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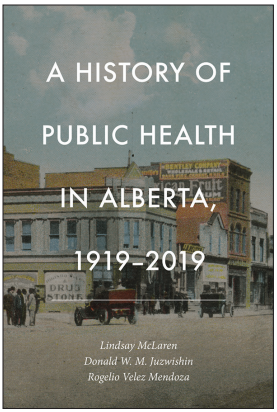

A HISTORY OF PUBLIC HEALTH IN ALBERTA, 1919–2019

Lindsay McLaren, Donald W. M. Juzwishin, and Rogelio Velez Mendoza

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Mobilizing Preventive Policy

Lindsay McLaren, Rogelio Velez Mendoza, and Donald W. M. Juzwishin

Introduction

Prevention, broadly defined as actions aimed at eliminating or reducing the occurrence and impact of illness, is a fundamental concept in public health.[1] Public health, with its emphasis on populations, equity, and addressing underlying determinants of health, is especially aligned with *primary prevention*, that is, actions to prevent the occurrence of illness or injury in the first place, by reducing or eliminating exposure to hazards or risks at the population level. Primary prevention includes what some call *primordial prevention*, which are efforts that are often in the domain of public policy and redress health-damaging environmental, economic, social, and cultural conditions.[2] However, as we illustrated in Chapter 2, there is indication of a downstream shift over time in the use of the term *prevention* in the Alberta context. The shift is increasingly toward attention to secondary prevention efforts to reduce risk among those with elevated risk, who may be identified via screening, and tertiary prevention efforts to slow disease progression, such as disease management occurring within health care settings.[3] This apparent shift, we argue, presents an important barrier to a broad vision of public health as embraced by this volume.

Case Examples

In this chapter, we build on the general analysis of *prevention* from Chapter 2 by considering three examples in more depth: tobacco control, community water fluoridation, and workers' health. Together, these examples illustrate the important tensions that can accompany efforts to prevent health problems at the population level.

Tobacco Control[4]

Tobacco control is widely described as a public health success story.[5] Whereas approximately half of Canadian adults smoked in 1965, the 2017 estimate was 15 percent (18.9 percent in Alberta).[6] These population-level reductions reflect several factors, including anti-smoking campaigns that mobilize scientific evidence on harms of tobacco use; regulatory actions, such as clean indoor air bylaws, restrictions on tobacco product advertising, and restrictions on tobacco sales; increased taxes on smoking products; and broader societal trends, which have collectively contributed to a context in which not smoking has become a dominant social norm.[7]

The social norm element speaks to an important counter-narrative on tobacco control from critical public health scholarship, which has identified that the "de-normalizing" nature of tobacco reduction interventions — for example leveraging social pressure to make smoking less desirable, acceptable, and accessible — has created a new set of ethical concerns.[8] Intersecting with a complex layering of the social determinants of health, de-normalization has contributed to an epidemiologic profile of tobacco use where overall prevalence is low, but distribution is highly and increasingly inequitable. For example, nationally in 2017, smoking prevalence was approximately 12 percent among households in the highest income quintile, versus 21.7 percent in the lowest quintile.[9] A broad vision of public health embraces critical perspectives as an important reminder of tensions that can accompany the dual public health goals of maximizing population-level impacts and redressing social inequities in health.[10]

Our focus here is tobacco-related legislation, including that which restricts smoking in public places, because it is recognized as a cornerstone of comprehensive tobacco control efforts.[11] In Alberta and elsewhere, the adoption of tobacco-related legislation reflects important contributions by local and provincial advocacy groups, thus illustrating the important role and contribution of activism in mobilizing a broad vision of public health. We are grateful to Les Hagen, executive director of Action on Smoking & Health, for his input to this section (see also Chapter 13).

MUNICIPAL LEGISLATION: EARLY SUCCESS IN EDMONTON

Smoking-related legislation[12] across Canada owes its origins to grassroots efforts by non-smokers in the early 1970s who spoke up for the right to breathe clean air.[13] Instrumental in the early Edmonton legislation was the Group Against Smokers' Pollution. Initially formed in 1971 in the United States,[14] chapters of the organization emerged across North America during the 1970s, including in Edmonton, Calgary, Medicine Hat, and Lethbridge.[15]

The Edmonton chapter of the Group Against Smokers' Pollution was formed in approximately 1975 and initially set its sights on provincial legislation.[16] In March 1977, Progressive Conservative MLA Eric Musgreave introduced private member's bill, Bill 221, An Act Respecting Smoking in Public Places, which the organization supported via a petition that Musgreave presented in the legislature on 21 April 1977.[17] Second reading of Bill 221 took place one week later, and the lengthy discussion included indications of both support for and opposition to restricting smoking in public places.[18] Points of opposition included concern about whether it was reasonable to "destroy a custom of smoking that has been built up over the centuries" just because it is "offensive to the senses."[19] The bill did not pass, and the Edmonton chapter of the Group Against Smokers' Pollution turned its attention to municipal government.

