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Smoking bans in Victorian workplaces: 2005 update

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ABSTRACT

Since 1988 the Centre for Behavioural Research in Cancer has been monitoring the level of smoking restrictions in Victorian workplaces. Trends over time indicate there was a period of rapid increase in total smoking bans between 1988 and the early 1990s, followed by relatively little change up to 2003.

In 2005, 73% of indoor workers reported total smoking bans at their workplace, a significant increase since 2003 (68%) and an overall significant increase since 1990 (34%). A further 23% of respondents reported partial bans where they worked, while 4% reported no smoking restrictions at work.

In 2005, indoor workers were more likely than outdoor workers to be protected by total smoking bans (73% compared with 15%, respectively). Regular smokers were also significantly less likely to work in workplaces with total smoking bans (60%), than were those who did not regularly smoke (76%).

Smoking restrictions varied across different indoor workplace types. School/classroom, open plan office and own/home office workers reported the highest proportion of workplaces with total smoking bans in 2005 (92%, 82% and 79%, respectively). Hotel, club, gaming venue & bar workers experienced the lowest levels of total smoking bans in 2005 (18%), while under half (47%) of restaurant workers also reported total smoking bans in their workplace.

Although legislation introduced in Victoria over the previous 5 years has increased smoking restrictions in many workplaces, a high proportion of workers are still being exposed to second hand smoke. However, all enclosed workplaces in Victoria will be required to be smokefree by March 2006 (with exception of licensed venues – to be smokefree by July 1, 2007), a move which is expected to create an even safer working environment for Victorians.

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INTRODUCTION

Restrictions on smoking at work protect employees from exposure to environmental tobacco smoke (ETS), with total bans offering the best protection.

Over the past 5 years a number of legislative reforms enforcing smoking restrictions in various workplaces have been introduced in Victoria. Since July 1, 2001, smoking has been banned in enclosed restaurants and cafés, and in dining areas in premises with a general or club licence, and in enclosed retail shopping centres since November 1, 2002, through the Tobacco (Amendment) Act 2000 and the Tobacco (Further Amendment) Act 2001. From September 1, 2002, smoking restrictions were also introduced in hotels and gaming venues, through the Tobacco (Miscellaneous) Act 2002.

Since March 1 2006, and after the data collection period for this paper, total smoking bans were introduced indoor workplaces (that are substantially enclosed by a roof and walls). However, a number of workplaces have been exempt from this legislation, including any business occupied by the sole operator which is not for the use of the public, outdoor dining and drinking areas, vehicles, personal sleeping or living areas of hotels/motels, mental health and aged care facilities, prison and detention centres, high roller rooms at the Casino, and licensed premises (in Victoria, all enclosed licensed premises will required to be smoke free by 1 July 2007).

Since 1988 the Centre for Behavioural Research in Cancer (CBRC) has been monitoring the level of smoking restrictions in Victorian workplaces. Data have been collected annually up to 1999 (excluding 1996), and every two years thereafter. Trends over time indicate there was a period of rapid increase in total smoking bans between 1988 and the early 1990s, followed by relatively little change up to 2003.

This paper reports the findings of the 2005 population survey regarding the levels of smoking restrictions in the workplace reported by Victorian workers, and compares these with findings from previous years.

METHOD

The data presented in this report are from telephone surveys of randomly sampled Victorian adults conducted from 1990 to 2005. These annual population surveys are commissioned by CBRC from a large market research company which interviews a representative sample of Victorians by telephone each year. The questions, designed by the CBRC, are asked in an eight to sixteen minute interview conducted on weekends and weeknights during November and December.

Readers should be aware of some method changes when making comparisons with previous years. Since 1998, annual surveys have been conducted by telephone rather than the face-to-face method used in previous years, and since 1997 the standard tobacco use question¹ has been used rather than the self-definition smoking status question used in previous surveys.

The standard tobacco use question¹ categorises smoking status into four groups: *regular smokers* (smoke daily or at least weekly); *irregular smokers* (smoke less than weekly); *former smokers* (do not smoke currently but have smoked at least 100 cigarettes in their lifetime regardless of whether they have ever smoked daily); and *never smokers* (do not smoke at all and have not smoked 100 or more cigarettes in their lifetime).

Statistical analysis

A comparison of the sample socio-demographic characteristics with the Australian Bureau of Statistics counts of the Victorian population² revealed that women and older people were over represented in the telephone survey samples. To adjust for this, the data were weighted by age and sex according to ABS 2001 Census data for the Victorian population.

