'thirdhand smoke' which recognises a new danger of smoking in cars. Thirdhand smoke consists of microscopic toxins left by cigarette smoke on car seats and material, especially baby carriages. Winickoff describes it as:

*When their kids are out of the house, they [the parent] might smoke. Or they might smoke in the car. Or they strap the kid in the car seat in the back and crack the window and smoke, and they think it's okay because the second-hand smoke isn't getting to their kids.... We needed a term to describe these tobacco toxins that aren't visible.*<sup>254</sup>

The strength of the science on secondhand smoke has compelled the International Union Against Cancer (UICC) to launch a worldwide campaign called 'I Love My Smoke-Free Childhood', the objectives of which include a global education strategy to warn of the dangers of SHS on children and to 'mobilise' parents, relatives and professionals and community groups to voluntarily enforce smoke-free environments in private places including homes and cars<sup>255</sup>.

<sup>251</sup> Sly, P. & Flack, F. (2008) "Susceptibility of Children to Environmental Pollutants", *Annals of the New York Academy of Sciences*, Vol. 1140, pp 165-168.

<sup>252</sup> Sly, P. *et al.* (2007) "Exposure to Environmental Tobacco Smoke in Cars Increases the Risk of Persistent Wheeze in Adolescents", *Medical Journal of Australia*, Vol. 186 (6), 19 March, p 322.

<sup>253</sup> Vardavas, C.I, Linardakis, M. and Kafatos, A.G (2006) "Environmental Tobacco Smoke Exposure in Motor Vehicles: A Preliminary Study", *Tobacco Control*, Vol. 15, p 415.

<sup>254</sup> Rabin, R.C (2009) "A New Cigarette Hazard: 'Third-Hand Smoke'", *New York Times*, 3 January, [www.nytimes.com/2009/01/03/health/research/03smoke.html?em](http://www.nytimes.com/2009/01/03/health/research/03smoke.html?em), accessed 6 January 2009.

<sup>255</sup> UICC Global Cancer Control (2009) *World Cancer Campaign 2008-2009* [www.worldcancercampaign.org/index.php?option=com\\_content&task=view&id=129&Itemid=388](http://www.worldcancercampaign.org/index.php?option=com_content&task=view&id=129&Itemid=388), accessed 15 January 2009.

### 4.3 Relevant international agreements

The *Convention on the Rights of the Child*, adopted by the United Nations General Assembly on 20 November 1989, provides that States party to that Convention recognise the right of the child to the enjoyment of the highest attainable standard of health<sup>256</sup>. Australia is a party to this Convention.

### 4.4 Examples from other countries

California implemented the *Smoke-free Cars with Minors* legislation on 1 January 2008 to include all children aged less than 17 years old<sup>257</sup>. Other full or partial bans in the US on adults smoking in vehicles that transport children include:

- Arkansas – under age 6 or 60 pounds in weight (2006)
- Bangor, Maine – under age 18 (Jan 2007)
- Louisiana – under age 13 (August 2006)
- Keyport, New Jersey – under age 18 (April 2007)
- Rockland County, New York – under age 18 (June 2007)
- Puerto Rico – under age 13 (March 2007)
- West Long Branch, New Jersey – under age 18 (June 2007)

States that ban smoking in vehicles that transport foster children include Arizona, Maine, New Jersey, Oregon, Texas, Vermont and Washington<sup>258</sup>. Canadian provinces and territories that have enacted laws prohibiting smoking in vehicles carrying children include: British Columbia (BC), Nova Scotia (NS), Ontario, and the Yukon Territory. Canadian municipalities with such bans include Wolfville NS, Surrey BC, and Okotoks, Alberta<sup>259</sup>.

<sup>256</sup> World Health Organization (2003) *WHO Framework Convention on Tobacco Control*, [www.who.int/tobacco/framework/WHO\\_FCTC\\_english.pdf](http://www.who.int/tobacco/framework/WHO_FCTC_english.pdf), p 3, accessed 5 January 2009.

<sup>257</sup> California Department of Public Health (2008) *New 'Smoke-Free Cars with Minors' Law Protects California's Children from Secondhand Smoke in Cars*, [www.cdph.ca.gov/HEALTHINFO/NEWS/Pages/PH08-01.aspx](http://www.cdph.ca.gov/HEALTHINFO/NEWS/Pages/PH08-01.aspx), accessed 25 February 2009.

<sup>258</sup> California Department of Public Health (2008) *Smoke-Free Cars*, [www.tobaccofreeca.com/Cars-FAQs.pdf](http://www.tobaccofreeca.com/Cars-FAQs.pdf), accessed on 9 January 2009.

<sup>259</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra. [www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco](http://www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco), p 16, accessed 9 January 2009.



## 4.5 Examples from other Australian jurisdictions

	Ban on Smoking in Cars With Children
WA	Under consideration
SA	Yes - (under 16 years) Passed 2007
VIC	Yes (from 2010)
TAS	Yes - (under 18 years) Passed 2007
NSW	Yes - (under 16 years) Passed 2008
QLD	Yes (Bill tabled Nov 2008)
ACT	Under consideration
NT	No

The earliest recommendations to ban smoking in Australian cars were contained in a 1995 Draft report of the NHMRC, *The Health Effects of Passive Smoking: A Scientific Information Paper*. However, the recommendations were removed from the final report two years later after successful court action by the Tobacco Institute of Australia<sup>260</sup>.

Newspaper reporting of ‘smoking in cars’ stories between 1995-2007 first spiked in number in May 2000 following an AMA Victoria and Quit Victoria push for a ban. A latter spike occurred in 2005. In March that year, the AMA WA made a second call for a ban it had first advocated in 2002 after a survey of WA politicians found majority support for a ban when children under 18 were present in cars.

In November 2006 federal Parliamentary Secretary Christopher Pyne “urged States and Territories to enact legislation banning smoking in cars”, a move that won support from British American Tobacco Australia, which wanted greater public education about this issue<sup>261</sup>.

During a third reading stage of the *Tobacco Products Control Bill 2005*, Hon Dr Kim Hames, now WA’s Health Minister, said in September 2005 he had changed his mind on smoking in cars. He stressed that “Children who are passengers in a vehicle in which people are smoking are exposed to smoke, and we should deal with this issue by way of legislation. That is my personal

<sup>260</sup> Freeman, B., Chapman, S. & Storey, P. (2008) “Banning Smoking in Cars Carrying Children: An Analytical History of a Public Health Advocacy Campaign”, *Australia and New Zealand Journal of Public Health*, Vol. 32 (1), p61. The TIA has ceased to exist.

<sup>261</sup> Freeman, B., Chapman, S. & Storey, P. (2008) “Banning Smoking in Cars Carrying Children: An Analytical History of a Public Health Advocacy Campaign”, *Australia and New Zealand Journal of Public Health*, Vol. 32 (1), p 61.

opinion.”<sup>262</sup> The following year he introduced the *Road Traffic (Smoking in Motor Vehicles) Amendment Bill 2006* to ban smoking in cars carrying passengers aged under 17 years of age.

Up until the end of 2006, the WA Government and the then-Health Minister Hon Jim McGinty, endorsed education over legislation and Hon Dr Kim Hames’ private member’s bill failed to pass the first reading stage<sup>263</sup>. Hames acknowledged the newer scientific views that argued smoking in cars presents “severe risks for long-term and short-term health for asthmatics and those with respiratory disease.”<sup>264</sup> In August 2008, as Opposition Leader, the Premier Hon Colin Barnett supported a ban on smoking in cars carrying children<sup>265</sup>.

## 4.6 Public opinion

A Quit Victoria 2007 survey found 90% of respondents, including 85% of smokers, supported a ban on smoking in cars when children are present<sup>266</sup>. The Cancer Council of Victoria quoted a 2004 Australian survey citing 90% support for such a ban, including 73% of smokers in support, in their submission<sup>267</sup>. A similarly high acceptance rate was received in response to a 2008 Queensland government discussion paper on a proposed ban on smoking in cars, with 89% of the 588 submissions in favour of such a ban<sup>268</sup>.

Of the 296 media articles between 1995-2007 studied by Freeman, Chapman and Storey, 79% were supportive of legislation banning smoking in cars. Significantly, only four articles challenged the finding that SHS is harmful<sup>269</sup>. The Cancer Council of WA has surveyed support rates for smoking bans in cars carrying children annually since 2005 and have found that “Support has

<sup>262</sup> Dr K.D. Hames, Western Australia, Legislative Assembly, *Parliamentary Debates* (Hansard), 1 September 2005, pp 5016b-5019a/1.

<sup>263</sup> Freeman, B., Chapman, S. & Storey, P. (2008) “Banning Smoking in Cars Carrying Children: An Analytical History of a Public Health Advocacy Campaign”, *Australia and New Zealand Journal of Public Health*, Vol. 32 (1), p 61.

<sup>264</sup> Emerson, D. (2006) “McGinty Won’t Ban Smoking Near Kids”, *The West Australian*, 6 June, p 1.

<sup>265</sup> Strutt, J. (2008) “McGinty’s Smoking in Car Ban Foolish”, *West Australian*, 21 August, p 1.

<sup>266</sup> Freeman, B., Chapman, S. & Storey, P. (2008) “Banning Smoking in Cars Carrying Children: An Analytical History of a Public Health Advocacy Campaign”, *Australia and New Zealand Journal of Public Health*, Vol. 32 (1), p 63.

<sup>267</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 4.

<sup>268</sup> Bligh, A. Hon (2008) *Bligh Govt Toughens Anti-Smoking Legislation*, Ministerial Media Statement, 26 May, <http://statements.cabinet.qld.gov.au/MMS/statementdisplaysingle.aspx?id=58227>, accessed 20 February 2009.

<sup>269</sup> Freeman, B., Chapman, S. & Storey, P. (2008) “Banning Smoking in Cars Carrying Children: An Analytical History of a Public Health Advocacy Campaign”, *Australia and New Zealand Journal of Public Health*, Vol. 32 (1), p 62.

risen from 81% in 2005, to 87% in favour in 2007.”<sup>270</sup> Finally, TNS Social Research and Edith Cowan University measured support for car smoking bans at 84% of parents and 78% of school children<sup>271</sup>.

## 4.7 Weight of submissions

Only the WA Police opposed this new section, with more than 80% of the submissions supporting it unconditionally and 10% not commenting on it as it was not a focus of their activities (e.g. Woolworths and BP Australia). Four submissions gave conditional support to the proposed section.

## 4.8 Arguments for the draft proposal

Every submission acknowledged the importance of this proposed section of the draft Bill as an important step in reducing children’s exposure to secondhand smoke and enhancing the health outcomes of WA’s young people. This proposal was also likely, in the longer run, to save the government of Western Australia funds in the costly treatment of smoking-related diseases<sup>272</sup>. Most submissions also commented on other Australian jurisdictions that have already instituted such legislation, with many commenting on the Tasmanian Memorandum of Understanding (MOU) between the Police and the Department of Health as a way of managing its implementation in a realistic fashion, given Commissioner O’Callaghan’s comment that more resources would be needed in WA if such a law was passed by Parliament<sup>273</sup>. The Police Commissioner later provided the Inquiry with relevant information on policing activities of similar legislation in other Australian jurisdictions. Appendix Nine gives a summary of the process in Tasmania and South Australia where the legislation has been in operation for two years<sup>274</sup>.

Professor of Medicine, Dr Stanton Glantz, cited the evidence of ‘extremely high’ SHS levels “even with the windows rolled down” and suggested that enforcement is unlikely to be an issue if a strong public education campaign is begun after the law has been passed<sup>275</sup>. The AMA gave strong support to this section as young adolescents “are unable to physically escape [in a car] and

<sup>270</sup> CCWA (n.d) *Smoke-Free WA: Questions and Answers*, Media Alert, [www.cancerwa.asn.au/resources/80529nw1\\_Website%20Q%20and%20A%20Smoke-free%20WA.pdf](http://www.cancerwa.asn.au/resources/80529nw1_Website%20Q%20and%20A%20Smoke-free%20WA.pdf), accessed 15 January 2009. For approval ratings on these issues from the 2005-2008 Public and MP surveys, see Submission No. 51 (Appendix 2) from CCWA, 6 February 2009, p 2.

<sup>271</sup> Submission No. 41 from Ms Fiona Philips, Coordinator Smarter Than Smoking Project, 5 February 2009, p 2.

<sup>272</sup> Submission No. 3 from G.N. Connolly DMD, MPH and Dr Vaughan W. Rees, Harvard School of Public Health, 22 January 2009, p 2.

<sup>273</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 15; and Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 9.

<sup>274</sup> Submission No. 35 (Appendix 3A) from Office of Commissioner of Police, WA Police, 10 February 2009.

<sup>275</sup> Submission No. 37 from Dr Stanton Glantz, 3 February 2009, p 1.

are not usually emotionally empowered to challenge adults smoking.”<sup>276</sup> They said the impact of exposure to involuntary smoking “and the consequences...in relation to physiological development and disease can be profound” and that legislation is the only way to ensure all children are protected from smoking in cars<sup>277</sup>.

### (a) Enforcement

In Freeman, Chapman, and Storey’s large study of articles over 12 years, just under a third of the arguments made against a ban on smoking in cars pertained to the difficulties of enforcement and the need for police to prioritise their activities<sup>278</sup>. Similarly, in WA the then-Health Minister, Hon Mr Jim McGinty, in response to Hon Dr Kim Hames’ 2006 private members’ Bill, said “When it comes to smoking in private homes and cars we agree with the views of public health experts that it is better to change people’s attitudes through education rather than legislation.”<sup>279</sup>

Companies in the Australian tobacco industry support such a ban, with Philip Morris Ltd’s (PML) submission to a Victorian review agreeing that “people should not smoke around children in cars.”<sup>280</sup> However, PML questioned the appropriateness of 18 years of age used in the Bill and supported education rather than legislation as the means to achieve the ban. Professor Geoff Dobb, a former WA State President of the AMA, said “There are limits to what can be achieved through education. Children need protection from those who continue to endanger their health by smoking in such a confined space.”<sup>281</sup>

Countering the argument about the need for police enforcement, Rees and Connolly argue that there is research showing that “precisely this sort of legislation would receive support in many jurisdictions.”<sup>282</sup> The AMA show that implementation has been effectively achieved in South Australia and Tasmania “with no negative responses from police or local council officers.”<sup>283</sup>

ACOSH reported that “In NSW, Police supported similar legislation”<sup>284</sup> while ASH also cited the “SA experience has shown opportunistic enforcement is feasible.”<sup>285</sup> This was a view supported

<sup>276</sup> Submission No. 23 from AMA (WA), 30 January 2009, p 8.

<sup>277</sup> Submission No. 23 from AMA (WA), 30 January 2009, p 8.

<sup>278</sup> Freeman, B., Chapman, S. & Storey, P. (2008) “Banning Smoking in Cars Carrying Children: An Analytical History of a Public Health Advocacy Campaign”, *Australia and New Zealand Journal of Public Health*, Vol. 32 (1), p 62.

<sup>279</sup> Strutt, J. (2008) “McGinty’s Smoking in Car Ban Foolish”, *West Australian*, 21 August, p 1.

<sup>280</sup> Submission No. 2 (Appendix 2) from Philip Morris Limited, 13 January 2009, p 8.

<sup>281</sup> CCWA (2008) *Call for Smoking Ban in Cars and Outdoor public Places*, [www.cancerwa.asn.au/resources/80513\\_NGO%20Smokefree%20release.pdf](http://www.cancerwa.asn.au/resources/80513_NGO%20Smokefree%20release.pdf), accessed 14 January 2009.

<sup>282</sup> Submission No. 3 from G.N. Connolly DMD, MPH and Dr Vaughan W. Rees, Harvard School of Public Health, 22 January 2009, p 2.

<sup>283</sup> Submission No. 23 from AMA (WA), 30 January 2009, p9 and Appendix 2, p 3. See also Submission No. 32 from ACOSH, 30 January 2009, p 7.

<sup>284</sup> Submission No. 32 from ACOSH, 30 January 2009, p 7.

by the Heart Foundation in Victoria<sup>286</sup>. The Public Health Advocacy Institute of WA proposed that enforcement is “not envisaged to be a major part of Police duties....Enforcement will be opportunistic...and modest, and the legislation will be largely self-policed. It is, however, worth noting that the Police Force should not necessarily have to bear the costs of enforcement, and particularly of prosecutions....should be covered from elsewhere in government.”<sup>287</sup>

ACOSH proposed that “Policing will be opportunistic (as it is for mobile phones or seat belts), and the legislation will be largely self-enforced, especially as it becomes recognised as the norm.”<sup>288</sup> Figures provided by the Cancer Council of Victoria in relation to SA found that “as at April 2008, 86 fines and 27 cautions had been issued since the beginning of the financial year.”<sup>289</sup> Fines in SA are only \$75 for on-the-spot fines, while in Queensland they are \$150<sup>290</sup>.

The Heart Foundation provided later figures for SA, showing 125 offences and 38 cautions having been issued over the previous year. They also provided data from Tasmania reporting there had been 15 infringement notices and 30 cautions, without any reference to any difficulty of enforcement<sup>291</sup>. The Tasmanian Acting Health Minister confirmed these small numbers of infringements, adding that there had been eight warnings as well. He stressed that this ban had been particularly “well accepted by the public and supported by Tasmania Police.”<sup>292</sup> The Cancer Council of WA suggested that this support by police in Tasmania was due to the MOU being established between Tasmanian Police and the Department of Health “which clearly highlighted that enforcement was to be opportunistic and not through routine compliance checks.”<sup>293</sup>

FreeChoice supported the ban in their submission. However, they noted that the Government followed up a similar initiative in Tasmania with health flyers for FreeChoice retailers to hand out, advising of the fines, but also “reinforcing the importance of protecting minors from secondhand smoke while travelling in a motor vehicle.”<sup>294</sup> Other submissions from the tobacco industry also supported this section. BAT offers support on the grounds that this measure seeks “to reduce people smoking around young children<sup>295</sup> and as long as enforcement is ‘feasible’<sup>296</sup>. Swedish

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<sup>285</sup> Submission No. 18 from ASH, 30 January 2009, p 1.

<sup>286</sup> Submission No. 42 from Heart Foundation, 5 February 2009, p 3.

<sup>287</sup> Submission No. 50 from Public Health Advocacy Institute of Western Australia, 6 February 2009, p 5.

<sup>288</sup> Submission No. 32 from ACOSH, 30 January 2009, p 7.

<sup>289</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 5.

<sup>290</sup> Bligh, A. Hon (2008) *Bligh Govt Toughens Anti-Smoking Legislation*, Ministerial Media Statement, 26 May, <http://statements.cabinet.qld.gov.au/MMS/statementdisplaysingle.aspx?id=58227>, accessed 20 February 2009.

<sup>291</sup> Submission No. 20 from National Heart Foundation of Australia, WA Division, 30 January 2009, p 5.

<sup>292</sup> Submission No. 46 from Hon David Llewellyn, MP, 2 February 2009, p 1.

<sup>293</sup> Submission No. 51 from Cancer Council of WA, 6 February 2009, p 8.

<sup>294</sup> Submission No. 25 from FreeChoice Tobacconist Stores, 30 January 2009, p 2.

<sup>295</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 4.

Match (cigar importer and match distributor under the Redhead Brand) supports this amendment “because it does not believe that smokers should smoke near children, wherever that may be.” They acknowledge the arguments about civil liberties, excessive regulation and enforcement difficulties but “Nevertheless, the company holds firmly the view that the health of children is paramount.”<sup>297</sup>

The RACWA conditionally supports the proposal for a ban in cars, believing that if the Bill is enacted, it will need a comprehensive education campaign for motorists, and provided that it does not reduce the capacity of police to enforce laws in other “higher priority areas such as drink driving, speed limit enforcement or community.”<sup>298</sup> The RACWA also proposed that enforcement of such a ban be ‘phased-in’ by using a warning period to educate motorists before fines are imposed on a routine basis<sup>299</sup>.

Compulsory education classes as an alternative to infringement notices were raised by a number of witnesses, including the Police Commissioner. Professor Sly said “people who are issued infringement notices should be required to go to education classes, as they are in some other areas. If they go and listen, it might achieve the purpose of educating the community about what they are really doing.”<sup>300</sup> The Police Commissioner agreed that the new law would be self-enforced by some drivers:

*Law is there as a deterrent and it is also there as an education... I think one of the potential outcomes of making it illegal is that simply making it illegal will stop some people from doing it without it having to be policed.*

The Commissioner offered the example of a caution under the Road Traffic Act as an example of an alternative to fines for smoking in cars with young people as passengers:

*One of the things you might consider is whether you would want to offer the person at the side of the road an infringement notice or a notice directing them to some sort of education process or seminar. That is another option, rather than saying in every instance the only option is an infringement notice or caution, I suppose. We have a caution system under the Road Traffic Code.... But there could be an alternative to direct someone to education, I suppose, or advice.*<sup>301</sup>

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<sup>296</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 12.

<sup>297</sup> Submission No. 13 from Swedish Match, 29 January 2009, p 1.

<sup>298</sup> Submission No. 54 from RACWA, 6 February 2009, p 4.

<sup>299</sup> Submission No. 54 from RACWA, 6 February 2009, pp 3-4.

<sup>300</sup> Professor Peter Sly, Head, Division of Clinical Sciences, Telethon Institute for Child Health Research, *Transcript of Evidence*, 10 February 2009, p 6.

<sup>301</sup> Dr Karl O’Callaghan, Commissioner of Police, WA Police, *Transcript of Evidence*, 10 February 2009, p 10.

## (b) Not far enough

Freeman, Chapman and Storey argue that education initiatives are far more effective when backed by legislative force<sup>302</sup>, a proposal that the Cancer Council of Victoria agrees with<sup>303</sup>. The WA NGO Alliance supports such a ban, saying it would ‘enhance’ public health efforts in WA but they would ultimately like to see a complete ban on smoking in cars. They use pre-existing studies to show that “smoking while driving increases the risk of being involved in motor accidents.”<sup>304</sup> The Office Road Safety also wants the ban to be expanded to include all drivers of motor vehicles in order to reduce the impact that driver distraction, attributable to smoking, has on road deaths and trauma<sup>305</sup>.

Mr Peiris also argues that the proposed section does not go far enough. The plight of children in cars is no different to residents (and employees) subject to inadequate anti-smoking restrictions in aged-care facilities. He says that “[i]n both instances, there is a captive population, without a voice to express their concern.”<sup>306</sup> and he supports steeper fines for transgressors- \$500 to \$1000 which he believes will be more effective to stop people smoking than the proposed penalty of \$150, which he calls ‘woefully inadequate’<sup>307</sup>.

## 4.9 Arguments against the draft proposal

Imperial Tobacco Australia (ITA) gave only conditional support to this section and quoted the former president of ACOSH, Dr David Roberts, who in 2006 questioned the quality of the evidence surrounding the dangers of secondhand smoke in cars. However, as was detailed above, the science since then has become more convincing<sup>308</sup>. ITA suggests that “a proper and legitimate function of government is to safeguard the autonomy of the individual and his or her ability to be self-determining”<sup>309</sup> and complete their submission by applauding the Queensland approach that currently promotes further education, rather than legislation on this issue. However, ITA fails to mention that the Queensland Health Minister tabled a bill on 12 November 2008 proposing to ban smoking in cars carrying children under the age of 16 years old.

<sup>302</sup> Freeman, B., Chapman, S. & Storey, P. (2008) “Banning Smoking in Cars Carrying Children: An Analytical History of a Public Health Advocacy Campaign”, *Australia and New Zealand Journal of Public Health*, Vol. 32 (1), p 64.

<sup>303</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 5.

<sup>304</sup> CCWA (2008) *Submission on Proposals to Ban Smoking in Private Motor Vehicles and Select Outdoor Settings*, [www.cancerwa.asn.au/resources/80429ds2\\_JointNGOSubmission.pdf](http://www.cancerwa.asn.au/resources/80429ds2_JointNGOSubmission.pdf), p 5, accessed 8 January 2009.

<sup>305</sup> Submission No. 28 from Office of Road Safety WA, 29 January 2009, pp 1-2.

<sup>306</sup> Submission No. 1 from Mr D. Peiris, 13 January 2009, p 3.

<sup>307</sup> Submission No. 1 from Mr D. Peiris, 13 January 2009, p 3.

<sup>308</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 15.

<sup>309</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 3.

While the WA Police Commissioner supports measures aimed to reduce the exposure of adults and children to passive smoking he gave evidence that “the enforcement of such a Bill by the Police is problematic.”<sup>310</sup> He added that police work is determined and measured by agreed government priorities and that it is difficult to allocate resources to what are seen as ‘non-core function responsibilities’ such as the policing of ‘littering’.<sup>311</sup> The Commissioner accepted that Police would act on these type of infringements if smoking in a car was prohibited and was “made an offence under the Road Traffic Act or the Road Traffic Code, it would certainly be a role for police to play.”<sup>312</sup> However, Commissioner O’Callaghan remained unconvinced about the existence of significant research supporting smoking as driver distraction and said, “Until such time as it can be shown that there significant road safety issues associated with smoking in a vehicle I do not support an amendment to the Road Traffic Act for this purpose.”<sup>313</sup> While protesting that Police don’t have responsibilities for health matters, he did concede that they had health-related responsibilities under the Liquor Control Act and the Misuse of Drugs Act.

The Police Commissioner suggested that if the legislation became law he would seek to recover funds from the Department of Health or other agencies to compensate for the new policing tasks required under the Bill. He summarised the case for these additional funds:

*There would obviously be a minimal cost involved in stopping and infringing a vehicle. The amount of officer time involved in that is quite small. There are more significant costs involved with prosecutions of matters that are defended. ... There are issues about whether it would be necessary to prove the product is a tobacco product, whether it would need to be retained, or whether it would need to be analysed. All of those things incur a cost. My concern as Commissioner of Police is that the community of Western Australia would not want to see police resources going into that.*<sup>314</sup>

In their submission, the WA Police also proposed a new definition of vehicle in the draft Bill as the existing definition of ‘passenger car’ under the *Motor Vehicle Dealers Act 1973* is problematic, as it could exempt truck drivers from infractions. They suggested an alternative definition of a motor vehicle, as is presently contained in the *Road Traffic Act 1974*.

The WA Police also saw problems with the definition in the draft Bill of a ‘young person’, claiming that it did not clearly cover the scenario in which “the young person is the one who is smoking”, as licenses to drive cars are granted to people under 18<sup>315</sup>. The Police also suggested that “[f]urther expert advice may be required to assist with drafting”, as the proposed definition of a ‘tobacco product’, as per the 2006 Act does not include illegal plants (such as marijuana) or other drugs defined in the *Misuse of Drugs Act 1981*<sup>316</sup>. Finally, there may a loophole in terms of

<sup>310</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, p 1.

<sup>311</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, pp 1-2.

<sup>312</sup> Dr Karl O’Callaghan, Commissioner of Police, WA Police, *Transcript of Evidence*, 10 February 2009, p 4.

<sup>313</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, p 5.

<sup>314</sup> Dr Karl O’Callaghan, Commissioner of Police, WA Police, *Transcript of Evidence*, 10 February 2009, p 5.

<sup>315</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, p 4.

<sup>316</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, p 5.



Police being able to enforce the law if a cigarette was disposed of before the enforcing officer confronts the alleged offender in their car.

#### 4.10 Proposed regulatory amendments

The WA Police propose a change to the proposed section A (1) (as they do for the other new sections) that the title be amended from “Use of tobacco products” to “Smoking or otherwise using tobacco products”. They also propose the addition of a new subsection that would allow the Governor to make regulations in regard to the penalties for motorists breaching this law.

Both the Police and the Department of Health (DOH) propose amendments to subsection (2) in regard to the age at which passengers in the car are considered ‘young people’. The Police suggest 17 years of age and DOH 18 years of age. Both departments are concerned about the situation of a young driver being fined for smoking when he/she is driving a car with friends older than him/her.

Both departments also proposed that the definition contained in the draft Bill should move from using that of ‘passenger car’ under the *Motor Vehicle Dealers Act 1973* to that of ‘motor vehicle’ under the *Road Traffic Act 1974*.

DOH also proposed that the penalty for infringing this section be increased from \$150 to \$2,000 to match the penalty for smoking in an enclosed public place in the 2006 Act. They also highlight that “The maximum modified penalty permitted under the *Criminal Procedure Act 2004* is limited to 20% of the principle penalty” meaning that a fine would only be \$30 under the draft Bill, compared to \$400 under the existing Act<sup>317</sup>. The City of Joondalup proposed that fines for infringing bans on smoking in outdoor areas be increased to \$200 (from \$150) to match their local fines. This would mean that all of the proposed fines in sections 106 (A) to 106 (D) need to be increased to \$200 to maintain consistency in the Bill.

Finally, if education sessions are to be offered to infringing motorists as an alternate to fines, then the draft Bill may need to be amended to include this provision. The Committee recommends that such courses could be offered at no cost by the Department of Health.

#### **Finding 2**

The Committee finds that exposure to secondhand smoke in vehicles represents a particularly dangerous form of passive smoking to which children are especially susceptible. The Bill’s proposal to ban smoking in cars carrying young people is backed by robust scientific evidence, supported by a significant majority in the community, and is critical to protect children and adults from the harmful consequences of passive smoking.

<sup>317</sup>

Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 12.

**Recommendation 2**

The Committee recommends that the proposed section 106A to ban the use of tobacco products in a car at any time if one or more passengers is a young person be retained in the Bill and supports the proposed amendments from the Commissioner of Police to the title of the section, the definition of a 'motor vehicle', and a new subsection 106A (2) with the age of a young person as 17 years. The Committee endorses the concept of alternate penalty options such as smoking education sessions or community service. On the spot fines for this section be increased to \$200.

## CHAPTER 5      SECTION 106B - OUTDOOR EATING AND DRINKING AREAS

### 5.1      Proposed amendment

The draft Bill proposes to insert a new section into the existing Act:

***106 (B). Use of tobacco products in outdoor eating or drinking areas an offence.***

*(1) A person must not use tobacco products in an outdoor eating or drinking area.*

*Penalty applicable: \$150*

*(2) The license holder, if the outdoor area is part of licensed premises, or the person otherwise responsible for the outdoor eating or drinking area must not allow the use of tobacco products in that area.*

*Penalty applicable: see section 115*

*(3) The Governor may make regulations that are necessary to be prescribed for the signage to be displayed on outdoor eating or drinking areas prohibiting the use of tobacco products.*

### 5.2      Scientific arguments supporting the proposal

The US Surgeon General has argued that for Americans, who are subject to some of the tightest smoking restrictions in the world, “secondhand smoke remains an alarming public health hazard.”<sup>318</sup> His 2006 report adds that “[e]ven in locales with smoking restrictions in place, significant pockets of exposure remain [including]...some worksites such as restaurants and bars.”<sup>319</sup> Outdoor Tobacco Smoke (OTS) is another name given to secondhand smoke exposures occurring outside enclosed places and research into its dangers has gained considerable credibility.

Klepeis, Ott, and Switzer’s paper in 2007 was the first peer-reviewed study incorporating “systematic measurements of OTS concentrations”. It monitored more than 130 hours of data in common outdoor settings near smokers. These areas included “parks, sidewalk cafes, and

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<sup>318</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, preface p iii.

<sup>319</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 134.

restaurant and pub patios.”<sup>320</sup> They found OTS levels could be hazardous when patrons are seated within two metres of smokers in hospitality venues<sup>321</sup>. James Repace, a former staff scientist with the US Environmental Protection Agency (EPA) who has written over 75 papers on the effects of indoor secondhand smoke exposures, conducted similar research into OTS. Based on the findings of five international studies, several of which he co-authored, he argues that regardless of wind direction “an individual in an outdoor café...or otherwise surrounded by a group of smokers is always downwind from the source.”<sup>322</sup> In an article included with his submission, he explained that in the absence of wind “the cigarette [smoke] plume will rise to a certain height and then descend, and for a group of smokers...their smoke will tend to saturate the area with SHS.”<sup>323</sup> In the case of a study he conducted in Finland, he found that “air pollution levels in Helsinki outdoor cafes with many smokers were 5 to 20 times higher than on the sidewalks of busy streets polluted by bus, truck, and auto traffic.”<sup>324</sup>

These OTS exposures in alfresco areas have many adverse health impacts. The first impact is on the health of other customers. Professor Simon Chapman has bluntly stated that in concentrated smoking areas of alfresco bars and restaurants “cheek-by-jowl seating causes patrons to be half pickled in smoke.”<sup>325</sup> The second health impact is on hospitality workers. Klepeis, Ott, and Switzer argue that employees of outdoor hospitality venues who work for extended periods in close proximity to smokers are likely to have daily exposures to OTS that “will exceed the US EPA’s 24-hour health standard for fine particles.”<sup>326</sup> The US Surgeon General presented a variety of studies that showed cotinine levels for hospitality workers were significantly higher than for individuals in homes with one smoker, or for workers employed in smoke-free venues<sup>327</sup>.

The Surgeon General concludes “[t]he only effective controls that eliminate exposure to nonsmokers are the complete physical isolation of smoking areas with separate air exhausts or a

<sup>320</sup> Klepeis, N.E, Ott, W.R and Switzer, P. (2007) “Real-Time Measures of Outdoor Tobacco Smoke Particles”, *Journal of the Air and Waste Management Association*, Vol. 57 (5), May, p 522.

<sup>321</sup> Klepeis, N.E, Ott, W.R and Switzer, P. (2007) “Real-Time Measures of Outdoor Tobacco Smoke Particles”, *Journal of the Air and Waste Management Association*, Vol. 57 (5), May, p 533.

<sup>322</sup> Submission No. 9 from James Repace MSc, Visiting Asst Professor, Tufts University School of Medicine, 27 January 2009, p 1.

<sup>323</sup> Submission No. 9 (Appendix 1) from James Repace MSc, Visiting Asst Professor, Tufts University School of Medicine, 27 January 2009, p 1628.

<sup>324</sup> Submission No. 9 (Appendix 1) from James Repace MSc, Visiting Asst Professor, Tufts University School of Medicine, 27 January 2009, p 1625.

<sup>325</sup> Chapman, S. (2007) *Let’s Not Confuse Health and Morality*, [www.theaustralian.news.com.au/story/0,20867,21409930-7583,00.html](http://www.theaustralian.news.com.au/story/0,20867,21409930-7583,00.html), accessed 30 January 2009.

<sup>326</sup> Klepeis, N.E, Ott, W.R and Switzer, P. (2007) “Real-Time Measures of Outdoor Tobacco Smoke Particles”, *Journal of the Air and Waste Management Association*, Vol. 57 (5), May, p 533.

<sup>327</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, pp 602-605.

total smoking ban within the structure.”<sup>328</sup> Ultimately, he argues “Sustained progress toward a society free of involuntary exposures to secondhand smoke should remain a national public health priority.”<sup>329</sup>

### 5.3 Relevant international agreements

In supporting the sentiments of the US Surgeon General, WHO argues that a comprehensive smoking ban in public places and work places will also help people quit by reducing the opportunities in which they can smoke<sup>330</sup>. Provision is made for the banning of smoking in outdoor dining and drinking areas in WHO’s FCTC. Article VIII of the treaty encourages each party to pursue:

*...the adoption and implementation of effective legislative, executive, administrative and/or measures, providing for protection from exposure to tobacco smoke in indoor workplaces, public transport, indoor public places and, as appropriate, other public places.*<sup>331</sup>

### 5.4 Examples from other countries

The United States appears to be the world leader in comprehensive smoking bans in outdoor drinking and eating venues. California led the way in indoor smoking bans in restaurants and bars, enacting a statewide ban in 1998. By 2006, another nine US states had made bars smoke-free<sup>332</sup>. As of 2009, 15 US states and the self-governing territory of Puerto Rico have implemented ‘100% smokefree laws’ in restaurants and bars. These bans extend to smoking in attached bar areas or separately ventilated rooms. The states subject to these laws are Arizona, Delaware, Hawaii, Illinois, Iowa, Maryland, Massachusetts, Minnesota, New Jersey, New York, Ohio, Oregon, Rhode Island, Utah and Washington. By October 2009, Montana and Nebraska will have joined this list. Throughout the US 331 municipalities over 32 states, including 30 in California, have

<sup>328</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 650.

<sup>329</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 669.

<sup>330</sup> World Health Organization (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, [www.who.int/tobacco/mpower/gtcr\\_download/en/index.html](http://www.who.int/tobacco/mpower/gtcr_download/en/index.html), p 10, accessed 24 December 2008.

<sup>331</sup> World Health Organization (2003) *WHO Framework Convention on Tobacco Control*, [www.who.int/tobacco/framework/WHO\\_FCTC\\_english.pdf](http://www.who.int/tobacco/framework/WHO_FCTC_english.pdf), Article VIII, s2, accessed 5 January 2009.

<sup>332</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 592.

enacted similar laws. Local laws have also been passed in 149 municipalities across US 21 states banning smoking in any part of an outdoor dining area<sup>333</sup>.

Internationally, there are now 16 countries whose bars and restaurants are either smokefree, or have fully enclosed designated smoking areas in larger establishments. India has become the latest. In October 2008, the Indian Ministry of Health and Family Welfare announced the *Prohibition of Smoking in Public Places Rules 2008*, which banned smoking within and outside restaurants, coffee houses, pubs and bars<sup>334</sup>. The Indian Health Minister says that such bans were “essential to save India’s future.”<sup>335</sup>

## 5.5 Examples from other Australian jurisdictions

**Table 5.1 Outdoor Eating and Drinking Bans in Australian Jurisdictions**

	Outdoor Eating/Drinking
WA	Under consideration
SA	No
VIC	Partial (semi-enclosed)
TAS	No
NSW	No
QLD	Yes (Passed 2006)
ACT	No
NT	No

The state governments of Queensland and Victoria are the most progressive in terms of smoking bans in outdoor eating and drinking areas. Victoria’s *Tobacco Act 1987* has prevented smoking in semi-enclosed outdoor dining and drinking areas with a roof and wall area exceeding 75% of the notional wall space<sup>336</sup>. In 2006 Queensland became the first state to introduce smoking bans in all outdoor eating and drinking venues. However, the amendment to the *Tobacco and Other Smoking Products Act 1998* made provision for ‘designated outdoor smoking areas’ (DOSAs) which cannot

<sup>333</sup> See American Nonsmokers’ Rights Foundation (2009) *US 100% Smokefree Laws in Workplaces AND Restaurants AND Bars*, [www.no-smoke.org/pdf/WRBLawsMap.pdf](http://www.no-smoke.org/pdf/WRBLawsMap.pdf), accessed 23 February 2009; and American Nonsmokers’ Rights Foundation (2009) *Municipalities with Smokefree Outdoor Dining Laws*, [www.no-smoke.org/pdf/SmokefreeOutdoorDining.pdf](http://www.no-smoke.org/pdf/SmokefreeOutdoorDining.pdf), accessed 23 February 2009.

