



Department of  
**Health, Social Services  
and Public Safety**

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AN ROINN

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agus Sábháilteachta Poiblí**

MÁNNYSTRE O

**Poustie, Resydènter Heisin  
an Fowk Siccar**

# **Smoke-Free Legislation in Northern Ireland**

## **A One Year Review**

**March 2009**



## Contents

		Page
	Ministerial Foreword	1
1	Executive summary	3
2	Adults	4
3	Children & young people	10
4	Quitting	14
5	Smoking-related illnesses and deaths	19
6	Workplace	23
7	Compliance with the smoking ban	24
8	Economic impact	25
9	References/sources	28



## MINISTERIAL FOREWORD

30 April 2007 was a landmark day for the people of Northern Ireland. It was on this day that we took a huge step forward in protecting the population from the harmful effects of second-hand smoke. The introduction of smoke-free legislation ensured that we can all work and socialise in the knowledge that we are safe from exposure to the toxic chemicals produced by tobacco smoke. I am not exaggerating when I say that the introduction of this legislation will save lives – that is how important it is for people living today and for generations as yet unborn.

The road to smoke-free legislation has not been an easy one. The Department announced its decision to introduce comprehensive controls on where smoking could take place in October 2005. This announcement was followed by a major consultation exercise generating more than 70,000 responses. Over 90% of respondents expressed support for further controls over smoking in enclosed public places and workplaces. I am extremely pleased that the strength of feeling in relation to this issue has translated itself into the high levels of compliance recorded since the introduction of the legislation. The excellent work carried out by local councils in enforcing the new laws is to be commended, as is the commitment shown by businesses and the general public alike.

While smoke-free legislation is a significant win in the public health fight against the damaging effects of tobacco, we still have further to go to achieve a society where people's health and wellbeing is no longer significantly damaged by tobacco. Currently, more than 2,300 people a year die from tobacco-related illness in Northern Ireland alone and smoking remains the principal cause of health inequality in our country. With prevalence of smoking amongst manual workers still at an unacceptably high level, we must identify innovative ways to convince those in manual groups to come forward to cessation services.

We have successfully tackled the issue of smoking in enclosed public and work places; now we must turn our attention to preventing exposure to second-hand smoke in the home. Our research shows that this is a significant concern especially when we consider the number of children who are vulnerable as a result of exposure to smoking by one or more parent. The key to success in this area will involve campaigning to change attitudes rather than changing the law.

My Department is currently working on rolling forward the Tobacco Action Plan 2003-2008, and this will set the direction for the future of tobacco control. We will continue to work on strategies aimed at preventing our young people from taking up this life limiting habit and we will continue to make services available to support the majority of smokers who have expressed the desire to quit.

The information contained within "Smoke-free legislation in Northern Ireland – a one year review" is very encouraging. We have achieved much to be proud of, and with continued public and professional support, I know that success in this area can be continued.



**Michael McGimpsey**

**Minister for Health, Social Services and Public Safety**

# 1. EXECUTIVE SUMMARY

Under the Smoking (Northern Ireland) Order 2006, it is an offence to smoke in enclosed workplaces and public places. The objective of the legislation is to protect employees and the general public from exposure to second-hand smoke which is known to be a cause of cancer, respiratory disease, heart disease and other illnesses.

The Department of Health, Social Services and Public Safety has developed a research framework to evaluate the impact of the legislation, and this is the publication of the first results from the work. The report looks at results of various surveys carried out in Northern Ireland before and after the introduction of the smoking legislation. It also uses monitoring data to assess the impact of the legislation in terms of prevalence of and attitudes to smoking among adults and young people, quitting smoking, compliance with the new legislation and its economic impact.

**Throughout this report increases, decreases and comparisons, where noted can be read as statistically significant at least at the 5% confidence level**

## Key Findings:

- There has been a fall in smoking prevalence among adults from 25% in 2006/07 to 23% in 2007/08;
- Although smoking prevalence among manual workers fell from 33% in 2006/07, it currently remains high at 30%;
- Before the introduction of the smoke-free legislation, non-smokers who live with a smoker had been exposed to second-hand smoke for 78% of the time they had spent in a bar, falling to 2% of the time after the ban came into effect;
- After the introduction of legislation over 40% of children reported having a parent who smokes and of these children, 75% report that parents smoke in the home environment;
- Concern for their personal health (74%), the price of cigarettes (70%), setting an example to children (64%) and concern for the effect of cigarette smoke on non-smokers (55%) are the main reasons for a smoker to consider quitting;
- 75% of respondents who are current smokers or smokers who quit in the past six months had received no advice or information about quitting smoking;
- 21,476 quit dates were set through the smoking cessation services in 2007/08 and half of those who had set a quit date in 2007/08 reported to still not be smoking at the 4-week follow-up stage;
- Although the proportion of lung cancer attributable to smoking is not the most common cause of admission to hospital for either men or women, it is the most common cause of death for both sexes;
- Three months after the introduction of smoke free legislation there was a 94% reduction in fine air particulates and a 92% reduction in air nicotine levels in bars;
- 38,074 premises have been inspected and judged for compliance: 97% of premises were compliant in respect of the smoking ban and 94% in respect of displaying the correct signage; and
- Hotels and restaurants have seen an increase in employment of 3.6% and 0.5% since the introduction of the legislation, while bars have experienced a 7.0% decline.

## 2. ADULTS

Information on the impact of the smoke-free legislation in relation to adults has been gathered through two surveys: the Continuous Household Survey (CHS) and the Adult Non-smokers Exposure to Tobacco Smoke Study (ANETS), a specially designed survey of adult (aged 18 and older) non-smokers who live with at least one regular smoker (defined as smoking one or more cigarettes per week). Both surveys were carried out before and after the introduction of the legislation to prevent smoking in enclosed public places and workplaces in Northern Ireland on 30 April 2007.

The CHS is one of the largest continuous surveys carried out in Northern Ireland. It is based on a sample of the general population resident in private households and has been running since 1983. The CHS is designed to provide a regular source of information on a wide range of social and economic issues relevant to Northern Ireland. Regularly produced data includes information such as housing characteristics, health and use of the health services and smoking and drinking trends.

The ANETS assessed non-smokers' exposure to second-hand smoke in the home and in a variety of locations during the 24 hours before the survey as well as their attitudes toward the smoke-free legislation. The survey was completed by 604 respondents in 2007 and 601 respondents in 2008.

### Prevalence of smoking

Smoking activity amongst the adult population in Northern Ireland is monitored via a module in the Continuous Household Survey which from 2006/07 is included annually. Table 1 below outlines smoking prevalence since 1990/91.