Sample

In 2005, 2999 Victorian adults aged 18 years and over were interviewed by telephone. Respondents who were in paid employment were asked about smoking restrictions in their workplace and their main workplace setting (whether they mainly worked indoors, in a vehicle, or in a varied work situation).

Respondents were asked to classify the smoking restrictions, if any, at their place of work, as follows:

- total ban on smoking
- a ban everywhere except for a smoking room
- a ban in some areas
- no restrictions

Workers who reported some bans were asked to indicate whether or not the ban applied in the area where they normally worked.

In household surveys from 1990 to 1997, only indoor workers were asked to describe their normal workplace, defined as where they spend most time at work, and were shown a card with response options (for example, warehouse, factory, supermarket or school). From 1998 onwards, indoor workers were asked what was their usual workplace (for example, a shop, own office, open-plan office or workshop/factory floor). In 1999, all except those who worked mainly in a vehicle were asked this question. Unless otherwise specified, only results for indoor workers are reported.

RESULTS

In 2005, 60% of respondents stated they were in paid (full-, part-time or casual) employment. Of these, 75% (n=1296) of workers reported they usually worked indoors (compared to 81% in 2003).

As shown in Table 1, the percentage of indoor workers reporting total smoking bans in their workplace significantly increased over the past 15 years, from 34% in 1990 to 73% in 2005. Although total smoking bans within indoor workplaces plateaued around 70% from 1999 onwards, there was a significant increase in total smoking bans reported by indoor workers between 2003 and 2005 (from 68% in 2003, to 73% in 2005).

Also shown in Table 1, partial smoking bans within indoor workplaces significantly declined between 1990 and 2005 (ranging from 42% to 19% over this period), and also declined significantly between the years 2003 and 2005 (28% compared with 23%, respectively).

The proportion of indoor workers reporting no smoking restrictions within their workplace declined significantly between 1990 and 2005 (ranging from 25% to 4% over this period). By 2005, only 4% of indoor workers reported no smoking restrictions within their workplace, however this was not a significant change from 2003 (5%).

Table 1:
Workplace smoking restrictions for indoor workers aged 18 years and over, 1990 to 2005[^]

	1990 (n=888)	1991 (n=1010)	1992 (n=585)	1993 (n=975)	1994 (n=931)	1995 (n=989)	1997 (n=966)	1998 (n=733)	1999 (n=899)	2001 (n=962)	2003 (n=1504)	2005 (n=1326)
Total bans	33.9	48.4	57.9	59.8	62.8	65.6	60.6	74.6	70.4	69.0	67.8	72.5*
Partial bans	41.5	35.0	29.6	28.6	24.7	23.7	26.9	18.6	21.8	25.0	27.6	23.2*
No restrictions	24.7	16.6	12.5	11.6	12.5	10.7	12.5	6.9	7.8	5.9	4.6	4.3*

Note: Due to rounding, not all columns sum to 100.

* Significant change across 1990 to 2005, p<.01.

[^] Excludes those workers who did not state current restrictions.

Workplace bans for indoor and outdoor workers, 1990-2005

As in previous years, in 2005, respondents who worked indoors were more likely to report a total smoking ban at work (73%) compared with outdoor workers (15%). Figure 1 and Figure 2 illustrate the trends in smoking restrictions among indoor and outdoor workers, respectively, from 1990 to 2005.

