Chapter 3
The evolution of smoke-free policies

Introduction

The previous chapter summarised the evidence that led to the conclusion that exposure to secondhand smoke (SHS) is harmful to the health. Once the public health community accepted this evidence in the 1980s, avoiding exposure to SHS became a high priority for public health policy and practice. The first time that protection of nonsmokers was included as a major goal for a tobacco control programme was 1993 in the US state of California (Pierce *et al.*, 1994). Over time, jurisdictions have tried many approaches to protect the nonsmoker, providing an evidence base on which to judge the effectiveness of the different approaches.

This chapter will present the current consensus guidelines, developed by the Conference of the Parties of the WHO Framework Convention on Tobacco Control (FCTC), for implementing effective smoke-free public health policy and then retrace the evolution of concern about exposure to SHS over time and the resulting policies for protection against it in different parts of the world. This history highlights the political nature of this topic. Even as governments became aware of the mortality and morbidity attributed to SHS exposure in the 1980s and 1990s, many were reluctant to act promptly and decisively. In many cases, governments preferred voluntary agreements that were acceptable to, and even promoted by, the tobacco industry (Saloojee & Dagli, 2000; Dearlove *et al.*, 2002; Sebrie & Glantz, 2007). It took time for evaluations to demonstrate that these agreements were clearly insufficient to achieve the public health goal, as exposure to SHS was not eliminated and at best reduced (Siegel, 2002). The political power of the tobacco industry within most jurisdictions was, and still is, considerable, and many governments were extremely cautious to avoid political problems for regulating where to allow smoking and where not to (Bornhauser *et al.*, 2006).

Following this chronology, we present a series of examples of jurisdictions that have implemented policies that, by and large, adhere to the WHO FCTC recommended guidelines and others that partially do. Some of these examples contributed to the evidence that is summarised in later chapters in this Handbook. A number of these jurisdictions have ongoing evaluations in place of the impact of the policies implemented, which will further their evidence base in the future. These examples can serve as a guide for the many jurisdictions considering protection of their non-smoking residents. Finally, we note the work in progress in jurisdictions that have made considerable progress towards smoke-free legislation, although, as yet, they have not reached the goals outlined in the WHO FCTC guidelines (WHO, 2005).

WHO FCTC guidelines on protection from exposure to tobacco smoke

In response to the pervasive health consequences of tobacco use around the world, and the complex economic and political issues involved in implementing effective policies for tobacco control, the WHO adopted an evidence-based international treaty, the WHO FCTC (WHO, 2005). This Treaty acknowledges and addresses a series of difficult, and sometimes unappreciated, issues in tobacco control including cross-border effects, trade liberalisation, foreign investments, global marketing, transnational tobacco advertising, promotion and sponsorship, as well as contraband and counterfeit cigarettes (WHO, 2005). The provisions of the WHO FCTC focus on the multi-faceted interventions that are needed for tobacco control. These include the following: tax and price measures to reduce the demand for tobacco; protection from exposure to tobacco

smoke; regulation and disclosure of tobacco products and its contents, including packaging and labeling; education and public awareness campaigns; policies regarding tobacco advertising, promotion and sponsorship; and provisions for treating tobacco dependence. In addition, the WHO FCTC has provisions regarding illegal tobacco sales, purchase by and distribution to minors, and assistance with economically viable alternatives to tobacco. The Treaty went into effect on February 27, 2005 and 162 parties (governments) were signatories as of January 28, 2008.

On July 3, 2007, the 2nd Conference of the Parties to the WHO FCTC approved unanimously the guidelines to assist Parties in meeting their obligations under Article 8 of the Convention: "in a manner consistent with the scientific evidence regarding exposure to secondhand tobacco smoke and the best practice worldwide in the implementation of smoke-free measures." The Conference of the Parties encourages its members, as well as all other WHO Member States, to refer also to the WHO policy recommendations on protection from exposure to SHS in the development and implementation of smoke-free legislation (WHO, 2007b).

Article 8 states that the Parties to the Treaty shall adopt and implement effective legislation "providing for protection from exposure to tobacco smoke in indoor workplaces, public transport, indoor public places and, as appropriate, other public places" given that "scientific evidence has unequivocally established that exposure to tobacco smoke causes death, disease and disability" (WHO, 2005). The guidelines for Article 8 also identify the key elements of legislation necessary to effectively protect people from exposure to tobacco smoke, as required by Article 8. According to these guidelines, the approval and implementation of smoke-free legislation should be based on the following principles (WHO, 2007a):

1. *100% Smoke-free environments, not smoking rooms* - The guidelines indicate that there is no safe level of exposure to SHS, and, therefore, the only way to protect the population is to create 100% smoke-free environments. The creation of 100% smoke-free environments requires that there are no separately designated areas for smoking. The guidelines state that "ventilation, air filtration systems, and the use of designated smoking areas (whether with separate ventilation systems or not), have repeatedly been shown to be ineffective and there is conclusive evidence, scientific and otherwise, that engineering approaches do not protect against exposure to secondhand smoke."
2. *Universal protection by law* - The guidelines indicate that Article 8 creates an *obligation to provide universal protection, i.e. to all people,* by ensuring that all (1) indoor workplaces, (2) indoor public places, (3) public transport, and (4) as appropriate, other public places, are completely free of SHS. It notes that no exemptions are justified on the basis of arguments related to either health or law. Considerations of exemptions, based on any other arguments, should be considered carefully and cautiously so as to not undermine the public health protection of citizens. In addition, Article 8 carries the governmental duty to protect all people from exposure to SHS by law and not by means of voluntary agreements.
3. *Public education to reduce secondhand smoke exposure* - The guidelines emphasise that it is equally important to educate the population regarding the law to ensure awareness and compliance.
4. *Implementation and adequate enforcement of the policy* - The guidelines outline that experience has proven the importance of simple, clear, and enforceable legislation to provide protection under Article 8. The guidelines recommend designating one or more groups as inspectors who are well-trained and supported, particularly during the first weeks and months after the law goes into effect.

