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Outdoor Smoke-Free Policies in Maine

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Although most people are used to bans on smoking in public indoor spaces, bans on outdoor smoking are relatively new. In this article, David Harris, Suzanne Roy, and Sarah Mayberry review the history and policy implications of smoking bans, focusing on bans on outdoor smoking in particular. The article provides a general discussion of smoking policy and a review the scientific evidence on the health implications of tobacco use and the impact of smoking bans. The authors conclude with examples of efforts to ban smoking, both indoors and out, in Maine parks and beaches, hospitals, and colleges and universities.

INTRODUCTION

As evidence of tobacco's harmful effects has accumulated, smoking bans have been instituted in the U.S., first in specific indoor venues (e.g., restaurants) and more recently in outdoor areas such as parks and beaches and on the campuses of hospitals and schools. This article reviews the history and policy implications of smoking bans with an emphasis on the experience in Maine. We begin with a general discussion of smoking policy, including its legal basis and challenges; proceed to a review of the scientific evidence on the health implications of tobacco use, with an emphasis on secondhand smoke, a.k.a. environmental tobacco smoke or ETS, and the impact of smoking bans; and finish with a description of the Maine experience around smoking bans in general and outdoor smoking bans in particular. Our conclusions highlight the interconnections between federal, state, municipal, and public institutional efforts to limit smoking and suggest pathways by which smoke-free areas can be expanded in Maine and elsewhere.[1]

STATUTORY AND REGULATORY RESTRICTIONS ON SMOKING

Historical and National Efforts

The negative health consequences of tobacco use, including its connection to disease, were recognized soon after tobacco's introduction into Europe in the late 16th century (Williamson 2007). As early as 1604, England's King James declared smoking "a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lung" (as quoted in Brandt 2007: 21), and in the 19th century Queen Victoria designated limited smoking areas (near chimneys) in Windsor Castle (Williamson 2007). In the U.S., early attempts to place legal limits on tobacco use began in the 19th century (Dawson 2010) and included a statewide ban on cigarette sales and public smoking in Utah in 1921, with 15 other states soon to follow (Brandt 2007). Beginning after World War I, however, an aggressive advertising campaign by cigarette manufacturers that portrayed smoking as attractive and even healthful (Brandt 2007) led to the repeal of these early legislative efforts (Dawson 2010) and prevented further meaningful legal restrictions on tobacco use in this country for many decades.

By the 1950s, however, solid scientific studies linking smoking to lung cancer were emerging (Williamson 2007), leading to the first Surgeon General's report on the negative health effects of smoking in 1964. As evidence that smoking was a health risk, not just to the smoker but also to those who inhaled the secondhand smoke accumulated in the 1970s, the Surgeon General went further, calling for a ban on smoking in public places in 1971 (Dawson 2010), and a movement for nonsmokers' rights emerged (Williamson 2007). States reacted by enacting smoking bans in particular indoor venues (e.g., restaurants, bars, elevators, and workplaces), starting with Arizona in 1973. The federal government restricted smoking in government buildings in 1979, finally banning it entirely in government buildings in 1997 (U.S. DHHS 2006) (a ban that was extended to include outdoor courtyards and areas within 25 feet of entrances in 2008) and on all U.S. commercial air fights in 1990 (Dawson 2010). In 2004 the U.S. Department of Health and Human Services banned smoking on the grounds of all its facilities, and that same year the Federal Bureau of Prisons instituted near total smoking bans in all federal prisons (U.S. DHHS 2006). By 2010, 49 states and the District of Colombia had statutes regulating indoor smoking in some manner (Dawson 2010). In 2012 a nonsmokers' rights group counted more than 970 municipalities with some level of restriction on indoor smoking (www.no-smoke.org).

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The ability of the federal government to project its smoking restrictions beyond federal property is limited by constitutional constraints, however, as long as tobacco products are legal (Niezgonda 2006; Watchnick 2010). Federal smoking bans on commercial

air flights are justified legally by Congress's constitutional authority to regulate interstate commerce.

State Efforts

State legislatures, free from the constitutional constraints that limit the reach of federal legislation, have enacted far more sweeping restrictions on smoking. As already noted, virtually all states limit indoor smoking in public places (a category that includes privately owned establishments open to the public) in some way (Dawson 2010), with restaurants, bars, and workplaces in general being common venues for restrictions if not outright bans. It should also be noted, however, that three states rejected comprehensive smoke-free laws in 2010 (Watchnick 2010).