Based on frequent and prominent mentions in the print media, the Edmonton chapter of the Group Against Smokers' Pollution was active throughout the late 1970s and had a strong presence in local debate.[20] In their public messaging, the group maintained that their aim was not to eliminate smoking, but rather to protect the rights of non-smokers from second-hand smoke. This also served as a useful response to the frequent point of opposition that a municipal smoking bylaw would infringe on smokers' rights.[21] There were, however, indications that the group at times went too far for the likings of some. For example, in 1977, the Group Against Smokers' Pollution sold small, battery-powered fans that were intended to be used in instances where smokers insisted on smoking despite polite requests to stop, to blow smoke back in smokers' faces.[22] By 1980 the organization had stopped selling the fans as part of efforts to adopt a "less militant image."[23]

In May 1980, organization spokesperson Wally Gloeckler presented to Edmonton City Council's public affairs committee in support of a draft bylaw on smoking restrictions in public places.[24] In September of that year, after hearing presentations from the Group Against Smokers' Pollution and three other groups — the Alberta Restaurant and Food Services Association, Edmonton Northlands racetrack, and the Alcohol-Drug Education Association of Alberta — the committee recommended approval of the bylaw.[25] In January of 1981, although five aldermen voted against the legislation, Edmonton City Council passed a no-smoking bylaw (Bylaw 6177, as amended) that made it illegal to smoke in some public places.[26] Edmonton thus became one of the first cities in western Canada to pass a municipal smoking bylaw.[27]

Following the 1981 municipal legislation, the Edmonton chapter of the organization continued to meet throughout the early 1980s[28] and to speak up for tobacco control efforts.[29] In the context of growing public support for the existing restrictions, the group envisioned stronger regulations. A proposed amendment

to the bylaw, which was supported by Edmonton's Medical Officer of Health, Dr. James Howell, passed at city council by a seven to four margin and went into effect on 9 April 1985.[30] The new bylaw required restaurants to set aside 35 percent of their seating for non-smokers (up from 15 percent); it also contained smoking restrictions in new settings, including city buses, the light rail transit system, and taxis, unless both driver and passengers agreed otherwise. Although the Edmonton chapter's president at the time, Dr. Roger Hodkinson, was pleased with the improvements, he expressed disappointment that the revised bylaw did not mandate a "stated preference rule" for restaurants where they must ask patrons whether they wish to sit in smoking or non-smoking areas, and that it did not require restaurants to place no-smoking signs directly on tables.[31] Nonetheless, not to be defeated by these perceived omissions, the Edmonton chapter of the Group Against Smokers' Pollution worked within the parameters of the revised bylaw, including filing complaints about restaurants that were not obeying the new bylaw, and serving as a resource for members of the public who wished to do the same.[32] These efforts contributed to Edmonton's smoking restrictions being further strengthened in the early 1990s.[33]

Like Edmonton, a Calgary chapter of the organization was also formed around 1975 and held several meetings throughout through 1977.[34] According to a February 1977 item in the *Calgary Herald*, the Calgary chapter persuaded the city's parks and recreation board to discourage smoking in public arenas, including stands, dressing rooms, and concourses, via announcements asking spectators not to smoke, and by arena staff asking violators to extinguish their cigarettes.[35] Beyond that modest change, however, the Calgary chapter's impact seemed limited, and they appear to have disbanded in early 1980.[36] Calgary eventually passed a municipal smoking bylaw in 1985, although it was felt by some to be overly lenient.[37] Nonetheless, a few years later — with significant support from Calgary pediatrician Dr. John Read — the city hosted the world's first smoke-free Olympics in 1988.[38] These milestones were achieved under Mayor Ralph Klein, who was himself a smoker.

SHIFT TO A PROVINCIAL FOCUS FOR TOBACCO REDUCTION

With municipal anti-smoking legislation established in Edmonton, advocacy groups shifted their focus back to the provincial context.[39] In the late 1980s, the Edmonton chapter of the Group Against Smokers' Pollution evolved into Action on Smoking & Health,[40] a non-profit organization that is still active today and embraces a broader tobacco control agenda including public awareness, advocacy, tobacco control programs and research, public policy development, community mobilization, and tobacco counter-marketing.