Evolution of protection from SHS

Period 1: pre World War I

While tobacco had been used in society for centuries, cigarettes were not widely used anywhere in the world before the end of the XIXth century. Following the development of the Bonsack machine for making cigarettes in the USA in 1888, the cigarette market started to grow significantly (Kluger, 1996). This machine was critical for mass production of cigarettes at very low prices, which

made them affordable. Aggressive marketing was used to consolidate the industry and build demand. As smoking became more prevalent and socially acceptable, exposure to SHS also became a nuisance to many. In 1910, the Non-Smokers Protective League in the USA was formed to lobby for increased bans on smoking in public places. A letter to the editor of the *New York Times* in 1913 stated "Smoking is now general in restaurants and a nonsmoker can seldom take a meal without the sickening fumes of tobacco puffed by a man who has a profound disregard for the rights and comforts of others" (Brandt, 2007). By 1913, smoking activists in the USA lobbied against the ban on smoking on railways, claiming the need for public space that allowed smoking, such as designated smoking cars (Brandt, 2007).

Period 2: 1914-1949

At the start of this period, smoking rooms were set aside in wealthy residencies and social norms proscribed lighting up in front of women in most western societies (Tyrrell, 1999).

While the cigarette market was growing rapidly before World War I, it accelerated enormously during the war. Leaders of the armed forces exhorted the public on the value of the product (Brandt, 2007). Without an effective opposition, there was fairly rapid public acceptance that cigarettes were needed for members of the armed forces in order to "soothe the nerves somewhat, and deaden the loneliness" (Sobel, 1978). The Red Cross, and other organisations, raised money to dispatch free chewing gum, toothpaste, and cigarettes to American servicemen (Kennett, 1987). The cigarette industry was generous in supplying cigarettes to the Armed Services and, as a result, there was a rapid growth in cigarette smoking among young men with no social limitations on where to pollute the air with tobacco smoke (Kluger, 1996).

In the early 1920s, John H. Kellogg, an American surgeon, Seventh-day Adventist, the inventor of corn flakes breakfast cereal, and partner in the W.K. Kellogg Company, noted that smoking restrictions were possible when smokers were clearly a minority. However, with the rapid growth in dependent smokers who returned from the war, these smoking restrictions were increasingly hard to maintain even in respected society (Kellogg, 1922). The prospect of voluntary restrictions to protect women in households became increasing less likely, as the tobacco industry effectively targeted women themselves to become smokers.

Until the early 1920s, social norms restricted advertisers from explicitly targeting women, although women frequently appeared in cigarette advertisements in poses epitomised by the "blow some my way" advertising campaign for Chesterfields (Pierce & Gilpin, 1995; Brandt, 2007). The first campaign targeted directly at women smoking was the 1926 Lucky Strike "Reach for a Lucky instead of a sweet" campaign. This campaign has been associated with the launching of cigarette smoking among women (Kluger, 1996); and their level of initiation has increased every year until the 1970s in the USA (Pierce & Gilpin, 1995).

During the decades following World War I, two factors lowered the social norms denouncing SHS exposure. First, the number of smokers increased dramatically, so that by the end of the Second World War more than 70% of men had become smokers and the proportion of women smoking had grown to well over a quarter of the population (Burns *et al.*, 1996). Further, cigarette smoking was a more frequent behaviour than cigar smoking, and smokers "invaded all indoor public and private spaces" with their smoke. By 1933, Thomas H. Roach, of the Non-Smokers League of Australia, noted the aggressive behaviour of smokers in the nonsmoking sections of trains and train stations, and a major magazine in the country noted in 1935 that the rules against smoking in food preparation areas were largely ignored (Tyrrell, 1999).

Period 3: 1950-1962

Although concerns about increasing lung cancer rates were published in the scientific literature in the late 1920s (Lombard & Doering, 1980), and, in Germany, a rudimentary case-control study in the late 1930s suggested that smoking caused lung cancer (Muller, 1939; Brandt, 2007), the first solid evidence that smoking was a primary cause of lung cancer came with five case-control studies published in 1950 (Doll & Hill, 1950; Levin *et al.*, 1950; Mills & Porter, 1950; Schrek *et al.*, 1950; Wynder & Graham, 1950). Throughout the 1950s, new evidence that smoking caused lung cancer and other health

problems continued to accumulate. Studies reported on the induction of cancer by cigarette components in animal models (Wynder *et al.*, 1953), the results from large prospective cohort studies on disease rates among smokers and nonsmokers were presented (Doll & Hill, 1954; Hammond & Horn, 1954), and histopathological differences in smokers and nonsmokers in humans were observed (Auerbach *et al.*, 1956, 1957). A public health consensus review panel was convened by the US Surgeon General and the results published in the journal *Science* (Study Group on Smoking and Health, 1957). The Royal College of Physicians in the UK also published their first report on the likelihood that smoking caused cancer (Medical Research Council, 1957).

However, this public health consensus did not flow over to the US medical community, as was apparent in 1961 when the *New England Journal of Medicine* solicited articles from the leading scientific advocate for the public health viewpoint, Ernst Wynder, and from Pete Little, a respected cancer researcher who headed the Tobacco Institute, the public relations voice of the tobacco industry (Little, 1961; Wynder, 1961). The accompanying editorial advised the medical audience that they should weigh the evidence for each side and make up their own minds about which to believe (Author Unknown, 1961). This equivocation was not evident in the medical community in the UK. The Royal College of Physicians began its own review of the scientific evidence in the late 1950s (Medical Research Council, 1957), and presented a very influential report in 1962 concluding a causal association between smoking and lung cancer (Royal College of Physicians, 1962). This evidence of a medical consensus in the UK was sufficient to initiate a presidential inquiry in the USA (Kluger, 1996), which resulted in the first US Surgeon General's Report on Smoking and Health (U.S. Department of Health, Education and Welfare, 1964). This report is widely recognised as the first definitive review of the data in the USA, and the beginning of the public health agencies' campaign against smoking in that country (U.S. Department of Health and Human Services, 1989).