<sup>334</sup> Ministry of Health and Family Welfare, India (2008) *The Prohibition of Smoking in Public Places Rules, 2008*, [www.knowyourlaw.com/articles/details.asp?id=41](http://www.knowyourlaw.com/articles/details.asp?id=41), accessed 28 January 2009.

<sup>335</sup> Sinha, K. (2008) “From October 2, Head for the Road to Smoke”, *Times of India Online*, [timesofindia.indiatimes.com/articleshow/msid-3464490,prtpage-1.cms](http://timesofindia.indiatimes.com/articleshow/msid-3464490,prtpage-1.cms), accessed 28 January 2009.

<sup>336</sup> Section 5c (1) *Tobacco Act 1987* (Victoria).

exceed 50% of the whole licensed outdoor area of the premises. Patrons using DOSAs cannot purchase food or drink, consume meals, or be offered entertainment. The DOSAs are also meant to have a buffer zone surrounding the outer perimeter of the premises as well as its non-smoking areas. Buffers can comprise either an impervious smoke screen at least 2.1 metres in height or an area at least two metres in width where smoking is not permitted<sup>337</sup>.

Queensland Health has undertaken a public review of its 2006 legislation, including an assessment of the effectiveness of the DOSA provisions. It reported that smoke drifts continue to plague non-smoking areas, as licensees have generally opted against the construction of impervious barriers for their buffer zone requirements. Meanwhile industry groups are looking for “some relaxation of the prohibited activities in DOSAs such as the provision of snack foods and passive entertainment.”<sup>338</sup>

The Western Australian equivalent of the DOSA is the ‘breakout area’, introduced in response to the *Tobacco Products Control Act 2006* and defined as “a small area, which will form part of the licensed premises, where smokers may temporarily smoke or consume liquor.”<sup>339</sup>

Like their US counterparts, local councils in Australia have introduced smoking bans in alfresco dining areas<sup>340</sup>. In WA, six local government areas (LGAs) have already implemented a ban, while another seven have the proposal under consideration using their powers under the *Local Government Act 1995*<sup>341</sup>. Collectively, these councils represent nearly 40% of WA’s population (see Table 5.2 and 5.3 below).

<sup>337</sup> Sections 26X, 26ZA *Tobacco and Other Smoking Products Act 1998* (Queensland).

<sup>338</sup> Submission No. 33 (Appendix 3) from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 28.

<sup>339</sup> Department of Racing Gaming and Liquor (2007) *Guidelines for Establishing ‘Breakout Areas’*, [www.rgl.wa.gov.au/Default.aspx?cat=LiquorPolicies&article=107](http://www.rgl.wa.gov.au/Default.aspx?cat=LiquorPolicies&article=107), accessed 16 January 2009.

<sup>340</sup> City of Fremantle (2008) *Smoking Ban in Fremantle's Outdoor Eating Areas Takes Effect on August 15*, [www2.freofocus.com/news/html/alfresco\\_2008.cfm](http://www2.freofocus.com/news/html/alfresco_2008.cfm), accessed 16 January 2009.

<sup>341</sup> Submission No. 32 from ACOSH, 30 January 2009, p 16. The City of Subiaco was the most recent LGA to vote on this issue. In late February 2009 the Council voted 11 to 2 to prepare planning amendments to local legislation to ban smoking in alfresco areas. See Gill, M. (2009) *Councillors Issue Smoke Signals*, Community Newspapers, 3 March, <http://westernsuburbs.inmycommunity.com.au/news-and-views/local-news/Councillors-issue-smoke-signals/7519857/>, accessed 4 March 2009.

**Table 5.2- WA LGAs with Alfresco Dining Bans in Place\***

<b>LGA</b>	<b>Population</b>
Cockburn	80,921
Fremantle	26,777
Joondalup	157,203
Perth	13,486
Rockingham	91,702
Vincent	30,1117
<b>TOTAL</b>	<b>400,206</b>

\* Population figures based on ABS 2006 Census data.

**Table 5.3- WA LGAs with Alfresco Dining Bans Under Consideration\***

<b>Council</b>	<b>Population</b>
Armadale	53,445
Geraldton/Greenough	35,727
Mandurah	60,560
Nedlands	21,852
South Perth	41,572
Stirling	189,093
Subiaco	17,103
<b>TOTAL</b>	<b>419,352</b>

\* Population figures based on ABS 2006 Census data.

## 5.6 Public opinion

International and domestic public opinion offers healthy support for smoking bans in hospitality venues. The *WHO Report on the Global Tobacco Epidemic, 2008* cited surveys conducted across four countries that show between 65% and 90% of respondents supporting indoor bans in hotels and restaurants after implementation<sup>342</sup>.

<sup>342</sup>

World Health Organization (2008) *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*, [www.who.int/tobacco/mpower/gtcr\\_download/en/index.html](http://www.who.int/tobacco/mpower/gtcr_download/en/index.html), p 27, accessed 24 December 2008.



In WA there is evidence of long-term support for total smoking bans in restaurants and bars. Surveys cited in the 1997 Department of Health *Task Force on Passive Smoking* report showed 68% of respondents indicating a preference for drinking in a hotel free of tobacco smoke. An accompanying survey found 87% of respondents would frequent pubs and restaurants ‘just as often’ (74%) or ‘more often’ (13%) if these venues were smokefree<sup>343</sup>. Cancer Council WA surveys between 2005 and 2008 show support for total alfresco dining area bans rising to 85%, however support for these bans from smokers fell from 54% to 39%. Cancer Council WA figures for WA MPs over the same period show support in line with that of non-smokers<sup>344</sup>. A 2008 online survey by *The West Australian* found 89% of respondents agreed that smoking should be banned in alfresco eating areas<sup>345</sup>.

## 5.7 Weight of submissions

More than 70% of submissions offered unconditional support for the proposed alfresco ban, nearly 20% expressed no view and about 10% were opposed. Of the seven submissions opposed to this section of the Bill, two were from Imperial Tobacco and BAT Australia. Other opponents included the tobacconist group TSG and parties with interests in the hotel industry, including the AHA and Coles. The National Association of Retail Grocers of Australia (NARGA) opposed the move because they thought that the compromises reached in the 2006 Act were sufficient. The WA Police supported the intent of the Bill but had reservations surrounding the potential implications that this provision would have for enforcement.

## 5.8 Arguments for the draft proposal

Submissions supporting this proposal argued that the alfresco bans are consistent with the intent of the Bill to protect adults and children from passive smoking and tobacco promotion. These submissions endorsed the value of a comprehensive solution that addressed the failure of DOSAs to adequately protect people from involuntary smoke exposures. The US Surgeon General and the British Medical Association are just two sources that claim partial restriction strategies are flawed<sup>346</sup>. Dr Stanton Glantz, from University of California, endorsed this point in his submission. He argued that cigarettes “are like a little toxic waste dump on fire and outdoor smoking can

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<sup>343</sup> Department of Health (1997) *Report of the Western Australian Task Force on Passive Smoking in Public Places*, Department of Health, Perth. pp 64-65.

<sup>344</sup> CCWA (n.d) *Smoke-Free WA: Questions and Answers*, Media Alert, [www.cancerwa.asn.au/resources/80529nw1\\_Website%20Q%20and%20A%20Smoke-free%20WA.pdf](http://www.cancerwa.asn.au/resources/80529nw1_Website%20Q%20and%20A%20Smoke-free%20WA.pdf), accessed 15 January 2009; Submission No. 51 (Appendix 2) from CCWA, 6 February 2009, p 2.

<sup>345</sup> - (2009) *Polls*, [www.thewest.com.au/PollResults.aspx](http://www.thewest.com.au/PollResults.aspx), accessed on 3 February 2009.

<sup>346</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 649. Submission No. 23 (Appendix 1) from AMA (WA), 30 January 2009, p 24.

produce surprisingly high levels of local air pollution.”<sup>347</sup> He cited a comprehensive study by the California Air Resources Board in support of his view and confirmed that in the alfresco situation ‘smoke drift’ is a problem best resolved by 100% smokefree policies. The Cancer Council of WA and the National Heart Foundation cautioned against the use of DOSAs and several patrons of licensed premises also felt that the current breakout provisions in Western Australia were inadequate to protect them from smoke exposures<sup>348</sup>. Several other submissions made the point that a total ban would also contribute significantly to the improved health prospects of hospitality workers<sup>349</sup>.

These concerns have been given added credence by some of the issues identified in the review into the use of DOSAs in Queensland. Numerous submissions to the Queensland Health review complained about “smoke drift from DOSAs into non-smoking areas [and] DOSAs being located directly next to no-smoking areas with no buffer zone or barrier to prevent or limit smoke drift.”<sup>350</sup> In the context of beer gardens, there were complaints from health groups that in some cases “children were allowed in DOSAs and therefore exposed to concentrated SHS.”<sup>351</sup> Queensland Health indicated to their counterparts in Western Australia that:

*an exclusion zone greater than 4 m should apply to smoking bans at entrances to public buildings including outdoor eating areas as it was the source of many complaints of people having to enter buildings ‘through a haze of smoke’ and smoke drift.*<sup>352</sup>

An added benefit of a full smoking ban in outdoor dining and eating areas is the health benefit it can offer active smokers. The AMA argued that these restrictions “will almost certainly contribute to smokers smoking less and assist them to give up the habit.”<sup>353</sup> Ms Karen Struthers MP, the Parliamentary Secretary to the Queensland Minister for Health, “fully support[s] all positive moves towards further addressing the exposure to tobacco smoke, particularly in outdoor settings and crowded areas.”<sup>354</sup> Her submission contained data that supports the arguments of the AMA. Independent research has been conducted in Queensland since the 2006 implementation of its outdoor bans and has found “67% of smokers in Queensland reported smoking less in public places and 22% reported making a quit attempt...the new tobacco laws helped 27% of ex-smokers to stay smoke-free.”<sup>355</sup> The claim of industrial psychologist, Dr Owen Carter “that if you

<sup>347</sup> Submission No. 37 from Dr Stanton Glantz, 3 February 2009, pp 1-2.

<sup>348</sup> Submission No. 51 from CCWA, 6 February 2009, p 2; Submission No. 42 from Heart Foundation, 5 February 2009, p 4; Submission No. 12 from Ms Claire Walkley, 30 January 2009, p 1; and Submission No. 14 from Kim Ribbink, 30 January 2009, p 1.

<sup>349</sup> Submission No. 18 from ASH, 30 January 2009, p 1; and Submission No. 32 from ACOSH, 30 January 2009, pp 7-8.

<sup>350</sup> Submission No. 60 from Hon Dr Kim Hames, MLA, Minister for Health, 25 February 2009, p 29.

<sup>351</sup> Submission No. 60 from Hon Dr Kim Hames, MLA, Minister for Health, 25 February 2009, p 28.

<sup>352</sup> Submission No. 60 from Hon Dr Kim Hames, MLA, Minister for Health, 25 February 2009, p 29.

<sup>353</sup> Submission No. 23 from AMA (WA), 30 January 2009, p 11.

<sup>354</sup> Submission No. 40 from Ms Karen Struthers MP, 30 January 2009, p 2.

<sup>355</sup> Submission No. 40 from Ms Karen Struthers MP, 30 January 2009, p 1.

separate the drinker from the cigarette, you destroy the marriage”<sup>356</sup> is increasingly credible in light of the data from Queensland.

Ms Struthers made the further point that the Queensland laws contribute to an ongoing cultural change by “creating an environment where non-smoking is the norm.”<sup>357</sup> This view was shared by ACOSH and UWA’s School of Population Health<sup>358</sup>. Such normative changes could also provide positive role-modelling for children who may no longer have to witness large numbers of smokers congregating at the perimeters of licensed premises, or in beer gardens<sup>359</sup>.

One of the benefits of this proposed legislation is that it would bring consistency to a policy area where councils have already implemented alfresco dining bans. Both the City of Joondalup and City of Fremantle advised the Committee that the anti-smoking message is blurred by the fact that local government ordinances are only applicable to council-owned land<sup>360</sup>. In the case of Fremantle, premises in the Boat Harbour precinct are on private land, and are exempt from outdoor smoking bans. Mr Matthew Piggott, from the City of Fremantle, advised the Committee that a major benefit of this Bill is that it will provide clarity for the many visitors who come to Perth from overseas and other parts of Australia and are confused by the inconsistencies between councils<sup>361</sup>.

Nowhere is this better illustrated in Perth than in Walcott Street, Mt Lawley. This street marks the boundary dividing the Towns of Stirling and Vincent and intersects the Beaufort Street restaurant and entertainment precinct. Patrons frequenting cafes and bars on the Town of Vincent side are subject to alfresco smoking bans, while those on the Stirling side are not<sup>362</sup>. Irregularities like this undermine the important role that alfresco bans could play in future tobacco control efforts.

## 5.9 Arguments against the proposal

The opposition to alfresco smoking bans is similar in nature to that used to argue against the removal of PoS tobacco displays.

### (a) Quality of evidence

Without offering their own supporting scientific evidence, representatives of the tobacco industry questioned the veracity of the science that underpins the calls for restricting OTS by an alfresco

<sup>356</sup> Dr Owen Carter, Senior Research Fellow, Curtin University, *Transcript of Evidence*, 10 February 2009, p 13.

<sup>357</sup> Submission No. 40 from Ms Karen Struthers MP, 30 January 2009, p 1.

<sup>358</sup> Submission No. 32 from ACOSH, 30 January 2009, pp 7-8; and Submission No. 47 from School of Population Health, University of Western Australia, 30 January 2009, p 2.

<sup>359</sup> Submission No. 49 from Cancer Council Victoria, 5 February 2009, p 11.

<sup>360</sup> Submission No. 30 from Mr Troy Pickard, Mayor City of Joondalup, 27 January 2009, p 1.

<sup>361</sup> Matthew Piggott, Coordinator, Environmental Health and Building Services, City of Fremantle, *Transcript of Evidence*, 16 February 2009, p 4.

<sup>362</sup> Mr Stephen Hall, Executive Director, ACOSH, *Transcript of Evidence*, 11 February 2009, pp 7-8.

ban<sup>363</sup>. Furthermore, both ITA and BAT used quotes selectively to misrepresent the views of Professor Simon Chapman and Ms Anne Jones to imply that some tobacco control experts were over-stating the threat of OTS<sup>364</sup>. Chapman and Jones both made submissions to the Committee and were clear about the dangers of secondhand smoke in outdoor environs. Professor Chapman backed the Bill in its entirety and added that he was “fully supportive of ...banning smoking in outdoor dining situations and in crowded or substantially frequented outdoor public areas.”<sup>365</sup> Ms Jones defended her views:

*...as usual, the tobacco groups are very good at taking something out of context and quoting it.... We should see this as not only a good health move, but also a popular move that would be supported by the community.*<sup>366</sup>

## **(b) Commercial detriment**

The most commonly cited argument by the opponents of an alfresco ban was the likely adverse economic impact that such a ban would have on the hospitality industry. TSG Franchise Management warned that “venues will become deserted and a waste of space and money...[as] smokers will stay at home and smoke in their homes.”<sup>367</sup> Both ITA and BAT used an article from the *Sydney Morning Herald* saying club revenues in NSW had fallen \$1.7 million per day immediately after indoor bans were implemented in that state to support their view that the financial impact of stricter moves in WA would be severe<sup>368</sup>. Neither submission mentioned that the same article indicated that the Registered Clubs Association of NSW had backed the smoking ban<sup>369</sup>. BAT added that WA hoteliers had spent \$25 million establishing smoking areas that complied with the 2006 Act and were exposed to unfair burdens if this Bill was passed. The Australian Hotels Association (AHA) suggested that the ability to maintain an arrangement for smoking patrons was the only reason why the financial impact of the 2006 amendments was kept manageable<sup>370</sup>.

Weighed against these arguments is a significant body of international and local experience that contradicts such claims. Numerous peer-reviewed studies of the impact across a variety of hospitality venues in the US have found that “smoke-free ordinances have no effect or a positive

<sup>363</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 14.

<sup>364</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 14; and Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, pp 6-7.

<sup>365</sup> Submission No. 43 from Professor Simon Chapman, 5 February 2009, pp 1-2.

<sup>366</sup> Ms Anne Jones, CEO, ASH Australia, *Transcript of Evidence*, 11 February 2009, pp 7-8.

<sup>367</sup> Submission No. 19 from TSG Franchise Management Pty Ltd, 30 January 2009, p 5.

<sup>368</sup> Submission No. 11 from Imperial Tobacco Australia Ltd, January 2009, p 13; and Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 21.

<sup>369</sup> Gibson, J. (2008) *Smoke Ban Costs Clubs \$1.7m a Day*, [www.smh.com.au/cgi-bin/common/popupPrintArticle.pl?path=/articles/2008/12/09/1228584839206.html](http://www.smh.com.au/cgi-bin/common/popupPrintArticle.pl?path=/articles/2008/12/09/1228584839206.html), accessed 30 January 2009.

<sup>370</sup> Submission No. 55 from Australian Hotels Association (AHA) WA, 6 February 2009, p 4.

effect on hospitality industry revenues.”<sup>371</sup> Scollo *et al.* conducted a review of previous studies that examined sales receipts and employment figures for hospitality business across eight countries. Of the 37 research projects they examined this “only a handful...conclude a negative impact.”<sup>372</sup>

The experience in Australia is similar. The NPHT argues that restrictions of smoking in public places have thus far provided “net benefits to business, with no adverse affects on overall sales in the hospitality industry.”<sup>373</sup> The Queensland Government discussion paper assessing the impact of the 2006 bans in that state did acknowledge that there has been an initial drop in revenue. However, it suggested that this decline is expected to be temporary. The paper argues that if the experience in Queensland reflects that seen in Victoria and overseas “an initial decrease in gaming revenue following the introduction of smoking bans is likely to be followed by a steady increase and return of sales.”<sup>374</sup> Supporting this view is the independent research in Queensland undertaken for the discussion paper which found that “9% of Queensland respondents say they are visiting outdoor eating or drinking places less often, compared to **30% who report they are visiting more often** [*emphasis added*].”<sup>375</sup>

In terms of the experience in WA, the Mayor of Fremantle, Mr Peter Tagliaferri, told the Committee of Fremantle’s experiences since smoking bans were introduced in alfresco dining areas last year:

*The statistics are very, very clear. Even with the current world economic crisis and the drop in the mining economy, visitation numbers to the City of Fremantle increased by 20% in the past financial year.... The sky-falling scenario predicted by the AHA has not come to fruition.*<sup>376</sup>

He also spoke of the attitudes of proprietors who were initially opposed the bans:

<sup>371</sup> Weber, M.D *et al.* (2003) “Long Term Compliance with California’s Smoke-Free Workplace Law Among Bars and Restaurants in Los Angeles County”, *Tobacco Control*, Vol. 12, p 269. See also Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 16.

<sup>372</sup> Scollo, M. *et al.* (2003) “A review of the quality of studies on the Economic Effects of Smokefree Policies on the Hospitality Industry”, *Tobacco Control*, Vol 12, 2003, pp 14-15.

<sup>373</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra.  
[www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco](http://www.preventativehealth.org.au/internet/preventativehealth/publishing.nsf/Content/tech-tobacco), accessed 9 January 2009, p 16.

<sup>374</sup> Submission No. 33 (Appendix 2) from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 7.

<sup>375</sup> Submission No. 33 (Appendix 2) from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 13.

<sup>376</sup> Mr Peter Tagliaferri, Mayor, City of Fremantle, *Transcript of Evidence*, 16 February 2009, p 10.

*They are now some of the biggest supporters because it has improved their patronage. They first said that they would lose serious quantities of business, but it has been the reverse.*<sup>377</sup>

The Committee is not convinced of the arguments surrounding the potential long-term economic impact of the proposed ban. Committee members spoke to smokers during their on-site briefing with the AHA and this anecdotal evidence showed a significant majority did not feel that the ban would deter them from attending their local pub in the future. They were actually supportive of the measure, as they felt it would help them with their stated intentions to quit smoking<sup>378</sup>. There is no reason why the reconfigured beer gardens that some publicans had established to cater for smokers after the 2006 Act will not remain appealing to a significant majority of non-smoking patrons that will attend these premises in the future. Moreover, claims that economic adversity will follow smoking bans in hospitality venues have been commonly used by the tobacco industry despite their long-held admissions that they are unfounded. For example, a 1994 Philip Morris document says:

*The economic arguments often used by the industry to scare off smoking ban activity are no longer working, if indeed they ever did. These arguments simply had no credibility with the public, which isn't surprising when you consider that our dire predictions in the past rarely came true.*<sup>379</sup>

### (c) Enforcement issues

A range of concerns were conveyed to the Committee regarding the practicality of enforcing the laws proposed under section 106 (B). The WA Police, while applauding the intent of the Bill, had concerns that this provision will “mean police may be taking on responsibility for matters currently addressed by local authorities.”<sup>380</sup> President of the WA Local Government Association (WALGA), Cr Bill Mitchell, cautioned that his members currently lacked adequate resourcing and would require financial compensation if the proposed ban was to be actively enforced, especially after 5pm when most environmental health officers finished their shifts<sup>381</sup>. Alternatively, the Australian Hotels Association expressed reservations that employees already work in ‘potentially volatile environments’, and would be exposed to unnecessary risks if made to advise patrons to refrain from smoking in certain situations<sup>382</sup>. Cr Mitchell expressed similar occupational health and safety issues for council environmental health officers<sup>383</sup>.

<sup>377</sup> Mr Peter Tagliaferri, Mayor, City of Fremantle, *Transcript of Evidence*, 16 February 2009, p 2.

<sup>378</sup> Mr Bradley Woods, CEO, and Mr Paul Brockshlager, Manager, Corporate and Parliamentary Affairs, AHA WA, *Briefing*, 19 February 2009.

<sup>379</sup> Walls, T. (1994) *CAC Presentation Number 4 Tina Walls- Introduction*, <http://legacy.library.ucsf.edu/tid/vnf77e00>, p28, accessed 5 February 2009.

<sup>380</sup> Submission No. 35 from WA Police, 4 February 2009, p 2.

<sup>381</sup> Cr Bill Mitchell, President, WALGA, *Transcript of Evidence*, 11 February 2009, pp 1-2.

<sup>382</sup> Mr Bradley Woods, CEO, AHA (WA Division), *Transcript of Evidence*, 16 February 2009, p 9.

<sup>383</sup> Cr Bill Mitchell, President, WALGA, *Transcript of Evidence*, 11 February 2009, p 1.

However, supporters of the proposed ban suggest these concerns can be allayed through a combination of measures. The City of Fremantle agreed with the view of Cr Mitchell that the Council would require further resourcing to enforce its ordinance round the clock<sup>384</sup>. Still, Fremantle has found that a policy of self-regulation has been quite effective. Mr Piggott said “Whilst there are provisions for enforcement of the new rules, it’s our intention for business to self-regulate”, with law enforcement officers only being called in when clients refused to comply or to leave when requested<sup>385</sup>. Mr Piggott advised that no prosecutions have yet been undertaken and that the ban “has been encouraged and supported by the Fremantle community and food premises proprietors.”<sup>386</sup> A major factor in its acceptance has been an education campaign that accompanied the introduction of the local ordinance. Mr Piggott told the Committee:

*We were very mindful of introducing an education campaign that was aligned to the local law enforcement provisions, so that we were not simply making it illegal to undertake a particular activity and that we would fine people and so forth. We decided to create some information brochures that staff could hand out to their customers if they saw them smoking. It would introduce them to what the ban was all about, the reasons behind it and the obligations that the city is placing on them. It informed them as to what they could and could not do in terms of smoking and not smoking. It also gave them options in terms of seeking help if they chose to quit, for example.*<sup>387</sup>

Mr Piggott believes in these circumstances smokers were generally compliant with the local laws. This view was shared by Mr Nick Jones from the City of Cockburn, another council to enact similar smoking restrictions in alfresco areas:

*...most smokers are responsible people who are quite happy to follow the laws and as aware as anybody else about the right thing to do, and they tend to do the right thing. I think they just need a little bit of a prod in the right direction.*<sup>388</sup>

Both witnesses agreed that the key component of the success of outdoor smoking bans was the education and health promotion campaign that underpinned the proposed law<sup>389</sup>. This approach using self-regulation by smokers who are well-informed is endorsed by groups such as Healthway and the Cancer Council of WA. For their public education campaign, the City of Fremantle used a

<sup>384</sup> Submission No. 53 from Mr Matthew Piggott, Coordinator Environmental Health and Building Services, City of Fremantle, 6 February 2009, pp 2-3.

<sup>385</sup> City of Fremantle (2008) *Smoking Ban in Fremantle's Outdoor Eating Areas Takes Effect on August 15*, [www2.freofocus.com/news/html/alfresco\\_2008.cfm](http://www2.freofocus.com/news/html/alfresco_2008.cfm), accessed 16 January 2009.

<sup>386</sup> Submission No. 53 from Mr Matthew Piggott, Coordinator Environmental Health and Building Services, City of Fremantle, 6 February 2009, p 3.

<sup>387</sup> Mr Matthew Piggott, Coordinator Environmental Health and Building Services, City of Fremantle, *Transcript of Evidence*, 16 February 2009, p 3.

<sup>388</sup> Mr Nick Jones, Manager, Environmental Health, City of Cockburn, *Transcript of Evidence*, 16 February 2009, p 5.

<sup>389</sup> Mr Nick Jones, Manager, Environmental Health, City of Cockburn, *Transcript of Evidence*, 16 February 2009, p 8; and Mr Matthew Piggott, Coordinator Environmental Health and Building Services, City of Fremantle, *Transcript of Evidence*, 16 February 2009, p 3.

wide range of material currently available free of charge from the Department of Health's Tobacco Control Branch (see Figure 5.1 below). The Committee believes that similar material, updated to reflect the extension of bans to outdoor eating and dining areas throughout WA, would be essential to the successful implementation of section 106B.



Figure 5.1 - Education Kits for Business Owners - Available from DOH

## Smoking in Enclosed Public Places Resource Order Form

### Choose How to Order

1. Online: Visit [www.health.wa.gov.au/ordering](http://www.health.wa.gov.au/ordering)
2. By phone: Call HealthInfo on 1300 135 030

### Maximum Order

Resources are provided free of charge, for this reason we cannot process orders for amounts above the maximum quantities specified next to each item. In your order, if you believe you have a need for more resources, please contact (08) 9242 9633.

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### Signage

 <p><b>HP7466</b> No Smoking stickers Max No. 20 Dimensions: 134mm x 95mm</p>	 <p><b>HP7467</b> No Smoking stickers - for use in areas not required to be "smoke free" by law Max No. 20 Dimensions: 148mm x 210mm</p>
 <p><b>HP7678</b> No Smoking stickers Max No. 20 Dimensions: 148mm x 210mm</p>	 <p><b>HP7682</b> International no-smoking symbol stickers Max No. 20 Dimensions: 80mm x 80mm</p>
 <p><b>HP7468</b> No Smoking window sticker Max No. 10 Dimensions: 148mm x 210mm</p>	 <p><b>HP2384</b> No Smoking within 5m of entrance stickers Max No. 10 Dimensions: 148mm x 210 mm</p>
 <p><b>HP7675</b> Table cards Max No. 20 Dimensions: 220mm x 115mm</p>	 <p><b>HP2385</b> No Smoking within 5m of entrance stickers Max No. 10 Dimensions: 210mm x 297 mm</p>



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## 5.10 Proposed regulatory amendments

Several submissions to the Inquiry observed deficiencies in the drafting of the Bill that need to be addressed to ensure that enforcement requirements, definitions and penalties are consistent with existing legislation. DOH suggested that amendments would need to be made regarding the definition of the action being proscribed, as well as the establishments and persons liable to prosecution<sup>390</sup>. A number of submissions queried the use of the term ‘licensed premises’ and whether it just meant premises holding a liquor license.

DOH also noted that the proposed penalty provisions under section 106B (2) are “inconsistent with the penalty prescribed in the Regulations for an offence of smoking in an enclosed public place.”<sup>391</sup> Representatives from the Australian Hotels Association also advised the Committee of this inconsistency<sup>392</sup>. If contravention of this clause is subject to penalty under section 115 of the Act, fines for license holders could be \$40,000. Moreover, licensees could not avail themselves the defence provisions currently allowable in the Regulations.

The Committee agreed with a proposal from DOH to an amendment that removes section 106B (3) from the draft Bill, as the power of the Governor to make regulations for signage to be used in the alfresco area appears to be dealt with in section 125 (1) and (2) of the Act.

### Finding 3

The Committee finds that exposure to secondhand smoke in outdoor eating and drinking areas remains a health hazard for non-smokers including patrons and hospitality workers. The proposal to ban smoking in outdoor eating and drinking areas follows international best practise precedents that recognise there is no safe level of passive smoke. It will further protect West Australian children and adults from the harmful consequences of passive smoking.

<sup>390</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, pp 12-13.

<sup>391</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 12.

<sup>392</sup> Mr Paul Brockshlager, Manager, Corporate and Parliamentary Affairs, AHA (WA), *Transcript of Evidence*, 16 February 2009, p 13.

**Recommendation 3**

The Committee recommends that the proposed section 106B to ban the use of tobacco products in outdoor eating or drinking areas be retained in the Bill. A person must not smoke within 5 metres of an entrance to or opening of an outdoor eating or drinking area. The legislation be accompanied by a well-funded education and public awareness campaign.



## CHAPTER 6 SECTION 106C- OUTDOOR PLAYING AREAS

### 6.1 Proposed amendment

The Draft Bill proposes to insert a new section into the existing 2006 Act. The proposed section reads:

***106C. Use of tobacco products in outdoor playing areas an offence***

*A person must not use tobacco products in an outdoor playing area.*

*Penalty applicable: \$150.*

The Draft Bill defines an ‘outdoor playing area’ as “mean[ing] an area primarily designated for the use of children for play or sporting purposes”.

### 6.2 Scientific arguments supporting the proposal

In the US, the Air Resources Board (CARB) of the Californian Environmental Protection Authority conducted a study which found that, “nicotine concentrations in several different environments, such as outside office buildings, schools, businesses, airports and **amusement parks** [*emphasis added*] are comparable to those found in some smokers’ homes.”<sup>393</sup>

Stanford university researchers reported that “The general findings of the CARB study are compatible with the findings of the current work [confirming]...the potential for relatively high OTS [outdoor tobacco smoke] exposures in places where smokers congregate.”<sup>394</sup> The technical paper by Klepeis, Ott and Switzer was the first peer-reviewed research incorporating ‘systematic measurements of OTS concentrations’<sup>395</sup>. It monitored more than 130 hours of data in ‘common outdoor settings near smokers’. These areas included “parks, sidewalk cafes, and restaurant and pub patios.” Their research found that average OTS levels were quite high and comparable to indoor levels within 0.5 metres of a smoker, and still detectable 3-4 metres from a single cigarette, especially downwind from the smoker”<sup>396</sup>.

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<sup>393</sup> Environmental Protection Agency, California (2006) *Environmental Tobacco Smoke: A Toxic Air Contaminant*, [www.arb.ca.gov/toxics/ets/factsheetets.pdf](http://www.arb.ca.gov/toxics/ets/factsheetets.pdf), p 2, accessed 16 January 2009.

<sup>394</sup> Klepeis, N.E, Ott, W.R and Switzer, P. (2007) “Real-Time Measures of Outdoor Tobacco Smoke Particles”, *Journal of the Air and Waste Management Association*, Vol. 57 (5), May, p 532.

<sup>395</sup> Klepeis, N.E, Ott, W.R and Switzer, P. (2007) “Real-Time Measures of Outdoor Tobacco Smoke Particles”, *Journal of the Air and Waste Management Association*, Vol. 57 (5), May, p 522.

<sup>396</sup> Klepeis, N.E, Ott, W.R and Switzer, P. (2007) “Real-Time Measures of Outdoor Tobacco Smoke Particles”, *Journal of the Air and Waste Management Association*, Vol. 57 (5), May, p 532.

### 6.3 Examples from other countries

In California, a state law banning tobacco use in all playgrounds and in ‘tot lot’ sandbox areas took effect on January 1, 2002. The city of Los Angeles had already implemented a similar municipal law prohibiting smoking in all 375 city parks and recreation centres<sup>397</sup>.

The US Surgeon General said of the 577 municipal jurisdictions across 40 states in the US with ordinances banning smoking in a variety of outdoor areas including, parks playgrounds and beaches:

*These policies are presented as measures not only to protect children, youth, and non-smoking adults from secondhand smoke, but also to set a healthy example for youth, reduce litter, and prevent infants from ingesting discarded cigarettes.*<sup>398</sup>

Several local government areas in NZ have introduced smoke-free park policies using “signage and media coverage, rather than by laws, to encourage compliance.” Surveys conducted in these parks found 83% of park users endorsed the policy, including 73% of smokers. “common reasons given were enhancing positive role modelling (28%), reducing secondhand smoke exposure (28%), and because parks are children’s environments (27%).”<sup>399</sup>

<sup>397</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 633.

<sup>398</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 634.

<sup>399</sup> Stevenson, A. *et al.* (2008) “Majority of Smokers and Non-Smokers in Favour of Smokefree Parks in New Zealand”, *New Zealand Medical Journal*, Vol 121 (1274), 23 May, p 108.

## 6.4 Examples from other Australian jurisdictions

**Table 6.1 Smoking in Playgrounds and Public Space Bans in Australian Jurisdictions**

	<b>Play Areas</b>
<b>WA</b>	<b>Under consideration</b>
<b>SA</b>	<b>No</b>
<b>VIC</b>	<b>Partial</b> (underage music events)
<b>TAS</b>	<b>Partial</b> (outdoor sporting/cultural events)
<b>NSW</b>	<b>No</b>
<b>QLD</b>	<b>Yes</b>
<b>ACT</b>	<b>No</b>
<b>NT</b>	<b>Partial</b> (outdoor public venues)

In WA, the Town of Vincent banned smoking in playgrounds in 2003, citing as one its reasons “[t]o guard against the visual impact of smoking on childhood behavioural development” as well as the need to protect children’s health from secondhand smoke<sup>400</sup>. Queensland legislation in 2005 banned smoking within 10 metres of outdoor children playground equipment and 25 fines were issued last year for breaching this law<sup>401</sup>.

## 6.5 Public opinion

The Cancer Council of WA’s 2008 Community Survey found over 80% of non-smokers supported a ban on smoking at outdoor public spaces such as playgrounds and parklands, with a third of smokers supporting such a ban. More than 80% of Western Australian MPs also supported such a ban in a Cancer Council survey. These figures are slightly lower than those for a ban in sporting stadiums, which is already covered in the existing Act<sup>402</sup>.

<sup>400</sup> Town of Vincent (2008) *Policy No: 3.8.7: Prohibition of Smoking in Town Playgrounds*, [www.vincent.wa.gov.au/cproot/483/26559/3.8.7%20Prohibition%20of%20Smoking%20in%20Town%20Playgrounds.pdf](http://www.vincent.wa.gov.au/cproot/483/26559/3.8.7%20Prohibition%20of%20Smoking%20in%20Town%20Playgrounds.pdf), accessed 16 January 2009.

<sup>401</sup> Bligh, A. Hon (2008) *Bligh Govt Toughens Anti-Smoking Legislation*, Ministerial Media Statement, 26 May, <http://statements.cabinet.qld.gov.au/MMS/statementdisplaysingle.aspx?id=58227>, accessed 20 February 2009.

<sup>402</sup> Submission No. 51 from CCWA, 6 February 2009, p 24.

Research by the organisation Smarter than Smoking showed that 84% of Perth parents, and 84% of school students, believe “that those who attend junior sport should not be allowed to smoke.”<sup>403</sup> Similarly, statistics from the US Department of Commerce Census Bureau indicate a 15% increase in support for smoking bans in sports arenas over the decade 1992-2002 with more than three-quarters of people now supporting such a ban<sup>404</sup>:

## 6.6 Weight of submissions

Nearly three quarters of submissions to this Inquiry gave unconditional support for the proposed amendment, with more than 20% not commenting on it as it was not a focus of their activities (e.g. the RACWA and Office of Road Safety). There were only three submissions which opposed the insertion of this section into the Act, making this the second-least opposed section of the draft Bill. The three submissions opposed to this section were from the National Association of Retail Grocers of Australia Pty Ltd (NARGA), TSG Franchise Management P/L trading as Tobacco Station Group, and the WA Police.

## 6.7 Arguments for the draft proposal

Beside the submissions to this Inquiry that support this section, the Premier, Hon Colin Barnett, supported a proposed ban on smoking in playgrounds in August 2008<sup>405</sup>. Dr Franklin, a Research Fellow at UWA, conceded that the “health benefits of these amendments are hard to quantify as an individual’s exposure will be intermittent and diluted by large outdoor spaces.” He argued that non-smokers’ smoke exposure levels could still be high if in close and constant proximity to a smoker or group of smokers<sup>406</sup>. The two main reasons proposed in submissions for such a ban are that they contribute to ‘de-normalising’ smoking amongst younger people, for whom uptake rates remain the highest, and who often frequent these places. The DOH submission agreed that “the more frequently young people observe smoking occurring in a range of settings, the more likely they are to have the view that smoking is both socially acceptable and normal.”<sup>407</sup> Secondly, such a ban would help reduce the public nuisance created by the smell of sidestream smoke and the litter generated by cigarette butts around playgrounds<sup>408</sup>.

<sup>403</sup> Submission No. 41 from Ms Fiona Philips, Coordinator Smarter Than Smoking Project, 5 February 2009, p 3.

<sup>404</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 595.