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State governments justify smoking bans by claiming that they are protecting the health and safety of the public (Hagan 2005) and establishment employees in particular (Williamson 2007). However, restaurant and bar owners have challenged these laws as violations of the "takings clause" of the 5th Amendment, which restricts the right of government, including state government, to "take" private property without compensation (Hagan 2005). To prevail in such a challenge, the establishment owners would have to prove that the smoking restriction had a substantial negative economic impact on their business, presumably by discouraging the patronage of smokers (Niezgonda 2006). The evidence, however, generally suggests otherwise. A restaurant and bar smoking ban in California resulted in a temporary loss of business, followed over a short period of time by an increase above pre-ban levels (Williamson 2007). Following a 2003 smoking ban in Boston, Massachusetts, bars, smoking in bars decreased, but bar patronage did not. There was also no change in reported home smoking (Biener et al. 2007). This suggests that the ban was successful at reducing public smoking, but did not affect economic activity or transfer the smoking activity to the home. Thus, it is not surprising that challenges to bans on indoor smoking in public places as illegal government taking have been unsuccessful. Bans on indoor smoking in public venues have also been challenged unsuccessfully as violations of the Equal Protection clause of the 14th Amendment (Williamson 2007), the constitutionally protected right to privacy (Niezgonda 2006), and even the right to free assembly (Hagan 2005).

It should be noted that the evidence on the impact of smoking bans on bar patronage is not unequivocal. Bars and music venues in Lawrence, Kansas, experienced a decline in patronage following a municipal smoking ban. However, many smoking bans allow businesses that may have been harmed by a smoking ban to apply for a partial waiver (Williamson 2007). In Scotland, a ban on smoking in bars and pubs was indeed followed by a decline in alcohol consumption in these establishments by smokers who were also heavy drinkers, without a concomitant increase in alcohol consumption in the home by this group—a result that the authors believe may indicate an additional health benefit of smoking bans in bars (McKee et al. 2009).

State governments and the federal government have also taken a variety of other approaches to limiting smoking. Excise taxes are imposed on cigarette purchases by both state and federal governments and are widely recognized as effective at reducing smoking (Watchnick, 2010). Maine levees a $2/pack tax on cigarettes, an amount that is relatively high by national standards but low for New England. However, a recent attempt to increase this to $3.50/pack was turned back by the state legislature. In 2009 Congress passed, and President Obama signed, the Family Smoking Prevention and Tobacco Control Act (FSPTCA), which mandated increased size and specificity of text warnings on cigarette packs along with the addition of graphic pictorial warnings (Watchnick 2010). In November 2011, implementation of this legislation was blocked by the injunction of a federal judge who

found that it violated the right to free commercial speech (Outterson 2011).

Municipal and Institutional Efforts

With bans on indoor smoking accepted by many members of the public in most places in the U.S. where they apply (Hagan 2005), efforts to extend smoke-free areas have turned to the outdoors. In the spring of 2011, New York City, to much fanfare, adopted a ban on outdoor smoking covering beaches, parks, and pedestrian plazas. Workplaces and higher educational institutions have also contributed to the expansion of smoke-free areas into the outdoors. Smoke-free workplaces (where both the buildings and the grounds are smoke free) are now common across the country and are particularly popular in healthcare facilities. A nonsmokers' rights organization lists nearly 3,000 hospitals, clinics, and other healthcare organizations that have adopted 100 percent smoke-free campus rules nationwide. More than 700 American colleges and universities also have smoke-free policies (www.no-smoke.org). The success of this approach can be judged from the fact that expanding this list is a major focus of the U.S. Centers for Disease Control and Prevention's "Healthier Worksite Initiative." These programs are commonly proposed as cost-saving measures for the employers as well as wellness measures for employees.