Action on Smoking & Health's shift to a provincial focus in the mid to late 1980s was prompted by circumstances occurring nationally. The federal Liberal government under Prime Minister Pierre Trudeau (1968–1979 and 1980–1984) had not been particularly supportive of tobacco reduction legislation; indeed, in an illustration of the politics of health, one journalist referred to the federal Liberal Party at that time as the Tobacco Party.[41] In contrast, the health minister of Brian Mulroney's Progressive Conservative government (1984–1993), Jake Epp, was reportedly a strong champion of tobacco reduction.[42] In June 1988, federal tobacco-related legislation was passed including the Non-Smokers Health Act, which regulated smoking in federal workplaces and on "common carriers," such as aircraft, ships, and trains, and the Tobacco Products Control Act, which prohibited advertising and promotion of tobacco products.[43] As Les Hagen notes, there was "tremendous national progress on tobacco control in the late 1980s."[44]

Coupled with this federal legislation was Action on Smoking & Health's recognition that, in the light of changes to funding arrangements for health care during the late 1970s and early 1980s,[45] provincial governments increasingly had a stake in tobacco reduction, because they were responsible for financing the costly medical consequences of tobacco-related morbidity. Against this backdrop, the Alberta Interagency Council on Smoking and Health was formed in approximately 1984, which included representatives from the Canadian Cancer Society, the Alberta Cancer Board, the Alberta Lung Association, the Alberta Medical Association, the Alberta Alcohol and Drug Abuse Commission, the Group Against Smokers' Pollution, and three boards of health.[46] Perhaps not surprisingly, there was friction within the council between the advocacy groups, such as the Group Against Smokers' Pollution, on the one hand and the health charities on the other, over which tobacco reduction efforts would be pursued. For example, in September 1985 the organization's president Dr. Roger Hodkinson criticized the Alberta Lung Association's Lungs Are for Life campaign because it emphasized an educational, rather than a political, strategy.[47]

A few days later, Dr. Hodkinson took aim at the council more broadly, asserting that the council was "sidestepping its mandate to combat tobacco use by shying away from aggressive action," which he attributed to organizations' fear of alienating potential donors.[48] In what Hagen describes as a "huge turning point" for the Group Against Smokers' Pollution, the group staged a demonstration outside the Jubilee Auditorium in Edmonton to protest the tobacco company du Maurier's sponsorship of arts and cultural events including local performances by the Alberta Ballet Company.[49] The "du Maurier Dance of Death," which was one of the first instances of tobacco industry sponsorships being publicly challenged, drew national media attention to the concerns of advocacy groups about

the disproportionate attention and resources being devoted to public awareness and medical research (e.g., lung cancer research versus substantive efforts to prevent smoking).[50] In this, the Group Against Smokers' Pollution was supported by the broader public health community: at the 1985 Alberta Public Health Association annual meeting, noted scientist and environmental activist David Suzuki commented, "I do not damn well want to spend one cent" on lung cancer research until action is taken on smoking.[51]

Throughout the 1990s, Action on Smoking & Health established itself as a key player in tobacco reduction policy in Alberta and western Canada.[52] In the early 1990s, despite strong support from provincial Health Minister Nancy Betkowski (PC), the Tobacco Control Act, Bill 207, which would prohibit sales of tobacco products to youth, did not pass,[53] and the change in provincial leadership to Ralph Klein (PC) in 1992 meant going back to square one. During Klein's government, there was substantive discussion in the legislature around Bill 215, the Non-Smokers Health Act, which included restrictions on smoking in workplaces and public buildings, and Bill 208, the Prevention of Youth Tobacco Use Act; in both cases, time ran out before a vote could occur.[54] In 1995, Action on Smoking & Health and other organizations established the Alberta Tobacco Reduction Centre, which Hagen describes as "a formative step in the development of a more meaningful provincial strategy," and in 1998 the provincial government made a significant investment in the Alberta Tobacco Reduction Alliance, which was tasked with creating a provincial tobacco reduction strategy.[55]

These events set the stage for considerable progress on tobacco legislation in Alberta in the first decade of the twenty-first century, which occurred against the backdrop of the 2003 World Health Organization Framework Convention on Tobacco Control.[56] Significant for tobacco control in Alberta was Klein's 2000 appointment of Gary Mar as minister of health and wellness, who was supportive of tobacco control.[57] In 2002, the Klein government implemented a tax increase of $2.25 per pack of twenty-five cigarettes — the largest single tobacco tax increase in Canadian history[58] — and there was a reduction in the volume of cigarettes sold in Alberta the following year.[59] In the days following the tax increase, and reflecting many years of hard work by Action on Smoking & Health and other organizations, Mar announced the Alberta Tobacco Reduction Strategy, which was launched in 2002 with a $12 million annual budget.[60] Five years later, in 2007, the provincial government under Ed Stelmach approved Bill 45, the Smoke-free Places (Tobacco Reduction) Amendment Act. The act was described by Hagen as one of the strongest tobacco control laws in Canada and perhaps the world that represented a milestone in what Hagen calls "transforming Canada's Marlboro