**Table 1: Smoking prevalence by gender 1990/91 – 2007/08 (percentages)**

<b>Gender</b>	<b>90/91 (%)</b>	<b>92/93 (%)</b>	<b>94/95 (%)</b>	<b>96/97 (%)</b>	<b>98/99 (%)</b>	<b>00/01 (%)</b>	<b>02/03 (%)</b>	<b>04/05 (%)</b>	<b>06/07 (%)</b>	<b>07/08 (%)</b>
Male	33	31	29	31	28	26	27	27	25	23
Female	31	29	27	27	29	28	26	25	26	23
<b>All</b>	<b>32</b>	<b>30</b>	<b>28</b>	<b>29</b>	<b>29</b>	<b>27</b>	<b>26</b>	<b>26</b>	<b>25</b>	<b>23</b>
No. of Persons	5,845	5,572	5,382	4,801	4,570	4,402	5,176	4,038	3,675	3,403

*Source: Continuous Household Survey 1990/91 to 2007/08*

In 2007/08, under a quarter of adults (23%) were smokers, a decrease from 1990/91 when almost one third (32%) were smokers. The fall in smoking behaviour from 25% in 2006/07 to 23% in 2007/08 is statistically significant. In other words, it is most likely that there has been a real decrease in population smoking behaviour. Prevalences amongst men and women are currently at a similar level.

**Table 2: Smoking prevalence by socio-economic group (SEG) 1998/99 – 2007/08 (percentages)**

Socio-Economic Group	98/99 (%)	00/01 (%)	02/03 (%)	04/05 (%)	06/07 (%)	07/08 (%)
Non-Manual	23	19	21	21	18	18
Manual	<b>35</b>	<b>35</b>	<b>31</b>	<b>34</b>	<b>33</b>	<b>30</b>
No SEG determined	22	27	28	24	28	23
All	29	27	26	26	25	23
Number of persons	4,570	4,402	5,176	4,038	3,675	3,403

Source: Continuous Household Survey 1998/99 to 2007/08

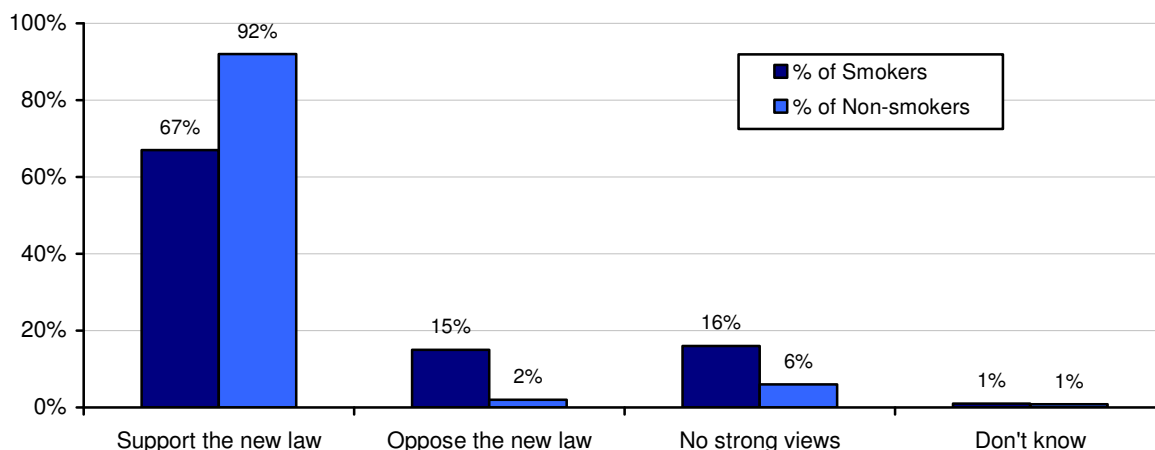
The Department of Health, Social Services and Public Safety (DHSSPS) has made manual workers one of its main target groups, with the aim of reducing smoking within this group to 25% by March 2011. The table above shows there has been a reduction in smoking prevalence, among manual workers in the last year from 33% to a current level of 30% in 2007/08.

### **Views on the smoke free legislation**

In the 2007/08 CHS, respondents were not asked for their views on the smoke-free legislation however, prior to the introduction of the legislation respondents were asked (in the 2006/07 CHS) their views on the proposal. Two thirds (66%) of respondents were bothered to some extent by tobacco smoke in public places and the majority (86%) supported the proposed legislation.

In 2006/07, 92% of non-smokers supported the proposed legislation compared with 67% of smokers. Figure 1 below outlines their views by the smoking status of the individual.

**Figure 1: Attitudes to the smoke free legislation by smoking status**



Source: Continuous Household Survey 2006/07

In the ANETS, non-smokers living with a smoker responded to a number of statements. Table 3 shows that, overall, there was high agreement with *'the (proposed) ban<sup>1</sup> on smoking in public places'* with about 9 out of 10 non-smokers supporting the 'ban' (pre-legislation 88%, post-legislation 87%). Over the evaluation period, a small increase was observed for those responding as undecided (pre-legislation 6%, post-legislation 9%).

Although agreement with the statement *'the smoking ban is needed to protect the health of workers'* has been high over the evaluation period, a decrease was observed between pre-legislation (94%) and post-legislation (85%), while the number of those who were undecided increased (pre-legislation 3%, post-legislation 11%).

Around three quarters of non-smokers disagreed with the statement *'I am less likely to visit a pub after/since the smoking ban'* and this remained largely unchanged over the evaluation period (pre-legislation 76%, post-legislation 73%). Similarly, about 7 in 10 non-smokers did not consider the 'ban' to be *'an unfair restriction on smokers'* both pre-legislation and post-legislation.

Following the legislation non-smokers became more uncertain about the impact of the smoke-free legislation on smokers' habits. The number of respondents agreeing that the 'smoking ban' *'encouraged smokers to quit'* decreased (pre-legislation 54%, post-legislation 49%). Also, fewer non-smokers disagreed with *'the smoking ban will make/has made smokers smoke more at home'* (pre-legislation 34%, post-legislation 19%). Over the same period an increase among those who were undecided was observed for both statements.

**Table 3: Non-smokers' attitudes to the smoking legislation**

Statement		% agree	% undecided	% disagree	Number of persons
I agree with the (proposed) ban on smoking in public places	Pre-	88	6	6	600
	Post-	87	9	4	600
The smoking ban is needed to protect the health of workers	Pre-	94	3	3	597
	Post-	85	11	4	600
The smoking ban will encourage/ has encouraged smokers to quit	Pre-	54	23	23	597
	Post-	49	30	21	598
The smoking ban will make/ has made smokers smoke more at home	Pre-	46	20	34	593
	Post-	48	32	19	599
The smoking ban is an unfair restriction on smokers	Pre-	17	13	70	598
	Post-	21	14	65	600
I am less likely to visit a pub after/ since the smoking ban	Pre-	13	12	76	594
	Post-	16	11	73	597

Source: Adult Non-smokers Exposure to Tobacco Smoke Study 2007 and 2008

<sup>1</sup> Individuals were asked about 'the ban' rather than the legislation as less technical terminology was deemed more appropriate for questionnaires with the general public.

## **Awareness of health risks**

The 2007/08 CHS indicates that 91% of people agree that inhaling other people's tobacco smoke poses a high risk to health, the same proportion as that reported in 2006/07. When asked to indicate what illnesses were caused by inhaling other people's tobacco smoke over half of respondents (57%) reported cancer (in general) and 51% reported damaged lungs/lung cancer (Table 4). Respiratory problems and asthma were mentioned by 35% and 32%, respectively.