Figure 1. Trends in smoking restrictions among Indoor workers
1990-2005

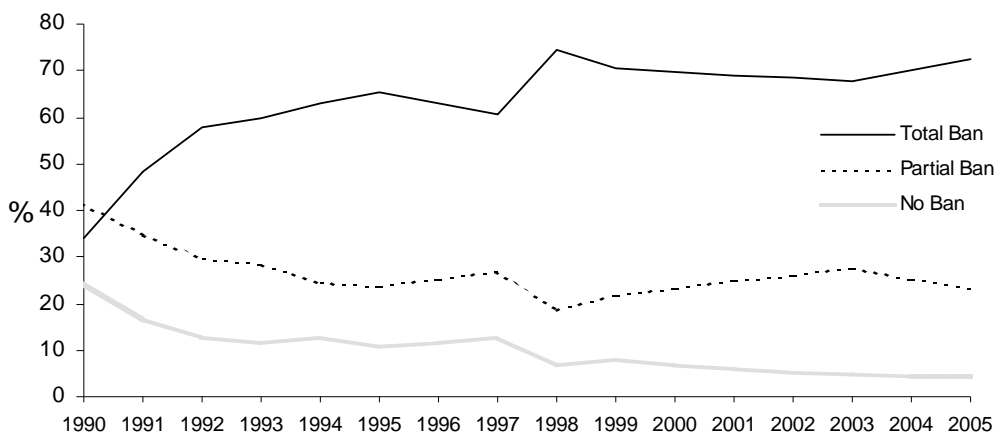
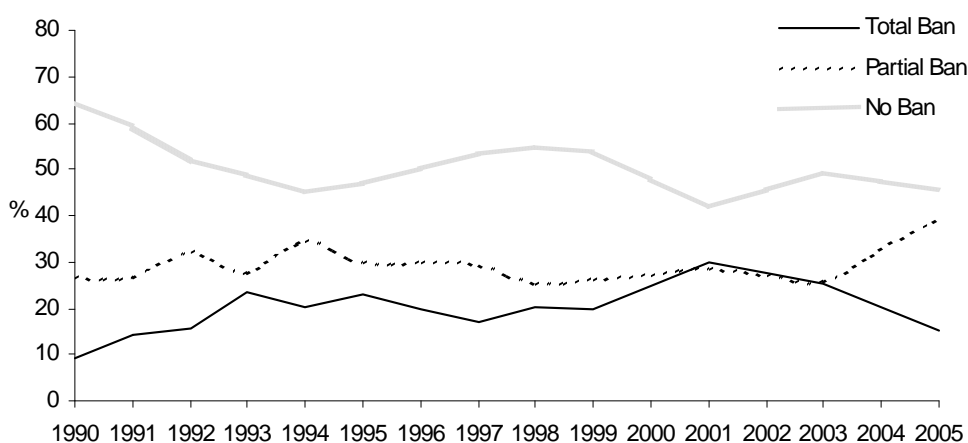


Figure 2. Trends in smoking restrictions among Outdoor workers
1990-2005



In comparison to the significant increase in the percentage of outdoor workers reporting total bans at work, there was little change over this period in the proportion of outdoor workers reporting total bans in their workplace. Consistently over this period, a significantly higher percentage of indoor workers reported total smoking bans at work (ranging from 34% to 75%), than did outdoor workers (ranging from 9% to 30%). Total smoking bans for indoor workers increased rapidly during the early 1990s (Figure 1), while for outdoor workers there has been a more modest and gradual increase up to 2001 (Figure 2).

The percentage of both indoor and outdoor workers reporting no smoking restrictions in their workplace declined significantly from 1990 to 2005. However, as shown in Figure 1 and Figure 2, indoor workers consistently reported significantly lower proportions of 'no smoking restrictions' (ranging from 4% to 25%) compared with outdoor workers over this same period (ranging from 42% to 64%). Outdoor workers had consistently higher rates of 'no smoking restrictions' in their workplaces over this period, than either partial (ranging from 25% to 40%) or total smoking bans (from 9% to 30%). In addition, from 2001 to 2005, total smoking bans among outdoor workers halved from 30% to 15% respectively, mirrored by a trend toward a significant increase in partial bans (from 29% in 2001 to 40% in 2005). By 2005, outdoor workers were over 10 times more likely to report no smoking restrictions in their workplace, compared to indoor workers (45% compared with 4%, respectively).

In 2005, total smoking bans were also reported by around 60% of workers whose primary place of work was a vehicle. Similarly, 17% of these workers reported having partial smoking bans, while 22% indicated their workplace had no smoking restrictions in place (see Appendix A).

Indoor workplace smoking restrictions, by smoking status

In 2005, indoor workers who were regular smokers were significantly less likely to report total smoking bans in their workplace than those who did not regularly smoke (60% compared with 76%, respectively) (Table 2). In turn, regular smokers were significantly more likely to report having either no smoking restrictions or partial smoking bans where they worked, than those who were not regular smokers (10% compared with 3%, respectively, for no smoking restrictions; and 31% compared with 21%, respectively, for partial smoking bans).

An analysis of respondents' workplace type in 2005 found that hotel/club/bar/gaming venues, restaurants, and workshop/factory floor workers had the highest proportion of regular smokers (50%, 37% and 36%, respectively). In 2005, the average proportion of regular smokers across all indoor workplaces was 20%.

Table 2:
Level of restrictions in workplace, by smoking status for indoor workers, 2005

Level of ban	Regular smoker (n=266) %	Not regular smoker* (n=1060) %	Total (n=1325) %
Total ban	59.7	75.7	72.5
Partial bans	30.7	21.3	23.2
No bans	9.5	3.0	4.2

*Respondents other than regular smokers, including non-smokers and irregular (less than weekly) smokers.