<sup>405</sup> Strutt, J. (2008) “McGinty’s Smoking in Car Ban Foolish”, *The West Australian*, 21 August, p 1.

<sup>406</sup> Submission No. 8 from Dr Peter Franklin, 27 January 2009, p 3.

<sup>407</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 3.

<sup>408</sup> Submission No. 8 from Dr Peter Franklin, 27 January 2009, p 3.



The AMA argued that “[c]hildren must be protected; they cannot be allowed to be innocent victims.”<sup>409</sup> They also cited Article III, of the UN Convention on the Rights of a Child, which states “the best interests of the child shall be a primary consideration” for health policy development<sup>410</sup>. Asthma WA said that it “is important that children are not exposed to any environmental tobacco smoke as even breathing in a little, may be harmful....[Exposure to ETS] is a recognised risk factor for the development of asthma symptoms and also for the worsening of pre-existing asthma.”<sup>411</sup>

The City of Joondalup ‘fully’ supports this proposal and said that it had considered a similar initiative in the past<sup>412</sup>. The WorkSafe Commissioner, Ms Nina Lyhne, ‘supports the move’ despite the fact that there are ‘relatively low numbers’ of workers employed in parks. She said that they “should be protected from hazards associated with environmental tobacco smoke.”<sup>413</sup>

Mr Nick Jones, Manager Environmental Health at the City of Cockburn, explained the philosophy of the Council in developing actions against smoking, such as in playgrounds:

*...we developed a local tobacco action plan which was modelled on the state tobacco action plan. Through that, we developed to policies, which were endorsed by council in the middle of 2008. We decided not to choose the local law path, for several reasons. One reason is that policies take less time to gain approval; they cost a lot less to develop and they can actually cover broader areas and more issues as well. There are fewer concerns about the costs of implementing a policy as compared to a local law. The policies that we actually developed depend on most members of the public doing the right thing. ...most smokers are responsible people who are quite happy to follow the laws and as aware as anybody else about the right thing to do, and they tend to do the right thing. I think they just need a little bit of a prod in the right direction.*<sup>414</sup>

The City of Cockburn also took an innovative approach to signage in playgrounds:

*There are 189 playgrounds and Cockburn and a population of between 80,000 and 90,000 people; it is relatively big. We looked at the cost of putting a sign on a pole at each of those playgrounds. It was going to be relatively expensive and it was not popular with people. People do not like signs. Our parks and gardens people did not want any more signs. They are a pain in the bum to put in; they are a pain in the bum to maintain. You have got to mow around them et cetera. What we chose to do was put stickers on the poles. We had to get them specially made at the right size for the poles. We have three of those on every playground. Local councils should be paying someone to inspect each playground once a year, every two years or maybe every three years, depending on what they can*

<sup>409</sup> Submission No. 23 from AMA (WA), 30 January 2009, p 11.

<sup>410</sup> Submission No. 23 from AMA (WA), 30 January 2009, p 2.

<sup>411</sup> Submission No. 52 from Asthma Foundation of WA Inc, 6 February 2009, p 3.

<sup>412</sup> Submission No. 30 from Mr Troy Pickard, Mayor City of Joondalup, 27 January 2009, p 2.

<sup>413</sup> Submission 48 from Worksafe WA, 5 February 2009, p 2.

<sup>414</sup> Mr Nick Jones, Manager, Environmental Health, City of Cockburn, *Transcript of Evidence*, 16 February 2009, p 5.

*afford. It cost us \$600 to get all 189 playgrounds fitted with three of those signs, which is just about nothing really.*<sup>415</sup>

## 6.8 Arguments against the draft proposal

Both TSG and NARGA gave no reason for their opposition while the Police's concerns were about issues of enforcement. The Police Commissioner said, "this legislation will effectively override any local government by-laws that regulate smoking in public areas ...and shift that responsibility to police. This will also apply in respect to an outdoor playing area and safe swimming area."<sup>416</sup>

## 6.9 Proposed regulatory amendments

The Department of Health (DOH), while supporting the intention of the new section, proposed that the title be amended from "Use of tobacco products" to "Smoking or otherwise using tobacco products"<sup>417</sup>, as did the Police<sup>418</sup>. DOH also proposed a definitional change to the meaning of an 'outdoor playing area' so as to clarify if the Bill would unintentionally capture smokers using ovals where sport is being played or an outdoor play area in a private residence<sup>419</sup>.

### Finding 4

The Committee finds that, given the disproportionate harm that passive smoking has on child development, children's play areas should be made smoke-free throughout WA. Such a ban will protect children and adults from the harmful consequences of passive smoking and further diminish the social acceptability of smoking in the eyes of children, helping to lower future youth participation rates.

<sup>415</sup> Mr Nick Jones, Manager, Environmental Health, City of Cockburn, *Transcript of Evidence*, 16 February 2009, p 5.

<sup>416</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, p 2.

<sup>417</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 13.

<sup>418</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, p 4.

<sup>419</sup> Submission No. 33 from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 9.

**Recommendation 4**

The Committee recommends that the proposed draft section 106C to ban the use of tobacco products in outdoor playing areas be retained in the Bill and supports amendments from the Department of Health to the title of the section to include the term ‘smoke’ and the definition of an ‘outdoor playing area’ to include sports venues and playgrounds. On the spot fines for this section be increased to \$200.



## CHAPTER 7 SECTION 106D- SAFE SWIMMING AREAS

### 7.1 Proposed amendment

The draft Bill proposes to insert a new section into the existing 2006 Act. The proposed new section reads:

***106D. Use of tobacco products in safe swimming areas an offence.***

*A person must not use tobacco products in a safe swimming area.*

*Penalty applicable: \$150.*

The draft Bill defines a ‘safe swimming area’ as “a beach or part of a beach identified as a safe swimming area by flags, marker buoys or otherwise.”

### 7.2 Scientific arguments supporting the proposal

The main argument in support of the inclusion of this section is that in public areas, such as beaches, there is no way to stop the drift of smoke from smokers to other beachgoers. Smoking on beaches is a classic example of the dangers of secondhand smoke, particularly for the high number of children using Western Australian beaches in good weather. Swimmers at indoor public pools are already covered by provisions of the existing Act that ban smoking in public places.

### 7.3 Examples from other countries

The move to ban smoking at public beaches is a recent trend that seems to have commenced on the west coast of the US. A number of California municipalities have adopted such policies, as have some communities in other US states. In 2004, the California legislature considered, but ultimately rejected, legislation that would have prohibited smoking at all California state beaches<sup>420</sup>. Another Bill was presented to the Californian Senate on 1 December 2008 seeking to prohibit smoking on all areas of California’s beaches with an associated \$250 fine<sup>421</sup>. Approximately 76 municipalities across 16 US states have now banned smoking on beaches within their jurisdiction, 33 in California<sup>422</sup>.

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<sup>420</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p 634.

<sup>421</sup> Senate Bill No. 4 - Introduced by Senator Oropenza. *1 December 2008* (California), [http://info.sen.ca.gov/pub/09-10/bill/sen/sb\\_0001-0050/sb\\_4\\_bill\\_20081201\\_introduced.pdf](http://info.sen.ca.gov/pub/09-10/bill/sen/sb_0001-0050/sb_4_bill_20081201_introduced.pdf), accessed 3 March 2009.

<sup>422</sup> American Nonsmokers’ Rights Foundation (2009) *Municipalities with Smokefree Beach Laws*, [www.no-smoke.org/pdf/SmokefreeBeaches.pdf](http://www.no-smoke.org/pdf/SmokefreeBeaches.pdf), accessed 23 February 2009.

## 7.4 Examples from other Australian jurisdictions

In May 2004 Manly Council became the first council in Australia (and second in the world after Los Angeles) to ban smoking on beaches. The ban was designed to protect children from passive smoke as well as address the environmental impacts of cigarette butts on beaches and in waterways. The Mayor, Dr Macdonald, said “council rangers would not become ‘smoke police’.”<sup>423</sup> Once we get signage up and the public are aware of our no-smoking policy on the beach, these things tend to be regulated by the community themselves.”<sup>423</sup> Waverley Council instituted a similar ban at Bondi Beach in December 2004, with Mayor Peter Moscatto worried that “At any time, there's 700,000 cigarette butts on Bondi Beach,” and the cost to clean Waverley's beaches “ran to hundreds of thousands of dollars” a year.<sup>424</sup> After four years of it ban, Waverley Council hadn't issued a single fine, but had relied on ‘education and self-regulation’. On the other hand, Mosman Council fined three people \$110 each in 2008 for smoking on the foreshore reserve at Balmoral beach.<sup>425</sup>

In January 2005 the Queensland Government enacted a state ban on smoking between the flags on patrolled beaches, and 50 metres out to sea, between sunrise and sunset.<sup>426</sup> To this date, the Queensland Government have issued 15 fines for smoking at beaches.<sup>427</sup>

In WA, the Cities of Cockburn and Joondalup already have bans on smoking at beaches in place, while Nedlands and Stirling Councils are considering similar proposals.<sup>428</sup> Mr Garry Hunt, Joondalup CEO, outlined how self-enforcement would ensure that smoking didn't occur on beaches:

*The signs are there at every entry point on the beach. That again has been good. The philosophy is about self-policing at the moment, mainly from the point of view that this was not meant to be another persecution of what people do. It is more about encouraging. If and when people lay complaints, then we will take action, but at the moment it is very much about encouraging people to do the right thing. I have to say that largely it seems to be working pretty well.*<sup>429</sup>

<sup>423</sup> - (2004) *Manly Bans Beach Smoking*, [www.smh.com.au/articles/2004/05/18/1084783481311.html](http://www.smh.com.au/articles/2004/05/18/1084783481311.html), accessed 19 February 2009.

<sup>424</sup> Dick, T. (2004) *Bondi Sniffs the Breeze After Manly's Push to Ban Beach Smoking*, [www.smh.com.au/articles/2004/05/17/1084783454471.html](http://www.smh.com.au/articles/2004/05/17/1084783454471.html), accessed 19 February 2009.

<sup>425</sup> - (2009) *Cigarette Beach Ban Goes Up In Smoke In Sydney*, [www.theaustralian.news.com.au/story/0,25197,24895070-5006784,00.html](http://www.theaustralian.news.com.au/story/0,25197,24895070-5006784,00.html), accessed 19 February 2009.

<sup>426</sup> Submission No. 33 (Appendix 2) from Dr Tarun Weeramanthri, Executive Director Public Health Division - Department of Health, 3 February 2009, p 12.

<sup>427</sup> Bligh, A. Hon (2008) *Bligh Govt Toughens Anti-Smoking Legislation*, Ministerial Media Statement, 26 May, <http://statements.cabinet.qld.gov.au/MMS/statementdisplaysingle.aspx?id=58227>, accessed 20 February 2009.

<sup>428</sup> ACOSH (2008) *Smokefree Outdoor Areas - WA Councils*, [www.acosh.org/news/localgovtgrid.html](http://www.acosh.org/news/localgovtgrid.html), accessed 11 December 2008.

<sup>429</sup> Mr Garry Hunt, Chief Executive Officer, City of Joondalup, *Transcript of Evidence*, 16 February 2009, p 6.

## 7.5 Public opinion

The Cancer Council of WA's 2008 Community Survey found over 80% of non-smokers supported a ban on smoking at outdoor public spaces such as beaches, with a third of smokers supporting such a ban. More than 80% of Western Australian MPs also supported such a ban in a Cancer Council survey<sup>430</sup>. Research by the organisation Smarter than Smoking showed that 84% of Perth parents and 84% of school students believe "those who attend junior sport should not be allowed to smoke."<sup>431</sup>

## 7.6 Weight of submissions

More than 70% of submissions to this Inquiry gave unconditional support for the proposed amendment, with a further 20% not commenting on it as it was not a focus of their activities (e.g. the RACWA and Office of Road Safety). Of the five submissions which opposed the insertion of this section into the Act, three were associated with the tobacco industry, and both the WA Police and WALGA were concerned about issues of enforcement. The City of Joondalup wanted the draft section to be strengthened to match its own local ban on smoking on ALL beach areas, not just between the flags.

## 7.7 Arguments for the draft proposal

ACOSH "supports the prohibition of smoking in all outdoor places where large groups of people gather together" and had called for smoking bans on WA beaches (and in parks) in December 2005<sup>432</sup>. ACOSH is concerned because beaches are family areas, where smoke drift can cause difficulties for people with respiratory conditions and the cigarette butts have a significant health and environmental impact<sup>433</sup>.

Ms Claire Walkley submitted that "[a]s an active person myself I am appalled at how often my efforts at keeping well are attacked indirectly by passive smoking at concerts, [and] the beach."<sup>434</sup> The AMA and Asthma WA were two organisations which were also worried about the impact on individuals. Asthma WA said that it was important for asthmatics to 'maintain good physical health' and avoiding 'triggers' for the onset of their condition. Asthmatics who swim as part of

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<sup>430</sup> Submission No. 51 from Cancer Council of WA, 6 February 2009, p 10.

<sup>431</sup> Submission No. 41 from Ms Fiona Philips, Coordinator Smarter Than Smoking Project, 5 February 2009, p 3.

<sup>432</sup> Rule, P. (2005) "New Push to Ban Smoking Outdoors", *The West Australian*, 27 December, p 1. See also Submission No. 32 from ACOSH, 30 January 2009, p 9.

<sup>433</sup> Submission No. 32 from ACOSH, 30 January 2009, p 9.

<sup>434</sup> Submission No. 12 from Ms Claire Walkley, 30 January 2009, p 1.

their fitness regimen should not be exposed to triggers, such as cigarette smoke, while exercising<sup>435</sup>.

ASH on the other hand, supported this section, as “these areas are also working areas”, and there is strong community support for such protective occupational health initiatives<sup>436</sup>. Smarter than Smoking was fully supportive of smoking bans at beaches as they helped the process of ‘de-normalising’ smoking and protect children from the harmful effect of secondhand smoke<sup>437</sup>.

## 7.8 Arguments against the draft proposal

British American Tobacco Australia (BATA) opposes the proposal to ban smoking on beaches as representing a ‘step too far’. BATA also cite Australian Council of Civil Liberties’ opposition to such proposals as infringements to people’s liberty and freedom to choose their own activities<sup>438</sup>. Later in their submission they argue that under the Bill, “it is unclear whether smoking products would be prohibited on the whole beach or just the area ‘between the flags.’”<sup>439</sup> They add that there could be adverse unintended consequences, including families taking children outside flagged areas which may increase the risk of drowning. Parents abandoning the supervision of their children to have a smoke and lifeguards being distracted with enforcement issues are also cited by BATA as factors that may endanger swimmers if this Bill is successful<sup>440</sup>.

Arguing against the ACOSH proposal in December 2005 to ban smoking on beaches, the then-Shadow Health Minister, Dr Kim Hames said, “Who is going to enforce a ban where people can just come and go? You can’t have smoking police walking around.” However, he did concede that such enforcement would be possible at paid entry venues in other public spaces, such as outdoor concerts<sup>441</sup>.

The City of Joondalup argued that the draft Bill doesn’t go far enough and that “the prohibition should apply to the entire beach area to capture not only the public health aspect of the ban, but also cigarette-butt littering and general amenity concerns.”<sup>442</sup> If the Bill was successful as drafted, it would override the exiting Council local law that applies to all beaches, and would be seen by the Council as a backward step. The City of Joondalup also expressed their desire to see public

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<sup>435</sup> Submission No. 52 from Asthma Foundation of WA Inc, 3 February 2009, p 3; and Submission No. 23 from AMA (WA), 30 January 2009, p 12.

<sup>436</sup> Submission No. 18 from ASH Australia, 30 January 2009, p 2.

<sup>437</sup> Submission No. 41 from Ms Fiona Philips, Coordinator Smarter Than Smoking Project, 5 February 2009, p 3.

<sup>438</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 7.

<sup>439</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, p 11.

<sup>440</sup> Submission No. 21 from British American Tobacco Australia (BATA), 30 January 2009, pp 11-12.

<sup>441</sup> Rule, P. (2005) “New Push to Ban Smoking Outdoors”, *The West Australian*, 27 December, p 1.

<sup>442</sup> Submission No. 30 from Mr Troy Pickard, Mayor City of Joondalup, 27 January 2009, p 2.



space bans (including beaches) broadened to include bans within 5m of the entrances and exits of all government-owned buildings.

Cr Bill Mitchell, the President Western Australian Local Government Association, acknowledged that WALGA “have not formed a state position on whether [banning of smoking on beaches] should happen on a statewide basis.” but indicated a preference for the Police to enforce the ban if the Bill became law<sup>443</sup>. This was because council environmental officers worked limited hours of 9am to 5pm and have occupational health concerns at locations where alcohol is being consumed. In the cases of beaches, both of these issues would seem to be of limited concern. Cr Mitchell gave evidence about the likely financial implications if council staff and not the Police were required to enforce any bans:

*...the intergovernmental agreement says that any new functions put on to local government by the Commonwealth or the State should be followed by funding. Indeed, this is a new function, so it would be another chore that local government officers would have to carry out. If it was to be enforced rather than there being a reaction to this, we would be seeking extra funding from the government to carry that out.*<sup>444</sup>

## 7.9 Proposed regulatory amendments

The Department of Health (DOH), while supporting the intention of the new section, proposed that the title be amended from “Use of tobacco products” to “Smoking or otherwise using tobacco products”. The WA Police submission provided a similar proposed amendment<sup>445</sup>.

### Finding 5

The Committee finds that the proposed ban is widely supported by the community, reflects international trends and offers added protection from passive smoke exposures in popular outdoor areas where children and non-smoking adults congregate. Such a ban will further protect children and adults from the harmful consequences of passive smoking.

<sup>443</sup> Cr Bill Mitchell, President, WALGA, *Transcript of Evidence*, 11 February 2009, p 2.

<sup>444</sup> Cr Bill Mitchell, President, WALGA, *Transcript of Evidence*, 11 February 2009, pp 1-2.

<sup>445</sup> Submission No. 35 from Office of Commissioner of Police, WA Police, 4 February 2009, p 4.

**Recommendation 5**

The Committee recommends that the proposed draft section 106D to ban the use of tobacco products in safe swimming areas be retained in the Bill and supports amendments from the Department of Health to the title of the section to include the term 'smoke' and modifications to the definition of a 'safe swimming area'. On the spot fines for this section be increased to \$200.

## CHAPTER 8 FUTURE TOBACCO PUBLIC POLICY INITIATIVES

### 8.1 Future legislative changes

The Committee considered other ways in which the harms of passive smoking and tobacco promotion could be reduced beyond those proposals contained in the *Tobacco Products Control Amendment Bill 2008*. It was thought that the first place to introduce further smoking limitations should be in the Western Australian Parliamentary precinct. In 2007, the Speaker of the Legislative Assembly and the President of the Legislative Council introduced a smoking ban “within parliamentary buildings and colonnades, with the exception of one designated area”.<sup>446</sup> Smoking was also prohibited within five metres of any entrance of the building and the Human Resources Department was given charge of managing cessation programs for members and staff<sup>447</sup>. As the table below indicates, these restrictions are largely consistent with parliaments in other jurisdictions.

**Table 8.1 Smoking restrictions in Australian parliaments**

Jurisdiction	Indoor smoking ban	Designated Smoking Areas Provided	Proximity to building where ban is applicable
Federal	Yes	Several	Within 5 metres
Western Australia	Yes	One	Within 5 metres
New South Wales	Yes	Several	Information not available
Northern Territory	Yes	Several	Within 2 metres
Queensland	Yes	Several	Within 4 metres
Tasmania	Yes	Several	Information not available

The Committee believes that a total ban on smoking within the grounds of Parliament would provide a positive example to other jurisdictions about WA’s commitment to internationally recognised preventative health strategies. It would also demonstrate the willingness of State parliamentarians to subject themselves to the type of smoking restrictions contained in the draft Bill.

<sup>446</sup> Hon. Fred Riebling, MLA, Speaker, Western Australia, Legislative Assembly, *Parliamentary Debates* (Hansard), 5 April 2007, p1312.

<sup>447</sup> Hon. Fred Riebling, MLA, Speaker, Western Australia, Legislative Assembly (2007) *Parliamentary Debates* (Hansard), 5 April 2007, p 1312.

**Recommendation 6**

The Legislative Assembly and the Legislative Council resolve to ban smoking in the precincts of Parliament.

**(a) Future policy options**

The most comprehensive approach to exploring future policy options in regard to decreasing prevalence rates is contained in the work of the National Preventative Health Taskforce<sup>448</sup>. Their current proposals are included in the Table below.

**Table 8.2 NPHT Proposals and Jurisdictions**

Proposal	Jurisdiction
Ensure that cigarettes become significantly more expensive.	State and Federal
Further regulate supply of tobacco products and exposure to tobacco smoke	Primarily State
Increase the frequency, reach and intensity of public education campaigns	State and Federal
Ensure all smokers in contact with health services are given encouragement and support to quit	Primarily State
Ensure access to information, treatment and services for people in highly disadvantaged groups	State and Federal

Some of the specific policy proposals being considered by the NPHT include:

- increasing the excise on tobacco products
- cigarettes being contained in plain packs
- lower the milligrams of nicotine contained in cigarettes

<sup>448</sup> The NPHT was established in April 2008 with Prof Moodier as Chair, Professor Mike Daube as Deputy Chair and members including Ms Kate Carnell from the Australian Food and Grocery Council; Ms Christine Connors and Ms Linda Selvey, public health physicians from the Northern Territory and Queensland; Mr Shaun Larkin from the health insurance industry; Dr Lyn Roberts from the National Heart Foundation; Ms Leonie Segal, a health economist; and Dr Paul Zimmet, a specialist in diabetes. Professor Rob Moodie, Chair of NPHT, *Transcript of Evidence*, 4 February 2009, p 2.

- purchase of tobacco products from a source such as a pharmacy (when smoking prevalence drops to lower than 10%)

### Recommendation 7

The Minister for Health establish a Department of Health taskforce to plan future legislative initiatives (consistent with the research of the NPHT) to lower WA's smoking prevalence rates to below 10% by 2015.

## 8.2 Smoking in prisons

As part of future initiatives to lower smoking prevalence rates, the Committee agrees that the arguments made for smoking bans in the draft Bill apply equally to the State's correctional facilities. Prisoners have very high prevalence rates and any strategy which addresses this anomaly will greatly assist Western Australia in meeting its COAG goal of reducing adult smoking prevalence rates by 3.5% by 2013.

The US Surgeon General has reviewed recent data and declared that "some of the highest concentrations of secondhand smoke in living quarters have been measured in correctional facilities."<sup>449</sup> Overcrowding and inadequate ventilation systems were cited as the reasons why smoking in prisons, particularly within indoor areas, subjects staff and non-smoking prisoners to these excessive exposures<sup>450</sup>.

Significant improvements can be made to the health prospects of prison populations by enacting smoking bans. A study of six North Carolina prisons found that the levels of respirable suspended particulates measured in dormitories and common areas decreased by 77% after smoke-free ordinances were implemented<sup>451</sup>. Californian prisons became smokefree in July 2004. In the same year, the US Federal Bureau of Prisons also made the 105 facilities under its authority 100% smokefree. As at January 2009, five other US states have followed the lead of the Californian

<sup>449</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p154.

<sup>450</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p628; Hammond, S.K & Emmons, K.M. (2005), "Inmate Exposure to Secondhand Smoke in Correctional Facilities and the Impact of Smoking Restrictions", *Journal of Exposure Analysis and Environmental Epidemiology*, vol. 15, pp205,210.

<sup>451</sup> Proescholdbell, K.L. *et al.* (2008) "Indoor Air Quality in Prisons Before and After Implementation of a Smoking Ban Law", *Tobacco Control*, Vol. 17, February, p 123.

Government, while 24 states have made their prisons totally smokefree indoors<sup>452</sup>. Canada and Singapore have enacted similar bans<sup>453</sup>.

Australia lags behind in its approach to regulating smoking in prisons. Western Australia's prison demographics and smoking prevalence rates are consistent with national trends. Prisons in this state have high numbers of young Indigenous people, people with mental illness and people from lower SES communities— all sectors of the population with higher than normal smoking participation rates. Mr David Robinson, Secretary of UnionsWA, reported that the “prison population smokes at a noticeably higher rate than the general community – an estimated 70 to 80 per cent of the population in prisons,” with about a quarter of prison guards smoking too<sup>454</sup>. Figures from other states make similar estimates<sup>455</sup>.

The failure to enact smoking restrictions in prisons produce several adverse outcomes. Firstly, prison officers are exposed to highly dangerous levels of tobacco smoke in their work place, when many employees in other industries are now afforded protection via legislation. In its submission to a Federal inquiry into Occupational Health and Safety standards, the Queensland Prison Officers' Association (QPOA) expressed their frustration at this situation:

*Prison Officers' daily duties require them to carry out cell inspections and to do this they have to enter cells on a daily basis and constantly breathe this putrid smell.*

*On night shift the smell in these units is even worse. Officers are still required to conduct headcounts throughout these units even though the air they are breathing is detrimental to their health.*<sup>456</sup>

The QPOA criticised the Queensland Government for continuing to “willingly and recklessly expose Prison Officers to the known risks of passive smoking.”<sup>457</sup>

<sup>452</sup> Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Washington, DC, p628; American Nonsmokers' Rights Foundation. (2009), *100% Smokefree Correctional Facilities*, [www.no-smoke.org/pdf/100smokefreeprisons.pdf](http://www.no-smoke.org/pdf/100smokefreeprisons.pdf), accessed 6 March 2009.

<sup>453</sup> Creagh, S. (2007), “Violence Fears Over Jail Move to Ban Smoking”, [www.smh.com.au/news/national/violence-fears-over-jail-move-to-ban-smoking/2007/08/19/1187462087952.html](http://www.smh.com.au/news/national/violence-fears-over-jail-move-to-ban-smoking/2007/08/19/1187462087952.html), accessed 10 March 2009; “Smoking in Prison”, Office of the Inspector of Custodial Services - Issues Paper No 1, May 2008, [www.custodialinspector.wa.gov.au](http://www.custodialinspector.wa.gov.au), accessed 10 March 2009.

<sup>454</sup> Mr David Robinson, Secretary, UnionsWA, *Transcript of Evidence*, 16 February 2009, p 4.

<sup>455</sup> Cancer Institute NSW (2008) *Literature Review: Smoking and Mental Illness, Other Drug and Alcohol Addictions and Prisons*, Cancer Institute NSW, Sydney, p 13.

<sup>456</sup> Queensland Prison Officers' Association (2008) “Submission for Consideration”, *National Review Into Model Occupational Health and Safety Laws*, Submission No 78, 7 July 2008, [www.nationalohsreview.gov.au/NR/rdonlyres/D51A4F90-7FE2-415A-9EA5-0BD08E4F3E28/0/078QLDPrisonOfficersAssociation.pdf](http://www.nationalohsreview.gov.au/NR/rdonlyres/D51A4F90-7FE2-415A-9EA5-0BD08E4F3E28/0/078QLDPrisonOfficersAssociation.pdf), p 3, accessed 10 March 2009.

A survey of Western Australian prison officers in 2006 found that 60% of respondents were concerned about passive smoking in their workplace. In 2007, 57 officers at Greenough regional prison petitioned Parliament to make their workplace smokefree. This led to Western Australia's first trial where smoking is prohibited in most parts of the prison and only permissible inside a cell if all cell-mates agree<sup>458</sup>. The trial continues in 2009.

Non-smoking inmates are also vulnerable to passive smoke. Surveys in NSW confirmed that 30% of non-smokers were sharing a cell with smokers<sup>459</sup>. Before the current trial at Greenough, a non-smoking inmate could be housed with up to five other inmates who could smoke throughout the night<sup>460</sup>. With smoking permitted in cells after lockdown, these non-smokers have no respite from significant SHS exposures. In WA, the Office of the Inspector of Custodial Services has confirmed that the policy in this state is to attempt to ensure that smokers and non-smokers do not share cells. However, the Office conceded that this objective is unlikely to be met given the current overcrowding in prisons<sup>461</sup>.

The final deficiency resulting from Western Australia's current policy is that the prison environment offers very little support for inmates trying to quit. Research from the US and Australia indicates that between 33% and 50% of prisoners regularly consider or make a quit attempt<sup>462</sup>. The Cancer Institute of NSW observes that most inmates, like the general population of smokers, "have a desire to quit, regardless of their socioeconomic status, mental health or anything else. However, the environments which individual smokers encounter and support available to them differ."<sup>463</sup> The lack of support in prisons leaves inmates vulnerable to continuing their habit.

The lack of tobacco control legislation in Australian prisons has been recognised by the National Preventative Health Taskforce. In its Technical Report, the NPHT proposed that, like the US,

<sup>457</sup> Queensland Prison Officers' Association. (2008) "Submission for Consideration", *National Review Into Model Occupational Health and Safety Laws*, Submission No 78, 7 July, [www.nationalohsreview.gov.au/NR/rdonlyres/D51A4F90-7FE2-415A-9EA5-0BD08E4F3E28/0/078QLDPrisonOfficersAssociation.pdf](http://www.nationalohsreview.gov.au/NR/rdonlyres/D51A4F90-7FE2-415A-9EA5-0BD08E4F3E28/0/078QLDPrisonOfficersAssociation.pdf), p 1, accessed 10 March 2009.

<sup>458</sup> See Office of the Inspector of Custodial Services (2008) *Smoking in Prison*, Issues Paper No 1, May, [www.custodialinspector.wa.gov.au](http://www.custodialinspector.wa.gov.au), accessed 10 March 2009, p2; Willoughby, J. (2007) "Ban Cigs Call", *Geraldton Guardian*, 28 November, p 1; Mason, G. (2006) "State 'Slow' on Prison Smoking Ban", *The West Australian*, 14 January, p 60.

<sup>459</sup> Cancer Institute NSW (2008) *Literature Review: Smoking and Mental Illness, Other Drug and Alcohol Addictions and Prisons*, Cancer Institute NSW, Sydney, p 13.

<sup>460</sup> Willoughby, J. (2007) "Ban Cigs Call", *Geraldton Guardian*, 28 November, p 1.

<sup>461</sup> Office of the Inspector of Custodial Services (2008) *Smoking in Prison*, Issues Paper No 1, May, [www.custodialinspector.wa.gov.au](http://www.custodialinspector.wa.gov.au), p 2, accessed 10 March 2009.

<sup>462</sup> Proescholdbell, K.L. *et al.* (2008), "Indoor Air Quality in Prisons Before and After Implementation of a Smoking Ban Law", *Tobacco Control*, Vol. 17, February, p 125; Cancer Institute NSW. (2008), *Literature Review: Smoking and Mental Illness, Other Drug and Alcohol Addictions and Prisons*, Cancer Institute NSW, Sydney, p 13.

<sup>463</sup> Cancer Institute NSW (2008) *Literature Review: Smoking and Mental Illness, Other Drug and Alcohol Addictions and Prisons*, Cancer Institute NSW, Sydney, p 15.

Canada and Singapore, a nationwide smokefree policy for prisons should be implemented.<sup>464</sup> However, this requires action at both the federal and state level.

Calls for smoking bans in WA's prisons have gained recent momentum with both ACOSH and the AMA expressing their support<sup>465</sup>. In 2008, the Department of Corrective Services committed to a ban on smoking inside prisons by mid-2009.<sup>466</sup> However, Greenough remains the only prison in the state with comprehensive smoking restrictions. A common argument against such a proposal warns of the potentially dangerous climate in prisons if the right to smoke is taken away from prisoners. This argument was expressed by the previous Corrective Services Minister and by Mr Dave Robinson from UnionsWA in evidence to the Inquiry<sup>467</sup>. This view is supported by a 2006 WA Prison Officers Union survey which found that, despite the majority being anxious about the harms of SHS exposure on the job, 60% of respondents also expressed concern that "stripping prisoners of smoking rights would create greater tension."<sup>468</sup>

Underlying these concerns is the experience in 1997 at Queensland's Woodford Correctional Centre where a riot seemingly followed the implementation of a smoking ban. However, there is evidence to show that these concerns are misplaced. Firstly, the Cancer Institute of NSW has argued that there were other lingering issues with the administration of that particular Queensland facility that could explain the outbreak of violence that followed the ban<sup>469</sup>. The QPOA also acknowledged this earlier event but argued that the General Manager of another Queensland prison (Capricornia Correctional Centre) had recently enforced a smoking ban with positive results:

*Our members reported back to us that after the initial reaction of prisoners, they accepted the ruling and no physical violence was reported. This only goes to demonstrate that a no smoking environment can be achieved.*<sup>470</sup>

<sup>464</sup> National Preventative Health Taskforce (2008) *Tobacco Control in Australia: Making Smoking History*, Technical Report No 2, Preventative Health Taskforce, Canberra, p 44.

<sup>465</sup> See, - (2008) "The Great Smokescreen", *West Australian* (Health Supplement), 2 April, p4; - (2009) *Ban Smoking in All Prisons: AMA*, [www.abc.net.au/news/stories/2009/02/11/2488777.htm](http://www.abc.net.au/news/stories/2009/02/11/2488777.htm), accessed 24 February 2009.

<sup>466</sup> - (2009) *Ban Smoking in All Prisons: AMA*, [www.abc.net.au/news/stories/2009/02/11/2488777.htm](http://www.abc.net.au/news/stories/2009/02/11/2488777.htm), accessed 24 February 2009.

<sup>467</sup> See - (2008) "The Great Smokescreen", *West Australian* (Health Supplement), 2 April, p4; Mr David Robinson, Secretary, UnionsWA, *Transcript of Evidence*, 16 February 2009, p5.

<sup>468</sup> Mason, G. (2006) "State 'Slow' on Prison Smoking Ban", *The West Australian*, 14 January, p 60.

<sup>469</sup> Cancer Institute NSW (2008) *Literature Review: Smoking and Mental Illness, Other Drug and Alcohol Addictions and Prisons*, Cancer Institute NSW, Sydney, p 14.

<sup>470</sup> Queensland Prison Officers' Association (2008) "Submission for Consideration", *National Review Into Model Occupational Health and Safety Laws*, Submission No 78, 7 July, [www.nationalohsreview.gov.au/NR/rdonlyres/D51A4F90-7FE2-415A-9EA5-0BD08E4F3E28/0/078QLDPrisonOfficersAssociation.pdf](http://www.nationalohsreview.gov.au/NR/rdonlyres/D51A4F90-7FE2-415A-9EA5-0BD08E4F3E28/0/078QLDPrisonOfficersAssociation.pdf), p 3, accessed 10 March 2009.



The views of the QPOA are backed by peer-reviewed research undertaken in the US that monitored the aftermath of smoking bans in prisons. Hammond and Emmons concluded:

*The fact that correctional facilities that have implemented smoking restrictions have reported increased violence in only two (less than 4%) of the 52 correctional systems in the US mitigates concerns of possible confrontations related to smoking bans.*<sup>471</sup>

These authors make the point that “disturbances seem to be minimized when smoking bans are implemented with careful planning.”<sup>472</sup> The Cancer Institute of NSW is one of several advocates of prison smoking bans that support this research. They suggest that in prisons, smoking restriction efforts “to be effective must be taken up in an atmosphere which supports quitting, which discourages smoking and in which both staff and inmates are educated in tobacco control measures.” These support measures should include “free access to Quitline....access to NRT [nicotine replacement therapies] in all forms [and] education.”<sup>473</sup>

UnionsWA supports the move to make prisons smokefree, but add that “this will need to be carried out with great sensitivity and in a staged approach over time and over places.”<sup>474</sup> Speaking on behalf of the WA Prison Officers Union, Mr Robinson recommended a six-stage strategy which included the interim provision of designated smoking areas and the continued acceptance of smoking in cells with ‘suitable extractor fans’<sup>475</sup>. The Committee agrees that restrictions should be enforced incrementally and that adequate support programmes should be available for smokers before they are affected by a ban. However, it is not convinced of the arguments that cells can be made sufficiently smokefree in the absence of bans, due to the current problems of overcrowding in the State’s prisons and the difficulties of installing effective exhaust systems in other jurisdictions. Given the high density of SHS exposures within the interior of prisons, it is paramount that steps be taken imminently to improve the health outcomes of all who live and work within these environments in Western Australia.

<sup>471</sup> Hammond, S.K & Emmons, K.M (2005) “Inmate Exposure to Secondhand Smoke in Correctional Facilities and the Impact of Smoking Restrictions”, *Journal of Exposure Analysis and Environmental Epidemiology*, Vol. 15, p 210.

<sup>472</sup> Hammond, S.K & Emmons, K.M (2005) “Inmate Exposure to Secondhand Smoke in Correctional Facilities and the Impact of Smoking Restrictions”, *Journal of Exposure Analysis and Environmental Epidemiology*, Vol. 15, p 209.

<sup>473</sup> Cancer Institute NSW. (2008), *Literature Review: Smoking and Mental Illness, Other Drug and Alcohol Addictions and Prisons*, Sydney, NSW: Cancer Institute NSW, p14.

<sup>474</sup> Mr David Robinson, Secretary, UnionsWA, *Transcript of Evidence*, 16 February 2009, p 2.

<sup>475</sup> Mr David Robinson, Secretary, UnionsWA, *Transcript of Evidence*, 16 February 2009, p 5.

**Recommendation 8**

The Minister for Corrective Services direct the Director General to develop a plan to make all enclosed places within Western Australian prisons smoke-free by the end of 2009 and for prisons to be entirely smoke-free by the end of 2011.

**Recommendation 9**

The Minister for Corrective Services make public the report into the management of smoking in prisons in Western Australia.

**8.3 Indigenous smoking rates**

The Inquiry heard that up to 50% of Indigenous people smoke in many rural and remote communities and that smoking is the cause for about one-third of the 17 year life expectancy ‘gap’ between Indigenous and non-Indigenous Australians<sup>476</sup>. According to the Australian Bureau of Statistics, while smoking rates have decreased slightly for the total Australian population over the ten years to 2004-05, there has been no significant change in smoking rates for the Indigenous population in this period<sup>477</sup>. In May 2008, the Federal Health Minister, Hon Nicola Roxon, committed \$14 million to address high smoking rates among Aborigines<sup>478</sup>. The Australian Government has also placed tobacco products on the list of banned products for Aboriginal families on the Family Income Management scheme<sup>479</sup>.