**Table 4: Responses to 'What illnesses do you believe are caused by inhaling other people's tobacco smoke?'**

<b>Response</b>	<b>% agree</b>
Cancer (in general)	57
Damaged lungs/lung cancer	51
Respiratory problems	35
Asthma	32
No risks or problems	2
<b>Number of persons</b>	<b>3,393</b>

*Source: Continuous Household Survey 2007/08*

## **Health beliefs about second-hand smoke**

All CHS respondents were asked about their attitudes and beliefs about smoking and 78% agreed that children are more at risk from passive smoking than adults and almost two-thirds (65%) agreed that babies exposed to passive smoking are more at risk of cot death.

In relation to smoke-free areas, over half of respondents (52%) would challenge someone smoking in a non-smoking area.

## **Smoking in the home/in family cars – population data**

In the general population, 61% of all respondents in 2007/08 reported that smoking is not allowed anywhere in their home. Table 5 below outlines the responses to this question.

**Table 5: Responses to 'Is smoking allowed inside your home?'**

<b>Response</b>	<b>% agree</b>
Smoking is not allowed at all	61
Only allowed in certain places	18
Only allowed on special occasions	5
Allowed anywhere in my home	16
Total	100
<b>Number of persons</b>	<b>3,397</b>

*Source: Continuous Household Survey 2007/08*

Respondents who were smokers were asked to indicate how the smoke-free legislation will affect the rules about smoking in their home and 89% reported that it would have no effect on the current rules. Almost 9% of smokers stated that the smoke-free legislation would make them stricter about the amount they smoked at home and 2% reported that the new law would make them smoke more at home.

All respondents were asked about the rules around smoking in their family car or cars - 60% of respondents reported that smoking is never allowed in any car, 11% indicated that it is allowed sometimes or in some cars and 9% reported that smoking is allowed in all cars (the remaining 20% reported that they do not have a family car).

### **Smoking in the home – non-smokers living with smokers**

In the ANETS, non-smokers living with smokers were also asked about rules that apply to smoking in their own home; respondents could select as many rules as appropriate (Table 6). The proportion of respondents selecting that smoking was not allowed in the home increased between the two phases (pre-legislation 27%, post-legislation 36%), while the number of those allowing smoking ‘anywhere in the home’ decreased (pre-legislation 24%, post-legislation 19%). Combining all those who permitted smoking in the home shows a decrease from 73% to 65% from pre-legislation to post-legislation.

**Table 6: Non-smokers’ responses to ‘Is smoking allowed inside your home?’**

	<b>% Pre-</b>	<b>% Post-</b>
Not allowed in the home	27	36
Certain places only	45	42
Only when no children present	7	6
On special occasions only	1	1
Anywhere in the home	24	19
Allowed at all	73	65
<b>Number of persons</b>	<b>597</b>	<b>600</b>

*Source: Adult Non-smokers Exposure to Tobacco Smoke Study 2007 and 2008*

The non-smoking respondents who stated that smoking is allowed in their home (pre-legislation 440 respondents, post-legislation 388 respondents) reported how often each individual smoker smokes in the home. Pre-legislation more respondents (88%) lived in a home where someone smoked every day than post-legislation (82%), while the proportion of those living in a home where someone sometimes smokes increased from pre-legislation (8%) to post-legislation (14%).

## Exposure to second-hand smoke in the previous 24 hours

The non-smoking respondents to the ANETS were asked about their exposure to tobacco smoke over the previous 24 hours in various different locations. The average hours of exposure to second-hand smoke decreased from 4.4 hours before to 3.3 hours after the smoke-free legislation (Table 7).

**Table 7: Non-smokers' average exposure to second-hand smoke in previous 24 hours**

	Pre-		Post-	
	Number of persons	Average (hours)	Number of persons	Average (hours)
Overall exposure to second-hand smoke	481	4.4	516	3.3

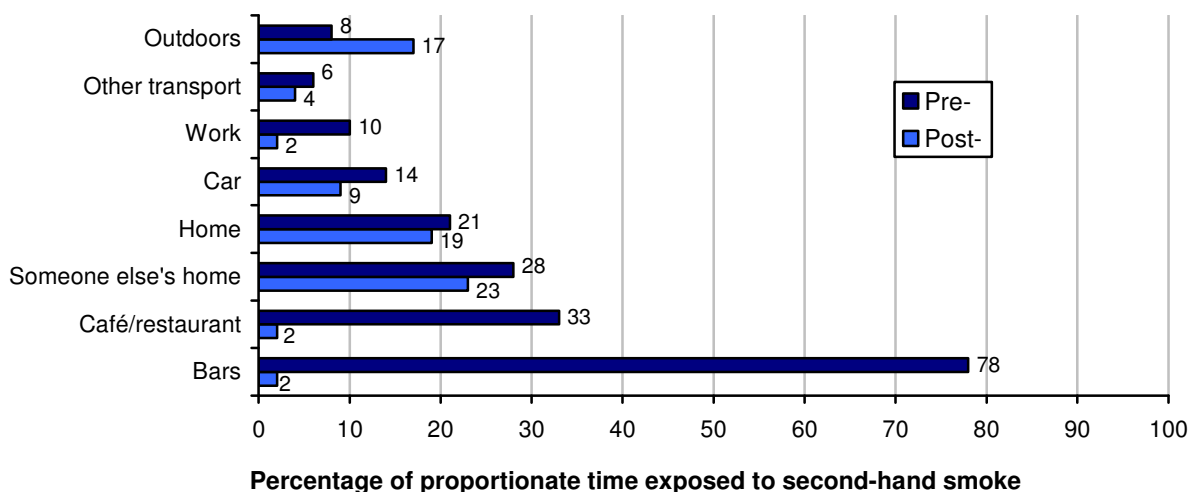
*Source: Adult Non-smokers Exposure to Tobacco Smoke Study 2007 and 2008*

Figure 2 shows the percentage of time that non-smokers were exposed to tobacco smoke in a variety of locations over the previous 24 hours as a proportion of time spent in each location. The percentage of time people were exposed to second-hand smoke has declined for workplaces, cafés/restaurants, bars and, to a small degree, for own home. For example, before the smoke-free legislation, non-smokers had been exposed to second-hand smoke for 78% of the time they had spent in a bar. After the introduction of the new legislation this had decreased to 2%.

There was a significant increase in the proportion of time non-smokers perceived they were exposed to someone else's tobacco smoke during time spent outdoors. This proportion rose from 8% pre-legislation to 17% post-legislation.

No significant changes in exposure were observed for someone else's home, car or other transport.

**Figure 2: Percentage of time non-smokers were exposed to second-hand smoke over the previous 24 hours as a proportion of time spent in each location**



*Source: Adult Non-smokers' Exposure to Tobacco Smoke Study 2007 and 2008*

### 3. CHILDREN & YOUNG PEOPLE

The information from this section has been gathered through two surveys: the Young Persons' Behaviour and Attitude Survey (YPBAS) and the Childhood Exposure to Tobacco Smoke Study (CHETS NI).