Smoking bans, and in particular bans on outdoor smoking, have not been without their critics, however. New York City's restriction on outdoor smoking was met with a "Perspective" piece in the *New England Journal of Medicine* that identified the arguments in favor of outdoor smoking bans as falling into two categories—public health claims that outdoor ETS is a health risk and nuisance arguments about cigarette litter—and went on to question the evidence for both (Colgrove, Bayer and Bachynski 2011). An op-ed by Michael Siegel, "A Smoking Ban Too Far," in the May 5, 2011, issue of *The New York Times* similarly attacked the evidence that outdoor smoking represents a public health risk. Smoking bans have also been attacked as discriminatory toward poor people and members of minority groups (Pierotti 2009; Colgrove, Bayer and Bachynski 2011), who are assumed to have higher smoking rates even though the evidence on this point is remarkably and interestingly complex (CDC 2002), and as unwelcome attempts at paternalistic social engineering (Colgrove, Bayer and Bachynski 2011; Ferguson 2011). This second argument proposes that current smoking bans represent only the beginning of more draconian restrictions to come, a position that will not be referred to as "the camel's nose under the tent" argument in this article. Since challenges to the science around smoking and smoking bans are central to the arguments against these expansions of smoke-free area regulations (Colgrove, Bayer and Bachynski 2011; Siegel 2011), it is important that we review this science.

SCIENTIFIC EVIDENCE ON SMOKING AND SMOKING BANS

Smoking Dangers

No one disputes that smoking causes disease, disability, and death. The U.S. Surgeon General has causally linked smoking to a range of chronic illness including cancers, cardiovascular diseases, pulmonary diseases, hip fractures, blindness, and oral disease (U.S. DHHS 2010). The National Heart Lung and Blood Institute (NHLBI 2012) estimates that 20 percent of deaths in the U.S. are caused by smoking, and that smoking is the leading cause of preventable death and illness nationally. The U.S. Surgeon General also causally links exposure to secondhand smoke to respiratory diseases, coronary heart disease, and sudden infant death syndrome (U.S. DHHS 2010) and the disease burden of ETS may fall particularly heavily on children (Johannsson, Hauling and Hermansson 2003).

Because many people who are exposed to secondhand smoke receive this exposure both indoors and out, and because there are multiple other sources of disease-causing air pollution, one might expect that confounding factors would make it difficult to show a significantly increased disease risk from outdoor exposure to ETS alone. However, particulate pollution from tobacco smoke near an outdoor smoker is known to reach levels similar to those found with indoor smoking (Klepeis, Ott and Switzer 2007) and outdoor smoking near a building entrance affects not just the outdoor air quality, but the air quality within the building also (Repace 2005). Furthermore, brief exposure to ETS

causes cardiovascular changes related to heart-disease risk that are 80 to 90 percent as large as the effects from chronic active smoking (Barnoya and Glantz 2005). Even the lower levels of exposure to particulate air pollution than those exposed to ETS receive (compared to active smokers) significantly increase the mortality risk from cardiovascular disease (Pope et al. 2009).

This line of evidence supports the results of one study that attempted to directly determine the health impact of outdoor exposure to ETS by comparing the risk of respiratory symptoms among three groups: children of nonsmokers, children of outdoor smokers, and children of indoor smokers. This work found that the children of outdoor smokers (e.g., nonsmokers who were exposed to ETS but only outside) had a rate of respiratory symptoms that was intermediate between the rate for the children of nonsmokers (presumably little smoke exposure) and the rate for the children of indoor smokers (who were exposed to ETS inside), although only the nonsmoker and indoor smoker groups differed significantly (Johannsson et al. 2003). Although more research is needed to quantify the danger of outdoor ETS, the evidence suggests that exposure to outdoor smoke may indeed be harmful and justifies the Surgeon General's assessment that there is no safe level of tobacco smoke exposure (U.S. DHHS 2006).

Impact of Smoking Bans

Even if both indoor and outdoor exposures to secondhand smoke are health hazards, one might question the efficacy of smoking bans to reduce this exposure and to mitigate disease risk. However, bans on indoor smoking have proven effective at improving air quality, reducing ETS exposure, and decreasing disease risk. Bans on indoor smoking improved both air quality inside the venue where smoking was banned and air quality outside the venue (Repace 2005). These bans also reduced ETS exposure to nonsmokers including both adults (Bondy et al. 2009) and children (Holliday, Moore and. Moore 2009). A Cochran Review concluded that indoor smoking bans reduce exposure to ETS, particularly among workers in venues where the bans are instituted (Callinan et al. 2010), and indoor smoking bans have been followed by a remarkable array of health improvements (Mackay et al. 2010).

Smoking bans also appear to change attitudes to de-normalize smoking and change behaviors to decrease smoking, including among American college students (Hahn et al. 2010). Bans on outdoor smoking have met with similar success. At a large American university, a smoke-free campus policy (indoor and outdoor smoking bans) was followed by a decrease in the prevalence of student smoking and a decrease in the number of students who believed that smoking is acceptable among their peers (Seo et al. 2011).