Smoking in Aboriginal communities also has an impact on children from SHS. Research published in 2008 by the Telethon Institute in WA found that if passive exposure to tobacco smoke was eliminated “we estimate that we could reduce ear infections by 27% in Aboriginal children and 16% in non-Aboriginal children.”<sup>480</sup> The *Asthma in Australia 2008* report found that

<sup>476</sup> Aboriginal Health Council of WA, *Transcript of Evidence*, 16 February 2009, p 2. See also Pink, B. & Allbon, P. (2008) *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2008*. Catalogue No. 4704.0, Australian Bureau of Statistics, Canberra.

<sup>477</sup> Australian Bureau of Statistics. (2007), *Tobacco Smoking - Aboriginal and Torres Strait Islander People: A Snapshot, 2004-2005*, [www.abs.gov.au/ausstats/abs@.nsf/mf/4722.0.55.004](http://www.abs.gov.au/ausstats/abs@.nsf/mf/4722.0.55.004), accessed 24 February 2009.

<sup>478</sup> - (2008) *\$14m will Tackle Indigenous Smoking: Roxon*, [www.abc.net.au/news/stories/2008/03/20/2196096.htm](http://www.abc.net.au/news/stories/2008/03/20/2196096.htm), accessed 24 February 2009.

<sup>479</sup> Aboriginal Health Council of WA, *Transcript of Evidence*, 16 February 2009, p 8.

<sup>480</sup> Telethon Institute for Child Health Research (2008) *Ear Infections Linked to Passive Smoking*, [www.ichr.uwa.edu.au/media/790](http://www.ichr.uwa.edu.au/media/790), accessed 24 February 2009.

“up to 60% of young Indigenous Australians with asthma reported being current smokers compared to 32% of their non-Indigenous counterparts.”<sup>481</sup>

The Aboriginal Health Council reported that Aboriginal Health Workers undertake anti-smoking educational activities but “are absolutely under-resourced, underpaid and absolutely overworked.”<sup>482</sup> The AHC uses resources in WA provided by the Centre for Excellence in Indigenous Tobacco Control<sup>483</sup>, such as the *Say No to Smokes* program. Western Australia will receive additional funds from the new Federal *National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes*, which includes smoking as one of its five priority areas for ‘closing the gap’ in Indigenous health rates<sup>484</sup>.

### Recommendation 10

The Minister for Indigenous Affairs develop a smoking reduction plan for Indigenous West Australians by the end of 2009 and provide additional funding to employ people to work in this area throughout the State.

## 8.4 Smoking and mental health patients

The Minister for Mental Health is currently reviewing the ban put in place by the previous government on smoking in Western Australia’s mental health institutions<sup>485</sup>. The Carpenter Government banned smoking in government health institutions dealing with mental illness from 1 January 2008. Three months later *The West Australian* reported that “both patients and staff had commented favourably about the ‘clean air’ brought by the smoke free declaration.”<sup>486</sup> The ban was part of a broader policy restricting smoking in Western Australia’s health institutions.

ARAFMI, the non-government organisation representing the carers of the mentally ill, also welcomed the ban, as they recognise that tobacco addiction contributes to other health conditions

<sup>481</sup> Australian Centre for Asthma Monitoring (2008) *Asthma in Australia 2008*, AIHW Asthma Series no.3, Cat. no. ACM 14, Australian Institute of Health and Welfare, Canberra, p 19.

<sup>482</sup> Aboriginal Health Council of WA, *Transcript of Evidence*, 16 February 2009, p 3.

<sup>483</sup> CEITC (2008) [www.ceitc.org.au/](http://www.ceitc.org.au/), accessed 24 February 2009.

<sup>484</sup> Council of Australian Governments (2008) *National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes*, [www.coag.gov.au/intergov\\_agreements/federal\\_financial\\_relations/docs/national\\_partnership/national\\_partnership\\_on\\_Indigenous\\_health.rtf](http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/national_partnership_on_Indigenous_health.rtf), accessed 10 March 2009.

<sup>485</sup> - (2009) *Smoking Ban in Mental Health Hospital May Be Overturned*, [www.abc.net.au/news/stories/2009/02/18/2494616.htm](http://www.abc.net.au/news/stories/2009/02/18/2494616.htm), accessed 24 February 2009.

<sup>486</sup> - (2008) “The Great Smokescreen”, *The West Australian*, p 4, 2 April.

for the mentally ill, which impose further costs upon their families<sup>487</sup>. Smoking prevalence rates among the mentally ill average 32%, almost double that of the general population. In some cases, such as for people with schizophrenia, the rate is more than 60%. In 2004-05, adults reporting a high or very high level of psychological distress were more likely to be current daily smokers (35%) than were those with a moderate level (25%), or a low level (17%)<sup>488</sup>.

Evidence from the Mental Health Coordinating Council shows that people with a mental health problem can quit smoking, and can do so safely<sup>489</sup>. In supporting the ban in Western Australia's mental health institutions, ARAFMI recognised the need for nicotine replacement therapies for the mentally ill who are addicted to tobacco.

### **Recommendation 11**

The Minister for Mental Health retain all smoking bans and smoking education programs aimed at mental health patients in Western Australia.

### **Recommendation 12**

The Minister for Mental Health make public the report into the impact of smoking in health institutions, with particular emphasis on mental health patients in Western Australia.

## **8.5 Federal issues**

The Inquiry received evidence on a number of matters which are the responsibility of the Federal Government (such as national consistency of smoking limitations in 'high roller' rooms in casinos)<sup>490</sup>. Some of these issues are new ones which may have important health impacts as the Australian population ages, such as passive smoking in aged care facilities funded by the Federal Government.

<sup>487</sup> - (2008) "The Great Smokescreen", *The West Australian*, p 4, 2 April.

<sup>488</sup> Australian Bureau of Statistics (2006), *Mental Health in Australia: A Snapshot, 2004-2005*, [www.abs.gov.au/ausstats/abs@.nsf/mf/4824.0.55.001](http://www.abs.gov.au/ausstats/abs@.nsf/mf/4824.0.55.001), accessed 24 February 2009.

<sup>489</sup> Mental Health Coordinating Council (n.d) *Smoking and Your Mental Health*, <http://mhcc.org.au/documents/Projects/Infosheet-Smoking-your-mental-health.pdf>, accessed 24 February 2009.

<sup>490</sup> Mr David Robinson, Secretary, UnionsWA, *Transcript of Evidence*, 16 February 2009, p 11.

**Recommendation 13**

The Minister for Health negotiate with his counterparts on the Australian Health Ministers Council as to:

- (v) what steps can be implemented to phase out smoking in casino high roller rooms.
- (vi) developing a plan to make Federally-funded nursing homes and aged-care facilities smoke-free within two years.
- (vii) the introduction of a higher excise on tobacco products as a way of reducing smoking prevalence rates, especially for young people.
- (viii) amend duty-free laws to prevent overseas travellers purchasing cheaper tobacco products.



# APPENDIX ONE

## *SUBMISSIONS RECEIVED*

The following submissions were received by the Inquiry.

Number	Date	Name	Position	Organisation
1.	13 January 2009	Mr D. R. Peiris	Registered Nurse	
2.		Mr James Arnold	Director Corporate Affairs	Philip Morris Ltd
3.		Professor Gregory N. Connolly, DMD, MPH  Dr Vaughan W. Rees	Professor of the Practice of Public Health  Senior Research Scientist	Harvard School of Public Health (USA)
4.		Mr David Killeen	Executive Director	Australasian Association of Convenience Stores
5.	27 January 2009	Professor C. D'Arcy J Holman	Chair in Public Health	University of WA
6.		Mr Jos de Bruin	Chief Executive Officer	Master Grocers Australia
7.		Mr Charlie Shahin	Executive Director	Peregrine Corporation
8.		Dr Peter Franklin	Research Fellow	Co-operative Research Centre for Asthma and Airways, University of WA
9.		Dr J.L. Repace	Visiting Assistant Professor	Tufts University School of Medicine (USA)
10.	30 January 2009	Professor Peter Sly	Head of Clinical Sciences	Telethon Institute for Child Health Research
11.				Imperial Tobacco Australia Ltd

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12.	30 January 2009	Ms Claire Walkley		
13.		Mr Reg Hodgson	Manager Corporate and Government Relations	Swedish Match
14.		Mr/Ms Kim Ribbink		
15.		Ms Michelle Scott	Commissioner	Commissioner for Children and Young People
16.		Mrs Margaret Hogge	President	Non Smoking Movement Australia
17.		Mr Ken Henrick	Chief Executive Officer	National Association of Retail Grocers of Australia Pty Ltd
18.		Mr Stafford Sanders	Co-ordinator	SmokeFree Australia Workplace Coalition; Protecting Children from Tobacco Coalition
19.		Mr Andrew White	General Manager	TSG Franchise Management Pty Ltd
20.		Mr Maurice Swanson	Chief Executive	National Heart Foundation of Australia (WA Division)
21.				British American Tobacco Australia
22.		Mr Domenic Licastro		Balls N All Amusements
23.				Australian Medical Association (WA)
24.		Mr/Ms Azba Shakoor	Project Officer, Government Affairs	BP Australia Pty Ltd
25.		Mr Simon Beynon	General Manager	Freechoice Stores
26.		Professor Peter Howat	President	Public Health Association of Australia (WA)



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27.		Dr Owen Carter	Senior Research Fellow, Centre for Behavioural Research in Cancer Control	Curtin University
28.		Mr Iain Cameron	Executive Officer	Office of Road Safety
29.	2 February 2009	Ms Anne Jones	Chief Executive Officer	Action on Smoking and Health (ASH) Australia
30.		Mr Troy Pickard	Mayor	City of Joondalup
31.		Ms Jodi Dixon	Manager Regulatory Affairs, Public Affairs	Coles Group Ltd
32.		Mr Stephen Hall	Executive Director	Australian Council on Smoking and Health
33.		Dr Tarun Weeramanthri	Executive Director Public Health	Department of Health
34.		Dr Jo Clarkson Mr David Malone	Director Health Promotion Executive Director	The Western Australian Health Promotion Foundation (Healthway)
35.		Dr Karl O' Callaghan	Commissioner	WA Police
36.		Dr John Herron	Chairman	Australian National Council on Drugs
37.	4 February 2009	Dr Stanton A. Glantz	Professor of Medicine, American Legacy Foundation Distinguished Professor in Tobacco Control	University of California, San Francisco
38.		Professor Alan (Rob) Moodie	Chair	National Preventative Health Taskforce
39.		Mr Rob Bransby	Managing Director	HBF
40.	5 February 2009	Hon Stephen Robertson, MP	Minister for Health	Queensland Government
41.		Ms Fiona Philips	Coordinator	Smarter than Smoking Project

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42.		Dr Lyn Roberts, AM	Chief Executive Officer - National	Heart Foundation
43.		Professor Simon Chapman	Director of Research	School of Public Health, University of Sydney
44.				Liquor Stores Association of WA (Inc)
45.		Mr Bob Stanton	Chairman	Independent Retailers Organisation
46.		Hon David Llewellyn, MP	Acting Minister for Health	Tasmanian Government
47.		Professor Matthew Knuiman	Head of School	School of Population Health, University of WA
48.		Ms Nina Lyhne	Commissioner	Worksafe WA
49.	6 February 2009	Dr David Hill, AO	Director	Cancer Council Victoria
50.		Professor Mike Daube	Director	Public Health Advocacy Institute of WA
51.		Ms Susan Rooney	Chief Executive Officer	Cancer Council WA
52.		Mr John Gummer	Chief Executive Officer	Asthma Foundation of WA Inc
53.		Mr Matt Piggott	Coordinator of Environmental Health and Building Services	City of Fremantle
54.		Mr Matthew Brown	Executive Manager of Member Advocacy	RACWA
55.		Mr Bradley Woods	CEO/Executive Director	Australian Hotels Association (WA)
56.		Mr W (Bill) Mitchell	President	WA Local Government Association

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57.	11 February 2009	Ms Nathalie Samia	Group Manager- Government Relations	Woolworths Ltd
58.	13 February 2009	Mr David Robinson	Secretary	UnionsWA
59.	16 February 2009	Mr John Hyde, MLA		Member for Perth
60	25 February 2009	Hon Dr Kim Hames, MLA	Minister for Health	



## APPENDIX TWO

### HEARINGS

The Inquiry held the following hearings.

Date	Name	Position	Organisation
<b>10 February 2009</b>	Dr Karl O' Callaghan	Commissioner	WA Police
	Dr Tarun Weeramanthri	Executive Director Public Health	Department of Health
	Mr Dishan Weerasooriya	Manager, Tobacco Control Branch	Department of Health
	Ms Nina Lyhne	Commissioner	Worksafe WA
	Professor Peter Sly	Head of Clinical Sciences	Telethon Institute for Child Health Research
	Dr Owen Carter	Senior Research Fellow, Centre for Behavioural Research in Cancer Control	Curtin University
<b>11 February 2009</b>	Dr. Gary Geelhoed	President	Australian Medical Association (WA)
	Mr Peter Jennings	Deputy Executive Director	Australian Medical Association (WA)
	Professor Steve Stick	Physician/Paediatrician	ACOSH
	Professor Bill Musk	Respiratory Physician	ACOSH
	Mr Stephen Hall	Executive Director	ACOSH
	Professor Mike Daube	Curtin University	Public Health Advocacy Institute of WA
	Professor Peter Le Souef	Professor of Paediatrics, University of WA	Public Health Advocacy Institute of WA
	Dr Kingsley Faulkner	Director of Clinical Teaching, University of Notre Dame Australia	Public Health Advocacy Institute of WA

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	Mr Maurice Swanson	Chief Executive	National Heart Foundation of Australia (WA Division)
	Ms Anne Jones	Chief Executive Officer	Action on Smoking and Health (ASH) Australia
	Ms Denise Sullivan	Director of Tobacco Control	Cancer Council WA
	Ms Susan Stewart	Manager Make Smoking History	Cancer Council WA
	Mr John Gummer	Chief Executive Officer	Asthma Foundation of WA Inc
	Ms Kristina Croxford	Manager Education and Training	Asthma Foundation of WA Inc
	Mr W (Bill) Mitchell	President	WA Local Government Association
<b>16 February 2009</b>	Mr Bradley Woods	CEO/Executive Director	Australian Hotels Association (WA)
	Mr Paul Brockschlager	Manager Corporate & Parliamentary Affairs	Australian Hotels Association (WA)
	Mr Iain Cameron	Executive Officer	Office of Road Safety
	Mr Matthew Brown	Executive Manager of Member Advocacy	RACWA
	Mr Peter Tagliaferri	Mayor	City of Fremantle
	Mr Matt Piggott	Coordinator of Environmental Health and Building Services	City of Fremantle
	Mr Garry Hunt	Chief Executive Officer	City of Joondalup
	Mr Nicholas Jones	Manager Environmental Health	City of Cockburn
	Mr David Robinson	Secretary	UnionsWA
	Mr Greg Brindle	Operator	IGA franchise
	Ms Nathalie Samia	Group Manager- Government Relations	Woolworths Ltd

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	Ms Christine Ivan	Project Officer	Aboriginal Health Council
	Ms Josephine Maxted	Alcohol, Tobacco & Other Drug Officer	Aboriginal Health Council





## APPENDIX THREE

### *BRIEFINGS HELD*

The Inquiry held the following briefings.

Date	Name	Position	Organisation
4 February 2009	Professor Alan (Rob) Moodie	Chair	National Preventative Health Taskforce
18 February 2009	Mr Bradley Woods	CEO/Executive Director	Australian Hotels Association (WA)
	Mr Paul Brockschlager	Manager Corporate & Parliamentary Affairs	Australian Hotels Association (WA)
19 February 2009	Mr Bradley Woods	CEO/Executive Director	Australian Hotels Association (WA)
	Mr Paul Brockschlager	Manager Corporate & Parliamentary Affairs	Australian Hotels Association (WA)
26 February 2009	Mr Harsha Dishan Weerasooriya	Manager, Tobacco Control Branch	Department of Health
	Mr Allan Atwell	Coordinator, Policy and Legislation	Department of Health
3 March 2009	Mr Harsha Dishan Weerasooriya	Manager, Tobacco Control Branch	Department of Health
	Mr Allan Atwell	Coordinator, Policy and Legislation	Department of Health



## APPENDIX FOUR

### LEGISLATION

Legislation	State (or Country)
Criminal Procedure Act 2004	Western Australia
Local Government Act 1995	Western Australia
Prohibition of Smoking in Public Places Rules 2008	India
Public Health Act 1997	Tasmania
Public Health Amendment Act 2008	Tasmania
Public Health (Tobacco) Act 2008	New South Wales
Smoke-free Cars with Minors Law 2008	California, USA
Smoke-free Environment Amendment Act 2004	New South Wales
Smoking (Prohibition in Enclosed Public Places) Act 2003	Australian Capital Territory
Tobacco Act 1927	Australian Capital Territory
Tobacco Act 1987	Victoria
Tobacco Control Act 2002	Northern Territory
Tobacco Control Act 1990	Western Australia
Tobacco Products Control Amendment Bill 2008	Western Australia
Tobacco and Other Smoking Products Act 1998	Queensland
Tobacco and Other Smoking Products Amendment Act 2004	Queensland
Tobacco and Other Smoking Products (Prevention of Supply to Children) Amendment Act 2001	Queensland
Tobacco Products Control Act 2006	Western Australia
Tobacco Products Control Regulations 2006	Western Australia

Tobacco Products (Prevention of Supply to Children) Act 1998	Queensland
Tobacco Products Regulation Act 1997	South Australia
Tobacco Products Regulation (Prohibition on Smoking in Children's Recreational Parks) Amendment Bill 2007	South Australia

## APPENDIX FIVE

### YOUTH SMOKING RATES IN ICELAND

Table A5.1 - Male Youth Smoking Rates (1995-2007), Iceland<sup>491</sup>

Year	Stopped >1 year ago (%)	Stopped <1 year ago (%)	Smoke daily (%)
1995	5.1	2.6	17.3
1996	6.6	3.0	16.8
1997	3.3	5.0	22.2
1998	3.2	6.5	17.2
1999	3.9	7.8	16.2
2000	3.9	5.9	12.5
<b>2001</b>	<b>4.3</b>	<b>3.1</b>	<b>19.1</b>
2002	4.9	2.8	22.5
2003	5.9	10.3	14.7
2004	8.4	5.3	13.0
2005	3.8	8.4	13.7
2006	9.2	9.8	13.5
2007	6.4	5.2	17.4

\* PoS ban was introduced in 2001.

<sup>491</sup>

Statistics Iceland (2009) *Lifestyle and Health - Smoking Habits by Sex and Age 1994-2007*, [www.statice.is/?PageID=1282&src=/temp\\_en/Dialog/varval.asp?ma=HEI07102%26ti=Smoking+habits+by+sex+and+age+1994%2D2007++++++%26path=../Database/heilbrigdismal/afengiogreyk/%26lang=1%26units=Percent%20distribution](http://www.statice.is/?PageID=1282&src=/temp_en/Dialog/varval.asp?ma=HEI07102%26ti=Smoking+habits+by+sex+and+age+1994%2D2007++++++%26path=../Database/heilbrigdismal/afengiogreyk/%26lang=1%26units=Percent%20distribution), accessed 21 February 2009.

**Table A5.2 - Female Youth Smoking Rates (1995-2007), Iceland**

<b>Year</b>	<b>Stopped &gt;1 year ago (%)</b>	<b>Stopped &lt;1 year ago (%)</b>	<b>Smoke daily (%)</b>
1995	2.3	4.0	19.3
1996	4.2	5.4	16.1
1997	4.5	4.0	16.5
1998	6.1	6.6	17.7
1999	3.2	3.9	18.2
2000	5.8	8.4	16.2
<b>2001</b>	<b>3.2</b>	<b>3.2</b>	<b>15.8</b>
2002	2.6	3.2	13.6
2003	5.6	7.7	19.0
2004	5.9	3.7	11.9
2005	9.6	4.4	17.6
2006	7.8	7.8	10.3
2007	5.5	6.9	12.4

\* PoS ban was introduced in 2001.

## APPENDIX SIX

### ***SUBMISSION BY JAMES REPACE, MSC.***

***Biophysicist, Visiting Asst. Professor, Tufts University School of Medicine, & Repace Associates, Inc., Secondhand Smoke Consultants***

Testimony of J.L. Repace on the Tobacco Products Control Amendment Bill 2008

1. I support the Tobacco Products Control Amendment Bill 2008, which proscribes smoking in passenger cars, in outdoor eating or drinking areas, in outdoor playing areas, and in safe swimming areas. Field studies and controlled experiments demonstrate that, regardless of which way the wind blows, an individual in an outdoor cafe, transiting through a building doorway, or otherwise surrounded by a group of smokers, is always downwind from the source. They also show that under some conditions, outdoor levels of tobacco smoke (OTS) can be as high as indoor levels of secondhand smoke (SHS). Outdoor smoking bans are already common in Canada and the U.S. Several studies have shown that in the confines of a car, SHS may attain levels far higher than in a smoky bar.

2. My name is James Repace, MSc., a U.S. Citizen. I have published 83 scientific papers, of which 75 concern research on indoor air pollution from secondhand smoke (SHS) [i.e., environmental tobacco smoke (ETS)], over a period of 37 years. I was a science policy analyst and staff scientist at the U.S. Environmental Protection Agency from 1979 to 1998. I have been in private practice as an international secondhand smoke consultant for 10 years: my website is <[www.repace.com](http://www.repace.com)>.

3. I append a recent paper and fact sheet from my website: Outdoor Smoking Ban Studies and Policies. William Mitchell Law Review, Jan. 2008, and FACT SHEET: Outdoor Air Pollution From Secondhand Smoke, Jan. 2008.

James Repace, MSc. Biophysicist, Visiting Asst. Professor, Tufts University School of Medicine, and Repace Associates, Inc., Secondhand Smoke Consultants, 101 Felicia Lane Bowie, MD 20720 U.S.A. email: <[repace@comcast.net](mailto:repace@comcast.net)>; website: <[www.repace.com](http://www.repace.com)>.

## **BENEFITS OF SMOKE-FREE REGULATIONS IN OUTDOOR SETTINGS: BEACHES, GOLF COURSES, PARKS, PATIOS, AND IN MOTOR VEHICLES**

James L. Repace, William Mitchell Law Review, Vol. 34:4, p 1622- 1638.

Some persons feel that although establishing smoke-free buildings is justified, establishing smoke-free areas outdoors is not. This paper discusses the toxicity of tobacco smoke, the factors determining its concentration, and argues that tobacco smoke in places where people live, work, or congregate, whether indoors or outdoors, poses a nuisance to many, and both an acute and chronic health hazard to some. Thus, local governments are justified in establishing smoke-free zones outdoors.

Tobacco smoke contains at least 172 toxic substances, including 3 regulated outdoor air pollutants, 33 hazardous air pollutants, 47 chemicals restricted as hazardous waste, and 67 known human or animal carcinogens.<sup>1</sup> The law of conservation of mass dictates that this must be true whether tobacco smoke is inhaled in the act of smoking, or inhaled by nonsmokers out of the air indoors or outdoors, known as secondhand smoke (SHS).

The concentration of tobacco smoke pollution in buildings and in vehicles is proportional to the density of smokers, and inverse to the ventilation rate.<sup>2</sup> Tobacco smoke pollution outdoors (outdoor tobacco smoke—or OTS), is far more complicated, being determined by the density and distribution of smokers, the wind velocity (direction and speed), and the stability of the atmosphere.<sup>3</sup> High SHS concentrations are produced by high smoker density, low wind velocities, and stable atmospheric conditions. SHS concentrations persist for hours after smoking ceases indoors, while OTS concentrations dissipate rapidly after smoking ceases outdoors.<sup>4</sup> However, during smoking, OTS levels outdoors may be as high as SHS indoors, especially in close proximity to smokers.

### **I. STATE AND LOCAL OUTDOOR SMOKING BAN POLICIES**

Several states have taken steps to restrict smoking in outdoor locations and even in automobiles where children are present. As a result of research conducted by the state, culminating in the listing of OTS as a Toxic Air Contaminant, some of the most restrictive ordinances have been passed in California.

The City Council of Calabasas, California, passed an ordinance that took effect January 1, 2007, “prohibit[ing] smoking in all public places, indoor or outdoor, where anyone might be exposed to secondhand smoke.”<sup>5</sup> The outdoor ban “includes outdoor cafes, bus stops, soccer fields, condominium pool decks, parks and sidewalks.”<sup>6</sup> “Smoking in one’s car is allowed, unless the windows are open and someone nearby might be affected.”<sup>7</sup> Violators face “warnings, fines of up to \$500 for repeat offenses, and misdemeanor charges.”<sup>8</sup> The ordinance followed a few “weeks after the California Air Resources Board declared secondhand smoke to be a Toxic Air Contaminant that can lead to respiratory infections, asthma, lung cancer, heart disease and death.”<sup>9</sup> “Smoking has been prohibited on most Southern California beaches and piers since 2003.”<sup>10</sup> Nationwide, in excess of “700 cities . . . have enacted ordinances placing some limits on outdoor smoking, according to the American Nonsmokers’ Rights Foundation.”<sup>11</sup> California Governor Arnold Schwarzenegger “signed a bill [making] it an infraction to smoke in a vehicle if someone under age 18 is present.”<sup>12</sup> Other California smoking prohibitions “include a ban on smoking in enclosed workplaces and within 25 feet of a playground.”<sup>13</sup> Legislation banning smoking in cars with young children present was adopted in Arkansas in 2006, and similar smoking bans with children have been introduced in the states of California, Georgia, Michigan, New Jersey, New York, Pennsylvania, and Vermont.<sup>14</sup> Louisiana has limited smoking in cars when children 13 and younger are in the vehicle.<sup>15</sup>

### **II. STUDIES OF OUTDOOR TOBACCO SMOKE CONCENTRATIONS**

A limited number of controlled experiments and field studies of OTS have been conducted in California, Europe, Maryland, and the Carribean. These studies show that OTS levels outdoors are often as high as SHS levels indoors, although there are differences in the persistence of OTS levels once smoking ceases.

#### *A. California*



The California Air Resources Board (CARB) study measured OTS nicotine concentrations outside an airport, college, government center, office complex, and amusement park.<sup>16</sup> CARB found that at these typical outdoor locations, Californians may be exposed to OTS levels as high as indoor SHS concentrations.<sup>17</sup> CARB found that OTS was strongly affected by the number of smokers, and moderately affected by the size of the smoking area and the measured wind speed.<sup>18</sup> The CARB study concluded that OTS concentrations are detectable and are sometimes comparable to indoor concentrations. The study also demonstrated that the number of cigarettes being smoked (i.e., total source strength), the position of smokers relative to the receptor, and atmospheric conditions can all lead to substantial variation in average exposures.<sup>19</sup> CARB concluded that OTS is a “Toxic Air Contaminant.”<sup>2</sup>

A Stanford University study measured OTS respirable particle concentrations in outdoor patios, on airport and city sidewalks, and in parks.<sup>21</sup> It also conducted controlled experiments of SHS indoors and OTS outdoors.<sup>22</sup> It found that mean SHS particle concentrations outdoors can be comparable to SHS indoors.<sup>23</sup> Within about 2 feet of a smoker, OTS was quite high and comparable to SHS concentrations measured indoors.<sup>24</sup> The study found that levels measured in 2 sidewalk cafés were detectable at distances beyond 13 feet.<sup>25</sup> It further found that, in contrast to SHS, OTS does not accumulate and that OTS peaks are more sensitive to source-receptor proximity and wind velocity.<sup>26</sup> Thus, long-term averages for OTS concentrations are averaged over a large number of transient peaks, which only occur when smokers are active, whereas indoor concentrations remain high long after smoking has ceased. The total dose to a person indoors from each cigarette will be greater than that received from each cigarette smoked outdoors. The study found upwind OTS concentrations very low and downwind OTS much higher.<sup>27</sup>

#### *B. Denmark*

Boffi measured OTS respirable particle pollution in a car park (open space), outdoors in front of a conference center with smokers under a roof (18 smokers during a measurement time of 35 minutes), indoors in the nonsmoking conference center, along the motorway to Copenhagen city centre, and inside a Copenhagen restaurant where smoking was allowed.<sup>28</sup> He found that mean values observed with smokers in front of the conference center were significantly higher than the outdoor parking place, indoor conference center, motorway, and Copenhagen outdoor official data.<sup>29</sup>

#### *C. Finland*

Repace and Rupprecht measured OTS respirable particle pollution in 5 outdoor cafés and on city streets in downtown Helsinki.<sup>30</sup> They found that air pollution levels during August 2003 in Helsinki outdoor cafés with many smokers were 5 to 20 times higher than on the sidewalks of busy streets polluted by bus, truck, and auto traffic.<sup>31</sup>

#### *D. Maryland*

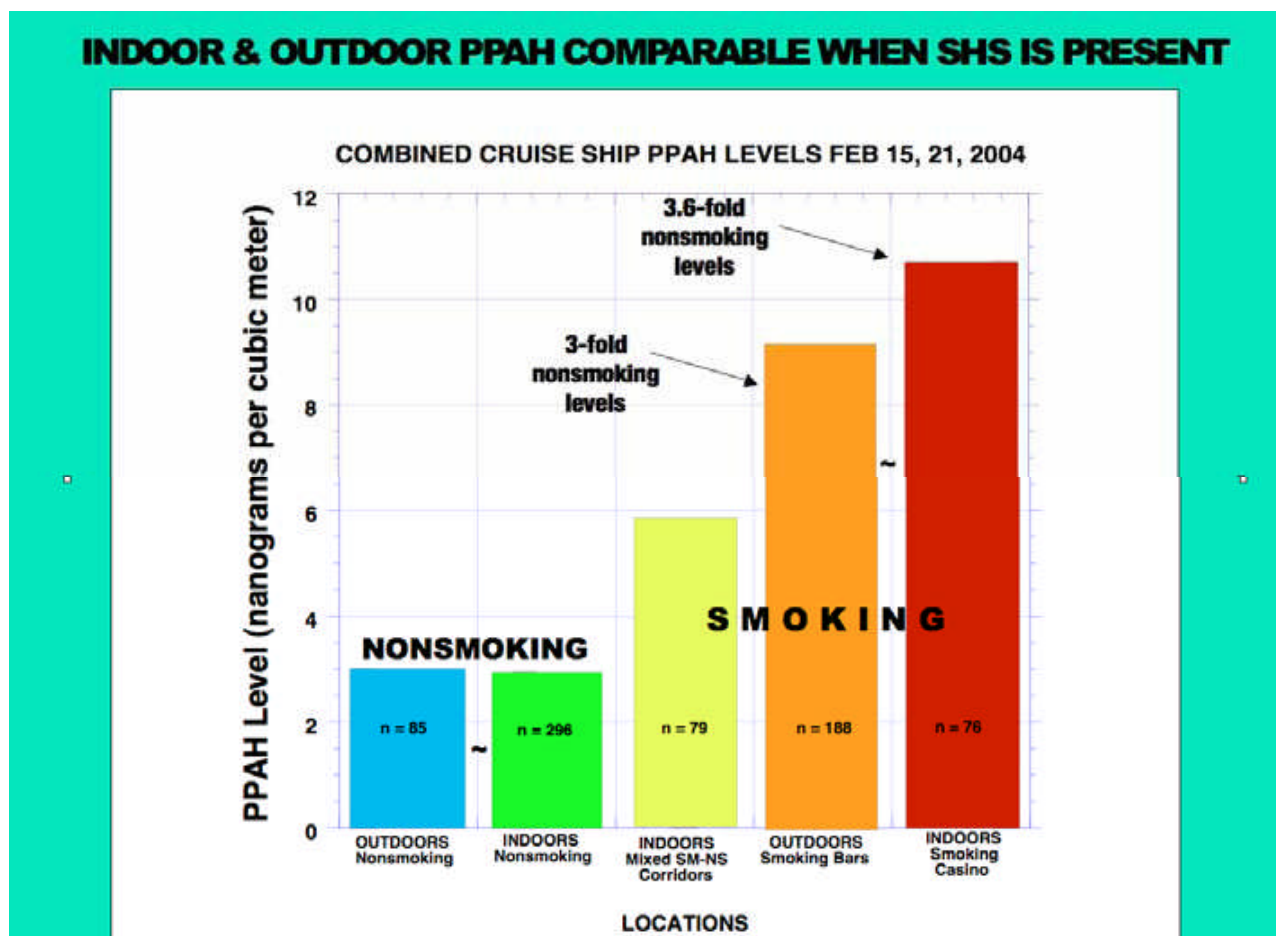
Repace measured outdoor fine particle and carcinogen concentrations from OTS on the campus of the University of Maryland in Baltimore County.<sup>32</sup> Using controlled experiments, Repace found that cigarette smoke respirable particulate (RSP) concentrations decline approximately inversely with distance downwind from the point source, whereas cigarette smoke carcinogen concentrations decline approximately inversely as the square of the distance from source to receptor.<sup>33</sup> The experiments showed that OTS smoke levels did not approach background levels either for fine particles or carcinogens until about 23 feet from the source.<sup>34</sup> Levels of irritation begin as low as 4 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) SHS-RSP, and levels of odor detection are as low as 1  $\mu\text{g}/\text{m}^3$ .<sup>35</sup> Thus SHS odor would be detectable in these experiments as far as 7 meters from the source, and levels of irritation would begin at 4 meters from the source.<sup>36</sup>

#### *E. The Caribbean*

Experiments conducted on a cruise ship underway at 20 knots at sea in the Caribbean showed that OTS in various smoking permitted outdoor areas of the ship tripled the level of carcinogens to which nonsmokers were exposed relative to indoor and outdoor areas in which smoking did not occur, despite the strong breezes

and unlimited dispersion volume.<sup>37</sup> Moreover, outdoor smoking areas were contaminated with carcinogens to nearly the same extent as a popular casino on board in which smoking was permitted.<sup>38</sup>

**Figure 1. Indoor and Outdoor Carcinogen Pollution on a Cruise Ship<sup>39</sup>**



Outdoor carcinogen levels in the presence of smoking in a ship underway at sea at 20 knots of speed is comparable to indoor levels in the ship's casino, again showing a strong proximity effect despite the open air and strong breezes.<sup>40</sup>

#### *F. Smoking in Cars*

Two studies have shown that secondhand smoke in the small volumes of cars leads to very high exposures. Ott, Klepeis, and Switzer measured carbon monoxide (CO) and fine particle (PM<sub>2.5</sub>) from multiple cigarettes smoked inside of 4 motor vehicles under both moving and stationary conditions, and found high particle concentrations inside cars with smokers due to the small volumes of the passenger compartments, and found that the concentrations become extremely high with the low air change rates caused by closing windows and air conditioning.<sup>41</sup> They concluded that these extremely high particle concentrations constitute a serious health risk for adults and children who are passengers in a car with a smoker.<sup>42</sup> These findings were echoed by a Harvard School of Public Health report, concluding that SHS in cars can be up to 10 times more of a health risk than SHS in a home.<sup>43</sup> At least 20 states and a number of municipalities have considered limiting smoking in cars where minors are present.<sup>44</sup>

### III. DISCUSSION

Individual cigarettes are point sources of air pollution; smokers in groups become an area source of SHS pollution. Outdoor air pollutants from individual point sources are subject to plume rise if the temperature of the smoke plume is hotter than the surrounding air; however if the plume has a small cross-section, as for a cigarette, it will rapidly cool and lose its upward momentum, and then will subside, as the combustion

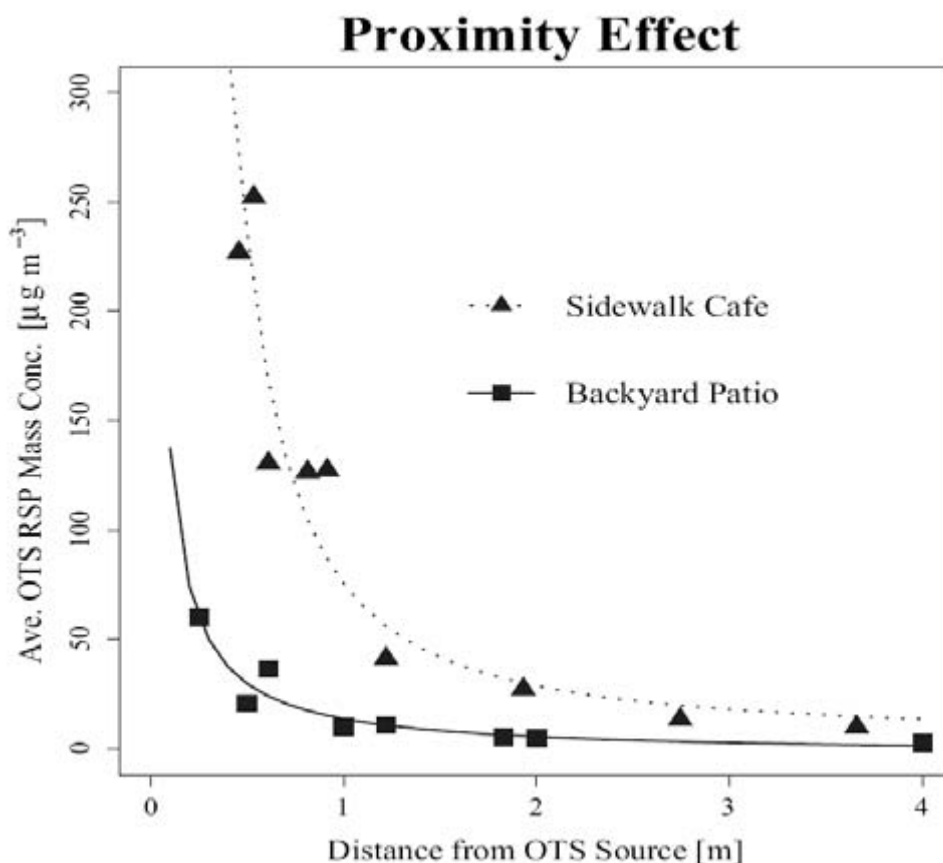
particles and gases are heavier than air.<sup>45</sup> Thus, in the case of no wind, the cigarette plume will rise to a certain height and then descend, and for a group of smokers, for example, sitting in an outdoor café, on a hospital patio, or in stadium seats, their smoke will tend to saturate the local area with SHS.