The strong evidence of serious health effects caused by "active" smoking generated during this period, gave credence to the suspicion that there were similar dangers from "passive" smoking. These concerns were strengthened by scientific evidence of physiopathological changes in the oxygen-carrying function of the blood of nonsmokers exposed to SHS, as well as by the general annoyance smoking provoked in many nonsmokers.

Period 4: 1963-1979

In 1963, in a prescient editorial of the *South African Medical Journal,* members of the medical association advocated not only for public education, increasing taxation on tobacco products, prohibiting of cigarette advertising, but also for prohibiting smoking in public buildings and on public transport, because "the discomfort and disease of the non-smoker must be considered before the convenience of the smoker" (Mackenzie & Campbell, 1963). The first sign of high level political concern about the detrimental effects of SHS was the 1969 Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (MAK Commission) of the German Research Foundation. Although not an official agency, its recommendations were usually followed by the German government. The MAK Commission discussed the existing evidence on smoking and examined the potential dangers of SHS within an occupational health framework. In 1973 and 1975, the lower house of the West German parliament (Bundestag) passed a resolution calling on the federal government to prepare a comprehensive programme for "protecting the health concerns of nonsmokers in the different settings of life." However, under pressure from the tobacco industry, the parliamentary and governmental initiatives were not implemented (Bornhauser *et al.*, 2006).

In 1969, Bulgaria passed legislation to ban smoking in workplaces where nonsmokers worked, unless the nonsmokers agreed otherwise. In cases of expectant or nursing mothers working in the premises, the ban was not subject to permission by nonsmokers (WHO, 1975).

In 1970, Singapore banned smoking in cinemas, theatres, public lifts, and specific buildings (Tan *et al.*, 2000). That same year, the World Health Assembly (WHA), the conclave of all health ministers of the world, passed a resolution to

ban smoking in their meeting rooms[1] (WHO, 1970).

In 1971, US Surgeon General Jesse L. Steinfeld declared to the Interagency Committee on Smoking and Health "Nonsmokers have as much right to clean indoor air... as smokers have to their so-called right to smoke. It is high time to ban smoking from all confined public spaces such as restaurants, theaters, airplanes, trains and buses. It is time that we interpret the Bill of Rights for the nonsmokers as well as the smoker" (Brandt, 2007).

In 1973, after a plane crashed from a fire that started in an airplane bathroom waste bin, the US Federal Aviation Administration banned smoking in aircraft bathrooms (Holm & Davis, 2004). This same year, following years of passengers and cabin crew complaints about poor air quality in aircraft cabins caused by SHS, the US Civil Aeronautics Board established nonsmoking sections in passenger aircraft cabins; many international airlines followed suit (Brandt, 2007).

In 1975, the first WHO expert committee report on smoking and its effects on health pointed out that although the main concern was with health effects in the smoker, the nonsmoker exposed to SHS may be exposed to harmful concentrations of smoke *in ill-ventilated small places* (emphasis added) (WHO, 1975). The effects of inhaling carbon monoxide were highlighted. This report recommended that "Public information programs should emphasise the rights of the nonsmokers, especially children and pregnant women, to be protected from involuntary exposure to secondhand smoke." Legislative advice was also offered, but preceded by recommendations of moderation because "legislation that is too far out of tune with public opinion may provoke unfavorable reactions" or prevent its enforcement. In the same year, the Australian National Health and Medical Research Council issued a report with very similar recommendations (Noonan, 1976). By 1975, WHO reported that smoking was banned in hospitals and schools in a number of countries. However, many countries emphasised designating nonsmoking areas with or without physical separation from smoking areas.

In 1976, a resolution of the WHA urged Member States to seriously consider the following legislative recommendation: to create or extend nonsmoking areas in hospitals, health care institutions, public transportation, working environments, and other public places. The emphasis was on nonsmoking areas - on gaining spaces for nonsmokers. In 1978, another resolution of the WHA urged Member States "to protect the rights of nonsmokers to enjoy an atmosphere unpolluted by secondhand smoke," because the smoke had harmful effects on those who are involuntarily exposed to it.

In 1973, Norway restricted smoking on public transport, meeting rooms, work premises, and institutions (Ministry of Health & Care Services, 1973). In the same year, the US state of Arizona also restricted smoking to designated areas in libraries, theaters, concert halls, and buses. This was followed by a US state of Connecticut law restricting smoking in restaurants, and a 1975 US state of Minnesota law that included restrictions on smoking in private workplaces, in addition to restaurants, meeting rooms, and public places (U.S. Department of Health and Human Services, 1989).

Period 5: 1980-1991

Prior to the early 1980s, the most frequently recommended measure for the public's protection from SHS exposure was the segregation of smoking into separate areas, usually without consideration of physical separation or ventilation issues. There were significant concerns regarding the potential political and economic consequences of advancing 100% smoke-free proposals in any location.

However, in 1980, the damage to small-airways in the lungs as a result of workplace exposure to tobacco smoke among nonsmokers, was documented (White & Froeb, 1980), and another study concluded that "We showed, both experimentally and theoretically, that under the practical range of ventilation and building occupation densities, the RSP levels generated by smokers overwhelm the effect of ventilation and inflict significant air pollution burdens on the public" (Repace & Lowrey, 1980). In 1981, Dr. Takeshi Hirayama, a Japanese epidemiologist published the seminal study in the field of SHS (Hirayama, 1981). It reported that nonsmoking women living with smoking husbands had double the risk of lung cancer, compared to wives living with nonsmoking husbands.

[1] Resolution WHA23.32 (1970). Considering that smoking of tobacco during meetings may constitute a nuisance to nonsmokers; RESOLVES that all those present at meetings of the Assembly and its committees be requested to refrain from smoking in the rooms where such meetings are held.