Smoking restrictions by indoor workplace type, 2005

As indicated in Table 3, total smoking bans reported by indoor workers varied across workplace type. In 2005, those who worked in schools/classrooms, open plan offices and own/home offices were the most likely to have total smoking bans in their workplaces (92%, 82% and 79%, respectively). Hotel/club/gaming venue workers, restaurant workers and warehouse/workshop/factory workers were the least likely to work in a total smoke free environment, with total bans reported by 18%, 47% and 50% of these workers, respectively.

The proportion of indoor workers reporting total smoking bans in their workplace increased significantly between 1990 and 2005 across all workplace types, except for those working in a hotel/club/gaming venue or restaurant. There was little change in total smoking bans across workplace types between 2003 and 2005, apart from a trend toward a significant increase for reported total bans among own office/home office workers.

Although percentages in Table 3 suggest a decline in total smoking bans reported by hotel/club/restaurant workers between 2003 and 2005, this difference was not found to be significant, and due to small cell sizes these percentages should be interpreted with caution.

Table 3:
Total smoking bans reported by indoor workers, by workplace type, 1990–2005

Workplace type	(n range)	1990	1991	1992	1993	1994	1995	1997	1998	1999	2001	2003	2005
		%	%	%	%	%	%	%	%	%	%	%	%
Warehouse/workshop	(99–203)	10.1	21.3	34.6	39.1	41.2	39.5	33.3	50.5	49.6	46.3	39.9	49.5*
Shop/supermarket	(42–154)	33.3	36.5	38.1	55.7	73.0	71.3	70.4	74.7	68.5	76.6	72.7	76.2*
Open plan office/office	(176–468)	38.8	59.8	68.8	68.9	73.2	76.2	73.3	84.6	78.9	78.2	77.8	82.2*
Own Office/home office	(114–239)	39.0	50.3	56.1	59.9	62.8	62.0	57.9	75.2	66.7	73.7	70.3	79.3 ^(a) *
Hotel/restaurant/club	(15–62)	..	6.9	33.3	32.1	26.2	23.3	50.0	35.1	26.2	34.1	43.5	28.3
Restaurant	(19–36)	..	..	..	..	..	..	..	..	..	..	66.7	47.4
Hotel/club/gaming	(26–40)	..	..	..	..	..	..	..	..	..	..	11.5	17.5
School/classroom	(48–134)	63.9	65.8	77.6	84.2	81.4	88.4	80.3	91.7	93.8	92.5	88.8	91.5*
Hospital/medical centre	(49–149)	28.2	59.5	69.4	61.7	66.7	67.9	63.2	83.6	82.7	66.7	65.1	62.8*
Other (incl. 'can't say')	(18–96)	33.3	45.5	61.1	51.9	40.7	65.8	54.3	58.3	52.5	53.2	54.2	68.6*
Total	(585–1505)	33.9	48.4	57.9	59.8	62.8	65.6	60.6	74.4	70.4	69.1	67.8	72.4**

.. Not asked in this year.

* Significant difference between 1990 and 2005.

** Significant difference between 2003 and 2005; and significant difference between 1990 and 2005, $p < .01$.

^(a) Trend toward a significant difference since 2003, $p < .05$.

Note: Due to rounding, not all rows sum to 100.

DISCUSSION

Smoking restrictions in Victorian workplaces have increased dramatically over the past 15 years, with total smoking bans reported by 73% of indoor workers in 2005, compared with just 34% in 1990. Similarly, the proportion of indoor workers reporting no smoking restrictions in their workplace declined dramatically from 25% in 1990 to 4% in 2005.

Indoor workers were more likely than outdoor workers to be protected by total smoking bans in 2005 (73%), while outdoor workers were the least likely to be protected by these bans (15%). While total smoking bans reported by indoor workers increased significantly between 1990 and 2005, there was little change over this period in the proportion of outdoor workers reporting total smoking bans in

their workplace. In addition, the proportion of total smoking bans reported by outdoor workers significantly declined from 2001 to 2005 (30% to 15% respectively). The lack of change in smoking restrictions within outdoor workplaces over the past 15 years may be due to these workplaces continuing to be left out of smokefree legislation in Victoria.