Country." A newer emphasis, at the time of writing, was expansion of existing legislation to flavoured tobacco products.[61]

From the non-smokers rights movement of the 1970s to the broader contemporary tobacco control movement, efforts to prevent and reduce smoking in Alberta shed light on dynamics of primary and primordial prevention, including how they intersect with the socio-historical context of the province. In reflecting on this history, Hagen identifies health ministers who are — for whatever reason — strong champions of tobacco reduction, coupled with a strong coalition of health organizations, as key elements. He cautions, however, that with the continued affordability of tobacco products, limited funding for tobacco control efforts, the absence of a robust and continuous mass media campaign, and unimplemented legislation, significant challenges to population-level reductions in smoking remain.[62]

Community Water Fluoridation

A prominent feature of dental services in Alberta and across Canada is that they overwhelmingly fall into the private sector in terms of financing and delivery, with contemporary estimates of less than 5 percent of services financed publicly.[63] Reflecting a highly politicized history,[64] dental services are downstream in orientation (largely individualized and treatment-oriented) and there are significant and inequitable barriers to access.[65] In this context, it is important to consider primary prevention approaches for dental health. Here we consider community water fluoridation, which is the controlled adjustment of the fluoride content of a public drinking water supply for the purpose of preventing tooth decay in populations.[66] We provide provincial historical context as well as a more detailed narrative of events in the city of Calgary.

FLUORIDATION: THE PROVINCIAL AND NATIONAL CONTEXT

Archival sources suggest that Alberta's fluoride story started as early as the 1930s, within a broader context of international research that linked a mottled tooth appearance (i.e., dental fluorosis) to resistance to tooth decay, both of which in turn could be traced to naturally-occurring fluorine in drinking water.[67] Local reports of mottled enamel in southern Alberta prompted members of the University of Alberta, the provincial Department of Public Health, and the provincial laboratory, to conduct a large survey to study the issue.[68] The survey involved collecting data via questionnaires sent to dentists and doctors, dental exams of all new students entering the University of Alberta in the fall of 1936, and water samples. Results, published in 1937, confirmed an association between high fluorine in the water and the prevalence of mottled enamel; they also identified two areas where mild mottled enamel was endemic: one around Lethbridge and the other around Red Deer.[69]

The early observations signalled by mottled teeth led to the idea of community water fluoridation (fluoridation) as a deliberate population-level intervention to prevent tooth decay. Fluoridation was first implemented in Canada in 1945 in the context of a research trial in Ontario.[70] The "Brantford experiment," which has been well-described elsewhere, had Alberta connections.[71] In 1942, a committee on dental research was struck within Canada's National Research Council, and Dr. H.R. MacLean (dentist) represented Alberta on that committee.[72] According to Alberta dentists G. Clarke and C.R. Castaldi, MacLean introduced the subject of fluoridation at the inaugural meeting, which prompted discussion about the need for controlled studies, including in Alberta, to determine whether fluoride added to water would have the same benefits for teeth as naturally-occurring fluoride.[73] Unfortunately, national funding for an Alberta study was not forthcoming, and leadership of the initial trials in Ontario fell to the Department of National Health and Welfare and the University of Toronto's Faculty of Dentistry. Still, an Alberta connection existed. The Brantford experiment was led by Dr. Harry Knowlton Brown in his capacity as Chief of the Dental Division at the Department of National Health and Welfare. Dr. Brown was a graduate (1930) of the School of Dentistry at the University of Alberta who, prior to enlisting to serve in WWII, practised dentistry in the municipality of Barrhead, Alberta, and represented Barrhead in the provincial legislature for the governing Social Credit party.[74]

Early results from the Brantford experiment and other early trials in North America released in the mid-1950s, showed reductions in rates of children's tooth decay following initiation of fluoridation.[75] However, reaction to the new idea of fluoridation was decidedly mixed. On the one hand, many Alberta communities wanted to implement the practice and took action to do so. On the other hand, some individuals and groups expressed opposition, including concerns about safety, possible influence on health professionals of large corporations, and opposition to fluoridation's violation of individual liberties.[76] Calgary's medical officer of health from 1933 to 1960, Dr. William H. Hill, who also served as the inaugural (1943–1944) president of the Alberta Public Health Association, was a vocal opponent of fluoridation, which was and is somewhat of an unusual stance in the public health professional community.[77]