In the case where there is wind, the amount of thermally-induced plume rise is inversely proportional to the wind velocity—doubling the wind velocity will halve the plume rise.<sup>46</sup> In this case, the cigarette plume will resemble a cone tilted at an angle to the vertical.<sup>47</sup> The width of the cone and its angle with the ground will depend upon the wind velocity: a higher wind will create a more horizontal but wider cone (due to increased turbulence), with uncertain impact on exposure to SHS for downwind nonsmokers.<sup>48</sup> If there are multiple cigarette sources forming an area source of SHS, the downwind concentrations will consist of multiple intersecting cones, i.e., overlapping plumes of increased concentration in the volume of overlap, before re-dissipating with increasing distance from the area source.<sup>49</sup> As the wind direction changes, SHS pollution will be spread in various directions, fumigating downwind nonsmokers.

#### A. Symptomatic Effects

There are a number of studies that show that nonsmokers suffer both illness and irritation from tobacco smoke exposure. SHS contains a large quantity of respirable particles, which can cause breathing difficulty for those with chronic respiratory diseases, or trigger an asthmatic attack in those with disabling asthma.<sup>50</sup> For the remainder of nonsmokers, Junker et al. report eye, nasal, and throat irritation thresholds for 24 healthy young adult females for repeated exposures over the course of 2 hours, corresponding to an SHS-PM<sub>2.5</sub> concentration of about 4.4 µg/m<sup>3</sup>.<sup>51</sup> As Figure 2 shows, these levels are exceeded even at distances 3 or 4 meters (10 to 13 feet) downwind of a smoker in a sidewalk café, posing an irritation and annoyance problem even for healthy nonsmokers. With larger numbers of smokers, this irritating cloud of pollution would extend to even greater distances. Thus, there is scientific data to support OTS being both a health threat to asthmatic patients and a public nuisance to nonsmokers in general.

**Figure 2. Outdoor Tobacco Smoke (OTS) In a Sidewalk Café and a Backyard Patio<sup>52</sup>**



Overall average OTS mass concentrations as a function of proximity to the OTS source measured during experiments on a backyard patio using smoldered cigarettes, and two sidewalk cafés with human-smoked and smoldered cigarettes, for which source proximity was precisely recorded. Background RSP levels were subtracted from all measurements.

Figure 2 illustrates the proximity effect in a sidewalk café: outdoor tobacco smoke was still detectable at distances of approximately 3 to 4 meters from a single cigarette on sidewalk patios. Slightly elevated particle concentrations were detected at a distance of 8 meters from a cluster of burning cigarettes and around the corner of the house during a backyard patio experiment.<sup>53</sup>

Speer investigated subjective reactions of nonsmokers who developed symptoms from passive smoking.<sup>54</sup> Speer divided the nonsmokers into 2 groups: 191 nonsmokers with allergic diseases such as nasal allergy, asthma, and allergic headache, and a control group of 250 non-allergic nonsmokers without such diseases.<sup>55</sup> Speer concluded that an impressively large number of people complain of symptoms from tobacco smoke, both allergic and nonallergic individuals.<sup>56</sup> The symptoms are summarized in Figure 3 [below].

### **Figure 3. Known Symptoms of Passive Smoking<sup>57</sup>**

#### **Passive Smoking may produce:**

- Itching, tearing, burning, reddening, swelling of eyes, blinking—increasing with exposure;
- Sneezing, blocking, running, itching of nose;
- Coughing, wheezing, sore throat—respiratory discomfort might begin within a half hour, persist for 8 to 12 hours;
- Headache, nausea and dizziness;
- Choking sensation;
- Irritation of mucous membranes of nose, throat, lung;
- Respiratory disease exacerbation;
- Respiratory symptoms, depressed pulmonary function.

#### **Prevalence of SHS symptoms reported by 10,000 nonsmoking office workers, exposed 8 hours per day<sup>58</sup>**

- Difficulty working near a smoker (50%)
- Forced to move away from desks (36%)
- Bothered by SHS (33%)
- Eye irritation (48%)
- Nasal irritation (35%)
- Aggravation of pulmonary disease (25%)

Savel reported on 8 nonsmokers with clinical hypersensitivity to cigarette smoke; all 8 individuals were allergic nonsmokers, and all developed immediate upper respiratory discomfort after being exposed to cigarette smoke.<sup>61</sup> Savel also reported a number of adverse symptoms, including eye and nose irritation,

choking sensation, and both sinus and migraine headaches.<sup>62</sup> Savel concluded that an allergy to cigarette smoke might produce clinically distressing upper respiratory tract symptoms in nonsmokers with allergic backgrounds, exert a depressant effect on the antibacterial defense mechanisms of the lung, exert a toxic effect on lymphocytes, and play a role in the pathogenesis of pulmonary distress.<sup>63</sup>

The Junker (2001) irritation index shows the median threshold of SHS irritation for healthy nonsmokers.<sup>65</sup> This illustrates the proximity effect in an outdoor plaza where students congregated in widely scattered tables on a college campus in Baltimore, Maryland.<sup>66</sup> The proximity effect was studied in a controlled experiment involving 10 college student smokers placed in rings of increasing diameter around 2 air quality monitors so that no matter which way the wind blew, the monitors were always downwind of 1 smoker.<sup>67</sup> Relative to a ring radius of 4 meters (13 feet), where the level is 4 units high, the SHS-RSP exposure concentration at 1.5 meters (5 feet) is 13 units high for particles and 35 units high for PPAH carcinogens, as shown in Figure 4. In this experiment, the proximity effect near a ring-shaped area source increases SHS by a factor of 3 for particles and a factor of nearly 9 for carcinogens.

### *B. Asthmatic Effects*

There is very good evidence that environmental tobacco smoke has direct irritant effects in the case of passive smoking by children under the age of 4; this effect appears to diminish in children aged over 4 years.<sup>68</sup> There is also good evidence that SHS can trigger bronchospasm in some adults with asthma.<sup>69</sup> SHS is associated with wheezing symptoms, medical therapy for wheezing, and wheezing-related emergency department visits by children.<sup>70</sup> A causal association exists between SHS and increased episodes and aggravation of symptoms of children with asthma, affecting 200,000 to 1,000,000 children under the age of 18.<sup>71</sup> More than 14 million Americans reported having asthma in 2000, according to the National Center for Health Statistics.<sup>72</sup> “Asthma is a leading contributor of limited activity and absences from work and school; it also causes 5000 deaths each year in the U.S. The National Heart, Lung, and Blood Institute estimates that the annual direct and indirect costs of asthma were \$12.7 billion in 2000.”<sup>73</sup> By 2004, 7.1% (20.5 million) of people currently had asthma.<sup>74</sup> Among children under age 18 years, 8.5% (6.2 million) currently had asthma. Among adults 18 years and over, 6.7% (14.4 million) had asthma.<sup>75</sup> According to one report, teenage children exposed to tobacco smoke in cars had an even higher risk of persistent wheeze than if they had been exposed at home.<sup>76</sup>

### *C. Health Risks from Exposure to SHS and OTS*

Repeated exposure to a carcinogen, such as air pollution from SHS and OTS, over a lifetime increases the risk of cancer.<sup>77</sup> The U.S. Surgeon General has stated that there is “no risk free exposure to SHS”—chronic risk is proportional to average exposure concentration times duration of exposure times the dose-response relationship.<sup>78</sup> Federal regulatory agencies compute risk over a 70-year standard lifetime (e.g., EPA) or over a working lifetime of 45 years (e.g., OSHA).<sup>79</sup> Typical risks for lung cancer from passive smoking are in the range of 1 to 10 deaths per 1000 persons per lifetime.<sup>80</sup> Typical chronic heart disease risks are 10 times higher.<sup>81</sup> “De minimis” or acceptable risk is typically 1 death per 1,000,000 persons per lifetime.<sup>82</sup> OSHA’s “significant risk of material impairment of health” is 1 death or irreversible serious health effect per 1000 workers per 45 year working lifetime.<sup>83</sup> “De manifestis” or obvious risk is 5 deaths or irreversible adverse health effect per 10,000 people at risk.<sup>84</sup> For workers indoors, it would take tornado-like rates of ventilation or air cleaning to reduce risks from chronic workplace exposure to de minimis levels; ergo, there is no risk-free chronic exposure to SHS. This is also likely to be true for waiters in outdoor cafés. Moreover, indoors or outdoors, for persons who have serious asthma, chronic obstructive respiratory disease, or heart disease, even brief exposures to SHS could land them in the emergency room or worse. It is generally these patients who died in the notorious outdoor smog episodes in the Meuse Valley in Belgium in 1930, Donora, Pennsylvania in 1948, and London in 1952, which eventually led to stringent regulation of outdoor air pollution.<sup>85</sup>

Arguments against banning smoking in certain outdoor public venues were advanced by Professor Simon Chapman in his presentation at the Tobacco Control Legal Consortium Symposium on the Limits of Tobacco Control Regulation.

*Our focus in this symposium on whether policy and advocacy for the regulation of SHS might sometimes go “too far.” [Where] “going too far” in SHS policy means efforts premised on reducing harm to others, which ban smoking in outdoor settings such as ships’ decks, parks, golf courses, beaches, outdoor parking lots, hospital gardens and streets. It is also the introduction of misguided policies allowing employers to refuse to hire smokers, including those who obey proscriptions on smoking indoors while at work. Many people are comforted by the smell of camp and log fires, even seeking out such exposures. But the same people will sometimes become outraged by the occasional, fleeting exposure to tobacco smoke. While nearly identical in terms of their noxious content, both forms of smoke have entirely different meanings. If radically different concerns about inhaling essentially the same zoo of noxious particles was all that mattered here, we would have to conclude that many people can be frankly irrational. But outrage about some forms of smoke and open acceptance of others is very explicable to sociologists of risk perception. Among the many key determinants of meaning and outrage are whether a noxious agent is seen as voluntary or coerced; natural or artificial; and whether the risk has been amplified by lots of media attention. We don’t read much about the dangers of inhaling campfire smoke, smoke from incense or candles or cooking, but we read a lot about the dangers of secondhand cigarette smoke. I emphasize that I am very supportive of preventing smoking in crowded, confined outdoor settings such as sports stadia, in most outdoor dining sections of (particularly small) restaurants and in unblocking the entrances to buildings by having smokers move further away.<sup>86</sup>*

My response to Professor Chapman’s arguments follows: We agree completely on the principle of banning smoking in outdoor cafés and sports stadia. However, I disagree that because campfire smoke and smoke from incense, candles, or cooking have not (yet) received the same level of notoriety that SHS has (largely because they have not been researched until recently), that they do not pose both acute and chronic health hazards resulting from the toxicity of fine particles.<sup>87</sup> In fact, smoke from any source in places where people live, work, or congregate is going to pose a nuisance to many and an acute health hazard to some. Smoke from all of these sources is the product of incomplete combustion and is toxic to humans. As with indoor smoking, if enough persons complain about outdoor smoking, local governments will be moved to protect the public, as they have done for decades with factory smoke and auto exhaust, and are scientifically justified in doing so for OTS on the basis of the exposure analysis discussed herein.

#### IV. CONCLUSIONS AND POLICY IMPLICATIONS

In 1946, a city ordinance urged by concerned citizens was passed in Pittsburgh, Pennsylvania, despite the absence at that time of any scientific evidence of the health effects of outdoor air pollution levels on the population. Thus, early public air pollution policy was formulated on the basis of intuition. Similarly, a wave of restrictions on outdoor smoking has been passed in several U.S. states, despite the absence of health effects studies on OTS and the paucity of data on OTS concentrations. However, data is accumulating in support of the public’s intuitive response to OTS. Recent field studies plus controlled experiments demonstrate that, regardless of which way the wind blows, individuals in an outdoor café, transiting through a building doorway, on a public street, sidewalk or bus stop, even on the open deck of a cruise ship at sea, or otherwise surrounded by a group of smokers, are always downwind from the source and are thus subject to being enveloped in a cloud of obnoxious, irritating, asthmagenic, carcinogenic, and atherogenic fumes.

These studies also show that under a variety of conditions, levels of OTS can be as high as indoor levels of SHS. Smoking in the small volume of cars leads to much higher levels of tobacco smoke air pollution than in other enclosed environments. Individuals who suffer from asthma, especially children, are at acute risk from OTS. Healthy persons are subject to annoyance and increased risk of developing chronic disease from repeated OTS exposure over a lifetime. This new data confirms public intuition, demonstrating that public demand for smoke-free outdoor spaces is not “going too far,” and justifies policies banning smoking in outdoor locations, in vehicles, where people congregate in public, or where workers are placed at risk, such as outdoor cafés.

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## APPENDIX SEVEN

### ***SMOKING IN SPECIFIC OUTDOOR PUBLIC PLACES, PRISONS AND IN PRIVATE CARS: A REVIEW OCTOBER 2008***



Department Of Health, Public Health Division, Environmental Health Directorate

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- 4. Enabling Legislation - Smoking In Public Places**
  - 4.1. Tobacco Products Control Act 2006 (The Act)
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- 5. Bans In Other Australian Jurisdictions**
  - 5.1. Outdoor Public Areas
  - 5.2. Smoking In Cars
- 6. Policy Considerations**
  - 6.1. Stakeholder Views
  - 6.2. Local Government By Laws – Inconsistencies And Scope Of Application
  - 6.3. Queensland Issues
  - 6.4. Qld Review – Outstanding Issues For Wa Consideration
  - 6.5. Recent Changes Announced By Queensland Government
  - 6.6. Legislation
  - 6.7. Enforcement Issues – Smoking Bans In Public Places
  - 6.8. Smoking In Prisons
  - 6.9. Beaches And Other Public Swimming Places
  - 6.10. Private Cars Carrying Passengers
  - 6.11. Other Public Outdoor Areas
  - 6.12. Phase-In Of Legislation
  - 6.13. Legislative Issues
  - 6.14. Enforcement Issues – Smoking Bans In Private Cars
  - 6.15. Buffer Zones Or Impermeable Barriers

6.16. Designated Smoking Area (Dosa)

**7. Implementation Options**

7.1. Smoking Ban In Alfresco Dining Areas And Other Similar Areas

7.2. Buffer Zones Or Impermeable Barriers

7.3. Designated Smoking Area (Dosa)

7.4. Smoking Ban At Beaches And Other Similar Areas

7.5. Smoking Ban In Cars

7.6. Smoking Bans In Other Outdoor Public Places

7.7. Signage

7.8. Penalties

7.9. Phase In Periods

7.10. Education

Appendix 1- Key Stakeholders Consulted

## 1. EXECUTIVE SUMMARY:

In June 2007 the former Minister for Health (MFH) requested the DOH to commence research and consultations to identify relevant stakeholder positions on the introduction of legislation to ban smoking in alfresco dining areas (the Review).

In December 2007 the former MFH approved an extension of the Review to include smoking in the following places and the associated issues:

- in cars particularly with children;
- at public beaches; and
- in prisons.

An Issues Paper was developed by the DOH and circulated in April 2008 for comment by a range of health and industry representative organisations detailed at Appendix 1. The DOH received 84 responses from 173 organisations contacted. The Issues Paper provides discussion for the definitions, scope, application and enforcement issues associated with extending the Review.

Research into other state experiences with legislative smoking bans in public places has identified that Queensland has undertaken the most comprehensive steps in this direction with the *Tobacco and Other Smoking Products Act* (the Qld Act) providing offences for persons who smoke in a number of outdoor places –

- major sports facilities;
- patrolled beaches or at prescribed outdoor swimming areas (e.g. an artificial beach);
- within four metres of non-residential building entrances;
- within ten metres of children's playground equipment; and
- outdoor eating or drinking places where persons may consume food or drink provided by an on-site food service.

A public review of the Queensland legislation has provided recommendations that are relevant to implementing smoking bans in public places in Western Australia. As a result of this review, the Queensland government has announced intentions to implement several reforms including the addition of a ban on smoking in cars carrying children under 16 years of age.

Enforcement was generally seen as a problematic issue in considering bans on smoking in public places in Western Australia. Legislation could enable local government employees to act in enforcing bans alongside of state public sector employees and police officers. The constant theme amongst stakeholders considered that inadequate resources would hinder efforts to enforce legislation.

There was divided support for the phasing in of legislation, however all stakeholders were supportive of comprehensive community education programs.

A state-wide approach to legislation and enforcement was preferred to promote overall uniformity. State-wide smoking bans in outdoor public places under the *Tobacco Products Control Act 2006* may impact current by-laws enacted by some local governments.

## 2. INTRODUCTION

In June 2007 the former MFH requested the DOH to commence research and consultations to identify relevant stakeholder positions on the introduction of legislation to ban smoking in alfresco dining areas (the Review).

In December 2007 the former MFH approved an extension of the Review to include the associated issues and smoking in the following places:

- in cars particularly with children;
- at public beaches; and
- in prisons.

An Issues Paper was developed by the DOH and circulated in April 2008 for comment by a range of health and industry representative organisations detailed at Appendix 1. The DOH received 84 responses from 173 organisations circulated.

### 2.1. Stakeholder Considerations

The Issues Paper provided background information to stakeholders on smoking in specified public places, in private cars and associated issues. Generally the Issues Paper asked stakeholders to provide their views on whether smoking should be banned in-

- alfresco dining areas including consideration of the following associated issues:
  - the scope of the meaning alfresco dining area;
  - the scope of coverage i.e. all of alfresco area or a percentage of the area;
  - designated outdoor smoking areas;
  - other areas similar to alfresco areas where food is served or consumed;
  - buffer zones which in addition to alfresco dining areas could also address issues of smoking outside entrances to or air-conditioning intakes of buildings;
  - phase in periods;
  - State-wide application and consistency (State vs local Government legislation); and
  - legislative or voluntary implementation and enforcement.
- beaches including consideration of the following issues:
  - the scope of application, i.e. all areas or partial; and
  - other public swimming places such as public swimming pools, dams etc.

- cars including consideration of the scope i.e. total ban or limited to cars with child passengers, and to consider issues of enforcement generally.

## **2.2. Public Opinion**

There is evidence of strong public support for smoke-free alfresco dining areas on the basis of health and discomfort or amenity issues.

The results of an Australian study undertaken by Freeman et al (2008) demonstrated that public opinion would support legislation on banning smoking in cars carrying children due to child protection being paramount and non-negotiable (62% of articles reviewed). The study reviewed media themes over a period of 12 years. Negative issues cited were enforcement would be too difficult (19% of the articles reviewed) and that banning smoking in cars was an invasion of personal space (12% of articles reviewed).

## **2.3. Public Health Rationale**

Non-smokers can be exposed to high levels of second hand smoke (**SHS**) in outdoor settings when close to or down wind of smokers. The health effects of exposure to SHS are well documented and indisputable, particularly in enclosed places.

Passive smoking is the inhalation of SHS. An increasing body of scientific evidence, endorsed by the Australian National Health and Medical Research Council and by the World Health Organisation (**WHO**) shows that passive smoking poses the same types of threats to the health of non-smokers as active smoking does to smokers.

There is no safe level of exposure to SHS although adverse health effects vary and are dependent on a range of factors impacting particulate concentrations. For example environmental factors, air movement, ventilation, closeness and location to source. However, the adverse health effects may vary from person to person depending on a person's vulnerability or pre-disposition to or existing health issues such as asthma, respiratory or cardiovascular problems and the unknown long-term cumulative effects.

Exposure to SHS can cause chronic bronchitis, pneumonia and other chest illnesses in children and can increase the risk of cardiovascular disease, lung cancer and other respiratory diseases in adults. Short-term exposure to SHS may irritate the eyes, nose, throat and airways due to irritant chemicals in tobacco smoke.

The 2006 report of the US Surgeon General *The Health Consequences of Involuntary Exposure to Tobacco Smoke* concluded on the toxicology of SHS that-

*This broadly reaching body of evidence on the toxicology of second-hand smoke and on these biologic mechanisms indicates that any exposure to second-hand smoke will increase risk for adverse health outcomes.*

Evidence of the adverse health effects caused by people's exposure to SHS in enclosed places is well documented and accepted and the public health rationale for banning smoking in outdoor places is justified on the basis of the factors detailed above.

Comprehensive tobacco control strategies that amongst other things aim to reduce smoking rates within the community include de-normalising smoking by reducing the opportunity for people to smoke and providing a supportive environment for smokers wanting to quit by contributing to cultural and normative change.

Limiting exposure of children to tobacco products and reducing the visibility of people smoking are also important components of strategies to de-normalise smoking, which is reflected in the preamble and purposes of the *Tobacco Products Control Act 2006*.

The establishment of smoke-free places significantly reduces non-smokers' exposure to SHS (Pickett *et al* 2006) and is the fundamental reason for the need to eliminate SHS in areas shared by smokers and non-smokers and contributes to a reduction in smoking rates.

### **3. STAKEHOLDER CONSULTATION**

The Issues Paper including a questionnaire was circulated to 173 stakeholders in mid-April 2008 with an invitation to provide comment.

84 responded.

- 4 declined to comment.
- 85 did not respond.

The detailed list of stakeholders provided at Appendix 1 generally includes -

- Industry associations;
- State Government agencies;
- Local Government authorities;
- Health non-government organisations (**Health NGOs**); and
- Other non-government organisations (**NGOs**) having an interest.

#### **3.1. Respondents**

##### Health NGOs

The 11 Health NGOs listed below co-signed a submission on a number of issues:

- Australian Council on Smoking & Health
- Australian Medical Association (WA)
- Asthma Foundation of WA
- Cancer Council WA
- Centre for Behavioural Research in cancer Control
- Diabetes Association WA
- National Heart Foundation (WA)
- Public Health Association (WA)
- Public Health Advocacy Institute of WA

- Telethon Institute for Child Health Research
- WHO Collaborating Centre for Research on Children's Respiratory Health

#### Industry Associations

Australian Hotels Association (WA Branch)

#### Local Governments (142 total)

Total responded-

- 19 metropolitan (of 30)
- 37 country (of 112)

#### NGOs

- Keep Australia Beautiful Council
- Local Government Managers Australia
- Royal Life Saving Society
- Surf Life Saving WA
- Western Australian Local Government Association (**WALGA**)

#### State Government agencies

- Department of Local Government and Regional Development
- Drug and Alcohol Office (**DAO**)
- Fire and Emergency Services Authority of WA (**FESA**)
- Healthway
- Western Australian Police
- Worksafe

#### Nil Response

- At the time the City of Perth was awaiting consideration by Council however intention to implement smoking bans in alfresco dining areas has since been announced.
- The City of Kalgoorlie-Boulder, Town of Mosman Park and the City of Mandurah.
- The Restaurant and Catering Industry Association of WA (**RCIA**) responded in writing and were critical of the Issues Paper, did not address the questions specifically and did not circulate the Issues Paper to its members. An invitation by the DOH to discuss the matter further was declined. In effect RCIA members have not been consulted on smoking in

alfresco dining areas although the RCIA represents a large number of restaurant owners. Time has not permitted individual consultation.

- Clubs WA.
- WA Nightclub Association.

### **3.2. Issue Paper Questions**

The Issues Paper provided background information on 16 specific areas where smoking bans could be implemented and asked stakeholders to provide comment on the following questions.

#### **Questions 1-6: Alfresco dining areas and other outdoor public areas where food is served or consumed**

- 1 Do you think smoking should be banned in alfresco dining areas at licensed premises and unlicensed restaurants?
- 2 Do you think smoking should be banned in any other outdoor area of a licensed premise or restaurant when food is served or consumed in that area?
- 3 Do you think smoking should be banned outside takeaway shops, lunch bars etc. where seating is provided for the consumption or service of food?
- 4 Do you think smoking should be banned at outdoor events where food is served or consumed? For example sporting or music events.
- 5 Do you think smoking should only be allowed in designated smoking areas at outdoor events where food is served or consumed?
- 6 If smoking was to be banned in alfresco dining areas, should it be introduced on a phased in or delayed basis? For example partial bans first leading to total bans over a number of years or legislation to commence in 1 or 2 years time?

#### **Questions 7-10: Buffer Zones**

*A Buffer Zone is an area in which people do not smoke (either voluntarily or legislated) that adjoins an area where smoking is banned.*

- 7 If smoking was banned in alfresco dining areas, do you think there should be a buffer zone?
- 8 Do you think there should be a buffer zone between other areas where food is served or consumed and areas where smoking is permitted? For example street side seating provided for the consumption of takeaway food.
- 9 Do you think a buffer zone should be voluntary (not legislated)? For example, signage may be required to be displayed at the perimeter of a no-smoking area asking that smoking not occur within a specified distance of the area.
- 10 Do you think that different size buffer zones should apply to different types of areas (premises) where food is served or consumed? For example, alfresco dining areas, outside shops, at events etc.



**Questions 11-13: Smoking at public beaches**

- 11 Do you think smoking should be banned at public beaches:
- (a) All?
  - (b) Which are patrolled only (between red and yellow flags)?
  - (c) Which are occupied by a large number of people?
- 12 Do you think smoking should be banned at all public swimming pools?
- 13 Do you think smoking should be banned at other public swimming facilities, for example lakes, dams etc?

**Questions 14-15: Smoking in private cars**

- 14 Do you think smoking should be banned in private cars carrying adult passengers?
- 15 Do you think smoking should be banned in private cars carrying children passengers?

**Questions 16(a) - (h): Enforcement**

- 16 What issues if any do you think there would be about enforcing any ban on smoking:
- (a) At alfresco dining areas of licensed premises and restaurants?
  - (b) At other areas where food is served or consumed?
  - (c) In buffer zones within the control of occupiers of alfresco dining areas?
  - (d) In buffer zones outside the control of occupiers of alfresco dining and other areas?
  - (e) At outdoor events where food is served or consumed?
  - (f) At public beaches or public swimming pools?
  - (g) At other public swimming facilities such as lakes, dams etc?
  - (h) In private cars.

**3.3. Stakeholder views**

The DOH consulted key stakeholders on their views about implementing legislation to ban smoking in alfresco dining areas, at beaches and in cars.

The outcome of the Review indicates strong support for the Government to legislate to ban smoking in all places proposed by the former MFH and to extend as far as is practicable the scope of each of those areas, particularly where food is served or consumed:

That smoking should be banned-

- in alfresco dining areas of all licensed and non-licensed premises;

- outside any business where tables and chairs are provided for the consumption of food including takeaway food premises;
- at an outdoor event in any area where food is served or consumed;
- at any outdoor event or place that has a defined area, for example all ticketed events, outdoor concerts, plays and sporting events.

### **Australian Hotels Association (WA) (the AHA)**

The AHA limited comment to licensed premises only.

At this time the AHA is not supportive of any further ban on smoking and stated-

*Further regulating the manner in which outdoor areas are used, has the potential to significantly hinder tavern/hotel operations and compromise the ability for licensees to serve food to people who are consuming alcohol*

They do not support any further ban on smoking in the grounds of or outside any licensed premises on the basis of support by the hospitality industry in successfully implementing the indoor smoking ban in partnership with the Government and industry committing 18 million dollars to renovations.

The AHA's view is that further restrictions would have a significant negative impact on business viability and further smoking bans in outdoor areas would exacerbate problems by driving smokers into public thoroughfares, shop fronts and alley ways, causing increasing levels of litter.

The AHA believes industry is more likely to embrace measures that are voluntary and can be self regulated and already venues have implemented measures designed to protect non-smokers while at the same time recognising the needs of smokers.

The AHA also believes there needs to be consistency across-the-board with local governments as many licensed outdoor areas are the property and under the control of local government.

The AHA has concerns about enforcement, particularly extending the role of employees to an enforcement role and who would enforce any bans.

If bans were to be implemented, the AHA believes where costs are involved the State Government should make funds available and compensation for money spent on renovations to accommodate indoor smoking bans addressed.

### **Health NGO's**

#### Smoking Ban in Alfresco Dining Areas

The Health NGO submission:

- suggested there is more public support for bans in alfresco dining areas as an issue of amenity and supports implementation of smoking bans on grounds of amenity in alfresco dining areas and in any outdoor eating area where food or drink is provided as part of a business.
- stated-

- *“Increasingly the community is demanding more public spaces be smoke-free, recognising that even smoking outdoors can cause annoyance and irritation and sometimes even health problems when people are close together.”*
- provided evidence biased towards smoking bans to be implemented as a public amenity issue however acknowledged some public health issues.

#### Smoking Ban in Cars

Health NGOs are supportive of a ban on smoking in cars carrying persons under the age of 18 years.

The Health NGO submission stated that smoking in vehicles raises the concentration of second-hand smoke in the vehicle to alarming levels, with levels of small particles well above outdoor air standards and comparable to levels found in bars where smoking is allowed. Evidence was quoted that exposure to smoking in cars increased the risk of asthma in children by 50 per cent, can cause asthma in children who have not had it before, and can trigger attacks for those with the condition.

No position was specifically provided on smoking in cars with adult passengers.

#### Smoking Ban at Beaches

Health NGOs are supportive of a ban on smoking between the flags of patrolled beaches and at all public swimming pools.

#### Smoking Bans in Other Areas

The Health NGOs also called for a ban on smoking in the following areas-

- in any outdoor area where food or drink is provided as part of a business;
- within the boundaries of recreational parks and reserves;
- within the boundaries of sporting arenas;
- within 10 m of children’ s playground equipment;
- at public transport waiting areas, for example taxi stands, bus stops;
- at outdoor market areas;
- at outdoor public entertainment events; and
- outside buildings - within 5 m of entrances 10 m of air-conditioning intakes.

#### Designated Outdoor Smoking Areas (DOSA)

Health NGOs are not supportive of a DOSA in any area as they view the matter problematic and serving to facilitate behaviours that the legislation aims to curb, particularly the exposure of others to SHS and the de-normalisation of smoking.

### **Local Government**

#### Smoking Ban in Alfresco Dining Areas

The following Councils have implemented or announced plans to implement bans on smoking in alfresco dining areas-

- City of Cockburn ( intention);
- City of Fremantle (implemented);
- City of Joondalup (intention);
- City of Perth (intention); and
- City of Rockingham (implemented).

Other Councils have indicated support for a review of their position:

- The Town of Vincent has formally approved support for a ban on smoking in alfresco dining areas, if conducted as part of a state-wide initiative;
- The Executive Management Group, City of Mandurah is to consider the implications of extending smoking restrictions to its alfresco dining areas;
- The Cities of Stirling and Subiaco have indicated that they would not oppose the implementation of legislation to extend smoking restrictions to alfresco dining areas. However, both have indicated this is not a current priority.
- City of Stirling however is reviewing local laws which will include smoking in alfresco dining areas. At this time smoking at beaches is not being considered.

## **Government Agencies**

### Department of Employment Protection - WorkSafe

Although WorkSafe has no jurisdiction over the smoking behaviour of private customers dining in cafes and restaurants, they would support a move to extend the smoking prohibition under the Act to cover public alfresco dining areas.

An enclosed workplace includes vehicles used for work purposes. However drivers using their own private vehicles for work are permitted to smoke in their vehicles provided no other person is present who is also at work.

Passengers in private vehicles used for work purposes who are not themselves at work are not covered by occupational safety and health legislation and therefore fall outside the scope of the smoking prohibition under the occupational safety and health regulations.

WorkSafe is supportive of an extension of the coverage of the smoking ban under the public health regulations to remove this exemption however, acknowledged that issues of how this might be achieved and how any ban might be enforced required careful consideration.

### Drug and Alcohol Office (DAO)

DAO support legislation to ban smoking ban in the areas under review however acknowledge difficulties and practicalities of enforcement in some areas such as at public beaches. The proposals

would gradually reduce the community acceptability of smoking, whilst also reducing other people's exposure to SHS.

#### Fire and Emergency Services Authority (FESA)

The response from FESA was limited to concerns about the fire hazards caused by ignited cigarettes being disposed from cars.

FESA supports a ban on smoking in cars on that basis and as a public amenity issue of "butt litter".

#### Healthway

Healthway are supportive of a ban on smoking in cars with all passengers particularly persons under 18 years of age however are of the view that bans limited to children passengers would be problematic.

Healthway is firmly of the view that legislation should be amended to cover areas such as outdoor eating areas, beaches, sporting and other entertainment arenas, events, children's play areas, essentially all areas where food is served or consumed or where there are children.

#### **NGO's**

##### Keep Australia Beautiful Council (WA) (the KABC)

The KABC are supportive of a ban on smoking in some of the public places on the basis of "butt" litter problem.

The KABC are however are generally of the view that implementing legislation to ban smoking in public places that is not properly enforced would cause more problems and encourage complacency and non-compliance.

The KABC encourage an alternative educative approach in areas where enforcement would be problematic.

##### Royal Life Saving Society Australia (RLSS)

The RLSS support the proposal to ban smoking at public beaches however are not supportive of the RLSS having a role in enforcement.

Although, the RLSS were supportive of banning smoking at all public beaches, they were against such a move if "insufficient resources to provide government agents in appropriate numbers to monitor compliance resulted in cost shifting of responsibility to local government".

### **3.4. Summary of Stakeholder's Views - Issues**

A statistical summary is provided in the file at Appendix 2.

The summary below does not include the views of the AHA however if smoking bans are to be implemented in alfresco dining areas the AHA is supportive of a consistent state-wide approach.

In addition to health rationale, bans on smoking in outdoor places are also supported by a high number of stakeholders as an issue of public amenity (discomfort, annoyance and litter).

Many local governments support a uniform approach to state-wide bans with consistency of application from one local Government to another.

### **Smoking Bans in Alfresco Dining Areas**

There is strong support from stakeholders to implement State-wide bans on smoking in alfresco dining areas, however while supportive of the proposal, two country local governments do not support smoking bans in alfresco dining areas because of issues of enforcement by local government.

There is a high level of support from stakeholders, including a high percentage of local Governments, to implement State legislation in lieu of local laws on the basis of consistent application and public acceptance and expectations.

There is strong support from stakeholders to include bans on smoking in all outdoor areas where food is served or consumed in addition to alfresco dining areas including-

- all licensed and non-licensed alfresco dining areas;
- outside any businesses for example takeaway food shops and cafes where tables and chairs are provided for the consumption or service of food; and
- at all outdoor events where food is provided or consumed.

### **Buffer Zones**

There is strong support from stakeholders to include mandatory (legislated) buffer zones or physical barriers between areas where smoking is banned and areas where smoking is not banned.

There is strong support from stakeholders to include entrances to alfresco dining areas or an enclosed dining area as a buffer zone otherwise the issue would be problematic.

However, a large number of local Governments are of the view that although the principle is sound it would be difficult to apply in practice, particularly for buffer zones which extend beyond the elected boundary and would be difficult to enforce.

The AHA believes buffer zones if implemented should be considered on a venue by venue basis. Reasons cited were architecture and venue layout and possible forcing of patrons who smoke into areas that are unsafe such as close to curb side and main roads.

### **Smoking Bans at Public Beaches and Other Public Swimming Facilities**

There is strong support for smoking bans to be implemented at all beaches state-wide however the practicality of enforcing bans at non-patrolled beaches is acknowledged.

There is strong support from stakeholders for smoking bans to be implemented between the flags at patrolled beaches.

There is strong support from stakeholders for smoking bans to be implemented at all public swimming pools.

There is strong support from stakeholders for smoking bans to be implemented at other public swimming facilities such as dams, however local governments have concerns about practicalities of enforcement.

### **Smoking Bans in Private Cars**

There is strong support from stakeholders for smoking bans to apply to all cars with passengers under the age of 18 years.

The Western Australian Police (WAPOL) support a ban on smoking in cars however they do not anticipate an active role in enforcement that would divert police officers from their primary role of policing.

### **Smoking Bans in Other Public Places**

There is strong support from stakeholders to implement smoking bans in other outdoor public places-

- particularly in areas attended by children;
- that are clearly defined including ticketed outdoor events irrespective of whether food is served/consumed or not; and
- at all public playgrounds or in areas where play equipment is provided for public use.

There is strong support from stakeholders to implement smoking bans outside entrances or exits to buildings and their air-conditioning intakes. This issue is viewed by most of the stakeholders to be directly linked to smoking in alfresco areas as a buffer zone issue which should extend to all non-residential buildings not just those with alfresco dining areas.

### **Local Government Concerns**

Many local governments are concerned about the practicality of and ability to enforce smoking bans in alfresco dining areas and at beaches.

Local Governments are concerned about further cost shifting of State laws to local Government.

## **3.5. Summary of Stakeholder's Views - Quantitative**

### **Alfresco dining areas and other outdoor public areas where food is served or consumed**

#### General summary

There is a high level of general support, including local government, for legislation to ban smoking in-

- all public places where food is served or consumed and that are not already enclosed public places, including alfresco dining areas in the normal context;
- outside businesses where tables are provided for the service or consumption of food; and
- at outdoor events in areas where food is served or consumed.

#### Question 1

Should smoking be banned in alfresco dining areas at licensed premises and unlicensed restaurants? (Question 1)

Yes:	69	(83%)
No:	4	(5%)
Not Indicated:	10	(12%)

**Question 2**

Should smoking be banned in any other outdoor area of a licensed premise or restaurant when food is served or consumed in that area?

Yes:	57	(69%)
No:	6	(7%)
Not Indicated:	20	(24%)

**Question 3**

Should smoking should be banned outside takeaway shops, lunch bars etc. where seating is provided for the consumption or service of food?

Yes:	42	(75%)
No:	1	(2%)
Not Indicated:	13	(23%)

**Question 4**

Should smoking be banned at outdoor events where food is served or consumed? For example sporting or music events?

Yes:	52	(63%)
No:	11	(13%)
Not Indicated:	20	(24%)

**Question 5**

Should smoking only be allowed in designated smoking areas at outdoor events where food is served or consumed?

Yes:	41	(49%)
No:	22	(27%)
Not Indicated:	20	(24%)

**Question 6**

If smoking was to be banned in alfresco dining areas it should it be introduced on a phased in or delayed basis (Question 6).

Yes:	50	(60%)
No:	18	(22%)
Not Indicated:	15	(18%)

**Buffer Zones**

**Question 7**

If smoking was banned in alfresco dining areas should there be a buffer zone?