As found in previous years, regular smokers were significantly less likely to work in workplaces with total smoking bans than were those who did not regularly smoke. This may be for a number of reasons. Firstly, workplaces with many staff who smoke may be less likely to institute bans. Smokers may also seek out workplaces where they are able to smoke. On the other hand, total smoking bans in workplaces may stimulate regular smokers to quit (ie, smokers may feel more pressure to quit if there is limited opportunity to smoke, or if the environment is not conducive to smoking). This is supported by previous research examining change in smoking behaviour following workplace smoking bans.^{3,4}

Smoking restrictions also varied across different indoor workplace types. Schools, open plan offices and home office/own office workers reported the highest proportion of workplaces with total smoking bans (92%, 82% and 79%, respectively), while hotel/club/gaming venue and restaurant workers experienced the lowest levels of total smoking bans in 2005 (18% for hotel/club/gaming venue workers, and 47% for restaurant workers).

Between 1990 and 2005, the proportion of indoor workers reporting total smoking bans increased across all workplace types, except for those who worked in hotel/club/gaming venues and restaurants. Although restaurants in Victoria have been covered by total bans since 2001, it is likely that some workers continue to be exposed to smoking at work through serving tables located outdoors. There was little change in the proportion of total smoking bans reported across workplace types between 2003 and 2005, apart from a trend toward a significant increase in reported total smoking bans among own office/home office workers (from 70% in 2003 to 79% in 2005).

Overall, in 2005, more than one-quarter of indoor workers in Victoria were still at risk of being exposed to second-hand smoke in the workplace, including over 80% of hotel/club/gaming workers and over 50% of restaurant workers. With the introduction of total smoking bans in most enclosed workplaces in March 2006, it is expected exposure to ETS among indoor workers will drop dramatically. However, it is also expected that hotel, bar and club workers in Victoria will continue to be exposed to ETS in the workplace until total smoking bans are introduced in these venues by July 1 2007.

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APPENDIX A

Table A:
Levels of smoking bans by location of work, 1988–2003

	1990 (n=1203)	1991 (n=1279)	1992 (n=752)	1993 (n=1251)	1994 (n=1191)	1995 (n=1253)	1997 (n=1264)	1998 (n=991)	1999 (n=1198)	2001 (n=1227)	2003 (n=1844)	2005 (n=1772)
a) TOTAL BANS (%)												
Indoor	33.9	48.4	57.9	59.8	62.8	65.6	60.6	74.6	70.4	69.0	67.8	72.5*
Outdoor	9.3	14.0	15.6	23.2	20.4	23.1	16.7	20.4	19.8	29.8	25.4	15.4
Vehicle	26.8	34.6	34.8	26.3	39.0	50.0	28.9	36.7	55.3	48.6	45.1	61.1*
Varies/Other	34.6	30.9	44.8	43.6	38.1	43.8	45.1	49.2	58.7	39.9	47.9	45.6*
b) PARTIAL BANS (%)												
Indoor	41.4	35.0	29.6	28.6	24.7	23.8	26.9	18.6	21.8	25.1	27.7	23.2*
Outdoor	26.4	26.4	32.5	28.0	35.0	29.9	29.8	25.2	25.7	28.6	25.4	39.4
Vehicle	41.1	36.5	43.5	47.4	34.1	18.8	53.3	30.0	29.8	37.1	39.2	16.7 [†]
Varies/Other	25.2	36.2	29.9	31.9	38.1	31.3	36.1	19.0	19.3	35.0	40.5	33.2
c) NO RESTRICTIONS (%)												
Indoor	24.7	16.5	12.5	11.6	12.6	10.6	12.5	6.8	7.8	5.9	4.6	4.3*
Outdoor	64.3	59.5	51.9	48.8	44.7	47.0	53.5	54.4	54.5	41.7	49.2	45.1*
Vehicle	32.1	28.8	21.7	26.3	26.8	31.3	17.8	33.3	14.9	14.3	15.7	22.2 [†]
Varies/Other	40.2	33.0	25.4	24.5	23.9	25.0	18.8	31.7	22.0	25.2	11.7	21.2*

* Significant difference since 1990, $p < .01$.

[†] Trend toward a significant difference since 1990, $p < .05$.