The YPBAS is a school-based survey conducted among 11-16 year-olds. The research covers a range of topics relevant to the lives of young people today such as demographics, social support, money, school, knife culture, smoking and alcohol. Three rounds of the survey have now taken place: in Autumn 2000, 2003 and 2007.

CHETS NI is a cross-sectional survey of primary 7 (P7) children conducted in February/March 2007 and February/March 2008 to assess P7 children's exposure to second-hand smoke before and after the introduction of the smoke-free legislation. The research involved children completing self-report questionnaires and providing a saliva sample for cotinine analysis (a clinical measure of exposure to nicotine). The final sample contained 2,136 children pre-legislation and 2,113 children post-legislation (all non-smokers).

#### Prevalence of smoking

In 2007, under a quarter of pupils (24%) had ever smoked, a decrease from 2003 when a third (33%) had ever smoked (Table 8).

**Table 8: Pupils ever having smoked by gender 2000 – 2007 (percentages)**

<b>Gender</b>	<b>2000 (%)</b>	<b>2003 (%)</b>	<b>2007 (%)</b>
Male	34	30	21
Female	39	36	27
<b>All</b>	<b>37</b>	<b>33</b>	<b>24</b>
Number of persons	6,253	7,101	3,360

*Source: Young Persons' Behaviour and Attitudes Survey 2000, 2003 and 2007*

For those who have ever smoked, most do so for the first time before 13 years of age. Also, for those who have ever smoked, the results from the three YPBAS surveys indicate similar levels of frequency of smoking. Around a third reported currently smoking at least once a week (33% in 2000, 34% in 2003 and 31% in 2007).

## **Awareness of health risks**

Results from the 2000 and 2003 YPBAS indicate, that when asked about the dangers of smoking, nearly all pupils believe that it can cause lung cancer (99% in both years) and it can harm the health of non-smokers (96% in 2000 and 97% in 2003).

## **Attitudes & beliefs about smoking**

Pupils were asked to agree or disagree with a list of attitudinal statements. Table 9 below outlines the extent to which pupils agreed with each of the statements.

**Table 9: Percentage of pupils who agree with the attitudinal statements**

<b>Statement</b>	<b>2000 (%)</b>	<b>2003 (%)</b>	<b>2007 (%)</b>
Smoking makes you look more grown up	11	10	10
Smoking can help calm you down	42	41	34
Smoking helps you feel more confident	19	18	13
Smoking can put you in a better mood	27	27	22
Smoking can help you stay slim	25	24	21
Smoking can help you make friends more easily	12	12	7
Smokers have more fun	5	5	3
Smokers are more likely to have boyfriends or girlfriends	10	10	6
Smokers are more boring	34	35	34
Smokers tend to be more 'hard'	44	41	34

*Source: Young Persons' Behaviour and Attitudes Survey 2000, 2003 and 2007*

The table shows that in 2007 compared to 2000 and 2003, fewer pupils believed that smoking can help calm you down, feel more confident, put you in a better mood, help you stay slim or help you make friends more easily. Fewer pupils also believed that smokers have more fun than non-smokers or that smokers are more likely to have boyfriends or girlfriends. In 2000, 44% of pupils agreed that smokers tend to be more 'hard'; the proportion of pupils that agreed with this statement had fallen to 34% by 2007.

## **Young people's exposure to second-hand smoke**

Young people (aged 11-16) were asked if any adults in their household smoked; in 2003, 52% responded yes; by 2007, this had fallen to 43%. When asked whether these adults actually smoked inside the home, 79% did so in 2003 compared with 57% in 2007.

### **Children’s exposure to second-hand smoke**

CHETS NI showed that over 40% of Year 7 children had at least one parent who smoked. This pattern did not differ between pre-legislation and post-legislation (Table 10 below).

**Table 10: Parental smoking status among Year 7 pupils**

	% Neither parental figure smokes	% Father figure only smokes	% Mother figure only smokes	% Both parental figures smoke	Number of persons
Pre-	57	12	15	16	2,122
Post-	55	14	17	14	2,089

*Source: Childhood Exposure to Environmental Tobacco Smoke Study 2007 and 2008*

Table 11 below shows that among children with smoking parents, fewer reported that both parents smoke in the home post-legislation (24%) than pre-legislation (30%). However, there were still three out of four children with at least one smoking parent (75%) exposed to parental smoking in the home following the legislation.

**Table 11: Percentage of smoking parents that smoke in child’s home**

	% Neither parental figure smokes in the home	% Father figure only smokes in the home	% Mother figure only smokes in the home	% Both parental figures smoke in the home	Number of persons
Pre-	20	21	29	30	922
Post-	25	22	30	24	927

*Source: Childhood Exposure to Environmental Tobacco Smoke Study 2007 and 2008*

### **Frequency of exposure to second-hand smoke**

Year 7 children reported being in a smoking location less often following the introduction of smoke-free legislation. Table 12 shows that, overall, more children (12%) stated they were ‘never’ in a smoking location post-legislation compared to pre-legislation (8%). This reduction in frequency of exposure occurred regardless of parental smoking status.

The number of children with at least one parent who smokes reported being in a smoking location ‘everyday’ decreased following the legislation (pre-legislation 40%, post-legislation 34%).

**Table 12: Frequency of pupils being in a smoking location by parent smoking status**

		<b>% About every day</b>	<b>% Sometimes</b>	<b>% Never</b>	<b>% Don't know</b>	<b>Number of persons</b>
All	Pre-	21	64	8	7	2,120
	Post-	18	62	12	8	2,102
Neither parental figure smokes	Pre-	6	73	12	9	1,190
	Post-	6	67	18	10	1,148
Any parental figure smokes	Pre-	40	53	2	5	917
	Post-	34	56	6	4	930

*Source: Childhood Exposure to Environmental Tobacco Smoke Study 2007 and 2008*

### **Cotinine<sup>2</sup> assessed exposure to nicotine**

Salivary cotinine levels were measured in the CHETS as an indicator of nicotine exposure. No change was seen in cotinine levels following the introduction of smoke-free legislation (Table 13).

Cotinine levels were higher, pre-legislation and post-legislation, for children who reported they had a parent who smokes compared to those who had non-smoking parents.

**Table 13: Average cotinine concentrations by parental smoking status**

	<b>Pre-</b>		<b>Post-</b>	
	<b>Average (ng/ml)<sup>#</sup></b>	<b>Number of Persons</b>	<b>Average (ng/ml)<sup>#</sup></b>	<b>Number of Persons</b>
All	<b>0.174</b>	1,985	<b>0.159</b>	2,039
Neither parental figure smokes	<b>0.059</b>	1,100	<b>0.052</b>	1,123
Any parental figure smokes	<b>0.677</b>	871	<b>0.641</b>	893

*Source: Childhood Exposure to Environmental Tobacco Smoke Study 2007 and 2008*

<sup>2</sup> nanograms per millilitre (ng/ml) is the unit of measurement used for salivary cotinine.