Yes:	50	(60%)
No:	18	(22%)
Not Indicated:	15	(18%)

**Question 8**

If smoking was banned in other areas where food is served or consumed should there be a buffer zone between other areas where smoking is permitted?

Yes:	31	(37%)
No:	19	(23%)
Not Indicated:	33	(40%)

**Question 9**



Should a buffer zone should be voluntary?

- The majority of stakeholders who addressed the question are in favour of legislated distances or barriers.

Yes:	20	(24%)
No:	31	(37%)
Not Indicated:	32	(38%)

#### Question 10

Should there be different size buffer zones applying to different types of areas where food is served or consumed? (Question 10)

- There is no general support for different size buffer zones, including different types of buffers either distance or barrier, to apply to different types of areas where food is served or consumed. Stakeholders viewed the matter problematic

Yes:	20	(24%)
No:	31	(37%)
Not Indicated:	32	(38%)

#### Smoking at public beaches

##### Question 11(a)

Should smoking be banned at all public beaches?

- There is generally even for support for and against banning smoking at all public beaches however those local governments against such a move generally raised issues of ability to enforce.

Yes:	32	(39%)
No:	34	(41%)
Not Indicated:	17	(20%)

##### Question 11(b)

Should smoking be banned at beaches which are patrolled only? (Question 11b)

Yes:	20	(39%)
No:	17	(41%)
Not Indicated:	46	(20%)

##### Question 11(c)

Should smoking be banned at beaches which are occupied by a large number of people?

- There is minimal support for banning smoking anywhere at beaches occupied by a large number of people general reasons of enforcement being cited by local governments.

Yes:	14	(39%)
No:	20	(41%)
Not Indicated:	49	(20%)

#### Question 12

Should smoking be banned at all public swimming pools?

Yes:	44	(53%)
No:	9	(11%)
Not Indicated:	30	(36%)

#### Question 13

Should smoking be banned at other public swimming facilities, for example lakes, dams etc?

- There is a high level of support for banning smoking at other public swimming facilities however issues of enforcement were raised by local government.

Yes:	39	(47%)
No:	27	(33%)

Not Indicated: 17 (20%)

### Smoking in private cars

#### Question 14

Should smoking be banned in private cars carrying adult passengers?

- Most local governments who provided comment viewed it as an issue not within their jurisdiction but one of a general state-wide issue.

Yes:	30	(36%)
No:	33	(40%)
Not Indicated:	20	(24%)

#### Question 15

Smoking should be banned in private cars carrying children passengers?

Yes:	56	(67%)
No:	5	(6%)
Not Indicated:	22	(27%)

### Enforcement

Stakeholders, particularly local government, raised a number of issues and concerns about enforcing further bans on smoking.

A high level of local governments are of the view that any additional enforcement from bans on smoking in public places would increase costs and viewed the matter as one of cost shifting of State legislation to local Government.

A high level of stakeholders supported comprehensive education campaigns to complement any legislation implemented.

## 4. ENABLING LEGISLATION - SMOKING IN PUBLIC PLACES

### 4.1. Tobacco Products Control Act 2006 (the Act)

The legislative basis for bans in public places including alfresco dining areas and at beaches is provided by section 125 of the Act which states-

#### “125. Regulations about smoking in public places

- (1) *The Governor may make regulations for the regulation or prohibition of smoking in public places.*
- (2) *Without limiting subsection (1), the regulations may —*
  - (a) *require occupiers of public places to display signs about smoking, and may prescribe the location, content, dimensions, colour and positioning of, and materials constituting, those signs; and*
  - (b) *confer powers on police officers, investigators and environmental health officers in relation to persons who are smoking in public places where smoking is prohibited.*
- (3) *Nothing in the regulations is to be construed as creating or preserving a right of a person to smoke in a public place.”*

The preamble to the Act and purposes in section 3 respectively state--

*“An Act to —*

*prohibit the supply of tobacco products and smoking implements to young persons;*

*regulate the sale and promotion of tobacco products;*

*prohibit the sale of products that resemble tobacco products;*

*reduce the exposure of people to tobacco smoke from tobacco products that are smoked by other people,..”*

**“3. Purposes of the Act .....**

*(a) to reduce the incidence of illness and death related to the use of tobacco products —*

*(i) by prohibiting the supply of tobacco products and smoking implements to young persons;*

*(ii) by discouraging the use of tobacco products;*

*(iii) by restricting the promotion of tobacco products and smoking generally;*

*(iv) by reducing the exposure of people to tobacco smoke from tobacco products that are smoked by other people; and*

*to promote good health and activities which encourage healthy lifestyles.”*

**4.2. Public Transport Authority Regulations 2004 (PTA Regulations)**

The PTA Regulations ban smoking in any public passenger transport service including buses, ferries or trains provided by the Public Transport Authority and at any facility of the Authority where a no-smoking sign is displayed.

The PTA Regulations do not limit operation of the Act.

However bus stops located on local government (Council) land are the responsibility of the relevant local Government.

**4.3. Local Government By-laws (current or proposed)**

The *Local Government Act 1995* allows a local government to make local laws and also requires those local laws to be reviewed to determine whether the law should be repealed or amended.

However local Government by-laws on smoking are unable to apply to privately owned land within restaurants and hotels, such as beer gardens and alfresco dining areas, or any other land that is not public property.

The Cities of Cockburn, Fremantle, Joondalup, Melville, Perth and Rockingham have used or will use local laws to ban smoking in a range of public places-

- **City of Cockburn**, subject to Council approval, is proposing a blanket Smoke-Free Environment Policy (non-legislative) which will ban smoking-

- within 10 metres of-
  - entrances of Council owned or managed buildings including balconies or covered areas of the buildings;
  - all children's playground equipment;
  - sporting facility building entrances;
  - any other persons on Council playing fields or sporting grounds;
  - any other persons on Council beaches, dunes or jetties;
- within all covered bus stops; and
- at all Council run or sponsored events on its beaches, reserves, parks, ovals and playing fields.
- **City of Fremantle (COF)** has implemented a by-law banning smoking initially in 50% of alfresco dining areas located on Council owned land with a total ban effective 15 August 2008.
- **City of Joondalup (COJ)** has implemented a smoking ban effective January 2008 at local beaches and is currently proposing to amend two local laws that deal with smoking in public places, prohibiting smoking -
  - within 5 m of the entrances, exits and windows of all COJ owned buildings; and
  - at all outdoor dining areas on public property within the COJ
- **City of Melville** has implemented bans on smoking within 10 m of children's playgrounds;
- **City of Perth** has announced intention to ban smoking in all outdoor eating venues located on Council land from 1 July 2009.
- **City of Rockingham** has implemented a smoking ban in licensed alfresco dining areas located on council land effective 6 August 2008.

Other Councils have expressed interest in implementing smoking bans however they are awaiting possible State Government legislation resulting from the Review.

#### **4.4. Joint Standing Committee on Delegated Legislation Local By-Law Issue**

The Joint Standing Committee on Delegated Legislation (JSCDL) in April 2008 moved to disallow the COJ and COF by-laws however after consideration of information provided by the State Solicitors Office, the DOH and Department of Regional Development and Local Government the disallowance motion was conditionally removed.

However the Committee has required removal of parts of the COF by-law which held employees and licensees jointly liable for offences committed by persons who smoke in an area subject to the by-law.

#### **4.5. Enabling legislation – Smoking in Private Cars**

Private cars are not public places. Any smoking ban applying to private cars would need to be provided under other legislation, for example the *Road Traffic Code 2000* similar to mobile phone use or would require amendment of the Act to cover private places such as cars, supported by powers of enforcement and investigation for private places.

Western Australian occupational safety and health legislation deals with smoking in enclosed workplaces which includes cars when used as a workplace.

WAPOL are a major stakeholder in the issue of smoking bans in cars as it is likely police officers would be the main enforcement mechanism for any such ban, irrespective of legislative basis. However in response to the Issues Paper WAPOL provided the following comment in relation to enforcement-

*It is not envisaged police would have an active role in enforcement of this type of legislation as it would be completely impractical for our officers to be diverted from their primary duties of policing.*

## **5. BANS IN OTHER AUSTRALIAN JURISDICTIONS**

### **5.1. Outdoor Public Areas**

The Table in Appendix 3 (summarised below) provides details of other Australian jurisdiction's smoking bans in outdoor areas and in cars.

#### Australian Capital Territory (ACT)

No restrictions on smoking in outdoor places.

#### New South Wales (NSW)

Some local Councils have enacted by-laws to ban smoking near children's playgrounds, sporting fields and in alfresco dining areas.

Of the 24 metropolitan councils, smoking is banned by-

- 20 councils at children's playgrounds and playing fields;
- 7 councils in alfresco dining areas; and
- 7 councils at beaches.
- Mosman Council (NSW) has implemented bans in every Council-controlled public space, being the most restrictive smoking ban of any Australian local or State/Territory government and is also one of the strictest internationally.

#### Northern Territory (NT)

Smoking is banned near air-conditioning intakes or entrance areas.

Half of fixed seating in outdoor venues (eg, stadium seating) must be non-smoking.

Educational facilities must be smoke-free.

#### Queensland (QLD)

Smoking bans apply to a number of outdoor places -

- major sports facilities;
- patrolled beaches or at prescribed outdoor swimming areas (e.g. an artificial beach);
- within 4 metres of non-residential building entrances;
- within 10 metres of children's playground equipment; and
- outdoor eating or drinking places where persons may consume food or drink provided by an on-site food service.

A public review of the enabling legislation was finalised in May 2008 (the Qld review).

Issues arising from the Qld review are relevant to implementing bans in Western Australia in outdoor public places such as alfresco dining areas. These issues are examined under separate heading below "Queensland Issues"

#### South Australia

No outdoor smoking restrictions.

#### Tasmania

Outdoor dining areas must be 50% no-smoking.

Smoking is prohibited within 3 metres of an entrance or exit to a non-domestic or multiple-use building and within 10 metres of an air-conditioning intake.

Reserved seating areas of sporting stadia are no-smoking.

#### Victoria

Smoking is prohibited in all covered areas of train platforms, tram stops and bus shelters.

#### International

A number of countries are extending indoor bans to outdoor area, for example-

- **Sweden** - prohibits smoking in schoolyards and other outdoor places for children.
- **Japan** - some restrictions on outdoor smoking in designated areas of urban centres.
- **South Korea** - smoking is banned at outdoor subway platforms.
- **South Africa** - smoking is banned at outdoor sports stadiums.
- **California** - has banned smoking and disposing of any tobacco-related waste within 7.5 m of outdoor playgrounds and sandboxes. Many cities and counties are taking the next step to protect their communities by creating outdoor smoke-free ordinances. Examples include smoke-free public events, smoke-free recreation areas and completely smoke-free parks.

### **5.2. Smoking In Cars**

South Australian and Tasmanian legislation bans smoking in cars when children are present (under 16 and under 18 years of age respectively).

The NSW and Queensland Governments recently announced intention to ban smoking in cars with children passengers under the age of 16 years.

Victoria has announced intention to conduct public consultation on whether smoking bans should apply to cars with children passengers.

## **6. POLICY CONSIDERATIONS**

There is clear evidence that the public health rationale for smoking bans to apply in outdoor areas is the same rationale that smoking bans have been implemented in enclosed areas.

The adverse health effects caused by exposure of persons to SHS and the effects of passive smoking are scientifically proven and indisputable.

Section 127 of the *Tobacco Products Control Act 2006* requires the Minister is to carry out a review of the effectiveness of the Act as soon as is practicable after four years of commencement of Part 5 (Healthway) which commenced on 31 July 2006.

However section 127 also provides that the Minister may carry out a review of the operation and effectiveness of regulations made about smoking in public places at any time.

Issues of concern raised by stakeholders generally relate to practicalities of implementing bans in certain areas and generally those concerns are all linked to the ability of enforcement.

The public health rationale supports the implementation of further smoking bans in all the places identified in the Review however a number of issues would require further stakeholder consultation and research.

Should the MFH so decide and subject to confirmation of legal advice to be obtained by the DOH, the Review may be a review conducted by the Minister under section 127 of the Act.

### **6.1. Stakeholder Views**

Many stakeholders cited the public health implications in their responses and identified that non-smokers can be exposed to high levels of environmental tobacco smoke when close, to or down wind, of smokers.

A number of stakeholders also identified the need for smoking restrictions due to the **“annoyance / discomfort factor”** and that it was unacceptable for people who do not smoke to be subjected to the **“the unpleasant odour and smoke wafting over them while enjoying a meal”**.

### **6.2. Local Government By Laws – Inconsistencies and Scope of Application**

As previously detailed, local Government by-laws that ban smoking are able to apply only to public property.

Enactment of local Government by-laws that ban smoking also raises issues of inconsistencies caused by drafting differences and scope of application and may cause public confusion should the scope of application differ between Councils.

Alfresco dining areas located on private property are not able to be captured under smoking bans implemented by local government by way of by-laws

State legislation, implemented either as mandatory or by voluntary adoption by local Government would provide consistent application and scope.

### 6.3. Queensland Issues

Queensland is the only Australian State/Territory jurisdiction to implement smoking bans in outdoor public places on a state-wide basis similar to those proposed by the former MFH.

The *Tobacco and Other Smoking Products Act* (the Qld Act) provides offences for persons who smoke in a number of outdoor places –

- major sports facilities;
- patrolled beaches or at prescribed outdoor swimming areas (e.g. an artificial beach);
- within four metres of non-residential building entrances;
- within ten metres of children's playground equipment; and
- outdoor eating or drinking places where persons may consume food or drink provided by an on-site food service.

Some exemptions from the ban on smoking at non-residential building entrances apply to premises with a general or club liquor licence and a number of prescribed outdoor pedestrian malls in Queensland (including the Queen Street Mall, Brisbane).

Premises with a general or club liquor licence may choose to have a designated outdoor smoking area DOSA no larger than 50% of the total outdoor liquor licensed area, for drinking and smoking only. Prohibited activities in a DOSA include the consumption of food, food or drink service and offering any form of entertainment or gaming machines. A smoking management plan and dedicated signage is also required for premises choosing to have a DOSA.

Queensland Health conducted a public review of the Qld Act during November 2007-January 2008 (the Qld review) with recommendations for some changes as a result of that review announced by the Queensland Government in May 2008.

Issues arising from the Qld review are relevant to implementing bans in Western Australia in outdoor public places such as alfresco dining areas and their entrances and buffer zones or barriers.

The Qld review identified a number of issues relevant to operation of the Qld Act since commencement:

- The current 4 metre distance smoking ban from building entrances was problematic and should be extended.
- Applying stricter controls on smoking in the Queen Street Mall, Brisbane and at all public transport waiting points (e.g. bus stops, ferry wharves).
- That DOSA's at certain licensed recreational facilities such as golf courses were impractical and unenforceable.
- Industry lobbying to-
  - allow for some relaxation of the prohibited activities in DOSAs such as the provision of snack foods and passive entertainment; and



- modify the 50% rule for DOSAs on the basis that many venues experienced overuse of smoking areas and underutilisation of non smoking areas.
- Health groups concerns that children were allowed in DOSAs and therefore exposed to concentrated SHS.
- Health groups and community members issues of-
  - non-compulsory requirements for smoke-impervious buffers around DOSAs and other outdoor areas of premises and lack of a requirement for a buffer between DOSAs and enclosed areas of premises; and
  - smoke drift and continual exposure to SHS, particularly with regard to outdoor pedestrian malls (specifically the Queen Street Mall, Brisbane), at public transport waiting points, at building entrances and in areas adjoining DOSAs.

The Qld Review sought public comment on whether-

- the current smoke-free outdoor places provisions of the Qld Act met the Act's objective to "reduce public exposure to smoke from tobacco and other smoking products".
- further reforms are required-
  - clarifying the definition of an outdoor place;
  - giving local government the power to regulate smoking in pedestrian malls and at public transport waiting areas;
  - Increasing the distance from building entrances where smoking is banned;
  - removing the building entrances exemption for premises with a general or club licence, resulting in no smoking within 4 metres of an entrance to a hotel or club;
  - increasing the distance from building entrances where smoking is banned;
  - clarifying existing outdoor smoking bans as they apply to golf courses; and
  - amending the DOSA provisions of the Qld Act –
    - what can and cannot be taken into a DOSA;
    - who is allowed access to a DOSA, including children;
    - the size of the area used for DOSAs;
    - buffers;
    - phased removal of DOSAs.
- ban smoking in cars carrying children;
- removing the smoking ban exemption applying to casino high roller rooms.

#### **6.4. Qld Review – Outstanding Issues for WA Consideration**

Licensed premises in Queensland may have a DOSA no larger than 50% of the total outdoor liquor licensed area, for drinking and smoking only.

The consumption of food, food or drink service and offering any form of entertainment or gaming machines is prohibited in a DOSA.

Qld health has received numerous complaints since commencement of the Qld DOSA provisions about-

- smoke drift from DOSAs into non-smoking areas; and
- DOSAs being located directly next to no-smoking areas with no buffer zone or barrier to prevent or limit smoke drift.

Information provided to the DOH by Queensland Health is that reforms were strongly opposed by industry groups during the Qld Review which may have impacted further reforms and that buffers should have been initially included as a DOSA requirement.

Queensland Health also indicated to the DOH that an exclusion zone greater than 4 m should apply to smoking bans at entrances to public buildings including outdoor eating areas as it was the source of many complaints of people having to enter buildings “through a haze of smoke” and smoke drift.

#### **6.5. Recent Changes Announced by Queensland Government**

As a result of the Qld review the Queensland Government on 26 May 2008 announced intention to implement a number of reforms-

- a ban on smoking in cars carrying children under 16 years of age with fines of \$150;
- providing legislative power for each city and town to decide if smoking bans should apply to pedestrian malls and public transport waiting areas; and
- seeking a nationwide ban on smoking in casino high roller rooms through the Australian Health Ministers Council.

#### **6.6. Legislation**

The *Tobacco Products Control Act 2006* (the Act) provides for regulations to be made to regulate or prohibit smoking in public places.

The *Tobacco Products Control Regulations 2006* (the Regulations) currently prescribe bans for enclosed public places only.

Implementing smoking bans in non-enclosed public places would require amendment of the Regulations only.

While local governments may enact by-laws or implement non-legislative policy to ban smoking in certain areas including outdoor dining areas, those bans can apply only to areas which are located on public property and may result in interpretive and application issues between Councils and differences in penalties.

#### **6.7. Enforcement issues – Smoking Bans in Public Places**

Smoking bans currently implemented or proposed at local government level are by way of local government by-laws or in the case of the City of Cockburn, Council policy. These by-laws are

enforced by a range of local government officers including environmental health officers, rangers and other compliance officers.

The Act provides that only persons employed under Part 3 of the *Public Sector Management Act 1994* are able to be appointed as investigators under the Act. The Act confers functions of an investigator to all WAPOL officers.

However the Act provides for regulations to be made to also confer powers on environmental health officers in relation to matters about smoking in public places. Those powers are currently conferred for smoking in enclosed public places matters.

If Local Government is to remain the primary enforcement body for smoking bans proposed in outdoor public places the Act would need to be amended or some other legislative instrument drafted to confer powers on persons employed in local Government other than environmental health officers (DOH to seek legal advice).

WAPOL officers have functions of an investigator under the Act, including enforcement of smoking bans in public places. However, it is anticipated that the current limited involvement of WAPOL officers with enforcing smoking bans in enclosed public places would operate similarly with proposed bans in public places.

#### **6.8. Smoking in Prisons**

The banning of or other controls on smoking in prisons are matters of responsibility of the Minister for Corrective Services. The DOH has undertaken a pro-active role in providing policy support to the Department of Corrective Services (DOCS) on this matter.

#### **6.9. Beaches and Other Public Swimming Places**

##### Beaches

Many stakeholders while supportive of smoking bans at all beaches acknowledged and raised issues of practicalities and enforcement and whether a smoking ban for example at a remote beach, the only person or persons present being smokers, is justified.

##### Public Swimming Pools

There was a high level of support for smoking to be banned in all public swimming pools. Stakeholder views included the safety of small children and promotion of health and wellbeing of the community. Some stakeholders believed allowing smoking in these areas was not a good message to be sending to children.

##### Other Public Swimming Places

Affected local Governments were generally not supportive of banning smoking at public swimming places such as lakes and dams however they acknowledged they serve the same purpose for inland communities as beaches and swimming pools. The reasons for not supporting such a ban were being difficult to police and impossible to enforce.

#### **6.10. Private Cars Carrying Passengers**

There is overwhelming support from stakeholders to ban smoking in cars when there are children present.

Stakeholders believe that children are particularly vulnerable when exposed to second hand smoke and that this may lead to health issues such as increased risk of asthma and respiratory problems later in life. However, many stakeholders stated that there would be difficulties with policing such a ban.

Further consideration of an appropriate legislative framework and consultation with the WAPOL is required.

### **6.11. Other Public Outdoor Areas**

Key stakeholders including the Health NGO's and a majority percentage of local government raised concerns about and indicated support for smoking bans in a number of areas outside the scope of the Review.

Generally these areas are outdoor areas in which smoking bans have been implemented in other Australian jurisdictions, however not any one jurisdiction has implemented bans in all areas:

- at all ticketed outdoor events, for example - concerts, plays and sporting events.
- within 10 m of children's playground equipment;
- at public transport waiting areas, for example taxi stands, bus stops;
- at outdoor market areas;
- at outdoor public entertainment events;
- outside all non-residential buildings within 5m of entrances 10m of air-conditioning intakes; and
- at any outdoor event or place that has a defined area, for example within the boundaries of sporting arenas.

The DOH does not anticipate additional opposition to implementing smoking bans in all additional places. However, industry having an interest in outdoor events has not been consulted, other than the AHA.

### **6.12. Phase-In of Legislation**

There was divided support for phasing-in of legislation if smoking was to be banned in alfresco dining areas. Comments from stakeholders ranged from immediate to delayed implementation of legislation.

However, there was a bias towards legislation being commenced later than the date of publication and this view was particularly strong from the AHA.

Implementing smoking bans in different outdoor public places impact different stakeholders and will have differing associated issues.

All Stakeholders are supportive of comprehensive community education should further smoking bans be implemented.

Further consideration and consultation with relevant stakeholders is necessary to establish workable timeframes, particularly on issues of enforcement with local government and WAPOL and on modifications that may be required to outdoor areas to comply with the proposed changes to bans in alfresco dining and other areas.

### **6.13. Legislative Issues**

Implementation of state-wide smoking bans in outdoor public places under the *Tobacco Products Control Act 2006* may impact current by-laws enacted by some local governments that ban smoking in alfresco dining area and some other public places.

Other issues concerning enforcement of smoking bans by local government compliance persons having differing roles requires further consideration and consultation with local Government.

Further consultation with affected local governments would be required. The DOH is to seek legal advice on these matters.

### **6.14. Enforcement Issues – Smoking Bans in Private Cars**

The Act does not provide powers for investigators or police officers in relation to smoking in private places.

While the Act could be amended to provide those powers a question of whether it is appropriate for public servants (**non-WAPOL**) to have those powers will be raised.

Alternatively enforcement could be limited to WAPOL officers only, which could be achieved by incorporating the ban in legislation administered and enforced by the WAPOL, for example similar to the ban under the *Road Traffic Code 2000* on mobile phone use while driving.

### **6.15. Buffer Zones or Impermeable Barriers**

The implementation of a legislated buffer zone of different distances determined on the basis of practicality and ability to enforce provides an appropriate option to address-

- issues of exposure to SHS from smoke drift between smoking and non-smoking areas; and
- concerns of the AHA and local governments raised in response to the Review.

The mandating of buffer zones or a physical barrier will also provide opportunity for Western Australia to implement current best practice smoking bans that address deficiencies of the Qld Act.

The prescription of buffer zones is a relatively new initiative both nationally and internationally and is considered best practice where smoking bans apply in outdoor areas. Further research and industry consultation would be necessary to establish an appropriate benchmark.

The lack of prescribed buffer zones or barriers is a deficiency of the Qld Act identified in the Qld Review.

### **6.16. Designated Smoking Area (DOSA)**

There was general support from stakeholders to allow smoking in designated smoking areas at outdoor events where food is served or consumed.

However, some stakeholders stated that having these designated areas set a bad example for young people. There was also the potential for smoke drift into non-smoking areas, an issue identified with DOSA's in the Qld Review.

Healthway was of the view that the provision of designated smoking areas would be problematic and stated that these areas would serve to enable or facilitate smoking and the exposure of others to second hand smoke.

There was not any general support for DOSAs to apply to hotels.

Prescription of a buffer zone may be an appropriate option should smoking be proposed to be banned in areas where food is served or consumed including outdoor events.

A buffer zone separating all areas where smoking is prohibited and smoking is permitted may be an appropriate alternative to DOSAs.

## **7. IMPLEMENTATION OPTIONS**

### **7.1. Smoking Ban in Alfresco Dining Areas and Other Similar Areas**

A State-wide ban on smoking in alfresco dining areas can be implemented under the Act.

Similar to bans proposed for alfresco dining areas, a State-wide ban on smoking in other areas where food is served or consumed can be implemented under the Act.

Subject to legal confirmation being obtained by the DOH, all alfresco dining areas in local Governments that have enacted legislation or are considering such action, would be covered by implementing State-wide bans under the Act.

#### DOH Recommendations

##### Scope of ban

- That an alfresco dining area is any outdoor dining area of premises whether or not a licensed premises under the *Liquor Control Act 1988*;
- That a beer garden, for example in a hotel where patrons are not served or do not eat food other than snacks such as potato chips etc, should not be captured.

That smoking also be banned in other areas that serve the same purpose as an alfresco dining area (where food is served or consumed):

- outside any business, for example takeaway food shops, where tables and chairs are provided for the consumption of food; and
- at any outdoor event in any area where food is served or consumed.

### **7.2. Buffer Zones or Impermeable Barriers**

Buffer zones can be implemented under the Act as regulations dealing with smoking in public places.

#### DOH Recommendations

That subject to further research and further consultation with stakeholders, buffer zones should be legislated and initial recommended buffer zones are-

- **5 metres** between an area in which smoking is banned and where smoking is permitted, other than those areas or in the circumstances listed below. Adoption of this option will form a reference base for all buffer zones and will simultaneously address issues about people smoking outside all buildings including open windows of enclosed restaurants and adjacent to alfresco dining areas etc.
- **10 metres** from-
  - any public children's playground equipment or play areas specifically designated for children; and
  - air-conditioning intakes of buildings other than private residences and workplaces that the public do not have access to, for example mine site buildings (would need to be covered under occupational safety and health legislation).
  - **Nil** if an area in which smoking is banned has a physical impermeable barrier that is at least 2 m in height between that area and any area where smoking is permitted.
  - This option would provide an alternative to a buffer zone in places where it is impractical or impossible to comply. A 2 m height is a suggestive only and requires further consideration.

### **7.3. Designated Smoking Area (DOSA)**

Many stakeholders viewed DOSAs as problematic. An alternative approach, that may also include limited DOSA application, is to apply buffer zones or a physical barrier to areas of public places where smoking is banned.

#### DOH Recommendations

That the DOH undertakes further research and further stakeholder consultation to examine the effectiveness and appropriateness of DOSAs in different areas where it is proposed to ban smoking.

### **7.4. Smoking Ban at Beaches and Other Similar Areas**

State-wide bans on smoking at public beaches can be implemented under the Act as regulations dealing with smoking in public places.

#### DOH Recommendations

#### Enforcement

That the DOH undertake further consultation with local governments on issues of enforcement, particularly in relation to the appointment of persons employed by local government who currently are not able to have enforcement powers under the Act.

#### Beaches

- That smoking is banned at beaches only between the “flags” of patrolled beaches.
- That a 5 m buffer zone to be determined shall apply.

#### Public Swimming Pools

- That smoking is banned at all public swimming pools.

- That a 5 m buffer zone (subject to consultation with local Government to be determined) shall apply outside the public swimming pool.

#### Other Public Swimming Facilities such as Dams and Lakes

- That legislation under the Act by way of regulations be implemented to allow local Governments to determine which designated public swimming facilities such as lakes and dams within their jurisdiction where smoking is banned.

### **7.5. Smoking Ban in Cars**

#### DOH Recommendation

That subject to further consultation with the WAPOL on an appropriate legislative framework and WAPOL enforcement concerns a ban apply to smoking in private cars only with passengers under the age of 18 years.

### **7.6. Smoking Bans in Other Outdoor Public places**

State-wide bans on smoking at other public places can be implemented under the Act as regulations dealing with smoking in public places.

#### DOH Recommendations

That smoking is banned -

- at all ticketed outdoor events, for example concerts, plays and sporting events within 10 m of children's playground equipment;
- outside all non-residential buildings within 5 m of entrances and 10 m of air-conditioning intakes (subject to consideration if such a restriction would ban smoking entirely in a particular area, for example this may ban smoking in the Hay Street Mall).

That legislation under the Act by way of regulations is implemented to allow local Governments to determine where smoking is banned:

- at public transport waiting areas, for example taxi stands, bus stops;
- at outdoor market areas;
- at outdoor public entertainment events; and
- at any outdoor event or place that has a defined area, for example within the boundaries of sporting arenas.

### **7.7. Signage**

For reasons of public clarity, state-wide consistency and enforcement the legislative prescription of signs to clearly identify no-smoking in outdoor areas is supported by a high percentage of stakeholders.

#### DOH Recommendation

It is recommended that signage identifying buffer zones and outdoor non-smoking areas is mandated by legislation.



## **7.8. Penalties**

The current penalty under the *Tobacco Products Control Regulations 2006* (the Regulations) for offences relating to smoking in an enclosed public place is \$2000.

It is proposed to prescribe these offences as offences for which infringement notices may be issued with a modified penalty, under authority of the *Criminal Procedure Act 2004* (the CPA). The CPA provides that a modified penalty shall not exceed 20% of the statutory penalty (\$2000).

### DOH Recommendation

It is recommended that a modified penalty for an offence relating to smoking-

- in any public place is 20% of the statutory penalty - \$400; and
- in a car with a passenger less than 18 years of age is \$250, consistent with that proposed in NSW. (Note: This penalty is proposed to be prescribed in the *Road Traffic Code 2000* and will require consultation with the WAPOL having legislative responsibility).

## **7.9. Phase in periods**

The majority of stakeholders believe the proposed bans should be published with a date of commencement later than the date of publication as this would provide clarity and a practical lead in time for education and any changes that industry may need to make to premises, staff training etc.

### DOH Recommendation

It is recommended that subject to consultation with local Government, legislation banning smoking-

- in public places commences 6 months after the date of publication.
- in cars commences 6 months after the date of publication.

## **7.10. Education**

All Stakeholders including the AHA believe that a comprehensive education campaign should support the implementation of further smoking bans.

### DOH Recommendation

It is recommended that a comprehensive mass media education campaign (including television, radio, press and other appropriate media) should be developed to complement the announcement of the full range of further smoking bans at the time of publishing legislation, during the lag period between commencement and after commencement, with an estimated cost of \$700,000 - \$1 million.

# Appendix 1

## Key Stakeholders Consulted

### Local Government

141 Local Governments  
Australian Institute of Environmental Health  
WA Local Government Association  
Local Government Managers Australia

### Health Non-Government Organisations

Asthma Foundation WA Inc  
Australian Council on Smoking and Health  
Australian Medical Association (WA)  
Cancer Council Western Australia  
Diabetes WA  
National Heart Foundation of Australia (WA Div)

### Industry Representative Organisations

Australian Hotel's Association (WA Branch)  
Clubs WA  
Property Council of Australia (WA)  
Restaurant and Catering Industry Association WA  
WA Nightclub Association

### Non-Government Organisations

Keep Australia Beautiful Council  
Royal Life Saving Society Australia  
Surf Life Saving WA

### WA Government

Department of Local Government and Regional Development  
Drug and Alcohol Office  
Fire and Emergency Services Authority  
Healthway  
WA Police  
WorkSafe WA

### State and Territory Jurisdictions

Australian Capital Territory – ACT Health  
New South Wales – Dept. of Health  
Northern Territory – Dept. of health & Community Services  
Queensland – Queensland Health  
South Australia – Dept. of Health  
Tasmania - Dept of Health & Human Services  
Victoria – Vic Health

## APPENDIX EIGHT

### **COAG NATIONAL PARTNERSHIP AGREEMENT ON PREVENTIVE HEALTH<sup>492</sup>**

An agreement between

the **Commonwealth of Australia** and

the **States and Territories**, being:

the State of New South Wales;

the State of Victoria;

the State of Queensland;

the State of Western Australia;

the State of South Australia;

the State of Tasmania;

the Australian Capital Territory; and

the Northern Territory of Australia.

The agreement reforms Australia's efforts in preventing the lifestyle risks that cause chronic disease.

#### **National Partnership Agreement on Preventive Health**

##### **Preliminaries**

1. This agreement is created subject to the provisions of the *Intergovernmental Agreement on Federal Financial Relations* and should be read in conjunction with that Agreement and subsidiary schedules. In particular, the schedules include direction in respect of performance reporting and payment arrangements.
2. The Parties are committed to addressing the issue of social inclusion, including responding to Indigenous disadvantage. That commitment is embodied in the objectives and outcomes of this agreement. However, the Parties have also agreed other objectives and outcomes - for example, in the National Indigenous Reform Agreement - which the Parties will pursue through the broadest possible spectrum of government action. Consequently, this agreement will be implemented consistently with the objectives and outcomes of all National Agreements and National Partnerships entered into by the Parties.
3. This National Partnership Agreement has been established to address the rising prevalence of lifestyle related chronic diseases, by:

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[www.coag.gov.au/intergov\\_agreements/federal\\_financial\\_relations/docs/national\\_partnership/national\\_partnership\\_on\\_preventive\\_health.rtf](http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/national_partnership_on_preventive_health.rtf), accessed 6 March 2009.

- (a) laying the foundations for healthy behaviours in the daily lives of Australians through social marketing efforts and the national roll out of programs supporting healthy lifestyles; and
  - (b) supporting these programs and the subsequent evolution of policy with the enabling infrastructure for evidence-based policy design and coordinated implementation.
4. The Agreement builds on Council of Australian Governments' (COAG) existing Australian Better Health Initiative and the National Reform Agenda's Type 2 Diabetes Initiative, and supplements the National Healthcare Agreement by funding programs that will improve health outcomes and reduce pressure on the health system in the long term. Performance indicators underpinning this Agreement are consistent with performance targets in the National Healthcare Agreement.

## **Part 1 — Formalities**

### ***Parties to this Agreement***

5. In entering this Agreement, the Commonwealth and the States and Territories recognise that they have a mutual interest in improving outcomes in the area of preventive health and need to work together to achieve those outcomes.

### ***Term of the Agreement***

6. This Agreement will commence as soon as the Commonwealth and one other Party signs the agreement and will expire on 30 June 2015, or the date of the final reward payment to States/Territories for performance against benchmarks. Prior to the expiry of the Agreement, a review will be conducted for the purposes of considering rolling existing funding into the Health SPP. The agreement may also be terminated earlier than June 2015 if agreed in writing by the Parties.

### ***Delegations***

7. The person holding the position of Commonwealth Minister for Health and Ageing is authorised to agree to any implementation arrangements on behalf of the Commonwealth. The Commonwealth will not make reward payments to the States and Territories until an independent assessment by the COAG Reform Council demonstrates that performance benchmarks have been achieved. Facilitation payments will not be paid to any State or Territory until the Minister has approved the implementation arrangements of that State or Territory. The person holding the position of the Minister for Health (or their equivalent) in a relevant State or Territory is authorised to agree to any implementation arrangements on behalf of their State or Territory.

## **Part 2 — objectives, outcomes and outputs**

### ***Objectives***

8. Through this Agreement, the Parties commit to:
- (a) support all Australians in reducing their risk of chronic disease by embedding healthy behaviours in the settings of their pre-schools, schools, workplaces and communities, by instituting programs across smoking, nutrition, alcohol, and physical activity (SNAP) risk factors which mobilise the resources of the private, public and non-government sectors;
  - (b) work with the food supply and the food service sectors towards offering healthy choices and minimising choices high in fat, sugar or salt, and with the sport, recreation and commercial fitness sectors in efforts towards increasing physical activity in the community;
  - (c) support behavioural change with public education by placing on a sustained and adequately resourced footing the national MeasureUP or other agreed social marketing campaigns that will be initiated until 2010 under the Australian Better Health Initiative, and administering this from a dedicated national preventive health agency, in order to alert, inform and educate Australians in the need for healthy lifestyles and in the resources and choices available to them for these purposes;

- (d) similarly supporting behavioural change with a national anti-smoking campaign achieving the evidence threshold of market saturation to effect further lowering of the national daily smoking rate, and also to be managed by the proposed national preventive health agency; and
  - (e) invest in the evidence base necessary for effective prevention by instituting national programs in chronic disease risk factor surveillance, translational research, evaluation, a national collaboration in eating disorders, and a workforce audit, and establishing a national preventive health agency to inform best practice in policy design for preventive health as well as administering national social marketing.
9. The measures funded through this Agreement include provisions for the particular needs of socio-economically disadvantaged Australians, and those, especially young women, who are vulnerable to eating disorders.

#### **Outcomes**

10. The Agreement, consistent with the National Healthcare Agreement performance targets, will contribute to the following medium to long-term outcomes:
- (a) increase the proportion of children and adults at healthy body weight by 3 percentage points within ten years;
  - (b) increase the proportion of children and adults meeting national guidelines for healthy eating and physical activity by 15 per cent within six years;
  - (c) reduce the proportion of Australian adults smoking daily to 10 per cent within ten years;
  - (d) reduce the harmful and hazardous consumption of alcohol; and
  - (e) help assure Australian children of a healthy start to life, including through promoting positive parenting and supportive communities, and with an emphasis on the new-born.

The translation of these outcomes to the six year window of the Agreement is articulated in Part 4 – Performance Benchmarks and Reporting.

#### **Outputs**

11. The objectives and outcomes of this Agreement will be achieved by the delivery of the following programs/initiatives:

#### **Healthy children**

*Initiative: States and Territories funded to deliver a range of programs:*

- (a) building on existing efforts currently in place, while adapting them to suit demographic and other factors in play at various sites;
- (b) covering physical activity, healthy eating, and primary and secondary prevention;
- (c) in settings such as child care centres, pre-schools, schools, multi-disciplinary service sites, and children and family centres; and
- (d) including family based interventions, settings based initiatives, environmental strategies in and around schools, and breastfeeding support interventions.