APPENDIX B

Table B:
Levels of smoking bans by indoor workplace type, 1990–2005

<i>Workplace type</i>	1990 (n=889)	1991 (n=1014)	1992 (n=585)	1993 (n=974)	1994 (n=931)	1995 (n=989)	1997 (n=968)	1998 (n=734)	1999 (n=899)	2001 (n=963)	2003 (n=1505)	2005 (n=1330)
TOTAL SMOKING BANS (%)												
Warehouse/workshop/factory	10.1	21.3	34.6	39.1	41.2	39.5	33.3	50.5	49.6	46.3	39.9	49.5*
Shop/supermarket	33.3	36.5	38.1 ^a	55.7	73.0	71.3	70.4	74.7	68.5	76.6	72.7	76.2*
Open plan office/office	38.8	59.8	68.8	68.9	73.2	76.2	73.3	84.6	78.9	78.2	77.8	82.2*
Own office/home office	39.0	50.3	56.1	59.9	62.8	62.0	57.9	75.2	66.7	73.7	70.3	79.3*
Hotel/restaurant/club	–	6.9 ^a	33.3 ^a	32.1	26.2 ^a	23.3 ^a	50.0	35.1 ^a	26.2 ^a	34.1 ^a	43.5	28.3
School/classroom	63.9	65.8	77.6	84.2	81.4	88.4	80.3	91.7 ^a	93.8	92.5	88.8	91.5*
Hospital/medical centre/lab	28.2	59.5	69.4 ^a	61.7	66.7	67.9	63.2	83.6	82.7	66.7	65.1	62.8*
Other	33.3	45.5 ^a	61.1 ^a	51.9 ^a	40.7 ^a	65.8 ^a	54.3 ^a	58.3 ^a	52.5 ^a	53.2 ^a	54.2	68.6*
PARTIAL SMOKING BANS (%)												
Warehouse/workshop/factory	51.5	54.4	45.2	44.4	41.2	38.8	42.2	39.4	35.9	39.7	50.7	44.6
Shop/supermarket	44.9	41.2	33.3 ^a	21.4	8.1	14.9	18.5	12.0	27.0	13.8	22.7	21.4*
Open plan office/office	37.7	29.8	23.3	25.6	20.8	18.1	20.9	13.9	16.7	20.4	20.1	16.8*
Own office/home office	31.7	27.0	25.4	22.1	15.9	21.6	24.4	14.0	18.3	19.8	23.0	12.5*
Hotel/restaurant/club	–	41.4 ^a	46.7 ^a	34.0	45.2 ^a	46.5 ^a	23.3	40.5 ^a	50.0 ^a	50.0 ^a	51.6	51.7 [†]
School/classroom	31.3	28.1	20.9	14.7	16.3	11.6	18.4	8.3 ^a	6.2	7.5	11.2	7.7*
Hospital/medical centre/lab	67.6	37.8	30.6 ^a	38.3	32.0	32.1	36.8	12.7	16.0	32.3	32.2	36.4*
Other	32.1	25.0 ^a	33.3 ^a	40.7 ^a	37.0 ^a	28.9 ^a	34.3 ^a	33.3 ^a	32.5 ^a	36.4 ^a	35.4 ^a	22.1 ^a
NO SMOKING RESTRICTIONS (%)												
Warehouse/workshop/factory	38.5	24.3	20.2	16.6	17.6	21.7	24.4	10.1	14.5	14.0	9.4	6.0*
Shop/supermarket	21.8	22.4	28.6 ^a	22.9	18.9	13.8	11.1	13.3	4.5	9.6	4.5	2.4*
Open plan office/office	23.5	10.4	8.0	5.5	6.0	5.7	5.7	1.5	4.3	1.4	2.1	0.9*
Own Office/home office	29.3	22.7	18.4	18.0	21.3	16.4	17.7	10.7	15.1	6.6	6.7	8.2*
Hotel/restaurant/club	–	51.7 ^a	20.0 ^a	34.0	28.6 ^a	30.2 ^a	26.7	24.3 ^a	23.8 ^a	15.9 ^a	4.8	20.0*
School/classroom	4.8	6.1	1.5	1.1	2.3	0.0	1.3	0.0 ^a	0.0	0.0	0.0	0.9*
Hospital/medical centre/lab	4.2	2.7	0.0 ^a	0.0	1.3	0.0	0.0	3.6	1.2	1.0	2.7	0.8
Other	34.5	29.5 ^a	5.6 ^a	7.4 ^a	22.2 ^a	5.3 ^a	11.4 ^a	8.3 ^a	15.0 ^a	10.4 ^a	10.4 ^a	9.3 ^a

Note: Other includes 'don't know/can't say'.

* Significant difference since 1990, $p < 0.01$.

[†] Trend toward a significant difference since 1990, $p < 0.05$.

^a Cell counts are small (denominator = $n < 50$) and should be interpreted with caution.