For Alberta communities that wished to implement fluoridation in the 1950s, a practical challenge was quickly encountered: there was no legislation in place to permit or regulate the measure (see Table 9.1 for a summary of key provincial fluoridation legislation in Alberta).[78] In 1952, the provincial Public Health Act was amended to permit fluoridation. Specifically, a new clause allowed for "the purification and treatment of public water supplies and the addition of a chemical thereto" as part of the Provincial Board of Health's regulatory authority to

take action to prevent and mitigate disease.[79] As explained by Deputy Minister of Health Dr. W.W. Cross, prior to the amendment, the provincial board's authority concerning the addition of chemicals to water was limited to purification purposes; the amendment extended the authority to include prevention of disease, such as tooth decay. Around the same time, the provincial lieutenant governor commissioned the Research Council of Alberta to prepare a report on "all aspects of fluoridation," which upon its release was described as "unconditionally endors[ing] fluoridation as a means of preventing tooth decay in children."[80] Nonetheless, there was hesitation in advancing supportive legislation, which reflected the controversial nature of the issue,[81] including the fact that the governing Social Credit party was not supportive of the measure.[82]

Table 9.1: Timeline of changes to Alberta provincial legislation concerning fluoridation

Year	Change to provincial legislation concerning fluoridation
1952	The *Public Health Act* was amended to permit chemicals to be added to water systems for reasons other than purification and treatment of water, thus permitting the addition of fluoride to prevent tooth decay.
1956	The *Public Health Act* was amended to include a new section outlining the parameters and processes for Alberta municipalities to implement fluoridation. Municipalities could pass or rescind a fluoridation bylaw, but they were first required to hold a plebiscite and secure the approval of 2/3 of voters. If such approval was not achieved, municipalities had to wait at least one year before holding another plebiscite.
1958	The *Public Health Act* was amended to extend the waiting period following a failed plebiscite from one year to two. This made it consistent with the two-year waiting period required between passing a fluoridation bylaw and rescinding it.
1964	The *Public Health Act* was amended to clarify the fluoridation parameters and processes in circumstances where a communal water supply provided water to only a portion of a municipality (in that case, which mainly pertained to rural areas, the municipality still had authority to pass a bylaw in the manner described above).
1966	The *Public Health Act* was amended to 1) accept a simple majority (instead of a two-thirds majority) in a municipal plebiscite to pass or rescind a fluoridation bylaw, and 2) grant authority to the Minister of Health to provide fluoride in tablet or other form, for distribution without charge to residents, to any health unit or city health department.
1984	A new *Public Health Act* was passed, which was described as a "total rewrite." Provision for fluoridation bylaws was transferred from the *Public Health Act* to the *Municipal Government Act*. The requirement for a plebiscite remained.
1994	A new *Municipal Government Act* was introduced, which removed the requirement for municipalities to hold a plebiscite to pass or rescind community water fluoridation (and other municipal decisions). The *Regional Health Authorities Act* was passed, which gave Regional Health Authority Boards the responsibility "to promote and protect the health of the population in the health region, and work towards the prevention of disease and injury". In Calgary, in the absence of a plebiscite requirement, this new legislation was used to argue that the Health Authority, and not municipal council, should have a primary role in fluoridation decisions.

In March 1956, another amendment to the provincial Public Health Act was passed; the amendment assigned fluoridation decision-making to municipalities and outlined the processes for municipalities to implement fluoridation. Specifically, the new section of the act stated that, to pass or rescind a fluoridation bylaw, municipalities must hold a plebiscite and secure the approval of two-thirds of voters.[83] On the issue of delegation to municipalities, Cross expressed that he did not believe that the provincial government had the right to prevent fluoridation if a municipality wanted to implement it.[84] Under this new legislation, several Alberta municipalities held fluoridation plebiscites in the late 1950s; some, such as Fairview, Grande Prairie, Innisfail, and Red Deer, secured the necessary two-thirds majority to introduce fluoride into the water.[85] However, there were several municipalities for which the two-thirds majority was a barrier. Edmonton, for example, held four fluoridation plebiscites between 1957 and 1964, all of which fell short of the required 66.6 percent (support was approximately 65 percent in 1957, 56 percent in 1959, 62 percent in 1961, and 65 percent in 1964).[86] A survey of medical officers of health in 1960 revealed that of fourteen plebiscites held in Alberta, only six had achieved the required two-thirds majority approval.[87]

Perhaps unsurprisingly, some viewed the two-thirds majority requirement as unnecessarily restrictive and lobbied to reduce it to a simple majority.[88] Legislation permitting a simple majority ultimately passed eight years later in 1966, but in a different form than anticipated by some. Specifically, in what was described in the *Hansard* as a "surprise move," when the simple majority amendment was put forth, Health Minister J. Donovan Ross added an amendment for a provincially-funded initiative to provide oral fluoride in the form of tablets or drops to health units or departments, which could be distributed to individuals for free with a prescription from a family doctor or dentist.[89] Calgary was one municipality that embraced that option, introducing the Calgary Health Services Fluoride Supplement Program in 1966; the program remained in place until 1989. Meanwhile, in Edmonton, a fifth fluoridation plebiscite was held and easily passed under the new simply majority legislation. Edmonton implemented fluoridation in 1967.

