
Smoke-Free Patios: A Priority for Public Health Action

Nancy Bradshaw and Saeeda Irfan, PTCC

I. Introduction.

The Smoke-free Ontario Act (SFOA), which took effect in 2006, prohibits smoking in enclosed public places and workplaces, including inside restaurants and bars; however, workers and members of the public including children can still be exposed to second-hand smoke on outdoor patios. Structured experiments and air quality monitoring on Ontario patios have demonstrated that outdoor concentrations of tobacco smoke can be as high as levels found indoors, particularly where people congregate in close proximity to one another, as is the case on most restaurant and bar patios.

Over 100 Ontario municipalities have passed bylaws that ban smoking in a variety of outdoor spaces, such as playgrounds, parks, beaches and other outdoor spaces. Despite this progress, few municipal by-laws have regulated smoking on patios. Given that the public and hospitality workers are still exposed to second-hand smoke on outdoor patios in most Ontario communities, regulation to prohibit smoking on patios is an important policy initiative that can benefit the health of Ontarians.

Second-hand smoke

It is widely accepted by experts that there is no risk-free level of exposure to second-hand smoke (US Department of Health and Human Services [USDHHS], 2006). Second-hand smoke is composed of both mainstream smoke, exhaled by the smoker and sidestream smoke from the burning end of the cigarette. Over 7000 chemicals are found in second-hand smoke, including 69 known carcinogens (USDHHS, 2010). Second-hand smoke is a known cause of a sudden infant death syndrome, asthma and respiratory infections in children and coronary artery disease, lung cancer and emphysema in adults, among other serious health consequences (USDHHS, 2010). According to the US Surgeon General, even low levels of exposure “lead to a rapid and sharp increase in dysfunction and inflammation of the lining of the blood vessels, which are implicated in heart attacks and stroke (USDHHS, 2010).” A recent study has estimated that Ontario’s smoke-free legislation inside bars has saved five to seven non-smoking bar workers lives annually, 90% of these from coronary heart disease (Repace, Zhang, Bondy, Benowitz, & Ferrence, 2013).

Some disease risks resulting from exposure to second hand smoke are of particular concern for women who constitute 60% of Ontario’s accommodation and food service labour force (Statistics Canada, 2012). Pregnant women exposed to second-hand smoke have an increased incidence of adverse outcomes such as miscarriage, ectopic pregnancy and low birth weight (USDHHS, 2010). Evidence also suggests that second-hand smoke increases the risk of breast cancer in premenopausal women (Ontario Tobacco Research Unit [OTRU], 2009).

Exposure to second-hand smoke on restaurant and bar patios

An increasing number of studies show that levels of second-hand smoke concentrations on outdoor patios can be as high as found indoors where smokers are present (Licht, Hyland, Travers, & Chapman, 2012). The level of exposure is highest within one to two meters of an active smoker (Klepeis, Ott, & Switzer, 2007). However, concentrations of pollutants from tobacco smoke are known to impact air quality - up to 12 metres away – or the length of a large outdoor patio (Kennedy et al., 2012).

Patrons and workers inside the adjoining establishment can be exposed to second-hand smoke drifting from the patio. Bars and restaurants with indoor smoking bans that allow smoking on patios show higher concentrations of tobacco smoke indoors than those with outdoor smoking bans (Mulcahy, Evans, Hammond, Repace, & Byrne, 2005). Air quality studies demonstrate that tobacco smoke from the outdoor patio drifts indoors through air intake systems, doors, and windows and continues to circulate, exposing patrons and staff inside to second-hand smoke (Mulcahy et al., 2005).

Restaurant and bar staff working on outdoor patios where smoking is allowed can face cumulative exposures to second-hand smoke over the course of a shift (Ferrence & Muir, 2013). Studies indicate that bar and restaurant staff can be exposed to second-hand smoke between 40% to 70% of their working time (Licht et al., 2012). An air quality study, which measured levels of contaminants from second-hand smoke on Toronto bar patios following the indoor smoking ban, concluded that “bar workers are not adequately protected from second-hand smoke exposure where smoking is permitted on outdoor patios, even after implementation of indoor smoking bans (Zhang, Bondy, & Ferrence, 2009).”