## 4. QUITTING

The information from this section is gathered via three sources: the Continuous Household Survey (CHS) for adults (aged 16 and older), the Young Person's Behaviour and Attitude Survey (YPBAS) for ages 11-16, and the Statistics on Smoking Cessation Services in Northern Ireland (SCSNI) which provides information on the monitoring of smoking cessation services in Northern Ireland. Information within the SCSNI report is produced by the DHSSPS from a web based recording system with data being provided by community clinics, pharmacies and hospitals.

### Adults' reasons for quitting

Since 2000/01, the CHS has reported that around three-quarters of smokers would like to give up smoking. Table 14 shows the proportions of respondents that agreed with a set of statements which led them to consider quitting in the past six months.

**Table 14: Reasons for wanting to quit 2007/08 (percentages)**

Statement	% giving reason
Concern for your personal health	74
The price of cigarettes	70
Setting an example for children	64
Concern for the effect of your cigarette smoke on non-smokers	55
Advice from doctor, dentist or other health professional to quit	49
Free or lower-cost stop-smoking medication	42
Smoking restrictions in public places like restaurants or bars	41
That society disapproves of smoking	36
Warning labels on cigarette packets	25
Smoking restrictions at work	24
<b>Number of persons</b>	<b>787</b>

*Source: Continuous Household Survey 2007/08*

Most respondents reported concern for their personal health (74%), the price of cigarettes (70%), setting an example to children (64%) and concern for the effect of cigarette smoke on non-smokers (55%) as reasons to consider quitting. Smoking restrictions at work was the reason least likely to make a respondent quit.

### Quitting attempts

70% of adult smokers reported that they had tried to quit smoking at some time and half of smokers (50%) had tried to quit smoking once or twice with some respondents reporting attempting to quit up to 40 times.

### **Source of help/advice**

Three quarters (75%) of respondents who are current smokers or ex-smokers who quit in the past 6 months had received no advice or information about quitting smoking, 14% spoke to a doctor or nurse about quitting, 11% read a book or leaflets and 3% received advice from a pharmacist (Table 15).

**Table 15: Advice or information received about quitting 2007/08 (percentages)**

<b>Advice or Information Received</b>	<b>% who :</b>
Spoke to a doctor or nurse	14
Read a book or leaflets	11
Spoke to a pharmacist	3
Checked the internet	2
Attended a local stop-smoking service	2
Called a telephone helpline	1
None	75
<b>Number of persons</b>	<b>829</b>

*Source: Continuous Household Survey 2007/08*

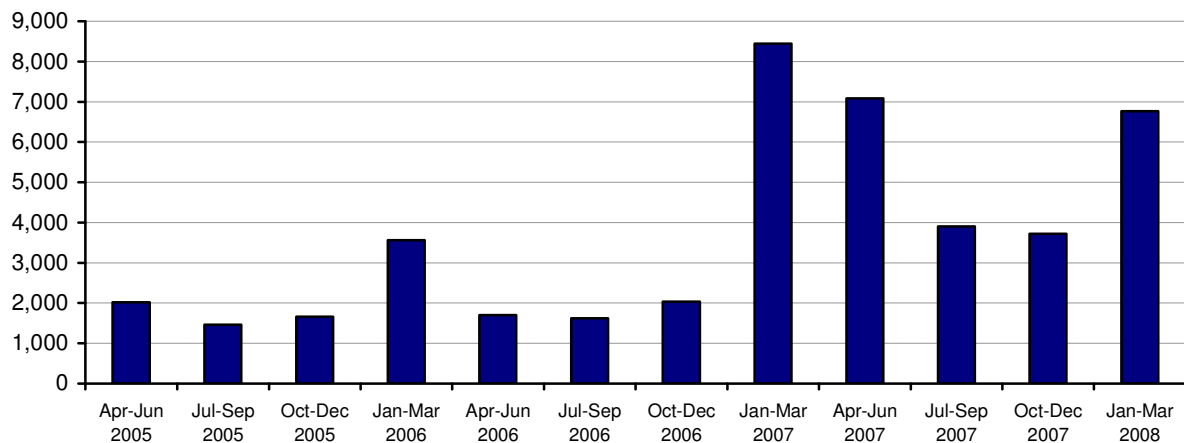
The current smokers or ex-smokers who quit in the past 6 months who had received some form of advice were asked whether this advice helped them in their quit attempt. Of the advice received, 50% reported it was not helpful in their quit attempt, 44% reported that it was helpful and 5% did not know whether the advice helped them in their quit attempt.

### **Smoking cessation services – uptake and associated success rates**

Smoking cessation services are run by smoking cessation specialists who have received training for this role. This service offers intensive treatment, usually in the form of one-to-one or group support over the course of 5 to 6 weeks, including the use of therapeutic interventions such as Nicotine Replacement Therapies and Bupropion (prescription drug used as a nicotine replacement therapy not containing nicotine). Such services are situated in a range of settings to encourage uptake and participation; from major hospitals to more community based settings such as a pharmacy or school.

During the last three financial years 43,973 quit dates were set through the smoking cessation services (8,702 in 2005/06, 13,795 in 2006/07 and 21,476 in 2007/08). A quarterly breakdown is illustrated in Figure 3 below.

**Figure 3: Numbers of quit dates set through smoking cessation services**



*Source: Statistics on Smoking Cessation Services in Northern Ireland 2005/06 to 2007/08*

It can be seen that the beginning of the year is the most popular time for people to access the smoking cessation services, with the highest uptake being recorded in the quarter immediately preceding the introduction of the smoke-free legislation. The 2007/08 year has seen a continuation of high numbers of people setting a quit date.

People who set a quit date are followed up after 4 weeks to ascertain whether they are still not smoking and can be considered as having successfully quit at this stage. In 2005/06, 47% of those who had set a quit date reported to be still not smoking, increasing to 52% in 2006/07; a similar figure of 51% was recorded in 2007/08 (Table 16).

**Table 16: Outcome at 4 weeks of those who have set a quit date: 2005/06 to 2007/08**

	2005/06	2006/07	2007/08
Number setting a quit date	8,702	13,795	21,476
Number quit at 4 week follow-up (based on self-report)	4,119	7,150	10,971
<b>% quit at 4 week follow-up (based on self-report)</b>	<b>47%</b>	<b>52%</b>	<b>51%</b>

*Source: Statistics on Smoking Cessation Services in Northern Ireland 2005/06 to 2007/08*

### **Nicotine Replacement Therapies**

The 2007/08 CHS shows that 96% of respondents who are current smokers or ex-smokers who quit in the past 6 months had heard about medications to help people stop smoking such as Nicotine Replacement Therapies (NRT), and of these, 44% had used some form of NRT. 45% of those who had ever used some form of NRT had done so in the last 6 months (160 people). The proportion using each type of NRT is shown in the following table.

**Table 17: Percentage of respondents using Nicotine Replacement Therapies in the last 6 months**

<b>Nicotine Replacement Therapy</b>	<b>% using</b>
Nicotine patch	71
Nicotine gum	28
Nicotine lozenges	8
Nicotine inhaler	7
Other	11
<b>Number of persons</b>	<b>160</b>

*Source: Continuous Household Survey 2007/08*

Of the respondents who had used some form of Nicotine Replacement Therapy in the last 6 months, 71% had used nicotine patches and 28% had used nicotine gum. Nicotine lozenges and inhalers were used by 8% and 7% of respondents, respectively.