Provincial fluoridation legislation in Alberta remained largely the same through the 1970s and early 1980s under the Progressive Conservative government of Peter Lougheed. However, with the "complete rewrite" of the provincial Public Health Act in 1984 (see Chapter 4), fluoridation legislation was moved from the Public Health Act to the Municipal Government Act.[90] From the point of view of articulating the contours of public health, the transfer of fluoridation and other legislation out of the Public Health Act is important to note. In the case of fluoridation, the change meant that, although a municipal bylaw to pass

or rescind fluoridation still required a plebiscite, there were now two avenues to a plebiscite: city council could initiate one (as had been the case under the Public Health Act); or a plebiscite could be prompted by a petition from at least 10 percent of electors.[91] The implications of this change, as well as subsequent legislation changes in the mid-1990s, are illustrated by a consideration of fluoridation in Calgary.

THE EBB AND FLOW OF COMMUNITY WATER FLUORIDATION IN CALGARY

Calgary held fluoridation plebiscites in 1957, 1961, 1966, and 1971; however, unlike some other municipalities such as Edmonton, support hovered much closer to, or below, 50 percent each time.[92]

After a lengthy hiatus, efforts led by Calgary Health Services, the contemporary version of the city's health services authority, ramped up significantly in preparation for a 1989 plebiscite. Some members of public health communities felt optimistic that changes to Calgary's population, which had become larger and more diverse since the previous vote in 1971, would lead to a different outcome.[93] As described by historian Catherine Carstairs, one impetus for the 1989 plebiscite was a grade 11 science class at Diefenbaker High School, which, after completing a unit on dental health, wrote to then-Mayor Ralph Klein to encourage a reconsideration of fluoridation.[94] By way of encouraging city council, Calgary Health Services pointed out the very limited reach of the fluoride supplement program that was currently in place; for example, in 1988 the fluoride supplement program was estimated to reach only 16 percent of Calgary children.[95] After making it clear that they were not endorsing fluoridation but rather giving residents of Calgary an opportunity to vote on the issue, Calgary City Council supported a plebiscite, at which Calgarians voted in favour of fluoridation (53 percent). Bylaw 37M89 was passed in November 1989, and the fluoride supplement program was stopped. However, due in part to a failed attempt by individuals and groups who were opposed to fluoridation to prompt a discontinuation plebiscite with a petition, which was newly permissible in 1984 when fluoridation legislation was moved to the Municipal Government Act, implementation was delayed until 1991.[96]

Efforts by fluoridation opposition groups in Calgary continued unabated following fluoridation's 1991 implementation, and those efforts came to some degree of fruition in the late 1990s in the form of another plebiscite, this time on the question of whether to continue fluoridation. As described by authors Catherine Pryce and Jackie Smorang, in 1997, the City of Calgary sponsored a review of fluoridation, prompted by a group of citizens who had expressed concern about fluoridation's safety based on new scientific evidence that included research

concerning osteosarcoma, a type of bone cancer, in rats exposed to sodium fluoride in drinking water.[97] An expert panel was assembled; the members reviewed and assessed scientific information published since the 1989 plebiscite.[98] Four of the five panel members agreed that there was not sufficient new evidence to suggest a change in fluoridation policy, and the Calgary Regional Health Authority, the health services authority that had been created in the interim in 1994, reaffirmed its support for fluoridation, although at a reduced concentration of 0.7 parts per million (down from 1.0 ppm), as recommended by the panel. Although the City had indicated that they would follow the recommendation of the health authority, the presence of a dissenting perspective on the panel introduced some doubt and the City opted to hold a plebiscite anyway (which, under contemporary legislation they were no longer obligated to do, see below) in conjunction with the 1998 municipal election. Despite a considerably shortened lead up time, the Calgary Regional Health Authority once again mobilized a large campaign in support of fluoridation, with Medical Officer of Health, Dr. Brent Friesen, serving as an effective spokesperson (see Figure 9.1). Although anti-fluoridation efforts were present, Calgarians voted 55 percent in favour of continuing fluoridation.[99]