#### **Healthy workers**

*Initiative: States and Territories funded to facilitate delivery of healthy living programs in workplaces:*

- (a) focusing on healthy living and covering topics such as physical activity, healthy eating, the harmful/hazardous consumption of alcohol and smoking cessation;
- (b) meeting nationally agreed guidelines for these topics, and including support for risk assessment and the provision of education and information;
- (c) which could include the provision of incentives either directly or indirectly to employers;
- (d) including small and medium enterprises, who may require support from roving teams of program providers; and
- (e) with support, where possible, from peak employer groups such as chambers of commerce and industry.

*Initiative: Commonwealth to develop a national healthy workplace charter with peak employer groups, to conduct voluntary competitive benchmarking, supporting the development of nationally agreed standards of workplace based prevention programs, and national awards for healthy workplace achievements. Commonwealth, in consultation with the States and Territories, may consider taking responsibility for national employers in the future.*

### **Healthy communities**

*Initiative: Funds will be provided to support the national roll-out of successful and effective community-based physical activity and healthy eating programs:*

- (a) including the major initiatives of the national health non-government organisations, such as Heart Moves, Lift for Life and the Heart Foundation's Walking Initiative;
- (b) focusing on disadvantaged populations and those not in the workforce;
- (c) through local government organisations, with states/territories participating in the identification of priority, high needs areas;
- (d) utilising resources currently available through the commercial fitness and weight loss sectors to facilitate the expansion of programs; and
- (e) with support from national level 'soft infrastructure' such as accreditation of programs and service providers, web-based directories, and recruitment strategies through primary health care and other pathways.

### **Industry partnership**

*Initiative: Commonwealth, in consultation with the States and Territories, to develop partnerships with relevant industry and non-government sectors to encourage changes in policies and practices.*

### **Social marketing**

*Initiative: Commonwealth to fund a social marketing campaign to extend and complement the Australian Better Health Initiative campaign, and a national preventive health agency to oversee the campaign.*

*Initiative: Commonwealth to fund states and territories to complement the national social marketing campaign by providing reinforcing local activities.*

*Initiative: Commonwealth to fund tobacco social marketing through national level campaigns supported by state/territory funded complementary activities.*

### **Enabling infrastructure**

*Initiative: Effective implementation and evaluation of the Partnership requires the establishment of 'soft infrastructure' including:*

- (a) expansion of the National Nutrition and Physical Activity Survey to include individuals of all ages, Indigenous Australians and bio-medical measures;
  - (b) a research fund with the aims of building an evidence base for future preventive health activities and the capacity for future research, and a focus on translational research;
  - (c) a workforce audit and strategy to identify any gaps and options to resolve them;
  - (d) an Eating Disorders Collaboration, to provide a national focal point for prevention, early intervention and best practice treatment strategies for disordered eating; and
  - (e) a national preventive health agency:
    - (i) staffed with population health experts;
    - (ii) with responsibility for providing evidence-based policy advice to health and other ministers interested in preventive health;
    - (iii) tasked with administering social marketing programs and other national preventive health programs which it may be tasked with by Health Ministers;
    - (iv) overseeing surveillance and research activities of a national nature; and
    - (v) with responsibility for stakeholder consultation.
- (1) Governance of the national preventive health agency will be by agreement of Health Ministers or their delegates.

*Initiative: States and territories to implement a complementary system of more frequent health, nutrition and physical activity monitoring surveys, with leadership from the national preventive health agency. This data will be provided for national aggregation and analysis in accordance with Minimum Data Sets and reporting protocols.*

### **Part 3 — roles and responsibilities of each party**

12. To realise the objectives and commitments in this Agreement, each Party has specific roles and responsibilities, as outlined below.

#### ***Role of the Commonwealth***

13. The Commonwealth will have responsibility for developing the soft infrastructure to support workplace-based programs for healthy living (including a national guidelines, a charter and national awards), managing the roll-out of community-based programs, developing partnerships with relevant industry sectors, establishing the national preventive health agency and supporting its roles around social marketing, surveillance, research, and the workforce audit and strategy.

#### ***Role of the States and Territories***

14. The States and Territories will have responsibility for delivering a range of programs to children through settings such as pre-schools, schools and child care centres, workplace-based programs to encourage healthy lifestyles, managing the delivery of local level social marketing activities to support national level activities for healthy living, providing services to complement and support national level tobacco campaigns, and supporting the expansion of local level surveillance capacity.

### **Part 4 — Performance benchmarks and reporting**

#### ***Performance benchmarks and indicators***

15. The Commonwealth, the States and Territories agree to meet the following performance benchmarks:

- (a) increase in proportion of children at unhealthy weight held at less than five per cent from baseline for each state by 2013; proportion of children at healthy weight returned to baseline level by 2015.
- (b) increase in mean number of daily serves of fruits and vegetables consumed by children by at least 0.2 for fruits and 0.5 for vegetables from baseline for each State by 2013; 0.6 for fruits and 1.5 for vegetables by 2015.
- (c) increase in proportion of children participating in at least 60 minutes of moderate physical activity every day from baseline for each State by five per cent by 2013; by 15 per cent by 2015.
- (d) increase in proportion of adults at unhealthy weight held at less than five per cent from baseline for each state by 2013; proportion of adults at healthy weight returned to baseline level by 2015.
- (e) increase in mean number of daily serves of fruits and vegetables consumed by adults by at least 0.2 for fruits and 0.5 for vegetables from baseline for each state by 2013; 0.6 for fruits and 1.5 for vegetables from baseline by 2015.
- (f) increase in proportion of adults participating in at least 30 minutes of moderate physical activity on five or more days of the week of 5% from baseline for each state by 2013; 15 per cent from baseline by 2015.
- (g) reduction in state baseline for proportion of adults smoking daily commensurate with a two percentage point reduction in smoking from 2007 national baseline by 2011; 3.5 percentage point reduction from 2007 national baseline by 2013.
- (h) performance against benchmarks will be assessed at two time points: June 2013 and December 2014.
16. The baseline for these benchmarks will be the last available data at June 2009.
17. To the extent they contribute to the achievement of objectives and outcomes under the National Healthcare Agreement or contribute to the aggregate pace of activity in progressing COAG's agreed reform agenda, these performance benchmarks may be subject to analysis and reporting for each State and Territory by the COAG Reform Council with reference to the following performance indicators, being the proportion of:
- (a) children and adults at healthy bodyweight;
- (b) children and adults meeting the national guidelines for fruit and vegetable consumption;
- (c) children and adults meeting the national guidelines for physical activity; and
- (d) Australians smoking daily.
18. Payments to States and Territories for the Healthy children and Healthy workers programs will be structured as 50 per cent facilitation and 50 per cent reward. Payments to the States and Territories for the social marketing and enabling infrastructure programs will be provided as facilitation payments, and will not be subject to a reward structure. The following table outlines the facilitation and reward structure of the initiatives covered in this Agreement for the six years 2009-10 to 2014-15:

Program	Initiative	Facilitation (\$m)	Reward (\$m)
Healthy children	State and territory programs	162.76	162.76
Healthy workers	State and territory workplace programs	144.71	144.71
Social marketing	Local level initiatives for MeasureUP	18	
Enabling infrastructure	State and territory Computer Aided Telephone Interviews	10	



19. Performance against benchmarks for healthy children and healthy workers will be assessed as at June 2013 and December 2014. Of the funds available for reward payments (50 per cent of Healthy children and Healthy workers), 20 per cent will be paid against June 2013 achievement of benchmarks and 30 per cent against December 2014 achievement of benchmarks.
20. States and Territories will receive partial payment for partial attainment of performance targets, with partial payments proportionate to achievement. For example, a jurisdiction will receive 50 per cent of the reward payment for a move half way to the target.

#### ***Implementation plan***

21. The Parties will agree an Implementation Plan to achieve the objectives of this Agreement. The Plan will be reviewed by the Parties on an annual basis.
  - (a) The Commonwealth will maintain the Plans and provide updated Plans to the States and Territories following reviews.
  - (b) The Plans will include the timelines for achieving the performance benchmarks, including phased achievement of performance benchmarks where appropriate.
  - (c) Amendments to the Plan can be requested by a State or Territory at any time, to accommodate emerging issues. These amendments will be agreed with the Commonwealth and the other Parties.

#### ***Reporting***

22. The States and Territories will each provide a detailed report on an annual basis to the Commonwealth against milestones and timelines to be detailed in the Implementation Plan.
23. The reports will be provided within two months of the end of the relevant period, or as otherwise specified in the agreed Implementation Plan.
24. The States and Territories will provide reports outlining performance against benchmarks as at 30 June 2013 and 31 December 2014. These reports will be provided within two months of the end of the relevant period. Performance against December 2014 benchmarks will be extrapolated to June 2015 using available data.
25. Reporting requirements under this National Partnership should be read in conjunction with the provisions in Schedule C to the Intergovernmental Agreement on Federal Financial Relations.

### **Part 5 — financial arrangements**

#### ***Funding***

26. The maximum amount of funding available to the States and Territories in total will be:
  - (d) 2009-10 — \$2.5 million in facilitation payments;
  - (e) 2010-11 — \$8.5 million in facilitation payments;
  - (f) 2011-12 — \$74.5 million in facilitation payments;
  - (g) 2012-13 — \$136.0 million in facilitation payments;
  - (h) 2013-14 — \$62.5 million in facilitation payments and \$123.0 million in reward payments; and
  - (i) 2014-15 — \$51.5 million in facilitation payments and \$184.5 million in reward payments.
27. The distribution of this maximum funding between the States and Territories will be as set out in the Implementation Plan. In general, payments are distributed to States and Territories on a per capita basis.

28. The Commonwealth will receive funds for Commonwealth Own Purpose Expenses, as follows:

- (a) 2009-10 — \$15.1 million;
- (b) 2010-11 — \$58.5 million;
- (c) 2011-12 — \$70.8 million;
- (d) 2012-13 — \$82.3 million;
- (e) 2013-14 — \$1.25 million; and
- (f) 2014-15 — \$1.25 million.

***Payment schedule***

- 29. The Commonwealth will make facilitation payments to States and Territories on 1 July 2009, 1 July 2010, 1 July 2011, 1 July 2012, 1 July 2013 and 1 July 2014.
- 30. The Commonwealth will receive Commonwealth Own Purpose Expenses payments on 1 July 2009, 1 July 2010, 1 July 2011, 1 July 2012, 1 July 2013 and 1 July 2014.
- 31. The Commonwealth may make reward payments to the States and Territories in 2013-14 and 2014-15 (in line with reporting periods) reflecting the achievement of key benchmarks identified in this Agreement, and outlined in the Implementation Plan. The COAG Reform Council will provide an independent assessment of whether predetermined milestones and performance benchmarks have been achieved before a reward payment is made.

**Part 6 — governance arrangements**

***Dispute resolution***

- 32. Any Party may give notice to other Parties of a dispute under this Agreement.
- 33. The relevant delegates will attempt to resolve any dispute in the first instance.
- 34. If a dispute cannot be resolved between the relevant delegates, it may be escalated to the relevant Ministerial Council for consideration.
- 35. If a dispute cannot be resolved by the relevant Ministerial Council, it may be referred by a Party to COAG for consideration.

***Review of the Agreement***

- 36. The Agreement will be reviewed in 2014-15 with regard to progress made by the Parties in respect of achieving the agreed outcomes.

***Variation of the Agreement***

- 37. The agreement may be amended at any time by agreement in writing by all the Parties and under terms and conditions as agreed by all the Parties.
- 38. A Party to the Agreement may terminate their participation in the Agreement at any time by notifying all the other Parties in writing.

The Parties have confirmed their commitment to this agreement as follows:

**Signed** for and on behalf of the Commonwealth of Australia by

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**The Honourable Kevin Rudd MP**

Prime Minister of the Commonwealth of Australia

January 2009

**Signed** for and on behalf of the State of New South Wales by

**Signed** for and on behalf of the State of Victoria by

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**The Honourable Nathan Rees MP**

Premier of the State of New South Wales

December 2008

**Signed** for and on behalf of the State of Queensland by

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**The Honourable John Brumby MP**

Premier of the State of Victoria

December 2008

**Signed** for and on behalf of the State of Western Australia by

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**The Honourable Anna Bligh MP**

Premier of the State of Queensland

December 2008

**Signed** for and on behalf of the State of South Australia by

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**The Honourable Colin Barnett MP**

Premier of the State of Western Australia

December 2008

**Signed** for and on behalf of the State of Tasmania by

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**The Honourable Mike Rann MP**

Premier of the State of South Australia

December 2008

**Signed** for and on behalf of the Australian Capital Territory by

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**The Honourable David Bartlett MP**

Premier of the State of Tasmania

December 2008

**Signed** for and on behalf of the Northern Territory by

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**Jon Stanhope MLA**

Chief Minister of the Australian Capital Territory

December 2008

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**The Honourable Paul Henderson MLA**

Chief Minister of the Northern Territory of Australia

December 2008



## APPENDIX NINE

### ***POLICE ACTIVITIES IN OTHER JURISDICTIONS ENFORCING SMOKING-IN-CARS LEGISLATION***

Table A9.1- Tasmania

<b>A description of how the infringement system is managed by Police</b>	<p>Enforcement of the amended Public Health Act 1997 (Tasmania) (the Act) commenced on 1 April 2008. Although the Tasmanian Department of Health and Human Services administers the Act, all police officers are nominated officers under the Act and may issue an Infringement Notice for the offence of smoking in a vehicle with a child inside. The same protocols/procedures which apply to traffic infringement notices apply to this offence. Information recorded on the infringement notice includes the date, time, location, gender and whether the offender was the driver or passenger.</p> <p>While Tasmania Police Service personnel attend to instances that come to their attention in the course of their normal duties, complaints from members of the public are referred to the Department of Health and Human Services for action.</p> <p>Further information particularly in respect to verbal warnings, cautions and infringement notices is detailed in the attached 'Enforcement Policy for Smoking in Vehicle'.</p>
<b>The number of infringements written by Police in the past year</b>	Since 1 April 2008, 31 infringement notices have been issued by Tasmania Police Service personnel. Of those, 23 were in the form of a caution.
<b>What upper age level is used to describe a child or youth</b>	A child is a person under 18 years of age. An infringement notice for such an offence may not be issued to anyone under 18 years of age.
<b>A description of any cost recovery agreement used by police in the respective jurisdiction</b>	No cost recovery agreement has been entered into with the Department.

**Table A9.2- South Australia**

<b>A description of how the infringement system is managed by Police</b>	The majority of expiation notices in South Australia are managed by the SA Police (SAPOL) Expiation Notice Branch (ENB). In the case of smoking in cars with children, both police and authorised officers of the Department of Health can issue the notices. On a person being issued with an expiation notice, the issuing officer sends a copy of the notice complete with observations and other notes to ENB. The details are entered onto the Expiation Notice System (ENS) data base and the original notice destroyed. If the person does not pay the fine by the due date (28 days after issue), a reminder notice is issued and if that is ignored the notice is sent for enforcement by the courts. ENB handles any enquiries from the offender and all the administrative management of the notice. Should the offender elect to be prosecuted, ENB produces a file that is sent to the local prosecution until for adjudication and issue of summons. The normal court process then applies.
<b>The number of infringements written by Police in the past year</b>	For the calendar year 2008, 137 notices were issued.
<b>What upper age level is used to describe a child or youth</b>	For the purpose of this offence, a child is a person 16 years or under.
<b>A description of any cost recovery agreement used by police in the respective jurisdiction</b>	The South Australian Police charge \$11.00 per notice to the relevant issuing authority. Where a notice is issued by a member of the police service then the Commissioner of Police is the issuing authority. In any other case, the Minister, statutory authority or council on whose behalf an expiation notice is given.

## **APPENDIX TEN**

***ARTICLE BY PETER SLY AND FELICITY FLACK***

# Susceptibility of Children to Environmental Pollutants

Peter D. Sly and Felicity Flack

*WHO Collaborating Centre for Research on Children's Environmental Health and the School of Public Health, Curtin University of Technology, Perth, Australia*

Children are more vulnerable to adverse environmental exposures. The unique ways in which they interact with their environment and their dynamic developmental physiology mean that they generally receive a higher dose of toxicant for a given level of environmental exposure. In addition, children are frequently more likely to suffer adverse health outcomes from exposures. The developmental stage of the child during which the exposure occurs has a major influence on the consequences of the exposure. For example, exposures during organogenesis may result in permanent structural changes, whereas exposures once organogenesis is complete are more likely to result in functional consequences. The immune, respiratory, and central nervous systems are immature at birth and have a prolonged period of postnatal maturation. Thus, these organ systems are vulnerable to postnatal exposures.

**Key words:** children; environment; pollution; susceptibility

## Introduction

Pediatricians recognize that children are not little adults and that they interact within their environment in different and unique ways. This recognition has not been universal and is still resisted in some quarters. For example, the vast majority of pharmaceuticals used in children were developed for and tested in adults, yet many of the conditions being treated are either specific to or more common in children.

Ways in which children differ from adults that impact on their vulnerability to adverse environmental exposures include:

- *Different and unique exposures*—Children often have different, and sometimes unique, exposures to environmental hazards from those of adults.
- *Dynamic developmental physiology*—Due to their dynamic developmental physiology,

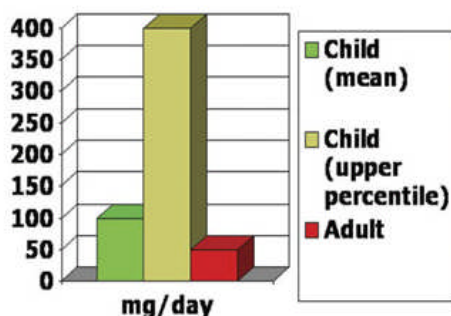
children are often subjected to higher exposures to pollutants found in air, water, and food. These exposures may be handled quite differently by an immature set of systems to the way they are dealt with in adults. Furthermore, the developmental component of a child's physiology is changing; maturing, differentiating, and growing in phases known as "developmental windows." These "critical windows of vulnerability" have no parallel in adult physiology and create unique risks for children exposed to hazards that can alter normal function and structure. The timing of these milestones during development is important for understanding the health consequences of environmental exposures.

- *Longer life expectancy*—Children have a longer life expectancy. Therefore they have longer to manifest a disease with a long latency period, and longer to live with toxic damage.
- *Political powerlessness*—Children are politically powerless; they are defenseless. With

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(Figure from WHO Training Module: Children are not little adults)

**Figure 1.** Daily ingestion of soil in children and adults. (In color in *Annals* online.)

no political standing of their own, they must rely on adults to protect them from toxic environmental agents.

Each of these areas is discussed in more detail in the following sections.

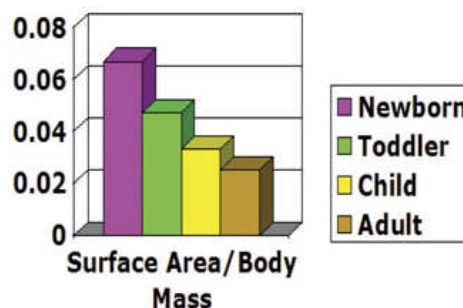
### Different and Unique Environmental Exposures

#### Unique Exposure Pathways

Children have unique exposure pathways. They can be exposed *in utero* to toxic environmental agents that cross the placenta. Such exposures can be chemical (pollutants and pharmaceuticals), physical (radiation, heat), and biological (viral, parasitic). They can also be exposed to pollutants that pass into their mother's milk.<sup>1</sup>

#### Exploratory Behaviors Leading to Exposures

Exploratory behavior is exemplified by hand-to-mouth activity; behavior that is most prevalent in children between 1 and 3 years of age. The graph in Figure 1 shows U.S. EPA estimates of soil consumption of children and adults in the United States. The average child ingests twice as much soil as an adult, but a child in the upper percentile can ingest eight times more soil than an adult (Fig. 1). Children



(Figure from WHO Training Module: Children are not little adults)

**Figure 2.** Ratio of surface area to body mass in children and adults. (In color in *Annals* online.)

often learn by putting things in their mouths and can ingest significant quantities of contaminated soil, dust, and dirt at early ages.<sup>2</sup>

#### Dermal Exposure

Children have a larger surface area/volume ratio than do adults.<sup>3,4</sup> This difference in size and proportion means that dermal exposures may be greater. Except for premature infants and newborns, children's skin presents the same barrier to dermal exposures as that of adults, but there is more of it on a surface area/volume basis. Babies have a surface area/volume ratio three times that of adults and in toddlers the ratio is twice that of adults (Fig. 2). Also, children tend to have more skin exposed and more cuts, abrasions, and rashes than adults; this could easily lead to increased dermal absorption as a proportion of body weight. Figure 2 demonstrates how the surface area/body mass ratio decreases with growth and development.

#### Stature and Living Zones, Microenvironments

Children are smaller than adults: they live in a different zone in the world. The breathing zone of a small child can be considered to be approximately 25 cm above the floor, whereas that of an adult is more like 100–150 cm above the floor.<sup>5</sup> Measurements inside homes following pesticide application to flooring and baseboards find that

concentrations are always highest closest to the floor, where children live. Concentrations in the "child zone" were 5 to 10 times higher than in the "adult zone" at all times. Peak exposure was seen at 5 hours post application. At this time the child-zone concentration was approximately  $65 \mu\text{g}/\text{m}^3$  compared with approximately  $12 \mu\text{g}/\text{m}^3$  in the adult zone. Twenty-four hours post application the concentrations were approximately  $30 \mu\text{g}/\text{m}^3$  and  $5 \mu\text{g}/\text{m}^3$  in the child and adult zones, respectively.<sup>6</sup> Because children breathe more air (see later), and the air is more heavily contaminated in their living zone due to patterns of evaporation (revolatilization) after applications to baseboards, they are exposed to more contaminants than adults. In addition, significant pesticide residues can remain on plush toys and undergo revolatilization and secondary deposition for 2 or more weeks, leading to increased exposures through nonnutritive ingestion.

Children breathe more air than adults during quiet breathing. Children also engage, on average, in more physical activity than adults (124 min/day versus 21 min per day), which increases ventilatory requirements further. The mean daily inhalation rate is highest in the first 2 years of life (approximately  $0.5 \text{ m}^3/\text{kg}/\text{day}$ ) falling to approximately  $0.2 \text{ m}^3/\text{kg}/\text{day}$  in late adolescence.<sup>7</sup>

### Children Do Not Understand Danger

Children may have much more limited ability to understand and move out of danger, both from toxic agents and dangerous situations that could result in injury. This characteristic is obvious in the preambulatory phase, but persists through exploratory toddler behavior and into the high-risk behaviors seen in adolescence. Preambulatory children are not able to remove themselves from danger. Prereading children cannot read warning labels and signs. Preadolescent/adolescent children may take unreasonable risks due to cognitive immaturity and "risk-taking" behaviors.

### Dynamic Developmental Physiology

Children have a dynamic physiology that is not only turned up to "high" because of growth demands, but also vulnerable to damage during differentiation and maturation of organs and systems.

- Their needs for energy, water, and oxygen are higher, because they go through an intense anabolic process with growth.
- Absorption is different and frequently increased because children are anabolic and active. They are geared to absorb nutrients very efficiently. This is exemplified most classically by lead. Lead follows calcium, which is essential for skeletal and cellular growth. A toddler will absorb between 40% and 70% of a given ingested dose of lead, whereas a nonpregnant adult will absorb from 5% to 20%. Nutritional deficiencies, particularly anemia, which is common in rapidly growing children, will increase lead absorption ([http://www.atsdr.cdc.gov/csem/lead/pbwhoisat\\_risk2.html](http://www.atsdr.cdc.gov/csem/lead/pbwhoisat_risk2.html)).
- Some xenobiotics (a xenobiotic is a chemical that is not a natural component of the organism exposed to it) are dangerous if they are ingested and need to be detoxified by metabolism. Others are not dangerous when ingested, but become dangerous when metabolized. Most known toxicants are detoxified in the body, so immaturity of detoxification enzymes increases the duration of residence and amount of any given internal dose.
- Distribution within the body is different in children from that in adults and varies with age. For example, the blood-brain barrier is not fully developed for the first 36 months of life, so substances, such as lead, readily cross into the central nervous system (CNS) in early life.
- Elimination may be decreased in early postnatal life. For example, the glomerular

filtration rate (GFR) of newborns is less than 40% of that of adults. Premature infants may have only 5% of the adult GFR.

All of these physiological processes are likely to be different in children from those in adults, but unfortunately not in predictable ways.<sup>8</sup>

## Dynamic Developmental Physiology

### Growth

Human beings grow more slowly than many other species. Birth weight is increased by about 18 times over the first 20 years. Infants gain weight more rapidly during the first 4–6 months than during the rest of the life. At the age of 2 years, a boy is about half his adult height, whereas a girl is slightly more than half her adult height. By 6 years of age, children in general are about 70% of their adult height. The height and weight of children of any given age group are highly variable, reflecting the complex influence of genetic, cultural, dietary/nutritional, and environmental factors.

Growth is not linear, but occurs with periods of more rapid growth interspaced with slower growing periods. *In utero*, specific periods of growth spurts usually occur in the last two trimesters. Five postnatal growth spurts have been identified according to the developmental periods where peak velocity of growth is reached (e.g., neonatal, infantile, early-childhood, middle-childhood, and late childhood).<sup>9</sup>

From birth to adulthood, physical changes, including the size of body parts and organs, occur at an uneven rate. At any time during infancy and early childhood, one part of the body or organ grows faster than another. Vital organs grow at different rates because their cells divide and grow at different rates. The absolute brain weight, for example, does not change much with age, but the relative brain weight decreases with age. In contrast, the absolute weights of kidney and liver increase with age,

whereas the relative kidney and liver weights show minimal change. Even though there is a general increase in muscle and adipose tissue volumes as a function of age, the rate of their relative increase is somewhat different at the early ages. For example, between 2 and 6 months of age the increase in volume of adipose tissue is more than twice as great as the increase in the volume of muscle. But, between 6 and 12 months of age, the increase in muscle volume is slightly more rapid than that of adipose tissue. Differential growth provides “windows of increased susceptibility” to the adverse environmental exposures. What this means is that different organs may be susceptible to a given environmental exposure occurring at a specific time in the child’s life.

### Normal Developmental Characteristics

Most organs and organ systems lack structural or functional maturity at birth. The blood–brain barrier is immature at birth and the development of this barrier and the nervous system in general continues in postnatal life. Much of the myelination of the brain takes place after birth and continues until adolescence. The structural development of the lung also continues postnatally in terms of the alveolar surface area. Components of the immune system are not fully developed at birth, resulting in enhanced susceptibility of newborns to certain bacterial infections. The gastrointestinal, endocrine, and reproductive systems are all immature at birth. A number of factors influencing gastrointestinal absorption of drugs and chemicals undergo maturational changes during the first 2 years of age (gastric acidity, gastrointestinal motility, enzymic activity, bacterial flora), and less is known about these changes in such parameters between 2 and 18 years of age. These factors contribute to higher gastric pH in children and increased gastric and intestinal motility compared to adults.

An exhaustive discussion of the development of all organ systems is beyond the scope of this article. Those interested in more detailed information are directed to a recently published

Environmental Health Criteria document "Principles for Evaluating Health Risks in Children Associated with Exposure to Chemicals" from the World Health Organization International Programme on Chemical Safety ([www.who.int/entity/ipcs/publications/ehc/risk\\_children/en/](http://www.who.int/entity/ipcs/publications/ehc/risk_children/en/)). What follows is a brief summary derived from that publication.

### Skin

A baby at full-term has a mature skin with barrier properties similar to those of older children and adults. However, the hydration state of the epidermis is greater in neonates than in older children, suggesting the potential for some chemicals to be absorbed more efficiently. In preterm infants, the epidermal barrier is poorly developed, resulting in increased absorption of chemical agents through the skin. Preterm infants may have greater blood concentrations of chemicals than full-term newborns when both are bathed in the same solution. Neonates and infants in general have larger surface area relative to body weight than adults.

### Kidneys

The full-term neonate is born with kidneys containing essentially an adult complement of nephrons, but overall renal function is reduced compared to older children or adults. Therefore, neonates are less able to eliminate xenobiotics and endogenous chemicals than older children and adults. The function of the renal tubules is less mature at birth than in adulthood and this persists until 6 months of age.

### Lungs

While the lungs at birth are immature, the basic structure is formed *in utero*, which means that normal lung growth is susceptible to alteration by adverse exposures before birth. Knowledge of the phases of normal develop-

ment of the lung allows an understanding of how the timing of adverse environmental exposures produces adverse effects on lung structure. Airway development is essentially complete before birth. Airway branching is complete in the terminal bronchioles by 16 weeks gestation and the pulmonary vasculature develops along with the airways. Airway smooth muscle development begins around 8–10 weeks gestation and has extended to respiratory bronchioles by 26 weeks gestation. Cartilage development is essentially complete by 28 weeks. Alveolar development begins around 24 weeks gestation and at birth approximately 30–50% of the final complement of alveoli is present. Lamellar bodies, the structures responsible for secreting and storing surfactant, appear within type II alveolar epithelial cells by 24 weeks gestation.

During gestation the lungs are filled with fluid, primarily secreted by the epithelium. There is a net movement of fluid from the lungs to the amniotic fluid. This lung liquid is essential for the normal growth and development of the lungs and for them obtaining the normal volume at birth. Fetal "breathing movements" begin during the second trimester and continue until birth. These breathing movements involve rhythmic expansion and contraction of the thorax and appear to be essential for the normal development of the lungs, especially lung volume. While the fetal breathing movements aid with the egress of liquid from the lungs, other mechanisms contribute as well. The fetal breathing movements are vulnerable to environmental exposures, for example, they are inhibited for up to 60 min after the mother smokes a single cigarette.

After birth, alveolarization continues rapidly for the first 18–24 months. While the timing of cessation of alveolar development is not known with certainty and may continue until 5–8 years of age, the rate of alveolar formation is most rapid in early postnatal life. The pulmonary microvasculature largely develops during this secondary phase of alveolarization. Lung volume increases along with somatic growth, with the lung volume

approximately doubling from birth to 18 months, doubling again by 5 years of age, and doubling again by adult life. The lungs continue to grow longer in boys, continuing into the early 20 years, whereas lung growth appears to stop in the late teen years in girls. Boys are thought to have relatively smaller airways for the size of their lungs than girls in early life, and this is thought to contribute to the increased prevalence of wheezing in boys during infancy and the preschool years. Lungs grow along trajectories set in early life, similar to percentiles for somatic growth. This means that adverse influences on lung growth in early life, such as maternal smoking during pregnancy (see later), have life-long consequences.

### The Immune System

The immune system has two major arms, the innate immune system and the adaptive immune system. The innate immune system in the lungs represents the first line of defense against invading organisms, consisting of nonspecific responses triggered by recognition of conserved molecular patterns carried on the surface of microorganisms (pathogen associate molecular patterns (PAMPs)). This response is generated by macrophages resident in the airways, as well as by respiratory epithelial cells, which secrete cytokines and chemokines that recruit inflammatory cells to the lungs. The innate immune system relies on a limited number of pattern-recognition receptors (PRRs) to identify PAMPs. Secreted PRRs, such as CD(cell determinant)14 or lipopolysaccharide (LPS)-binding protein, bind to microbes and facilitate their destruction by phagocytosis or the complement system. Toll-like receptors induce antimicrobial genes and inflammatory cytokines within a variety of cells while activating dendritic cells (DCs), the major professional antigen-presenting cells in the airways, to initiate adaptive immune responses.

The adaptive immune system provides specificity in the response by recognizing specific

antigens and producing both a humoral and cell-mediated response involving activation of B and T cells. A fundamental characteristic of the adaptive immune system is the development of immunological memory, in which a rapid response is mounted on subsequent reinfection with individual pathogens. While the strengths of such a mechanism in providing resistance to infection is important for survival in the face of infectious diseases, immunological memory is also the basis for immunopathology in allergic disease.

Both the innate and adaptive immune systems undergo considerable development *in utero*, but both are immature at birth.<sup>10</sup> Studies of the normal development of T cells have shown that circulating T cells can be demonstrated by 15 weeks gestation and that these are capable of proliferating in response to mitogen stimulation *in vitro* by 17 weeks gestation. Surface markers characteristic of T cells, that is, CD3, CD4, and CD8, have been demonstrated by 18 weeks gestation, as has the surface expression of the major histocompatibility complex (MHC) class II. T cell responses to antigen also has been reported, using *ex vivo* stimulation protocols as early as 22 weeks gestation; however, considerable doubt exists over the specificity of these responses. Fetal and placental tissues secrete cytokines *in utero*, and measuring these in cord blood can give an indication of the maturational state of the fetal immune system.

Considerable maturation of both the innate and adaptive immune systems occurs after birth.<sup>9</sup> Monocytes circulating in neonates respond less well to a variety of bacterial and viral signals than do adult monocytes. DC function is immature at birth in several important ways. Neonatal DCs have reduced ability to present antigen and reduced ability to induce T cell differentiation. Their ability to secrete bioactive interleukin-12, a key cytokine for inducing T cells to differentiate into T helper (Th)-1 cells, is deficient at birth and matures slowly through childhood. They also show a reduced ability to secrete type I interferons, an important part of the innate antiviral response.

Circulating T cell numbers are increased in infancy relative to later life. Many of these show characteristics of being functionally immature cells known as recent thymic emigrants, including the expression of the surface markers CD17 and CD38, and coexpression of T cell markers CD4 and CD8.<sup>10</sup> Very few T cells express classic activation markers, such as CD25, CD69, or CD154. T cells from neonates and infants appear to be incapable of sustaining responses to stimuli *in vitro*. While initial rapid proliferative responses are seen and associated with cytokine production, these responses are not maintained and most appear to undergo apoptosis. The T cell responses in early life are characterized by the production of Th-2 cytokines, which appears to be related to an active suppression of secretion of Th-1 cytokines *in utero* and an inability of neonatal DCs to induce Th-1 differentiation in early life. The ability to produce a wide variety of Th-1 cytokines is reduced in early life, and maturation is not complete until late adolescence.

Postnatal maturation of the immune system is driven by environmental exposures, especially to microbial products. Postnatal colonization of the gut and skin with bacteria is thought to provide potent maturational signals. Other maturational signals are thought to be provided by exposure to components of microbial cell walls, such as LPS from gram-negative organisms, lipoteichoic acids from gram-positive organisms, and glucans from fungi. These maturational signals result in an increased expression of MHC class II on DC and an increased ability of T cells to produce Th-1 cytokines with age.

### The Central Nervous System

The CNS arises from a thickened area of the ectoderm called the neural plate on day 19 in the human embryo. This process is referred to as induction. The neural plate then differentiates into the neural tube (providing the origins for the brain and spinal cord) and the neural crest (forming the basis of the peripheral ner-

vous system). The process by which the neural tube arises from the neural plate is referred to as neurulation. To form the neural tube, the neural plate changes shape and forms a pronounced groove, closing from the cranial end to the caudal end. The neural tube has openings on both ends that close on about day 25 and day 27, respectively. The neural tube provides the basis for the entire CNS. The spinal cord, a tubular structure in the mature nervous system, retains the basic original shape of the neural tube. Early in histogenesis, the walls of the neural tube are made up of neuroepithelial cells that constitute the ventricular zone. A zone known as the marginal zone develops into the white matter of the spinal cord. In the ventricular zone, some cells differentiate into neurons called neuroblasts. Primitive supporting cells called glioblasts also differentiate from the neuroepithelial cells of the ventricular zone. Some glioblasts become astrocytes, and other glioblasts become oligodendrocytes. Neuroepithelial cells will ultimately give rise to all the neurons and microglial cells of the CNS. Many other important processes, such as the formation of the spinal ganglia, spinal meninges, and myelin sheaths, take place in the developing spinal cord over time. Myelination begins between the fifth and sixth month of fetal development in the cervical portion of the spinal cord and continues until well into adolescence and young adulthood. Corticospinal tracts begin to myelinate immediately prior to birth and are not fully myelinated until the second or third year of life.

The brain undergoes a series of transformations that take place well into adolescence to reach the adult form of the human brain. During the fourth week of development, the brain is growing quickly and bends ventrally with the head fold to produce the midbrain flexure and the cervical flexure. The formation of the flexures allows for significant changes in the shape of the developing brain and the distribution of the gray and white matter. By day 30, rudimentary cerebral hemispheres are apparent in the embryo. Individual cerebral

hemispheres grow in the shape of horseshoes, remaining in communication with the third ventricle in the diencephalon. As they expand, the hemispheres gradually cover the diencephalon, midbrain, and the hindbrain, and eventually meet in the midline. The corpus callosum, the largest cerebral commissure that connects the neocortical areas, is apparent by the 12th week and has reached its structural maturity by the 20th week of fetal development. Brain sulci (fissures) are present by the fifth month of prenatal development and are firmly in place at birth in human infants.

### The Reproductive System

The gonads are derived from the urogenital ridges, which are derivatives of the intermediate mesoderm. Also arising from the urogenital ridges are the Wolffian (male) and Müllerian (female) ducts, which are contained in the mesonephros. The embryonic germ cells migrate from the hindgut to the primitive, undifferentiated gonads. Male sex is determined by a Y chromosome genetically. Gonadal sex determination, that is, the decision whether a primordial gonad differentiates into a testis or an ovary, is initiated by the activation of the SRY (sex determining region of the Y chromosome) gene located in the pseudoautosomal region of the short arm of the Y-chromosome. SRY gene expression starts at 41–44 days after ovulation, peaks at day 44, and continues at low levels thereafter.

Hormones produced by the developing testis control differentiation of male genitalia. Ovaries remain hormonally inactive during development, and in the absence of male reproductive hormones female inner and outer genitalia are formed. Sertoli cells secrete anti-Müllerian hormone (AMH) during weeks 8–10 of gestation, resulting in the regression of Müllerian ducts. In the absence of AMH (i.e., absence of the testis), Müllerian structures differentiate to oviducts, uterus, and the upper part of the vagina. The testicular hormone, testosterone, is needed to stimulate Wolffian

ducts to differentiate into the vas deferens, epididymis, and seminal vesicle. Leydig cells in the testis secrete testosterone and insulin-like hormone 3 (INSL3) that are needed for testicular descent. In the absence of androgens and INSL3, Wolffian ducts regress in the female and the ovaries remain in the abdomen.