By 1986, 13 studies had linked SHS to lung cancer, and the evidence was strong and consistent enough for the US Surgeon General to issue the first report dealing entirely with the effects of passive smoking, which concluded that "involuntary smoking causes disease, including lung cancer, in healthy nonsmokers" (U.S. Department of Health and Human Services, 1986). The US National Academy of Sciences released a report with the same conclusion shortly afterwards (National Research Council, 1986). That same year a report by IARC concluded that there was sufficient evidence that tobacco smoke is carcinogenic to humans and that "passive smoking gives rise to some risk of cancer" (IARC, 1986).

In 1986 and 1990, the WHA passed general resolutions urging Member States to ensure that nonsmokers received effective protection from exposure to SHS (WHO, 1986, 1990). In 1991, the WHA recommended banning smoking in relation to public conveyances, adding the caveat "where protection against involuntary exposure to secondhand smoke cannot be ensured."

Following a lawsuit by an employee who contracted lung cancer and claimed that SHS exposure on airlines caused the disease, the US National Research Council's Committee on Airliner Cabin Air Quality, in 1986, unanimously and forcefully proposed prohibiting smoking on all commercial flights of short duration within the USA. This recommendation was endorsed by the Association of Flight Attendants, the American Medical Association, and the American Lung Association. In 1987, Air Canada instituted highly successful nonsmoking flights on three busy corridors, and a law was implemented in the USA that banned smoking on flights of two hours or less. In 1990, the US Congress expanded this law to include all domestic flights of six hours or less.

In 1988, Norway extended its legislation to require smoke-free air in all enclosed public places and means of transportation; however, this did not include restaurants and bars.

By 1989, 45 US states had laws restricting smoking in public places and 17 states included some restrictions in private sector workplaces.

In 1990, the New Zealand legislature passed a Smoke-free Environments Act (Ministry of Health, 1990). The provisions of this act included some smoke-free areas (e.g. public facilities, including retail areas, and most shared offices), as well as many partial restrictions (more than half of the area nonsmoking) for work cafeterias, restaurants, and meal serving areas of pubs and other licensed venues. However, smoking restrictions were not implemented for non-meal serving areas of pubs, members' clubs, nightclubs, casinos, or in many non-office workplaces.

In 1990, the US Environmental Protection Agency (EPA) issued a draft report identifying SHS as a known human carcinogen. During the same year, using a population survey of California, it was estimated that, compared to workers in a smoke-free worksite, those with only a work area ban were almost three times more likely to be exposed to SHS, and those without any policy were eight times more likely to be exposed (Borland *et al.*, 1992).

In 1991, a class action law suit sought damages from the tobacco industry for diseases and deaths caused to flight attendants by exposure to SHS in airline cabins. This suit was successfully settled and established a not-for-profit medical research foundation (Flight Attendants Medical Research Institute) with $300 million funding from the tobacco industry (Flight Attendants Medical Research Institute, 1991). At the same time, flight attendant unions in many different countries joined forces with non-government organisations to start a broad-scale lobbying campaign for smoke-free skies. As a result of this pressure, the International Civil Aviation Organization approved a resolution in 1992 to eliminate smoking on international commercial flights by July 1, 1996. Though not legally binding, the resolution soon became an accepted standard for airlines, and national airlines began banning smoking on commercial flights as well.

Period 6: 1992-2003

In 1992, the US EPA issued a report classifying SHS as a major human carcinogen. In California, local and city governments have the power of passing local clean air laws, and tobacco control advocates were active from the late 1980s in getting such ordinances passed. By 1994, 195 municipalities had implemented such ordinances. In 1994, the California Legislature approved the California Smoke-Free Workplace Law, which required indoor workplaces in the state to be smoke-free. This law

became effective January 1, 1995 in all workplaces, except bars and taverns where it was delayed until January 1, 1998. Not only was this the first comprehensive law, but for many years it was the only comprehensive law worldwide.

In 1998 in India, a woman filed a petition[2] seeking to have the High Court of Kerala require the government to adopt measures to protect her from exposure to SHS on public transport. In 1999, the Court found in her favor noting that public smoking of tobacco violated her constitutional rights. Smoking in public places was declared punishable as a public nuisance and SHS was declared to be air pollution that was subject to India's environmental protection laws. The Court ordered the government of Kerala to educate and legislate in order to eliminate exposure to SHS in public places.

In 2001, the Supreme Court of India settled litigation by directing the central and state governments of the Indian Union to take effective steps to prohibit smoking in health and educational institutions, public offices, court buildings, auditoriums, libraries, and public conveyances, including railways. In response, a law was passed in 2003 and the government implementation rules in 2004 required hotels of more than 30 rooms and restaurants of more than 30 seats to have physically segregated smoking areas.

Following the Indian example, in 2001, environment lawyers in Uganda, with assistance from Environmental Law Alliance Worldwide, a non-profit network of lawyers, filed suit against the Attorney General and the environment authority stating that SHS violates nonsmokers' constitutional right to life and the right to a clean and healthy environment. The High Court found that smoking in public places was a violation of the constitutional right to life of non-smokers and the right to a clean and healthy environment guaranteed in both the Ugandan Constitution and the National Environment Statute of 1995. In 2004, the National Environment Management Authority complied with the court order and regulated smoking in public places.

In 2002, Delaware was the second US state to adopt a comprehensive smoke-free workplace law.

Period 7: post 2003

In 2003, WHO adopted the FCTC, as outlined earlier in this chapter. This was the start of considerable governmental action to enact smoke-free workplace laws as part of a comprehensive set of tobacco control interventions. Countries that have enacted smoke-free legislation covering all types of places and institutions according to WHO MPOWER (2008) are presented in Table 3.1; governmental jurisdictions at the sub-national level that have enacted smoke-free legislation are presented in Table 3.2.

In 2003, New York became the third US state to adopt a comprehensive smoke-free work-place law.