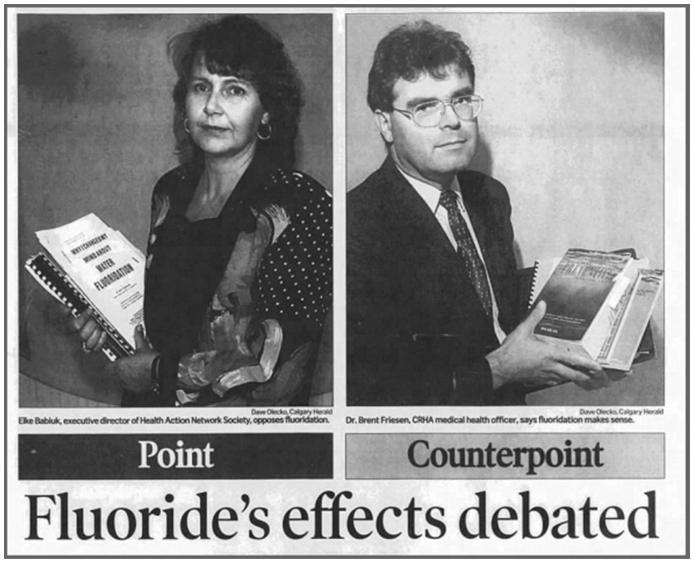

Fig. 9.1: Medical Officer of Health, Brent Friesen, served as a key spokesperson on fluoridation for the Calgary Regional Health Authority during the 1990s. He appeared frequently in print news media around this time, facing significant attacks from those (including journalists) who opposed fluoridation. He was sometimes pitted against a vocal opponent of fluoridation, Elke Babiuk. Source: "Fluoride's Effects Debated," *Calgary Herald*, 4 October 1998, 40.

Between Calgary's 1989 and 1998 fluoridation plebiscites, a new Municipal Government Act was introduced in 1994, which reflected the contemporary trend of devolution of authority and was much less prescriptive than previous iterations of the act in terms of what municipal governments could and could not do.[100] Significantly, from the point of view of fluoridation, the new act removed the requirement for municipalities to hold a plebiscite when passing or rescinding a fluoridation bylaw. In 1997–1998, as discussed above, the Calgary Regional Health Authority, working within this new legislation, tried to support city council in making a decision to retain fluoridation without holding a plebiscite. In doing so, they drew on another new piece of legislation, the Regional Health Authorities Act of 1994, to argue that the health authority's recommendations should hold considerable weight in council's decision, specifically referencing the mandate of health authorities "to promote and protect the health of the population in the health region, and to work toward the prevention of disease and injury."[101] Nonetheless, council opted to hold a plebiscite.

In 2011, however, and speaking to the importance of context, these legislative circumstances permitted Calgary's City Council to explicitly reject a plebiscite and vote on their own to discontinue fluoridation in the city. Several sources analyze this more recent situation more thoroughly than we can do here.[102] With Calgary's 2011 decision to cease fluoridation, the percentage of Albertans receiving fluoridated water went from 74.6 percent, one of the highest in the country, to approximately 43 percent,[103] to the detriment of dental health.

Workers' Health

Our final example of prevention in Alberta's history concerns workers' health. This topic is informative because it permits bringing together traditional public health concerns in the domain of occupational health and safety, such as hazardous exposures and ergonomic considerations on the one hand, with broader social, economic, and political factors on the other. These broader factors include the dominant industries and sectors of work; how workers are treated, including wages, working conditions, and job security; the intersecting structures that shape work, including capitalism, colonialism, and racism; and forms of worker resistance, such as organized labour activism.[104]

These intersecting political economic factors have immense importance for the public's health including health equity.[105] Yet, they are largely absent from mainstream public health discourse.[106] For instance, in the Public Health Agency of Canada's 2008 core competencies document, references to "work" focus on decontextualized "workplace hazards" and "harmony" in the workplace; practical examples of meeting the competencies include evaluating a smoke-free workplace

program and forwarding workplace health information from a health promotion listserv to members of a workplace health committee.[107] Consideration of the broader political economic context is absent.