### **Children & young people**

In the 2007 YPBAS, four-fifths of pupils (aged 11-16) that smoke at least once a week indicated that they would like to give up smoking altogether.

When asked what they would be most likely to try for help giving up, 27% indicated nicotine products such as chewing gum or patches and 19% reported that they would ask family or friends for help/advice. 8% of pupils who smoke would phone a smoker's helpline, 6% would go to see their family doctor or GP, 4% indicated they would ask an adult in school, and 3% would attend a stop smoking group or see a counsellor.

With respect to the smoking cessation services, 2% of those setting a quit date were under 18 years of age.

While the smoking cessation services are aimed at the population as a whole, specific target groups have been identified; one of these being children and young people aged 11 to 16. Table 18 below outlines the relevant statistics for this age-group within the overall total.

**Table 18: Outcome at 4 weeks of children & young people aged 11 to 16 who had set a quit date: 2005/06 to 2007/08**

	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>
Number setting a quit date	214	174	271
Number quit at 4 week follow-up (based on self-report)	54	63	86
<b>% quit at 4 week follow-up (based on self-report)</b>	<b>25%</b>	<b>36%</b>	<b>32%</b>

*Source: Statistics on Smoking Cessation Services in Northern Ireland 2005/06 to 2007/08*

The table above shows that 32% of children and young people aged 11 to 16 who had set a quit date had successfully quit at the 4 week follow up stage in 2007/08.

The proportions of children and young people self-reportedly quit at the 4 week stage were lower than the total cessation service clients' proportions at the same stage, in each of the 3 years.

## 5. SMOKING RELATED ILLNESSES AND DEATHS

This section looks at the number of hospital admissions and deaths that are estimated to be caused by smoking. The data have been obtained from two sources: the hospital admissions data are derived from the Hospital Inpatient System which is the central database of all hospital admissions; and the deaths data have been obtained from the Northern Ireland Statistics and Research Agency (NISRA). It is acknowledged that there will be a lag period before any reduction in smoking prevalence is seen by the health service in terms of its impact on hospital admissions and deaths.

Information relating to the recording of patients' smoking status and provision of smoking cessation advice by general practices has been obtained via the Quality and Outcomes Framework (QOF). The QOF is a payment system designed to remunerate general practices for providing good quality care to their patients. It measures a general practice's achievement against a scorecard of 135 evidence-based indicators, including two smoking indicators.

### **Smoking-related hospital admissions**

There are a large number of hospital admissions due to diseases which can be caused by smoking. However, it is not practical to say that every admission is attributable to smoking, as there may be other contributory factors. The Health Development Agency (HDA) has developed a methodology<sup>3</sup> to estimate the number of smoking-attributable deaths, and the relative risks of diseases for current and ex-smokers, compared to non-smokers. Those same 'attributable percentages' are used in this report to assign proportions of hospital admissions to smoking-related causes for men and women.

The number of people admitted for smoking-related illnesses in 2006/07 was very similar to the number in 2007/08 (around 16,000 in each year). Male admissions remain higher than those of females.

Table 19 shows that for men, the most common cause of admission to hospital with a smoking-related condition in 2006/07 and 2007/08 was ischaemic heart disease, with 'other cancers' being the second most common cause. The most common cause of admission to hospital with a smoking-related condition for women was chronic obstructive lung disease in both years.

Although there was an increase in hospital admissions for smoking-related lung cancer (16%) and a decrease in the number of patients being admitted to hospital for other cancers – overall the number of patients admitted to hospital for smoking-related cancers increased by 5% over the time period. However, from year to year there will be variability in the overall levels of hospital activity dependent on available resources. Over this period, the total number of hospital admissions for Oncology (the hospital specialty relating to all cancers) increased by 6% from 21,845 to 23,232.

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<sup>3</sup> Twigg, L., Moon, G., and Walker, S. The smoking epidemic in England, Health Development Agency, 2004.

**Table 19: Estimated number of hospital admissions attributable to smoking**

Cause of Admission	2006/07			2007/08		
	Men	Women	Total	Men	Women	Total
Lung Cancer	1,721	1,020	<b>2,741</b>	1,897	1,272	<b>3,169</b>
Other Cancers <sup>4</sup>	2,254	564	<b>2,819</b>	2,108	572	<b>2,679</b>
Chronic Obstructive Lung Disease	1,981	1,914	<b>3,895</b>	1,850	1,847	<b>3,697</b>
Pneumonia	367	317	<b>683</b>	392	348	<b>740</b>
Ischaemic Heart Disease	2,994	1,032	<b>4,024</b>	2,937	952	<b>3,889</b>
Cerebrovascular Disease	489	401	<b>891</b>	577	448	<b>1,024</b>
Aortic Aneurysm	243	73	<b>316</b>	248	62	<b>310</b>
Other Circulatory Diseases	13	10	<b>23</b>	15	9	<b>24</b>
Stomach/Duodenal Ulcer	328	329	<b>657</b>	279	322	<b>601</b>
<b>Total</b>	<b>10,390</b>	<b>5,660</b>	<b>16,050</b>	<b>10,303</b>	<b>5,832</b>	<b>16,135</b>

Source: Hospital Episode Record System, DHSSPS

Note: Figures for 2007/08 are provisional and may be subject to change.

### **Smoking-related deaths**

Smoking history is rarely recorded on death certificates, therefore the number of deaths due to smoking cannot be directly calculated using the death datasets. The Health Development Agency<sup>3</sup> work has previously estimated that between 1998 and 2002, 2,300 deaths in Northern Ireland were attributable to smoking every year. By applying the methodology to more recent deaths figures, NISRA estimated that 2,341 deaths in 2006/07 and 2,349 deaths in 2007/08 were attributable to smoking. The overall death figures due to smoking have therefore remained steady since the HDA estimates. Male and female deaths attributable to smoking are shown in Table 20.

Although lung cancer, attributable to smoking, is not the most common cause of admission to hospital for either men or women (Table 19), it is the most common cause of death for both sexes (Table 20).

<sup>4</sup> Other Cancers includes upper respiratory cancer, cancer of the oesophagus, bladder cancer, kidney cancer, stomach cancer, cancer of the pancreas, myeloid leukaemia and unspecified site.

**Table 20: Estimated number of deaths attributable to smoking**

Cause of Death	2006/07			2007/08		
	Men	Women	Total	Men	Women	Total
Lung Cancer	479	272	<b>751</b>	464	274	<b>738</b>
Other Cancers <sup>5</sup>	234	93	<b>327</b>	243	97	<b>340</b>
Chronic Obstructive Lung Disease	264	250	<b>514</b>	286	230	<b>516</b>
Pneumonia	76	79	<b>155</b>	76	77	<b>153</b>
Ischaemic Heart Disease	287	107	<b>394</b>	289	99	<b>388</b>
Cerebrovascular Disease	54	58	<b>112</b>	42	57	<b>99</b>
Aortic Aneurysm	51	34	<b>85</b>	58	30	<b>88</b>
Other Circulatory Diseases	1	2	<b>3</b>	1	2	<b>3</b>
Stomach/Duodenal Ulcer	16	12	<b>28</b>	14	10	<b>24</b>
<b>Total</b>	<b>1,462</b>	<b>907</b>	<b>2,369</b>	<b>1,473</b>	<b>876</b>	<b>2,349</b>

*Source: Northern Ireland Statistics and Research Agency - Register of Deaths, 2006-2008*

For men, in both years, ischaemic heart disease is the second most common cause of death due to smoking. However, the second most common cause of death for women was chronic obstructive lung disease in both 2006/07 and 2007/08.