SMOKE-FREE MAINE

In Maine, smoking bans have followed the national trend. Beginning with indoor bans, smoke-free ordinances have progressed to some outdoor areas. In addition to state laws, smoke-free rules now include municipal ordinances along with institutional rules at schools and hospitals.

Maine currently prohibits indoor smoking in enclosed public spaces and places of employment. Maine's "Workplace Smoking Act of 1985" (Maine Law 22 § 1580-A) was strengthened in 2009 to require that all indoor areas of Maine workplaces and vehicles used in the course of work be 100 percent smoke free and that smoking be prohibited outdoors at business facilities within 20 feet of entryways, vents, and doorways, or anywhere that would allow smoke to circulate back into the building. Maine law has also protected patrons in bars and restaurants from secondhand smoke since January 1, 2004, and this was extended to include outdoor eating areas in September 2009 (Maine Law 22 § 1542). Furthermore, Maine is one of several states to prohibit smoking in a motor vehicle when a child is present (Dawson 2010). This Maine statute was passed in 2007 (Maine Law 22 § 1549).

Parks and Beaches

Maine State Parks and Historical Sites were made smoke free in May 2009 (Maine Law 22 §1580-E). This includes beaches, playgrounds, snack bars, picnic shelters, business facilities, and any enclosed public place or public restroom. Several Maine municipalities have followed suit with similar ordinances on smoke-free beaches or 100 percent smoke-free parks. In 2011 the South Portland City Council passed an ordinance

prohibiting all tobacco use in town parks and beaches. This action followed an extraordinary piece of activism by members of the South Portland High School Interact Club. Members of this service group, which is the youth affiliate of Rotary International, organized fellow students to accompany them to a city-owned beach (Willard Beach). There they collected more than 1,000 cigarette butts from the sand in an hour, and presented their collection to the city council with a request that the city beaches be made smoke free. City council members, perhaps thinking about the fact that their children and grandchildren play in the sand at Willard Beach, unanimously agreed. When asked by one of this article's coauthors why the Interact Club had chosen this issue from the many worthwhile causes they could have pursued, one group member replied "because it's a no-brainer." This suggests that attitudes toward tobacco use are changing, at least among some youth, and that smoking is no longer considered normative as it was in the past.

Hospitals

In Maine, several hospitals, including Mercy Hospital in Portland and Franklin Memorial Hospital (FMH) in Farmington, have smoke-free campus rules. As is the case in several areas of preventive health, Franklin Memorial Hospital was a leader in becoming the first smoke-free hospital in the state. As early as 1985, FMH instituted a policy prohibiting smoking among hospital visitors and employees. Patients, too, were prohibited from smoking unless their physician deemed that not smoking would cause them psychological harm. This exception proved problematic; a small number of physicians who saw smoking prohibitions as undue infringements on personal liberty or were concerned that elective-surgery patients who smoked would go to other hospitals granted most of their smoking patients the privilege to do so. Consequently, in 1988 FMH tightened its rules, allowing patients to smoke only in their rooms and only after consultation with a substance-dependency counselor and with a majority vote of a three-member board (consisting of the primary physician, primary nurse, and dependency counselor). This policy was further tightened in 2008. At that time smoking was prohibited by staff, visitors, and patients in all FMH buildings and grounds, including personal vehicles on hospital property. New employees signed a statement in which they agreed to abide by this policy.

The explicit motivation for FMH to take these actions was health promotion. Franklin Memorial Hospital has an extensive community health program and program leaders felt that FMH could maintain its moral authority in health-related lifestyle issues only if it led by example. Indeed, the process of FMH becoming smoke free occurred within the much larger context of community efforts over many years emanating from the hospital to reduce smoking in schools and work places throughout Franklin County. Thus, the process of banning smoking at FMH was intimately related to smoking-reduction efforts in the community—neither would have been likely to succeed without the other. A cadre of activist physicians who were motivated by the immediate health impacts of smoking and the perceived need to set a positive example for the wider community led the process of becoming smoke free. In addition to the health benefits, FMH's efforts were rewarded by the positive publicity it received by becoming the first smoke-free hospital in Maine.