Testosterone is converted to dihydrotestosterone (DHT) by 5 $\alpha$ -reductase type II enzyme in the prostate and outer genitalia. DHT is necessary for normal development of the scrotum, penis, and prostate. In the absence of DHT, female-type external genitalia develop and the prostate remains rudimentary. Testicular testosterone production is dependent first on placental secretion of human chorionic gonadotropin (hCG) and increasingly on pituitary secretion of luteinizing hormone. Another gonadotropin, follicle-stimulating hormone, stimulates Sertoli cell proliferation in the testis and folliculogenesis in the ovary. Both gonadotropins are stimulated by hypothalamic gonadotropin-releasing hormone (GnRH). Estrogens do not seem to play an essential role in sexual differentiation. However, excess estrogens can inhibit INSL3 activity and thereby contribute to cryptorchidism (undescended testies). Imbalance in the androgen/estrogen ratio has been suggested to be a reason for testicular disruption during development.

### The Endocrine System

The primary purpose of the endocrine system is to maintain homeostasis, that is, to maintain a relatively constant internal environment in the face of a constantly changing external environment. The endocrine system consists of hormones and the glands and tissues that produce the hormones.

The endocrine system can be broadly divided into the hormones of the hypothalamic–pituitary axes and the glands and target organs they regulate, and other endocrine hormones and glands that are not part of these axes. The hypothalamus regulates the hormones of the anterior pituitary gland by secreting

releasing hormones (GnRH, thyrotropin-releasing hormone, corticotrophin-releasing hormone, somatocrinin/growth hormone releasing hormone) or inhibiting hormones (dopamine, somatostatin) into the portal circulation. These hormones act on specialized groups of cells in the anterior pituitary gland to stimulate or inhibit the secretion of other hormones. Many of these hormones are regulated by negative feedback, whereby a hormone regulates the secretion of another hormone, which in turn feeds back to inhibit the secretion of the first hormone. This maintains the levels of both hormones within a narrow range.

The pituitary gland begins to synthesize and secrete hormones during weeks 8–12 of gestation in humans. The hypothalamic–pituitary–thyroid and hypothalamic–pituitary–gonadal axes begin to function during fetal life around week 12 of gestation; however, complete maturation of some of these target organs does not occur until after birth (e.g., gonads, adrenals). The anterior pituitary hormone prolactin begins to be secreted at 11 weeks gestation in humans. Prolactin is best known for being essential for milk production by the mammary glands; however, prolactin also plays important roles in modulating immune function and in the development of the dopaminergic tuberoinfundibular neurons.

### ***Thyroid Gland***

Thyroid hormone is critical for normal CNS development, and regulates cellular proliferation within the developing CNS. It also regulates cytoskeletal and microtubular assembly and stability, which are important for cellular migration and neuronal outgrowth. It regulates the expression of genes that are critical for synaptic development, neuronal growth, and myelination. During the embryonic period and the early fetal period, the developing human is entirely dependent on maternal thyroid hormone. The fetal thyroid begins to function during week 12 of pregnancy, but the maternal thyroid gland contributes thyroid hormone throughout gestation. Full maturation

of thyroid system function does not occur until 4 weeks after birth. Thyroid hormones are also involved in development of the male reproductive system by promoting Sertoli cell differentiation.

### ***Adrenal Glands***

The human adrenals comprise an outer cortex, the site of steroid hormone synthesis, and an inner medulla, the site of catecholamine synthesis. The steroidogenic tissue arises from coelomic mesoderm in the genital ridge of the embryo. The fetal adrenal cortex contains a definitive or adult outer zone that surrounds a fetal zone. The definitive cortex is itself composed of four zones that synthesize different hormones. The outer zona glomerulosa synthesizes the mineralocorticoid aldosterone. Next is the zona intermedia, which did not appear to synthesize hormones, followed by the zona fasciculata and zona reticularis, which synthesize glucocorticoids (primarily cortisol in humans). The catecholaminergic cells arise from the neural crest and migrate into the developing cortex, forming the medulla. The nuclear receptor/transcription factor steroidogenic factor 1 is necessary for adrenal gland development.

### ***The Cardiovascular System***

The formation of the heart is one of the earliest events in development, as it is essential for the delivery of oxygen and nutrients to the rapidly developing cells of the embryo. The heart begins to beat at 3 weeks of embryonic age. Important elements of cardiac formation include formation of the heart-forming fields as cells migrate out of the primitive streak, the segregation of cell lineage (myocardial and endocardial) within the fields; the elongation and segmentation of the tubular heart, the internal differentiation/septation of first the atria, and later the ventricle, and development of the conducting system. The heart also descends as it is developing, starting as cephalic to the somites and winding up at the midthoracic level. All this development takes place while the heart is



performing a critical function to the rest of the developing embryo.

### Metabolic Characteristics

For the purposes of this chapter, metabolism refers to the elimination or transformation of specific functional groups of chemicals (Phase I) and conjugation of chemicals and their metabolites with endogenous cofactors (e.g., UDP-glucuronic acid, sulphate, glutathione; Phase II). Neonates and young children may be better able or less able to deal with toxic substances than adults, due to differences in metabolic capacity. Some increased sensitivity of neonates may be related to their very low, or at times, immeasurable metabolizing capacity.

Phase I metabolic reactions are predominantly catalyzed by cytochrome P450 (CYP)-dependent monooxygenases that exist in more than 20 isoforms as well as flavin-dependent monooxygenases. The liver is the major site of Phase I reactions. The total P450 content of human liver microsomes remains fairly stable at about one-third of the adult value during fetal life (second and third trimester of gestation) and the first year following birth. It is suggested that P450 isoforms develop independently and are regulated during the perinatal period by multiple mechanisms and elements. Altogether three groups of P450 enzymes could be described: a first group expressed in the fetal liver including CYP3A7 and CYP4A1; a second group including CYP2D6 and CYP2E1 that surge within hours after birth, although the protein levels associated with these isozymes cannot always be detected in all fetal samples; and, finally, a group that develops during the months following birth (CYP3A4, CYP2C, and CYP1A2).

Limited data are available regarding the ontogeny of Phase II enzymes in human tissues. Epoxide hydrolase is active in the fetal liver and accounts for 50% of the adult activity, but is extremely low in the fetal lung. Glutathione-S-transferases exist as multiple isoforms. Con-

jugation with glucuronic acid is significantly lower at birth than in adults, although the capability for conjugation with sulphate is well developed in neonates. The levels of conjugation to glycine in newborns are comparable to those of adults.

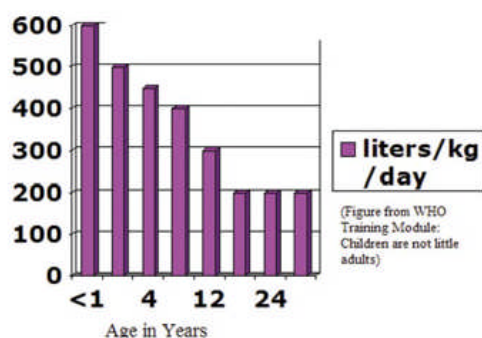
In general, most of the metabolizing enzyme systems appear to develop from the middle of gestation until a few months after birth. Enzyme activities related to oxidation/hydroxylation and reduction are developed early after birth and reach adult levels at approximately 6 months of age. Oxidative demethylation, on the other hand, is not expressed until several months after birth, and the adult capacity will not be reached until 1–2 years after birth. Overall, the maturation state of these enzymes is likely to mean that infants have a lower capacity to handle oxidative stress than adults.

Much knowledge of the metabolic ability at different times of life has come from studying pharmacokinetics. An extensive database is available from the Clark University Web site <http://www.clarku.edu/faculty/dhattis/>. Students who are interested in this area are encouraged to visit this site and learn more about pharmacokinetics during development.

### Physiological Characteristics

Children breathe more air per kg of body weight than adults do at rest. An infant has three times the minute ventilation (the amount of air breathed per minute relative to body weight) of an adult and a 6-year-old has double (Fig. 3). Children also tend to be more physically active than adults. It is clear, therefore, that environmental toxicants found in the air, both indoors and outdoors, will be delivered to children at higher internal doses than to adults. These toxicants include ozone (O<sub>3</sub>), oxides of nitrogen, particulate matter, lead, mercury, and other air toxins, as well as moulds, VOCs, among others.

Children are in an anabolic state, actively building their bodies. They need more calories



**Figure 3.** Minute ventilation in liters per kilogram body weight versus age in years. (In color in *Annals* online.)

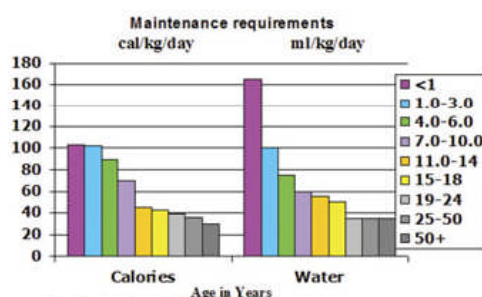


Figure from WHO Training Module: Children are not little adults

**Figure 4.** Caloric and water requirements versus age in years. (In color in *Annals* online.)

and more water per unit of body weight than adults (Fig. 4). Therefore, toxicants that are carried in food will be delivered at 2–3 times higher rates in children than in adults and those in water will be delivered at 5–7 times the adult rate. Children also tend to have a diet with a higher proportion of fruits and vegetables at young ages, so that pollutants, such as pesticides present in these foods, are likely to be delivered in higher quantities to children.

### Longer Life Expectancy

Children, ideally, are around longer in the world than adults. Not only do they live longer, allowing more time in which to develop diseases with long latency, but they also have longer to live with disabilities. In addition, they inherit

the world we are creating, with all its problems and promises. We now discuss two examples of where the long life expectancy of children impacts on the development of disease:

- *Asbestos exposure in children and cancer many years after it:* Asbestos is a fibrous substance classified as a human carcinogen. Asbestos fibers enter the body through inhalation or ingestion. The body cannot break down or eliminate asbestos fibers, thus once they enter the lungs or body tissues they become trapped, causing serious health problems. Exposure to asbestos can lead to signs of lung abnormalities (pleural plaques) or to scarring of the lung tissues (asbestosis) and two types of cancer (lung cancer and mesothelioma). The risk for asbestos-related disease depends on many factors, including type of asbestos fiber, level of exposure, and duration of exposure. The latency period for these diseases ranges from 10 years to 30 years. Exposures during childhood are likely to result in disease in early adulthood, whereas adults exposed to asbestos may die from other causes before developing the disease.
- *Childhood lead exposure and its relationship with adult hypertension and mortality.* A series of 454 pediatric hospital patients who were diagnosed with lead poisoning between 1923 and 1966 were traced through 1991 to examine possible mortality effects. Numbers of observed deaths were compared with those expected, based on the rates of the U.S. population. Eighty-six deaths were observed ( $O/E = 1.7$ , 95% confidence interval (95% CI) = 1.4–2.2), of which 17 were attributed to lead poisoning. Mortality from all cardiovascular disease was elevated ( $O/E = 2.1$ , 95% CI = 1.3–3.2), and cerebrovascular deaths were particularly common among women ( $O/E = 5.5$ , 95% CI = 1.1–15.9). Among men, 2 deaths resulted from pancreatic cancer ( $O/E = 10.2$ , 95% CI = 1.1–36.2), and 2 deaths resulted from non-Hodgkin's

lymphoma (O/E = 13.0, 95% CI = 1.5–46.9). Chronic nephritis was not a significant cause of death. Despite limitations in the data, the pattern of mortality suggests that effects of lead poisoning in childhood may persist throughout life and may be experienced differently by men and women.<sup>11</sup>

A group of 192 subjects with well-documented lead poisoning in 1930–1942 were identified. Thirty-five of 72 survivors traced to a Boston area address and 22 age-, sex-, race-, and neighborhood-matched controls were recruited into a clinical study. One matched subject with plumbism had grossly abnormal renal function and an elevated blood-lead level of an unclear cause. Among the remaining 21 matched pairs, the risk of hypertension was significantly higher in subjects with plumbism (relative risk, 7.0; 95% CI 1.2–42.3). Mean adjusted creatinine clearance rates for subjects with plumbism, however, were significantly higher than those of controls and supranormal in comparison to rates predicted for sex and age. Subjects with plumbism had significantly lower hemoglobin concentrations and hematocrit readings than the controls. Blood lead and serum creatinine levels were low for both groups. These results suggest that survivors of childhood lead poisoning have an increased risk of clinically significant hypertension developing in the setting of supranormal creatinine clearance rates.<sup>12</sup>

### **Politically Powerless**

The age of children increases their risk of adverse health outcomes from environmental exposures through a lack of political power. In other words:

- Children have no political voice.
- They are defenseless in a world that adults have created for them and vulnerable to environmental hazards.
- Children do not vote.

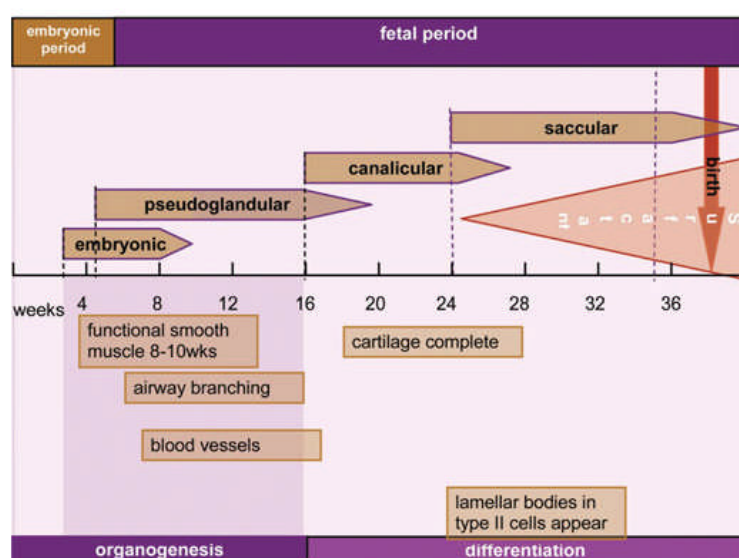
There is a long tradition of advocacy in pediatrics with respect to abuse, neglect, and toy and product safety. In the 1990s, pediatricians and other professionals (especially in the Northern countries) have begun to advocate changes in laws and regulations that will specifically protect children from environmental harm. There is a variety of mechanisms either proposed or in place designed to improve children's environmental health. These mechanisms range from very local initiatives, rules, and laws to international treaties and resolutions. It is critical that practitioners of children's environmental health become and stay politically active, in all countries.

### **Developmental Windows of Susceptibility**

The process of growth and development in children is one that occurs from conception to adolescence. A large number of anatomical, biochemical, and physiological changes occur prenatally and after birth. These maturational processes are susceptible to alteration by physical, biological, and chemical exposures at various points of time. The effects of any given exposure will be determined largely by the time in the developmental and maturational process that exposure occurs. This developmental susceptibility refers to two basic concepts:

1. The outcome of the exposure depends on where in the developmental process an exposure occurs, that is, an exposure occurring early in gestation during organogenesis can result in structural alterations.
2. The extent of the exposure itself may be altered by the stage of maturity, that is, the absorption, distribution, metabolism, and elimination of chemicals is likely to be influenced by the stage of maturation of the child.

In addition, it is now clear that a number of adult diseases have their origins during fetal development or childhood, in particular



**Figure 5.** Development of the respiratory system. (In color in *Annals* online.)

cardiovascular, respiratory, neurodegenerative diseases, and cancer. Birth weight is a major determinant of “whole of life” health, presumably reflecting the importance of the intrauterine environment.

There are times during development when various organ systems are particularly vulnerable to environmental exposures. These susceptible periods are known as “windows of susceptibility.” Knowledge of these windows of susceptibility and of the consequences of adverse exposures during these times is important in understanding how children are affected by environmental exposures. For example, a single pulse exposure to a potent teratogen (a substance that can cause birth defects) on the 10th day of gestation would result in approximately 35% of brain defects, 33% of eye defects, 24% of heart defects, 10% of skeletal defects, and 6% of urogenital defects, but no palate or airway defects. The percentage of these various congenital malformations would be different if the same exposure occurred 2 to 4 days later. As shown in the Figure 5, the preembryonic period of fetal development occurs during the first 2 weeks after conception and is the period dur-

ing which zygote division, implantation, and blastocyst formation occur. The embryonic period lasts from 3 to 7 weeks and the fetal period from 8 weeks until term.

Using the respiratory system as an example, the windows of susceptibility for the various components of the lungs can be deduced. Environmental exposures occurring between approximately 12 and 18 weeks gestation have the potential to influence airway development, whereas exposures occurring after 24 weeks can influence alveolar development (Fig. 5).

### Consequences of Prenatal Exposures

Prenatal exposures, especially during organogenesis can result in structural abnormalities, frequently known as birth defects. All organ systems are potentially vulnerable to exposures occurring at vulnerable times. Mortality from adverse environmental exposures can potentially occur at different developmental stages.

### Preimplantation Mortality

The impact of environmental exposures on preimplantation mortality is difficult to determine. The lack of a sensitive and specific biomarker of conception in humans impedes knowledge of the prevalence of preimplantation embryonic mortality in general. Studies of preimplantation pregnancy losses after *in vitro* fertilization suggest that as many as 50% of conceptions are followed by death of the embryo prior to implantation. However, extrapolating these data to the natural human situation is problematic. It is often stated that exposures occurring in the preembryonic period result in either death of the embryo or have no effects. However, experiments in rats have shown that exposures to mutagens like ethyl methanesulfonate, 5-azacytidine, and methyl nitrosourea during the preimplantation period can also cause malformations. At higher doses these agents cause death prior to or around the time of implantation. Thus there is at least the potential for these effects to occur in humans.

### Spontaneous Abortion

More exact estimates of the incidence of spontaneous abortions (miscarriages occurring prior to 20 weeks gestation) have been possible with the development of sensitive assays for hCG, which begins to be secreted by the conceptus at implantation. Approximately one-third of postimplantation pregnancies end in spontaneous abortion. Of these, about two-thirds occur prior to the recognition of pregnancy. Occupational exposure of the mother to a variety of agents during pregnancy has been associated with spontaneous abortion in epidemiological studies, including DDT/DDE.

### Altered Sex Ratio

Embryonic or fetal mortality can also lead to altered sex ratio at birth if one sex is more susceptible to the exposure than the other. Sex ratios (ratio of male-to-female live births) have been shown to be susceptible to a variety of

exposures occurring in the home, workplace, and via recreational activities. A reduced sex ratio has been shown in the families of recreational fishermen in areas where fish are heavily contaminated with PCBs in Sweden, an effect thought to be mediated via the mother. Conversely, a higher sex ratio or male excess was observed in a sample of Michigan anglers and their spouses for paternal, but not maternal PCB exposure. Paternal consumption of cooking oil contaminated with PCBs, polychlorinated dibenzofurans, and polychlorinated dibenzo-*p*-dioxins was reported to be associated with significantly lower odds of having a male infant in Taiwan. Exposure to dioxin, dibromochloropropane, and hexachlorobenzene can reduce the number of male births.

### Infant and Childhood Mortality

Increased infant and childhood mortality have been reported related to exposure to higher levels of air pollutants, especially particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), oxides of nitrogen (NO<sub>x</sub>) and sulfur (SO<sub>x</sub>), and O<sub>3</sub>. These associations have been reported for children in developing countries where air pollution is frequently more severe and where other factors such as malnutrition may also contribute.

### Growth Restriction

The term "growth restriction" refers to a baby being born at a lower weight than would be expected for the gestational age at birth. Effects of prenatal chemical exposure on growth have most commonly been measured as changes in birth weight. Recent studies have emphasized the concept of diminished birth size, which can be assessed via several endpoints (weight, length, head, and abdominal circumference).

A major environmental cause of growth restriction is tobacco smoke. Maternal smoking is associated with about a twofold increase in low birth weight and growth restriction in multiple

studies. These effects are modified by gene  $\times$  environment interactions. Women who smoke during pregnancy and who have polymorphisms in glutathione-S-transferase T1 (less effective antioxidant capacity) and CYP1A1 (less efficient detoxification) are at an even greater risk of having a low birth weight baby than women who smoke and do not have these specific polymorphisms. Maternal exposure to environmental tobacco smoke (ETS) is associated with smaller decreases in birth weight than is maternal smoking, estimated to be on average a reduction in birth weight of 31 g. Maternal smoking is thought to be the single most important factor for determining birth weight in developed countries. Smoking may induce growth restriction via at least two mechanisms: (1) by lowering maternal uterine blood flow from the uterus to the placenta, or (2) by raising maternal and fetal carboxyhemoglobin levels, via exposure to CO. In many developing countries it is less socially acceptable for women to smoke. However, in some of these countries women chew tobacco, which will result in the exposure of their developing fetuses to nicotine (reducing uterine and placental blood flow) but not CO.

Exposure to air pollutants can cause growth restriction. Exposure to increased levels of PM<sub>10</sub> and PM<sub>2.5</sub> during pregnancy is associated with fetal growth restriction. Other components of air pollution, including CO, SO<sub>2</sub>, and polycyclic aromatic hydrocarbons (PAH) have also been associated with low birth weight or growth restriction. At this time it is not clear which, if any, of the components of air pollution cause the observed decreases in embryonic and/or fetal growth.

Reduced birth weight has also been associated with prenatal exposure to persistent organochlorine compounds. In a cohort of girls exposed prenatally to PCBs and polybrominated biphenyls (PBBs), PCB exposure, but not PBB exposure, above 5 parts per billion was associated with reduced weight adjusted for height at 5–24 years of age. Mothers with PCB levels above the median value had daughters whose current adjusted weights were 11 pounds (5 kg)

lower than for daughters whose mothers had levels below the median.

### **Birth Defects (Structural Malformations)**

A birth defect or “congenital anomaly” is defined as an anatomical and/or functional defect resulting from disturbance of normal developmental processes. These defects can range from major structural malformations, to organs or groups of organs, functional defects related to molecular or metabolic disturbances, to minor defects, such as “birth marks” on the skin. Major congenital malformations represent a status of a newborn that requires significant medical or surgical care due to an abnormality in an essential anatomical structure; minor malformations are less threatening to health and need less medical interference. Examples for major malformations include congenital heart disease, neural-tube defects, and cleft lip/cleft palate. Nail hypoplasia, auricular deformities, and broad nasal bridge are examples of minor malformations. Umbilical and inguinal hernias are examples of anomalies that may be classified as major or minor defects, depending on the severity. Most surveillance programs focus on major malformations, thus limited data are available on the incidence of minor malformations. In addition, major birth defects are likely to be apparent at or soon after birth, whereas many minor congenital abnormalities may not be detected until some time after birth.

Estimates of the causes of birth defects suggest that about 15–25% of all birth defects can be attributed to genetic background, 4% to maternal conditions, 3% to maternal infections, 1–2% to deformations, <1% to chemicals and other environmental influences, and 65% to unknown etiologies. It is likely that most birth defects will result from interactions between genetic and environmental factors. Since the exposure to environmental factors (as opposed to genetic factors) can be altered or prevented, studies on the role of environmental factors are important in spite of the low direct attributable risk of individual factors.



A good example of preventable birth defects is folic acid deficiency. Inadequate periconceptual folic acid intake increases the risk of neural-tube defects (e.g., spina bifida). Adequate supplementation of women with folic acid results in a marked reduction in these defects. Public health and food fortification efforts in some countries to ensure that all women of child-bearing age have adequate folic acid intake have been accompanied by reductions in neural-tube and other birth defects. Recent work in mice suggests that the beneficial effects of folate to prevent birth defects may be mediated by increasing methylation of transposable elements within DNA. These studies have shown that supplementing the diet of pregnant mice with methyl donors like folate significantly increases DNA methylation in a dose-dependent manner. DNA methylation is a homeostatic mechanism for suppressing harmful DNA damage.

Given that practically every chemical may have a harmful influence at some dosage and stage of embryonic development, depending on the species studied, there is a large amount of information available of the effects of specific chemicals. Some of these are listed below and are included in the references:

- Drugs in Pregnancy and Lactation.<sup>13</sup>
- Maternal-Fetal Toxicology.<sup>14</sup>
- Shepard's Catalog of Teratogenic Agents.<sup>15</sup>
- TERIS: Teratogenic Effects of Drugs: A Resource for Clinicians (Friedman and Polifka, 2004). The TERIS database is also available via the Internet as a subscription-based teratogen information service to assist physicians and health care professionals (<http://depts.washington.edu/terisweb/teris/>).
- "REPROTOX" is another Internet-based information system that provides information on environmental hazards to human reproduction and development designed specifically for clinicians (<http://reprotox.org/>). Again subscription is needed to access the database.

### Specific Organ Systems

The organ systems most vulnerable to adverse environmental exposures are the immune, respiratory, and central nervous systems. The organs are immature at birth and have prolonged periods of postnatal maturation. They are thus potentially vulnerable to both pre- and postnatal exposures.

#### Immune System

Immune development is a dynamic process involving cellular proliferation, migration, recognition, selection, apoptosis, clonal expansion, dissemination to peripheral sites, and finally cell cooperation and function. Because many of the changes require exquisitely timed differentiation events occurring in more than one site, there is ample opportunity for environmental interventions that can alter, delay, or abrogate specific elements of immune development. There are specific, functionally distinct windows during which the immune system might be expected to have different vulnerabilities based on critical biological events. Five such windows were identified as likely candidates for differential immune sensitivity. They include:

- 1) initiation of hematopoiesis,
- 2) migration and expansion of stem-cell populations,
- 3) colonization events including bone-marrow colonization, pre-T cell seeding to the thymus, T cell education, T cell repertoire establishment then seeding of the periphery by mature T cells,
- 4) acquisition of immunocompetence,
- 5) the capacity to develop immunological memory.

The immune system is immature at birth and matures under the stimulus of postnatal environmental stimuli. Many aspects of the immune system are not fully mature until adolescence and are vulnerable to adverse environmental stimuli.

The developing fetal immune system is vulnerable to intrauterine exposures via the

mother. Maternal factors that have been shown to retard fetal immune system development include smoking, stress, and asthma. Numerous toxicants have been reported to alter the immune response capabilities and health outcomes following early exposure. The majority of these appear to alter thymus-associated T cell-development and/or T cell-dependent functions. However, changes are not restricted to T cell function and some, like the pesticide, chlordane, target other immune cell lineages, for example, early fetal exposure to lead, which is a potent T cell toxin, seems directed more against macrophages than T cells.

Early life stage exposure to environmental hazards can produce significant and persistent immunotoxicity. For some chemicals, adult-induced immunotoxicity either has not been observed or the effect is transitory. Consequences following early exposure can include increased susceptibility to infectious disease and cancer, increased risk for asthma and atopy, and an increase in some forms of autoimmune disease. For some chemicals, gender differences in susceptibility have been noted. The expected outcome of exposure can differ depending upon the window of immune development when exposure occurs. Hence, the developmental status of the immune system during environmental insult is a key factor in determining the likely health risk.

Individual toxicants:

- *Diethylstilbestrol*: Data from rats suggests that the results of exposure at equivalent doses are similar no matter the age of exposure; however, while adults recover, the effects persist following embryonic exposure. Health consequences in a human fetus exposed to DES *in utero* include structural abnormalities of genitourinary tract, an increased risk of clear-cell adenocarcinoma of the vagina, and an increased risk of breast cancer later in life. Third-generational effects can also be seen by exposure of oocytes in the developing female fetus.
- *Lead*: Rodent data suggest that the fetal immune system is more sensitive to the effects of lead than the adult immune system, that is, toxic effects occur at lower doses. The most vulnerable period is when stem cells migrate, progenitor cells proliferate, and the bone marrow and thymus are populated. Exposures in midgestation reduce Th-1 capacity, which theoretically increases the postnatal risk of developing asthma and allergies, increases the risk of infectious diseases, and decreases anti-tumor responses.
- *Diazepam*: Rodent data show that exposure in late gestation or early neonatal periods results in severe immunosuppression involving both cellular and humoral components. These changes persist following early exposure, whereas they are transient following adult exposure.
- *Tributyltin compounds (found in some paints)*: These compounds cause thymic atrophy and immunosuppression, with fetal effects occurring at lower doses and persisting.
- *2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD dioxin)*: TCDD can target very early precursor T cells in the bone marrow; cause profound atrophy of the thymus; inhibit thymocyte maturation (when given during gestation); persistently depress T-dependent immune responses including delayed type hypersensitivity and increase susceptibility to infectious diseases and tumor cells. Fetal exposure or neonatal exposure via breast milk can cause the most profound effects.
- *Organochlorine pesticides (methoxychlor and heptachlor)*: Data from rodents show that with methoxychlor, T-dependent antibody responses were depressed persistently in males but not females. For heptachlor, early exposure of Sprague-Dawley rats, using doses relevant to human exposure, produced persistent impairment of antibody responses in males but not females. No adult-exposure immunotoxicity was observed at the doses examined, suggesting



there is an increased susceptibility of the prenatal and/or early postnatal life stages to this pesticide.

### Respiratory System

Development of the human lung begins in the embryo and continues until the age of 18–20 years. Cellular differentiation and formation of the primary lung structures occur in stages during fetal development, but the majority of growth and maturation of the lung occurs postnatally through the processes of branching morphogenesis and alveolarization. Many of the studies on the effects of chemical exposures on the growth and development of the lungs have been performed in experimental animals, but patterns of lung development differ between animals and humans. Because of these differences, extreme care must be taken when extrapolating the results from animal studies to human situations.

Immature (neonatal) differentiating cells of the respiratory tract are more sensitive to injury following exposure to respiratory toxicants than mature cells, and at dose levels that cause no effects in adult cells. Lung injury in the early postnatal period impairs cellular differentiating capacity and proliferation, producing abnormal postnatal lung growth and development in rabbits. Exposure of neonatal primates to oxidative insult (via  $O_3$  exposure) has been shown to impair the development of pulmonary gas exchange units and bronchioli. Studies of human infants born to smoking mothers demonstrate reduced lung function in those exposed to ETS *in utero*, with reductions in further lung growth in those exposed postnatally.

Many studies try to distinguish between environmental exposures that induce disease in previously normal hosts or trigger exacerbations of preexisting disease. This is an artificial distinction and the developmental phase of the host when the exposure took place is more likely to determine the effect rather than an intrinsic property of the exposure agent. A great deal of

research has concentrated on relating environmental exposures to triggering exacerbations of respiratory disease, as this is technically easier. Studies designed to understand the role of environmental exposures on the induction of disease are more difficult and longitudinal assessment of exposures and disease outcomes are required. Birth cohort studies are particularly powerful in this respect, but are expensive and require a long-term commitment.

The respiratory system is generally exposed to a mixture of toxicants and considering these together via the source of exposure rather than by individual toxicants is logical.

- *Maternal smoking during pregnancy:* This activity results in decreased lung growth; decreased airway growth; increased deposition of collagen in the walls of large and small airways; lower lung function at birth; altered control of breathing with blunted ventilatory responses to hypoxia; and an increased risk of sudden infant death syndrome postnatally. Maternal smoking during pregnancy is also an independent risk for the development of asthma in most large studies.
- *Ambient air pollution:* Ambient air pollution results in exposure to mixtures of  $PM_{10}$  and  $PM_{2.5}$ ,  $O_3$ ,  $NO_x$ ,  $SO_x$ , and CO. Exposure to high levels of these pollutants in early life results in an increased infant mortality, increased acute lower respiratory illnesses, increased respiratory symptoms (cough and wheeze), increased bronchitis, and an increased risk of asthma. Children exposed to high levels of ambient air pollution have decreased lung function and decreased lung growth.
- *Indoor air pollution:* Indoor air pollution consists of all of the pollutants contained in ambient air together with combustion products from burning biomass or solid fuels or natural gas (particulate matter,  $NO_2$ , CO), volatile organic compounds, formaldehyde, PAH, and bioaerosols (allergens, bacterial, and fungal products).

ETS is a major source of indoor air pollution. The health consequences of indoor air pollution are similar to those of ambient air pollution. Exposure of infant primates to combinations of  $O_3$  and/or house dust-mite aerosol show a synergistic effect between the two exposures resulting in thickened airways with altered branching patterns of the terminal bronchioles; exposure to irritant stimuli in indoor air, for example, bioaerosols, have been shown to impair lung growth.

### Central Nervous System

The developing nervous system is more vulnerable to the disrupting effects of toxic chemicals than the adult brain. Levels of exposure that produce few, or no, obvious effects on the mature nervous system in adults may pose a serious risk to the developing nervous system. The lengthy period of brain development and the extensive number of neural processes available for disruption during development contribute to the vulnerability of the developing nervous system to toxicants. The process by which normal CNS development unfolds requires the precise orchestration of neuronal proliferation, migration, differentiation, synaptogenesis, gliogenesis, myelination, and apoptosis. Evidence from numerous sources demonstrates that neural development extends from the embryonic period through adolescence. The development of higher brain functions is not complete until late adolescence.

Neurogenesis of different brain regions continues to occur throughout gestation and postnatally. The period of vulnerability to agents that affect proliferation and migration will thus vary, depending on the brain region. For example, initial proliferation in the cerebellum occurs during the fetal period in humans and in rats. A second period of proliferation begins during the fetal period in humans and continues well into childhood, whereas in rats it occurs entirely postnatally. Disorders in neuronal proliferation, migration, and maturation, ow-

ing to both genetic and environmental causes, can lead to both lethal and nonlethal congenital anomalies. For example, microcephaly (small brain and skull with mental retardation) is caused by faulty neuronal proliferation, and agenesis of the corpus callosum (usually associated with seizures and mental retardation) is caused by defects in neurulation and neuronal migration.

*Neurobehavioral (functional) deficits:* Low-level exposure to environmental chemicals, such as methylmercury, lead, or pesticides, can result in physical malformations, but more commonly, can produce cellular or molecular changes that are expressed as neurobehavioral deficits, for example, attention deficit hyperactivity disorder, or as increased susceptibility to neurodegenerative diseases much later in life, for example, Parkinson's disease. Functional loss, whether taking the form of mental retardation or subtle behavioral deficits, is a reflection of abnormal development and impaired CNS functioning. Only a small number of neurotoxins have been adequately studied to address their specific neurobehavioral consequences after pre-natal or perinatal exposure.

While behavior is frequently difficult to tie to specific brain regions, there are some important generalities that can be gleaned from the fields of cognitive neuroscience and developmental neurobiology. Working memory and executive functions are controlled by the prefrontal region, some aspects of learning and memory are dependent on medial temporal lobe structures, and sleep/wake cycles, autonomic nervous system functions, and regulation of arousal are a function of the brain stem. Each of these neural areas has a course of maturation that can be qualitatively (stages) and quantitatively (timing) distinct from other structures within the brain. Behaviors that depend on different brain systems will therefore be differentially affected by chemical exposure, depending on when the exposure occurred during development.

The effects of prenatal chemical exposure can be expressed across several domains of

behavior and can include adverse effects on intelligence/cognition, social behavior or temperament, sensory development (vision, hearing), and physical growth.

Much of the knowledge of the adverse consequences of environmental exposures on CNS development comes from animal studies. While there are clearly differences in the timing of the various developmental stages, animal studies can be instructive.

*Neural-tube defects:* Neural-tube defects can result from: methylnitrosourea and clomiphene prior to the induction of the neural plate (before day 18 in the human); retinoic acid, arsenic, and valproic acid during the period of neurulation; ionizing radiation (X ray) and hydroxyurea, both antimitotic agents capable of stopping cell division, which can cause the failure of the rostral neuropore to properly close during the fourth week of human embryonic development.

The majority of malformations of the spinal cord are the result of the failure of the caudal neuropore to properly close by the end of fourth week of development. The defective closure of the caudal neuropore results in serious neural-tube malformations known generally as spina bifida. There are many types of spina bifida, and the clinical presentation, including neurological deficits, can range from minor (e.g., spina bifida occulta) to severe (e.g., spina bifida with myeloschisis). Spina bifida cystica has been associated with large doses of retinoic acid (vitamin A).

*Decreased IQ:* Decreased IQ can result from antenatal exposure to methylmercury, especially in high concentrations; lead; PCBs; ethanol; and maternal smoking.

*CNS consequences of specific neurotoxins* include:

- *Methylmercury:* Cerebral palsy, seizures, blindness, deafness, and mental retardation with high doses; impairments in language, attention span, and memory with lower doses.
- *Lead:* High doses can cause encephalopathy, coma, and death. Lower dose expo-

sure can result in decreased IQ, neurocognitive dysfunction (e.g., decreased attention span, decreased reaction time) and antisocial behavior.

- *PCBs:* Decreased CNS maturation at birth (increased startle response, abnormal reflexes); delayed acquisition of developmental milestones; decreased IQ, hyperactivity, decreased attention span, and increased frustration.
- *Ethanol:* High dose exposure results in the fetal alcohol syndrome. Infants with this condition have a common facial appearance that includes shortened palpebral fissures (eyelid openings), smooth philtrum (area between the nose and upper lip), thin upper lip, low nasal bridge, and minor ear anomalies. Mental retardation and behavioral disturbances are also seen. Children with low dose exposure (as little as one standard drink per day) do not express the facial features commonly associated with fetal alcohol syndrome, but do exhibit significant neurobehavioral delays. Children with this less severe constellation of behavioral effects are commonly referred to as having fetal alcohol effects. The neurocognitive effects are decreased intellectual functioning (especially mathematics ability); language ability; abstract problem solving; working memory; decreased attention span, increased distractibility, and increased frustration; and decreased executive functioning.
- *Pesticides:* An increased risk of Parkinson's disease later in life is thought to be related to maternal pesticide exposure during pregnancy.
- *Maternal Smoking:* Blunted ventilatory response to hypoxia, increased risk of sudden infant death syndrome, and decreased IQ.

### Conflicts of Interest

The authors declare no conflicts of interest.

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