<sup>5</sup> Other Cancers includes upper respiratory cancer, cancer of the oesophagus, bladder cancer, kidney cancer, stomach cancer, cancer of the pancreas, myeloid leukaemia and unspecified site.

## General Practice (GP) record keeping

The QOF (part of the new General Medical Services (GMS) contract introduced on 1st April 2004) is designed as a payment system for GPs. Data are collected at an aggregate level for each general practice, allowing analysis of the overall prevalence of certain conditions (but not by age or gender).

Two smoking-related clinical indicators were introduced on 1<sup>st</sup> April 2006. Smoking Indicator 1 reports whether smoking status has been recorded on the patient record. Smoking Indicator 2 reports whether smoking cessation advice has been offered. The recording of these indicators is required only for patients suffering from coronary heart disease, stroke or transient ischaemic attack (mini stroke), hypertension, diabetes, chronic obstructive lung disease or asthma.

GPs record the smoking status of their patients and Table 21 indicates that around 96% of patients with the relevant conditions have had their smoking status recorded in the last 2 years.

**Table 21: Percentage of patients with indicated diseases whose smoking status was recorded**

<b>Smoking Indicator 1</b>	<b>No. of patients whose smoking status was recorded</b>	<b>No. of patients with any or any combination of the diseases above</b>	<b>%</b>	<b>Registered List (Jan)</b>
2006/07	323,330	335,784	96.3%	1,814,308
2007/08	331,360	343,434	96.5%	1,833,450
<b>% change</b>	<b>2.5%</b>	<b>2.3%</b>	<b>0.2%</b>	<b>1.1%</b>

*Source: Payment Calculation and Analysis System (PCAS) as at 31 March 2007 and 31 March 2008*

Patients with any or any combination of the relevant diseases, who smoke, are offered smoking cessation advice from their GP. Table 22 below indicates that around 94% of patients with the relevant conditions and who smoke have been offered smoking cessation services in the last 2 years.

**Table 22: Percentage of patients who received smoking cessation advice**

<b>Smoking Indicator 2</b>	<b>No. of patients who received smoking cessation advice</b>	<b>No. of patients with any or any combination of the diseases above, who smoke</b>	<b>%</b>	<b>Registered List (Jan)</b>
2006/07	61,148	64,768	94.4%	1,814,308
2007/08	61,785	65,609	94.2%	1,833,450
<b>% change</b>	<b>1.0%</b>	<b>1.3%</b>	<b>-0.3%</b>	<b>1.1%</b>

*Source: Payment Calculation and Analysis System (PCAS) as at 31 March 2007 and 31 March 2008*

## 6. WORKPLACE

A multi-agency study carried out by the Chartered Institute of Environmental Health (Northern Ireland), the Health Service Executive West (Republic of Ireland), Derry Healthy Cities and the Health Promotion Agency for Northern Ireland assessed the impact of the smoke free legislation on indoor air quality in a sample of bars throughout Northern Ireland. Other partners included the University of Ulster, the University of California Berkeley and Roswell Park Cancer Institute.

Both short-term and long-term exposure to ambient levels of fine particles are consistently associated with respiratory and cardiovascular illness and mortality as well as other ill-health effects<sup>6</sup>. The study assessed fine air particulates (PM<sub>2.5</sub>)<sup>7</sup> in 76 bars and air nicotine levels in 50 bars before (April 2007) and after (July 2007) the introduction of the smoke free legislation. In addition, a survey of employees' perceptions was also undertaken in 31 bars over the same time period.

Three months after the introduction of the legislation there was a 94% reduction in average fine air particulate levels and a 92% reduction in average air nicotine levels. The survey of bar staff highlighted a significant reduction in the number of respondents who reported experiencing symptoms they felt were directly related to exposure to second-hand smoke. In addition, there was a 76% increase in the number of employees rating the indoor air quality as good.

Overall, the study has demonstrated a significant positive impact on air quality in bars and the health risks associated with exposure to second-hand smoke.

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<sup>6</sup> The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, published by the Department for Environment, Food and Rural Affairs (July 2007).

<sup>7</sup> Particulate Matter (PM) is generally categorised on the basis of the size of the particles, for example PM<sub>2.5</sub> are particles with a diameter of less than 2.5µm.

## 7. COMPLIANCE WITH THE NEW SMOKE-FREE LEGISLATION

In the period before and since the new legislation came into force District Council Environmental Health departments have worked to advise and educate businesses and secure compliance with the smoke-free law.

During the period between the introduction of the smoke-free legislation on 30<sup>th</sup> April 2007 to 30<sup>th</sup> April 2008, a total of 38,074 premises were inspected and judged for compliance. Compliance levels were high at 97% in respect of the smoking prohibition and 94% in respect of displaying the correct signage.

Comparative figures for the Republic of Ireland during the initial nine months after their legislation was introduced were 94% and 86%, respectively.

Table 23 outlines the compliance levels by the type of premises inspected. The main categories of premises listed are those that were initially assessed as being of higher risk of non-compliance. In all instances the levels are in excess of 92%.

**Table 23: Compliance levels by type of premises**

Type of premises	Number of premises inspected	Compliant			
		No smoking		Displaying correct signage	
		Number	%	Number	%
Hotels/Hostels/Guest Houses	1,175	1,134	96.5	1,111	94.6
Restaurants/Cafes	5,304	5,213	98.3	5,078	95.7
Licensed Pubs/Clubs	6,161	5,767	93.6	5,969	96.9
Other Licensed Premises (e.g. theatres)	195	186	95.4	181	92.8
Bookmakers/Snooker Halls/Bingo Halls/Taxi Depots	1,488	1,403	94.3	1,400	94.1
Other premises (e.g. offices, shops, garages)	23,761	23,291	98.0	22,012	92.6
<b>Total</b>	<b>38,074</b>	<b>36,998</b>	<b>97.2</b>	<b>35,755</b>	<b>93.9</b>

*Source: Group Environmental Health Committees and Belfast City Council*

During the period 30<sup>th</sup> April 2007 to 30<sup>th</sup> April 2008, 1,617 written warnings were distributed, 184 fixed penalty notices were issued, and 2 cases were referred for prosecution.

During this same time period, 1,525 enquiries were received, 643 complaints were received directly, and 22 complaints were received via the compliance line.

## 8. ECONOMIC IMPACT

Although much of the one year economic data (births and deaths of businesses) will not be available until 2009, some early data from the Adult Drinking Patterns Survey and the Department of Enterprise and Investment (DETI) Quarterly Employment Survey are presented below.