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Two of the most nettlesome issues in the institution of smoking bans are the need to provide support rather than just punishment for smokers trying to quit and the requirement of an enforcement mechanism. Franklin Memorial Hospital developed a support system for smokers consisting of counseling, education, the provision of low-fat snacks, support

groups, and ultimately pharmacologic support. The hospital provided for enforcement by explicitly allowing employees to remove tobacco products from patients' rooms and encouraging them to remind other employees and visitors of the policy. The no-smoking agreement signed by new employees provides a mechanism by which the hospital can discipline, and even terminate in extreme cases, employees who break the policy.

In Maine, national, state, municipal, and local institutional efforts to limit smoking have been tightly linked.

Higher Education

In August 2006, Kennebec Valley Community College became the first Maine institution of higher learning to adopt a 100 percent smoke-free policy. It wasn't until five years later (January 1, 2011) that the University of Maine followed suit and became the first four-year school in Maine to adopt a 100 percent smoke-free policy. The following year (January 2012) the University of Maine at Farmington (UMF) culminated many years of efforts at making the campus smoke free by becoming 100 percent smoke free. The early stages in the development of UMF's tobacco-control policy were discussed in an article in *Maine Policy Review*, which noted that UMF was in the forefront of nationwide efforts to curb tobacco use among college students at that time (Bryant 1999). Colby College became the first private college in Maine to join the ranks of smoke-free institutions when it announced in April 2012 that it will be 100 percent smoke free starting in September 2013. The University of Maine at Augusta's smoke-free-campus policy was announced in summer 2012 and will take effect on January 1, 2013.

Efforts to restrict tobacco use at the University of Southern Maine (USM) began in 1999 when a Tobacco Task Force of dedicated staff members recommended first a ban on smoking on some residence hall floors and then a building-wide smoking ban in the new residence hall that opened that year. The following year, as a result of a task force recommendation, tobacco use was banned in all USM buildings. In 2001 the USM administration adopted a policy that allowed outdoor smoking on campus in designated areas only and not within 50 feet of any door entrances or windows of campus buildings. The policy relied on self enforcement (i.e., there was little effort by administration to enforce the policy) and there was an emphasis on respect for smokers' rights to smoke as long as they adhered to policy requirements. Signage was provided by the local Healthy Maine Partnerships group using National Tobacco Masters Settlement Agreement funds.

By 2009, however, it was clear to the USM Tobacco Policy Committee that existing policy did not separate smokers from nonsmokers, and the committee turned its efforts toward instituting a smoke-free policy at USM. To gain grassroots support, the committee met with the senates representing multiple USM constituencies to advocate for campus-wide smoke-free policy. The student and faculty senates voted against the smoking ban while the professional and classified senates supported it. The USM Tobacco Policy Committee developed a strategic plan, which involved incremental steps for implementing the smoke-free policy, and reintroduced its proposal for a smoke-free USM to the faculty senate in the spring of 2011 where it was overwhelmingly adopted.

In both 2010 and 2011, the arguments in favor of a smoking ban at the faculty senate revolved around health and cost benefits while the arguments against it portrayed the ban as impractical (e.g., that smokers would just step over the USM property line to light up), overly intrusive on personal freedom, and a potential disincentive for students to attend the university. The dramatic turn-around in opinions that made an endorsement of the ban possible in 2011 probably reflected the strategic plan for implementation of the ban that was available in 2011 but not in 2010.

On the basis of this success, the USM Tobacco Policy Committee gained the endorsement first of USM president Selma Botman and then after July 2012 of USM's new president Theo Kalikow (who had been president of the University of Maine Farmington when that institution went smoke free). In August 2012, President Kalikow announced the roll-out of

the smoke-free policy at USM, with full compliance starting in September 2013.

CONCLUSION

This article follows the development of the science on the negative health effects of tobacco and the historical trends in legislation limiting its use. Scientific evidence has progressed from showing that smoking is harmful to the smoker to demonstrating the negative impact of indoor ETS, and has formed the basis for restrictions on smoking in public places. The dangers of outdoor ETS exposure are just beginning to be studied. Although the available evidence suggests that outdoor ETS may also be dangerous, more work on this point is needed to quantify the harm. Determining the impact of outdoor ETS is important because demonstrating a danger from outside ETS directly challenges any arguments concerning personal freedom that might be raised to smoke-free regulations. Not even the most ardent libertarians maintain that one individual's personal freedom allows him/her to endanger the well-being of others.