Table 3.1 Countries* by WHO region with smoke-free legislation covering all types of places and institutions assessed as reported in MPOWER (WHO, 2008)

Country
Africa
Botswana
Guinea
Niger
Uganda
The Americas
Uruguay
Eastern Mediterranean
Iran
Europe
Estonia
France
Ireland
Italy
Malta
Norway
Sweden
UK
South-East Asia
Bhutan
Western Pacific
New Zealand

*Degree of enforcement varies across countries listed

[2] The Indian judiciary allows individuals and organisations to approach the court seeking its interventions in matters of public interest even if plaintiffs are not directly affected. A letter to the High Court is enough to seek its involvement. The same applies to Ugandan courts.

Table 3.2 Countries with sub-national legislation banning smoking inside enclosed restaurants and bars (with smoking rooms/areas completely prohibited)

BY CONTINENT AND NATIONAL JURISDICTIONS									
EUROPE		**NORTH AMERICA**		**PACIFIC**		**SOUTH AMERICA**		**OTHER**	
Province, state, region, county	*Date*	*Province, state, region, county*	*Date*	*Province, state, region, county*	*Date*	*Province, state, region, county*	*Date*	*Province, state, region, county*	*Date*
Switzerland		***Canada***		***Australia***		***Argentina***		Bermuda	01.04.06
Canton of Ticino	01.07.08	Northwest Territories	01.05.04	Tasmania	01.01.06	Santa Fe	21.03.06	Guernse	02.07.06
United Kingdom		Nunavut Territories	01.05.04	Queensland	01.07.06	Tucuman	29.06.06	Jersey	02.01.07
Scotland	26.03.06	New Brunswick	01.10.04	Western Australia	31.07.06	Neuquen	15.11.07	Puerto Rico	02.03.07
Wales	02.04.07	Manitoba	01.10.04	Australian Capital Territory	01.12.06	Mendoza	12.02.08	British Virgin Islands	31.05.07
Northern Ireland	30.04.07	Saskatchewan	01.01.05	Victoria	01.07.07			Isle of Man	30.03.08
England	01.07.07	Newfoundland & Labrador	01.07.05	New South Wales	02.07.07			Hong Kong	01.07.09
		Ontario	31.05.06	South Australia	31.10.07				
		Quebec	31.05.06						
		Nova Scotia	01.12.06						
		Alberta	01.01.08						
		British Columbia	31.03.08						
		Yukon Territory	15.05.08						
		Mexico							
		Mexico City	07.04.08						
		Tabasco	09.08.08						
		United States							
		California	01.01.98						
		Delaware	27.11.02						

New York	24.07.03
Maine	01.01.04
Connecticut	01.01.04
Massachusetts	05.07.04
Rhode Island	31.03.05
Vermont	01.09.05
Washington	08.12.05
New Jersey	15.04.06
Colorado	01.07.06
Hawaii	16.11.06
Ohio	07.12.06
District of Columbia	02.01.07
Arizona	01.05.07
New Mexico	15.06.07
New Hampshire	17.09.07
Minnesota	01.10.07
Illinois	01.01.08
Maryland	01.01.08
Iowa	01.07.08
Utah	01.01.09
Oregon	01.01.09
Nebraska	01.06.09
Montana	01.10.09

Date indicates effective law implementation
Source: As reported by Rob Cunningham and Michael DeRosenroll, Canadian Cancer Society, on September 8, 2008 in Globalink (http://www.globalink.org)

In 2004, Ireland became the first country to enact a comprehensive smoke-free workplace law nationwide. Norway and New Zealand also enacted legislation in 2004. During the same year, three more US states (Maine, Connecticut, and Massachusetts) also adopted such a law, as well as three Canadian provinces and two Canadian territories.

In 2005, two more Canadian provinces and three US states (total of nine states) adopted this law.

In 2006, Uruguay became the first South American country, and the fourth overall, to adopt smoke-free workplace laws. Scotland also implemented its smoke-free law, as well as two Argentinian provinces, two more Canadian provinces (total of five provinces), four more US states, and three Australian states.

In 2007, Lithuania and Iceland joined the countries with smoke-free workplace laws. Three more Australian states enacted legislation, making this country essentially smoke-free. The remainder of the UK, five more US states (total of 18), and an additional Argentinian province also adopted this legislation.

Examples of implementation of smoke-free legislation

WHO reports that 16 countries, comprising only 5% of the world's population, have a comprehensive national smoke-free law, with high compliance in many of these countries (WHO, 2008). State and provincial initial efforts in Australia, Canada, and the USA set the pace for others to follow. A few examples are presented.

The 1994 California legislation: the precursor

California is the most populous US state, with a resident population that grew from 30 to 34 million between the 1990 and 2000 censuses. Beginning in the early 1980s, tobacco control advocates in California were active in trying to protect nonsmokers from SHS (Glanz & Balbach, 2000) and had started a successful strategy of targeting local and city governments to implement their power of passing local clean air ordinances. In 1992, two things occurred that led to the rapid diffusion of these local ordinances. First, the US EPA report (followed quickly by the California EPA publication) listed SHS as a human carcinogen. Second, the results of the first California Tobacco Survey were reported in a major medical journal indicating that Californians in a smoke-free workplace were 3-8 times less exposed to SHS than other workers (Borland *et al.*, 1992). By 1994, 195 municipalities had implemented smoke-free workplace ordinances.

As state law could preempt these proliferating ordinances, both industry and health groups lobbied the California Legislature. In January 2004, the state law requiring smoke-free public buildings was extended to ban smoking within 20 feet of main entrances, exits, and operable windows. Later that year, the California legislature enacted the California smoke-free workplace law, which became effective January 1, 1995, in all workplaces except bars and taverns, where implementation was delayed until January 1, 1998. However, this law did contain a number of important exemptions, included long-term patient care facilities and businesses with fewer than five employees (provided a number of provisions were met). This law did not contain a preemption clause sought by the tobacco industry interest groups, although the language was not completely clear. Immediately, the tobacco industry organised a resident petition to have a proposition (#188) that would overturn this law put on the ballot in the scheduled November election[3]. However, Proposition 188 was defeated with a resounding 71% "no" vote on Election Day.