II. Smoke-Free Patios and Comprehensive Tobacco Control

Laws to ban smoking on restaurant and bar patios can support cessation efforts and assist with prevention, contributing to Ontario’s goal to achieve the lowest smoking rate in Canada (Ministry of Health and Long-Term Care, 2012). In addition to protecting the public from exposure to second-hand smoke, smoke-free laws promote reduced cigarette consumption and encourage cessation (Kennedy et al., 2012; Nagelhout et al., 2012). By limiting social smoking cues, smoke-free laws can also prevent relapse among individuals who have quit (Abrams et al., 1988; Zhou et al., 2009). Following the implementation of a comprehensive smoke-free bylaw in Woodstock, which included many outdoor space restrictions, 38 %of smokers indicated that the bylaw assisted them to quit, 40% said it helped them to stay quit, and a third had reduced their cigarette consumption after the bylaw was in place (Kennedy et al., 2010).

Benefits of smoke-free legislation extend beyond cessation to prevention by denormalizing smoking and decreasing its social acceptability. Smoking on patios is a highly visible activity, and therefore smoke-free patio restrictions are likely to reduce the visibility of tobacco use (social exposure). Reduced social exposure is known to decrease the likelihood that children and youth will start to use tobacco, therefore limiting youth experimentation (Smoke-free Ontario Scientific Advisory Committee, 2010). The potential impact on cessation rates and prevention is particularly relevant for young adults, who have the highest smoking rates in Ontario, and often frequent or work at restaurant and bar patios.

III. Smoke-Free Patios in Ontario

The majority of the public is supportive of smoke-free patios. Prior to proposing smoke-free outdoor spaces, many local public health departments surveyed the public and findings indicate strong support for smoke-free patios.

Some of the reasons cited by the public for supporting the bylaw include:

- Increased protection from second-hand smoke exposure
- Positive role modelling for children, youth and young adults
- Increased enjoyment of the dining experience (drifting second-hand smoke can impede appetite)

In 2011, the majority of Ontario adults (57%) agreed that smoking should be banned from all restaurants and bar patios (OTRU, 2012). Some public health departments have captured data to demonstrate local support, such as the County of Lambton at 70% public support (County of Lambton, 2011); Halton at 80% (Halton Region Health Department, 2011) and Grey Bruce at 92% public support (Grey Bruce Health Unit, 2011). As more communities implement legislation to prohibit smoking in outdoor areas, levels of support for outdoor smoke-free areas will likely continue to increase. (Thompson, Wilson, & Edwards, 2009).

Over 100 municipalities in Ontario have enacted bylaws that protect the public from exposure to second-hand-smoke in various outdoor spaces, including playgrounds, pools, beaches, parks, hospital grounds, transit stops, stadiums and sport facilities and parks. Seven of these municipalities have enacted bans on smoking cigarettes, cigars and pipes on all restaurant and bar patios, namely: Kingston, Ottawa, Thunder Bay, Brighton, Burpee and Mills, Huron Shores and Tehkummah (Non-Smokers' Rights Association, 2013).

Opponents often cite that there will be economic losses associated with the legislation, primarily to the hospitality industry but also to other sources of revenue, such as tourism (International Agency for Research on Cancer [IARC], 2009). Anecdotally, this has not been the experience in Kingston, Ontario, which has prohibited smoking on outdoor patios (and inside restaurants and bars) since 2003. Other

cities and Provinces in Canada that have enacted smoking bans on outdoor patios have not reported economic harm (Ferrence & Muir, 2013).

A growing body of literature suggests that cost savings may be realized through reduced absenteeism, increased productivity and reduced insurance premiums associated with a workforce that smokes less and is not exposed to second-hand smoke in the workplace (IARC, 2009). Enforcement costs in Kingston and elsewhere have also been minimal.

A smoke-free bylaw that includes patios ensures that restaurant and bar patios are accessible to everyone. Given that approximately 80% of the population in Ontario does not smoke, smoke-free patio regulations may increase, rather than decrease, patronage of restaurant and bar patios. Five years after the implementation of indoor smoking bans under the Smoke-free Ontario Act, 87% of Ontario residents surveyed agree that the legislation has ‘increased their enjoyment of dining out at a restaurant or visiting a bar’, while three quarters (74%) agree that it ‘encouraged them to visit restaurants and bars more often or stay longer’. Nine in ten (90%) also ‘agree’ (55% strongly/33% somewhat) that it has ‘made them more aware of smoking in public places’ (Ipsos Reid, 2011).

IV. The Role of Public Health

Public health departments’ leadership role in working with municipalities to support the development of healthy public policies to reduce tobacco use and exposure is clearly articulated in the Ontario Public Health Standards and accompanying guidance document for comprehensive tobacco control. Public health departments have demonstrated leadership on the issue of smoke-free outdoor bylaws over the past several years, often acting as policy champions to advance smoke-free bylaws in partnership with community advocates, NGOs, local government, youth and other stakeholders (McCammon-Tripp et al., 2013).