The early success of federal legislation on tobacco has been vitally important. However constitutional limitations on federal authority may limit further gains from that source. It is at least theoretically possible that the federal government could enact a tobacco prohibition similar to the one on alcohol in the U.S. mandated by the 18th Amendment in 1920 and repealed in 1933. Indeed, even current antismoking laws have been compared to that prohibition in that they take a moral stand against smoking that some perceive as similar to the moral stand against alcohol in 1920 (Pierotti 2009). However, considering the impact that a tobacco prohibition would have on tobacco tax revenues, a federal ban seems unlikely and if the prohibition on alcohol is any precedent, would probably be ineffective.

States have been central to the limitation of tobacco exposure through taxation and bans on both indoor and outdoor smoking. Most recently municipalities have instituted smoking bans, (including outdoor bans) and institutions (including educational and healthcare institutions) have expanded the outdoor areas that that are smoke free.

In Maine, national, state, municipal, and local institutional efforts to limit smoking have been tightly linked. For example, national tobacco settlement funds allocated to Maine supported efforts to make USM smoke free. Local high school students were instrumental in bringing the issue of a smoking ban at municipal beaches to the South Portland City Council, and Franklin Memorial Hospital's community-health efforts formed a basis for the hospital itself becoming smoke free. Thus, those who wish to expand smoke-free Maine, or who administer current regulations restricting smoking, or tobacco use in general, should consider the interconnected nature of efforts at the national, state, municipal, and institutional levels. The Maine experience with smoke-free regulations suggests the following lessons:

1. Recognizing and being in step with historical trends are important to the success of efforts to limit tobacco use. Both FMH and USM spent many years implementing incremental smoking restrictions that were politically acceptable at that time before becoming totally smoke free. The successful efforts to make Willard Beach smoke free occurred at a time when other municipalities around the country were considering similar regulations.

2. Dedicated activists are indispensable to efforts limiting tobacco use. Although they represented different groups, the high school student activists who brought their request for smoke-free beaches to the South Portland City Council, the USM staff activists who advocated with the university administration to make USM smoke free, and the physician activists who took the idea of a smoke-free FMH to their administration were all committed individuals who were willing to expend time and energy to advocate for a cause in which they believed. Without these dedicated activists, it is unlikely that smoking would have been banned in these locations.

3. Having a well-thought-out and well-developed plan is vital to the success of smoke-free efforts. Activists should seek to establish such

a plan, and administrators who will ultimately be responsible for defining and implementing such a policy should demand this sort of preparation. One major reason that the smoke-free initiative succeeded in the USM faculty senate in 2011 after failing in 2010 was the well-thought-out strategic plan for implementation that the USM Tobacco Policy Committee had developed. This plan included both a mechanism to support smokers trying to quit and a reasonable enforcement policy. Similarly, the efforts to make FMH smoke free included a well-developed plan to support smokers trying to quit and a strategy for enforcement. The plan by the South Portland High School Interact Club members to collect cigarette butts and present them to the city council to express their sense of urgency that smoking be banned on city beaches can only be described as brilliant political theater, while the manner in which South Portland's mayor presented the new regulations to the media show that the city administration had a clear plan for implementation that emphasized education.

4. Some push-back is inevitable. At both FMH and USM, tobacco ban opponents raised objections based on arguments around personal freedom and potential loss of income to the institution. Thus, ultimately, both a grassroots effort by activists and bold decision-making by the institution's administration (who must be willing to expend some political capital) were required to make large institutions such as USM and FMH smoke free. The same can be said of the South Portland City Council and mayor who defused some of the negative response to the smoke-free regulations they enacted by emphasizing an educational rather than a punitive approach to implementation.

5. The announcement of smoke-free regulations is not the end of the matter. Not everyone at any institution, never mind in any city, agrees with making outdoor areas smoke free and some members of any community are addicted to nicotine. Successful implementation of smoke-free regulations requires education and the provision of smoking-cessation tools to those who need them. These efforts also require coordination with neighbors, e.g., the USM smoking ban will not be successful unless the university coordinates with the cities of Portland and Gorham.

ENDNOTES

1. Some of the ordinances, rules or policies discussed in this article are actually "tobacco-free" (e.g., the one at the University of Southern Maine), meaning that not just smoking, but all forms of tobacco use are banned. However, the distinction between "smoke-free" and "tobacco-free" is not important for the analysis here. We use the term "smoke-free" throughout the article, since our focus is on outdoor smoking bans.

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