In 2005, California banned smoking throughout its large prison system (over 170 000 adult inmates). The law requires workers, as well as inmates, to abide by the prohibition when inside the walls, although staff housing on prison grounds are exempt when inmates are not present. However, as of January 2009, there are 31 US states with tighter restrictions on prisons than California (America for Nonsmokers' Rights, 2009).

[3] Citizens in California may put a referendum on the statewide ballot that will: a) amend their constitution, b) adopt a new state statute, c) overturn legislation passed by the state legislature, or d) recall politicians. Before such initiatives are put on the ballot, they need to have been endorsed by 5-8% of the number of residents who voted in the previous gubernatorial election. The number of signatures needed in 2008 was 433 952 for a statute and 694 323 for a constitutional amendment. (http://ballotpedia.org/wiki/index.php/California-Initiative-and-Referendum-Law)

Local ordinances versus state law

The city of San Jose, in California, had enacted a clean indoor air ordinance that included long-term care facilities. In 1995, a nursing home resident complained about exposure to SHS in the common areas of the nursing home. The City advised the facility that it was in violation of the local law. The State Department of Health sued claiming that the state law preempted the local law. However the courts did not support the state's position. The 1998 Court of Appeal judged that the local law was not preempted by any state or federal law and that the Department's rules and regulations did not have the authority and force of statutory law. This led to the rapid passage of a network of local ordinances across the state to cover the exemptions in the California state law, so that all state workplaces were smoke-free. Thus, the combination of state and local laws meant that California was the first large population to be fully protected as later envisaged by Article 8 of WHO's FCTC.

Enforcement provisions

The California law did not contain a separate appropriation for enforcement. Local and city governments were given the responsibility of choosing which of a series of potential agencies should have enforcement responsibilities for the law. The law established a graded and not-too-punitive fine structure ($100 first offence, increasing to $500 for 3rd offence within a year), prior to requiring that the company be referred to the California Occupational Safety and Health Administration, which could (and did in at least one instance) impose fines as high as $50 000.

Without enforcement power, the California Tobacco Control Program (TCP) embarked on a campaign to build a social norm that would ensure voluntary compliance. Educational approaches included paid mass media messages about the dangers of SHS, so that by 2007, over 90% of California smokers surveyed agreed with the statement that any exposure to SHS could harm the health of babies and children, and 76% agreed that inhaling smoke from someone else's cigarette can cause lung cancer (California Department of Public Health, 2007).

Further, the California TCP supported direct mail and outreach campaigns to businesses, including free distribution of signage for walls and tables, as well as bar napkins with smoke-free messages. Educational articles were placed in trade publications, such as the Chamber of Commerce and Business Association newsletters. Local activists conducted volunteer observational surveys, with follow-up letters of congratulations for those in compliance or letters notifying businesses of the observed smoking, which were copied to the law enforcement agencies; and training and collaboration with law enforcement agencies to designate processes for addressing complaints and conducting enforcement operations.

An example of the effectiveness of this approach was provided by the city of San Francisco (population 1 million), California. In 2001, the local health department for the city identified 30 non-compliant bar owners and implemented an intervention, which included an informational letter informing them that smoking had been observed in their establishment and that there were potential legal liabilities for non-compliance with the law (Moore & Hrushow, 2004). This was followed by a series of three large, colorful postcards sent over a two year period with the message "Bar Owners Alert: Citations on the Rise." Observed compliance rose from 0% in 2002 to 70% in 2004. Observational surveys of a random sample of 300 San Francisco bars, from 2001 to 2003, identified that overall compliance was high and increasing over time (91% to 95%).

Statewide surveys of enforcement agencies were conducted in 1998, 2000, 2004, and 2007; the response rate was approximately 65%. The survey topics included actions taken in response to inquiries and/or complaints, as well as the conduct of agency-scheduled compliance checks. Actions included educational activities, as well as the issuance of warnings or citations. In 2007, 69% of agencies reported undertaking agency-scheduled compliance checks, and over 50% reported initiating a compliance check in response to either an inquiry or complaint. The majority of the actions taken involved education of bar owners and others; 42% of the agencies issued at least one official warning, and 23% reported issuing at least one citation in response to a detected violation. Reported enforcement action (including inquiries and complaints) was significantly lower in 2007 than in earlier years (Rogers *et al.*, 2008). This is in line with the

reduction in SHS exposure reported in Chapter 6.

Summary

The 1994 California state law does not comply with the Article 8 guidelines described at the start of this chapter, and therefore cannot be considered a model law. However, local ordinances were enacted quickly to remove the exemptions in the state law. As a result, by 1998 the 34 million residents of California were effectively covered by smoke-free policies in the manner envisaged by Article 8 guidelines, making it the first large jurisdiction to be smoke-free.

The 2004 Irish legislation: the first country

Enactment

In 2002, the Irish legislature gave the power to create smoke-free workplaces to the Minister for Health and Children. Two separate agencies (the Office of Tobacco Control and the Health and Safety Authority) commissioned independent scientists to review and report on the evidence on SHS and health. This report included a recommendation that employees needed to be protected from it in the workplace by legislative measures. At the press release following this report, in January 2003, the Minister for Health and Children announced that he would issue the necessary regulations to make all enclosed workplaces, including bars, smoke-free on January 1, 2004 (Howell, 2004). Extensive lobbying by the hospitality sector to have bars and restaurants exempted was unsuccessful, and on March 29, 2004, Ireland became the first nation to implement legislation creating smoke-free enclosed workplaces, including bars and restaurants. This legislation does not allow designated smoking rooms; however, prisons, hotel rooms, and psychiatric hospitals are exempt.

Enforcement

The performance reports from local health boards was compiled by the Office of Tobacco Control for the first nine months following enactment of the law (Office of Tobacco Control, 2005). A total of 34 957 inspections/compliance checks by environmental health offices were reported in this period; 94% of premises inspected were assessed as smoke-free (no evidence of smoking), and 86% had the required “No smoking” signage. A smoke-free compliance telephone line received 3121 calls over this period, including 1881 complaints (the majority in the first month). At the end of the nine months, complaint calls had stabilised at 40-50 per month.