### Domestic and outside of home alcohol consumption by smokers and non-smokers

The Adult Drinking Patterns Survey provides a picture of the drinking patterns of adults in Northern Ireland and is carried out every 3 years. The findings in 2008 are based on responses to a questionnaire from a representative sample of 1,880 respondents aged between 18 and 75 years old. From all the information gathered on drinking behaviour and circumstances, drinking location by smoking status was of particular interest. Those respondents who said that they drank alcohol were asked a series of questions about their alcohol consumption in the week prior to the survey.

The table below compares the responses for smokers and non-smokers between 2005 and 2008.

**Table 24: Where did respondents drink in the 7 days prior to the survey (percentages)**

	2005			2008		
	Smoker (%)	Non-Smoker (%)	Total (%)	Smoker (%)	Non-Smoker (%)	Total (%)
At home or someone else's home	73	71	72	77	75	75
Outside the home	60	57	58	51	59	57
<b>Number of persons</b>	<b>313</b>	<b>671</b>	<b>984</b>	<b>243</b>	<b>669</b>	<b>912</b>

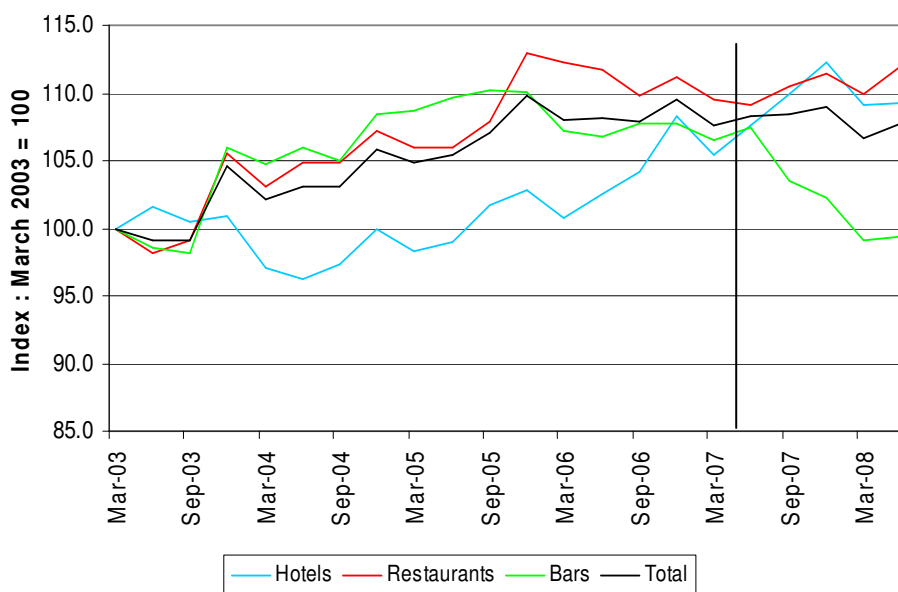
*Source: Adult Drinking Patterns Survey 2005 and 2008*

There has been a decrease in the proportions of smokers reporting drinking outside of the home (e.g. pub, restaurant, social club), where 60% reported drinking outside the home in 2005 compared with 51% in 2008.

## Employment

DETI publishes statistics on employment in the hospitality sector in its Quarterly Employment Survey. Employment rates in this sector are susceptible to seasonal fluctuations. The data show total employment in the hospitality sector has fallen by 0.9% from March 2007 to March 2008 compared to a fall of 0.4% in the previous year. Hotels and restaurants have seen an increase in employment of 3.6% and 0.5%, respectively, while bars experienced a 7.0% decline over the period (see Figure 4).

**Figure 4: Employment in the hospitality sector**



*Source: DETI Quarterly Employment Survey Sept 2008*

Total employment in the hospitality sector has remained largely static (allowing for seasonal trends) since March 2006. This slightly longer period mirrors that of the last year in that hotel employment has shown the biggest gain over the period with bars experiencing the biggest loss. These changes may be due to a number of factors. Increased tourism has helped boost hotel employment. The most recent Tourist Board figures for visitor numbers to Northern Ireland show that there was a 6.5% increase in visitors in 2007 when compared to 2006.

While it is possible the smoking legislation has had an impact on bar trade and hence employment, employment in bars has been on the decline since the start of 2006.

## **Sick absence rates**

Statistics from the Northern Ireland Labour Force Survey show the number of scheduled working days in Northern Ireland per week lost to sick absence in all workplaces. There has been a downward trend in sick absence from 2004, with sick absence falling an average of 5,666 days (9.9%) per annum from Quarter 2, 2004 to Quarter 2, 2007. This decline has become more pronounced since 2007 with sick absence in Quarter 2 2008 accounting for 25,000 days per week compared to 40,000 days the same quarter the previous year, a fall of 37.5%. As discussed in the regulatory impact assessment, it is likely that some of this decrease would be attributable to the introduction of the smoking legislation.

## 9. REFERENCES/SOURCES

- A five year tobacco action plan 2003-2008 (DHSSPS)  
<http://www.dhsspsni.gov.uk/tobaccoplan.pdf>
- Smoke-free workplaces in Ireland. A one-year review (Office of Tobacco Control)  
[http://www.otc.ie/Uploads/1\\_Year\\_Report\\_FA.pdf](http://www.otc.ie/Uploads/1_Year_Report_FA.pdf)
- Statistics on smoking cessation services in Northern Ireland (DHSSPS)  
[http://www.dhsspsni.gov.uk/index/stats\\_research/public\\_health/statistics-and-research-smoking-cessation.htm](http://www.dhsspsni.gov.uk/index/stats_research/public_health/statistics-and-research-smoking-cessation.htm)
- Continuous Household Survey (Northern Ireland Statistics & Research Agency)  
<http://www.csu.nisra.gov.uk/survey.asp26.htm>
- Young Persons Behaviour & Attitudes Survey (Northern Ireland Statistics & Research Agency)  
<http://www.csu.nisra.gov.uk/survey.asp14.htm>
- Adult Drinking Patterns Survey (DHSSPS)  
[http://www.dhsspsni.gov.uk/adult\\_drinking\\_patterns\\_2005.pdf](http://www.dhsspsni.gov.uk/adult_drinking_patterns_2005.pdf)
- The Smoking Epidemic in England (Health Development Agency)  
[http://www.nice.org.uk/nicemedia/documents/smoking\\_epidemic.pdf](http://www.nice.org.uk/nicemedia/documents/smoking_epidemic.pdf)
- The Impact of Smoke-free Legislation on Indoor Air Quality in Bars in Northern Ireland (Chartered Institute of Environmental Health)  
[http://www.cieh-nireland.org/documents/ExecutiveSummary\\_smokingban.pdf](http://www.cieh-nireland.org/documents/ExecutiveSummary_smokingban.pdf)
- Adult Non-smokers Exposure to Tobacco Smoke Study (Health Promotion Agency for Northern Ireland )  
<http://www.spacetobreathe.org.uk/>
- Childhood Exposure to Tobacco Smoke Study (Health Promotion Agency for Northern Ireland)  
<http://www.spacetobreathe.org.uk/>



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