Given the high level of public support for smoke-free patios and demonstrated health gains, it is an opportune time for public health departments to encourage municipalities to adopt or amend bylaws to prohibit smoking on patios. Public health departments are viewed as highly credible and can bring forward evidence related to the health risks of outdoor second-hand smoke exposure for bar and restaurant workers and the broader public and dispel concerns related to the potential economic impacts of smoke-free patios. Through community surveys and other sources of information, public health can also demonstrate that smoke-free patios are in high demand and that the community is ready for this change. Some key activities that public health can use to advance the case for smoke-free patios include:

- Identifying and working with “champions,” such as community advocates (including NGOs) and council members, to advance the issue
- Partnering with community groups and build the capacity of local coalitions to advocate for smoke-free patios

- Consulting with restaurateurs that have adopted SF patios on a volunteer basis and encouraging them to become champions
- Positioning smoke-free patios as building on the municipality's past bylaw successes and the logical next step to providing protection from second-hand smoke for bar and restaurant workers and the broader community
- Demonstrating the ease of adoption in other communities and emphasizing the self-enforcing nature of the bylaw
- Developing a communications strategy including media outreach strategies (e.g. press releases, letters to the editor, opinion editorials), key messages and Q+A documents to advance the issue through earned media

V. Conclusions

In most Ontario municipalities, outdoor restaurant and bar patios are one of the remaining areas where the public and workers can be exposed to high concentrations of second-hand smoke. With the support and leadership of public health departments, tremendous progress has been made in the implementation of smoke-free outdoor space bylaws in many Ontario communities. Smoke-free patios have not for the most part been included in these bylaws. Public health departments can take action to encourage the adoption of smoke-free patios within municipal smoke-free bylaws in order to protect the health of bar and restaurant workers and their patrons.

VI. Additional Resources

City of Ottawa – Information for bars and restaurants (<http://ottawa.ca/en/residents/public-health/healthy-living/information-bars-and-restaurants>)

This is an example of a municipally-developed information page for bar and restaurant owners on the implemented bylaw, proprietor responsibilities, enforcement, penalties, and frequently asked questions including tips on how to best support a smoke-free patio bylaw.

Non-Smokers' Rights Association / Smoking and Health Action Foundation (<http://www.nsra-adnf.ca>)

The NSRA is a voluntary non-profit health organization that has worked exclusively in the field of tobacco control for over 30 years. Its mission is to promote public health by eliminating illness and death caused by tobacco, including second-hand smoke. The SHAF is the sister organization of the NSRA, and conducts public policy research and education designed to reduce tobacco-related disease and death. The NSRA / SHAF has developed various resources related to second-hand smoke which can be useful towards understanding smoke-free patios. Of note is the searchable NSRA Smoke-Free Laws Database which houses smoke-free bylaws and laws across Canada.

Ontario Campaign for Action on Tobacco (www.ocat.org)



OCAT is a partnership between the Canadian Cancer Society (Ontario Division), Heart and Stroke Foundation of Ontario, Non-Smokers' Rights Association, Ontario Lung Association, and the Ontario Medical Association. Initially founded to support the passing of the Tobacco Control Act, the organization's current objectives include sustaining the Smoke-Free Ontario Strategy, controlling contraband tobacco products, and protection from second-hand smoke in outdoor public places and multi-unit dwellings. Resources available on their website include bylaw summaries, evidence, and other sample tools.

Program Training and Consultation Centre (<http://www.ptcc-cfc.on.ca>)

PTCC provides training, technical assistance and knowledge exchange services in comprehensive tobacco control to local public health departments, local tobacco-free coalitions, Tobacco Control Area Networks, and other community health and social service agencies. The PTCC operates a Media Network to help build the capacity of health departments to strategically use the media. Media Network staff can provide assistance with media campaign planning, the development of key messages, press releases, and other media materials to help generate coverage of smoke-free patios at the community level. Specific PTCC resources related to smoke-free outdoor spaces include:

Compliance & Enforcement of Smoke-Free Outdoor Spaces Bylaws (April 2010) This six-page backgrounder summarizes research on compliance with outdoor smoking restrictions, public support for such restrictions, methods to increase compliance and enforcement of restrictions.

Play, Live, Be Tobacco-Free Guide (2011) This toolkit for developing tobacco-free policies and smoke-free outdoor by-laws is built around six steps for policy/by-law development and implementation.

Creating Smoke-Free Spaces: The Development of Smoke-Free Outdoor Space By-laws - A Documentation of Practice Report (March 2013). This report outlines the key mechanisms that were associated with the development of comprehensive by-laws across three Ontario communities.

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