In its annual report for 2007, the Office of Tobacco Control included details on inspections and compliance with the smoke-free law (Office of Tobacco Control, 2007): there were 7033 inspections of licensed premises with an 87% compliance with the law; 6401 inspections of restaurants (98% compliance); 1162 inspections of hotels (93% compliance); and 14 386 inspections of other workplaces (98% compliance). Combining all these inspections, compliance with the law was assessed to be 95%. A total of 676 complaints were received by the smoke-free compliance telephone line. During the year, there were a total of 49 convictions for infractions of the law with the majority of these relating to licensed premises.

The Irish legislation is widely considered to be a model of smoke-free policy, complying with the requirements of the Article 8 guidelines outlined at the start of this chapter.

The 2004 New Zealand legislation: the first country in the southern hemisphere

New Zealand was an early adopter of policies restricting smoking. In 1987, the New Zealand Department of Health implemented a smoke-free policy in its buildings, and, a year later, domestic airlines went smoke-free. However, early adoption of this partial legislation appeared to be enough to reduce the political pressure for more comprehensive protection of nonsmokers for 13 years and the passage of the Smoke-free Environments Amendment Act 2003, a comprehensive smoke-free law.

The act introduced a range of tobacco control measures, including that all schools and early childhood centers must be smoke-free by January 1, 2004, and nearly all other indoor workplaces by December 10, 2004, including bars, casinos, members’ clubs, and restaurants. Smoking was allowed in outdoor “open” areas, including those semi-enclosed, provided they did not meet the Ministry of Health’s definition of an enclosed “internal” workplace.

The exact definition of an internal and open area was complex (see http://www.moh.govt.nz/smokefreelaw) (Edwards *et al.*, 2008).

Nevertheless, several partial exemptions were allowed, notably prisons, hotel and motel rooms, and residential establishments, such as long-term care institutions and rest homes. Since then, a number of local governments have implemented smoke-free park policies.

The 2004 Scottish legislation: more European countries join the smoke-free club

Scotland is part of the UK, and, in 1999, became a devolved jurisdiction with legislative and administrative control of issues including health, education, criminal law, home affairs, local government, economic development, the environment, agriculture, sports, and the arts. Other areas, such as the constitution, defense, fiscal and economic systems, employment, safety, social security, and transport, remained under control of the UK Government (The Scotland Office, 1999).

In early 2004, the Scottish Executive, the administrative arm of the Scottish government, launched the first Scottish tobacco control action plan called "A Breath of Fresh Air for Scotland" (Scottish Executive, 2004). This plan included proposals for a Scottish debate on SHS and a separate Parliamentary Members Bill, entitled *Prohibition of Smoking in Regulated areas (Scotland) Bill*, was introduced for legislative debate (Scottish Parliament, 2004). There was a large response to the ensuing Executive's formal public consultation, with the vast majority supporting a law creating smoke-free enclosed public places, with few exemptions (Scottish Parliament, 2006).

The Smoking, Health and Social Care (Scotland) Bill was introduced to Parliament on December 17, 2004, and was enacted on March 26, 2006 (National Health Service, 2006). The legislation makes it an offence to smoke or to allow smoking in virtually all enclosed public and workplaces, including pubs and restaurants, with only a few exemptions (Scottish Parliament, 2006). Exempted premises include private residential accommodations and private cars; designated rooms in workplaces that are also communal living establishments, such as adult care homes, hospices, and off-shore installations; designated places where people are detained against their will, e.g. psychiatric units, prison cells, and police interview rooms. Designated hotel bedrooms are also exempt, but no minimum number of smoke-free rooms is required.

Local health authorities have the responsibility for enforcement and Environmental Health Officers (EHOs) are authorised to enter no-smoking premises to determine whether the law is being upheld. Inspections are usually incorporated within other health and safety or food hygiene inspections (Scottish Government, 2005); however, independent pro-active (to confirm compliance) or re-active (in response to a complaint) inspections are also undertaken. In the three months following implementation of the law, EHOs carried out 32 000 inspections across Scotland. In this period, compliance with the legislation was high; inspections recorded 97% compliance with smoking regulations and 80% with signage regulations.

Over time, the number of quarterly inspections decreased to around 8000 a quarter, as observed compliance with smoking regulations remained high at between 95 and 97%. Compliance with display signage increased to 97% for the period April-June 2008 (Scottish Government, 2008). Explicit in the enforcement guidance was the expressed intention to adopt a non-confrontational approach (Scottish Government, 2005). This is reflected in the small number of fixed penalty notices issued, which on average were nine against premises and 232 against individuals per three month reporting period. Thus, for most areas, it would appear that the legislation has become largely self-enforcing. However, within the pub and bar sector, the possibility of prosecution is used by staff as a rationale for strongly enforcing the smoke-free law (Eadie *et al.*, 2008).

The 2005 Italian legislation: approaching the spirit of the FCTC

In January 2005, an Italian law was enacted to regulate smoking in enclosed public places (Gasparrini *et al.*, 2006). This law does not meet the criteria for being fully smoke-free, as designated smoking rooms are still allowed in the hospitality sector (although the conditions for such rooms are very strict and expensive to implement, and only implemented by a small number of establishments). The smoking rooms must be: a) physically separated by four walls

from floor to ceiling, less than half of the size of the whole premises; b) enclosed by automatic sliding doors regularly kept in the closed position; and c) with a negative pressure of at least 5 pascal provided by forced ventilation with a flow rate of at least 30 L per second per person, considering a crowding rate of 0.7 persons per m^2. The regulation also states that the designated smoking area should not be a pass way for nonsmokers, but it is not clear if this includes workers and therefore service to these areas. While this law does not meet the criteria for model legislation, it approaches its spirit. Most businesses have decided not to create smoking rooms due to the high cost of implementing the strict standards on air quality. A survey conducted in 2005, estimated that less than 1% of businesses, including bars, restaurants, and pizzerias have built smoking areas for their premises (http://www.ministerosalute.it/resources/static/primopiano/255/conferenzaFumo.pdf)

The Italian legislation was the culmination of a series of public policy changes over the previous decade. In 1996, a constitutional court opened up the possibility of considering SHS as a health hazard under the law, and, in 1999, a bank lost a lawsuit for not protecting a worker from SHS. The Health Minister built a wide public coalition and parliament passed the law protecting citizens from SHS in December 2002. However, this law was challenged in the courts by bar and restaurant owner associations and was not enacted until 2005.

The government focused on enforcement and carried out thousands of inspections in the first 10 months of the enactment of the law. Compliance appeared high; less than 2% of businesses were charged. Spot checks of environmental nicotine concentrations decreased in the hospitality sector, and surveys of Italians suggest that businesses are generally compliant with the law. Although not model legislation, it has achieved the desired goals, and several European countries have chosen this Italian law as the one that most fits their needs.

The 2006 Uruguay legislation: the first middle income developing country

Uruguay was the first developing country in the world to pass and enforce 100% smoke-free legislation for all workplaces, including bars and restaurants, with no exceptions whatsoever. The origin of this success dates back to 2000, when WHO initiated the negotiation of the FCTC. At that time, the Uruguayan Medical Association created a section devoted to tobacco control and the Director General of Health Services of the Ministry of Health, a member of the coalition government of the two traditional right wing parties, promoted the creation of an umbrella organisation, the National Alliance for Tobacco Control (NATC). For the first time governmental and quasi-governmental health agencies, health professionals associations, and academic institutions interested in tobacco control worked together.

In 2003, the Pan American Health Organization (PAHO) and WHO convened a workshop for countries of the southern cone of South America to discuss possible national tobacco control projects. Leaders of the Uruguayan Alliance attended and proposed to make all facilities of the local government of the city of Montevideo (Intendencia) smoke-free. The following year, the Smoke-free Intendencia project started with a small grant from PAHO/WHO. Leaders of the project were health professionals working for the city government and members of NATC. They involved and got the support of the mayor of Montevideo, and other city officials, part of the center-left ruling coalition at that time in opposition to the national government. In 2003, the city of Montevideo enforced 100% smoke-free environments in all its government offices and health services to the public.

Also in 2003, the Global Youth Tobacco Survey reported on exposure levels to SHS among 13- to 15-year-olds in Uruguay, and another international study reported high concentrations of vapor-phase nicotine in indoor workplaces. These results convinced the national government to declare all health settings 100% smoke-free. The government ratified the WHO FCTC in July 2004.

In 2005, the centre-left Broad Front Coalition (Frente Amplio in Spanish) won the parliamentary elections and Tabaré Vazquez, the former Mayor of Montevideo and an oncologist and radiotherapist, became President of the Republic. The Ministry of Health immediately created the national tobacco control programme with three persons. Under the President's leadership, the government raised tobacco taxes, banned tobacco sponsorship of sport

events, implemented pictorial health warnings occupying 50% of the principal areas of cigarette packages, and created smoke-free environments in public and workplaces.

In 2006, all public and workplaces, including bars and restaurants, went 100% smoke-free. In six years Uruguay went from not having any significant tobacco control legislation to being highly advanced with regards to smoke-free restrictions, according to the WHO MPOWER report (WHO, 2008).

Summary

The guidelines for the implementation of Article 8 of the WHO's FCTC represent "best practices" and provide public health officials and policymakers with a clear description of the elements of an effective smoke-free policy. Such a policy needs to create 100% smoke-free spaces, by law, in all indoor public and workplaces and public transportation. The policy should emphasise that protection from exposure to SHS is a basic human right, and that protection should be universal. The focus needs to be on ensuring 100% smoke-free environments, as opposed to protecting only targeted populations or permitting smoking in restricted areas. It would appear that an organised strategy for public education and enforcement is critical for successful implementation.

In the early 20th century, cigarette smoking was not a common behaviour and it was proscribed in certain settings. Although advocacy groups tried to maintain this status quo, the rapid dissemination of smoking led to it quickly pervading every setting. It was not until some 40 years later that advocacy for smoke-free environments began again. The first jurisdiction with legislation that adhered to the FCTC guidelines was the US state of California in 1998, and its experience has been studied and reported widely. However, the critical trigger that diffused this legislation widely was the adoption of the WHO FCTC starting in 2003. The first countrywide legislation was enacted in Ireland in 2004.

Since then, the number of countries that have enacted legislation (at the national and sub-national levels) has increased with each year and is expected to continue to increase in the future. There are now many examples of legislation that completely adhere to the FCTC guidelines and the implementation experiences of some of these are discussed in the chapter. However, a number of countries have implemented legislation that does not meet the guidelines. Some of these, such as Italy, have requirements for smoking rooms that are so stringent and cost prohibitive that establishments voluntarily go smoke-free. Others, however, have implemented legislation with looser standards. While this legislation may have resulted in a reduction in SHS exposure, it is not clear how these countries will be able to amend the legislation so that they adhere to the WHO FCTC guidelines.

Conclusions

The first jurisdiction to go smoke-free did so in 1998, and this experience led to the development of the WHO FCTC "best practice" guidelines in 2003. Countries ratified the WHO FCTC, agreeing to introduce legislation that adhered to these guidelines. This, in addition to the availability of technical support from WHO, resulted in the rapid diffusion of smoke-free legislation around the world, which appears to be still gathering momentum. The global experience in tobacco control has produced valuable exemplars that can be used to further advance efforts to reduce exposure to SHS. Based on the review of smoke-free policies, the following recommendations should be considered:

1. The guidelines for implementation of WHO FCTC Article 8 should be followed wherever possible, as these are evidence-based from different approaches to tobacco control and have been shown to have all the necessary detail to minimise exposure of the citizenry to SHS and its harmful consequences.
2. Passing a policy is only one part of the process of protecting a population from exposure to SHS; both public education and enforcement efforts are necessary when the smoke-free policy is implemented.
3. The need for enforcement efforts usually decreases after the policy becomes established, when it typically becomes self-enforcing.