Accordingly, this section considers workers' health in Alberta's history through the lens of political economy. Briefly, this is a framework for understanding health and other phenomena in terms of the way our economy is organized, the politics surrounding it, and the resulting distribution of power that is highly unequal. Within capitalism, especially the neoliberal variety, the political economy of health foregrounds the imperative of private profit accumulation, the practices mobilized in support of this goal, including government deregulation of extractive and polluting industries and privatization and austerity around public services, and the significant and highly inequitable consequences of those practices for health and well-being.[108] Work figures prominently in this framework, in that the profit imperative construes workers as expendable and incents exploitation of workers through cost-saving measures such as poor wages, unsafe working conditions, and precarious work, all of which strongly and negatively affect health. Moreover, low-paid, poor-quality jobs are not distributed randomly but reflect the intersection of capitalism with racism, colonialism, ableism, sexism, gender binarism, and other categories and are disproportionately held by members of communities that dominant society has already marginalized. Under capitalism, most of us are workers, and employment and working conditions are well-established social determinants of health and health equity,[109] making an analysis of workers' health from a political economy perspective highly relevant to a broad version of public health.

In writing this section we have benefited greatly from emeritus professor of history, Alvin Finkel, and colleagues' 2012 volume, *Working People in Alberta: A History*, to which the reader is directed for a richer and more in-depth analysis.[110] We bring our lens of population well-being and health equity and its structural causes — that is, a broad version of public health — to that important work.

CAPITALISM, THREATS TO WORKER WELL-BEING, AND WORKER RESISTANCE – HISTORICAL EXAMPLES IN ALBERTA

The intersecting goals of early capitalism and colonialism — to settle the land and extract its natural resources — led to a massive influx of immigrants to western Canada between the late 1800s and early 1900s. Researcher and historian Jim Selby describes four job environments in that context that shed light on the political economy of workers' health: railway construction projects, where tens of thousands of mostly un/semi-skilled workers were situated in temporary camps; single-industry coal towns, where workers tended to put down roots; workers in sectors and industries demanded by growing urban centres, such as

construction; and waged farmworkers.[111] Within a capitalist context, these jobs shared in common elements that are highly detrimental to health such as poor pay, job precarity and unpredictability, and demanding and/or dangerous working conditions. Coal miners, for instance, faced extremely dangerous conditions, which were made worse by cost-saving measures by mine operators. For example, miners had to buy their own explosives, and low wages put safer but more expensive explosives out of reach for the average miner. Indeed, weekly accidents were "a fact of life" in early Alberta mines.[112] The intersection of capitalism and racism resulted in some workers, such as Chinese railroad labourers, being seen as especially expendable and thus holding the most dangerous and deadly jobs.

Health inequities are rooted in power inequities; thus, workers' efforts to rebalance power via collective mobilization is highly pertinent to a broad version of public health. Collective resistance by workers during this early period sheds light on tactics they used and challenges they encountered — both practical and political. Railway workers, for example, faced challenges to organizing due to the isolation of work camps and the work's migratory nature, which made it difficult to bring large numbers of workers together. Organizing by urban construction workers, who were very poorly paid, often took the form of endorsing political candidates who were union members, to varying degrees of success. Labour organizing was prominent among coal miners, but many acts of resistance serve to illustrate the power of private companies in shaping the state, to the detriment of workers. For example, an important 1906 strike by workers at the Galt mine in Lethbridge, then owned by Toronto financiers, faced invasive and intensive opposition by the North-West Mounted Police, and led to federal tabling of the Industrial Disputes Investigation Act. The act undermined unions and empowered employers by, for example, mandating compulsory arbitration and permitting — by not prohibiting — employer tactics such as arbitrary wage changes and firing or intimidating union supporters.[113]

Depressed economic conditions at the onset of WWI prompted many young men to sign up for paid military service. For those who stayed behind, the 1915 lifting of the recession that had begun four years earlier meant that jobs and wages generally increased, although they did not keep up with wartime inflation; income, and the forces shaping it, is a well-established social determinant of health.[114] Moreover, poor working conditions persisted and were amplified due to so-called enemy aliens (a term used to describe citizens of states legally at war with the British Empire and who resided in Canada during the war), whom employers viewed as a vulnerable, non-complaining, and thus exploitable, workforce. Amid these challenges, relatively lower unemployment during the war empowered important labour activism, with some successes. For example, pushed

by job action, in 1917 the provincial Liberal government passed the Factory Act which established a minimum wage of $1.50/day. Although a victory in important respects, the act largely excluded women, both because women were less likely to work in factories, but also through a loophole where women were hired as apprentices — who did not qualify for minimum wage — and then fired once the apprentice period had ended.[115] This is one of many examples of employment conditions, and the political economic factors that shape them, intersecting with social identities (in this case, gender) to worsen inequities in health and well-being.

When the war ended and many veterans returned home, a new set of political economic challenges materialized. Labour shortages became labour surpluses, and the government's failure to support workers in the context of post-war unemployment was evident. A social determinants of health perspective reminds us that a robust public sector, with universal and generous forms of public services and supports, is a foundation for population well-being and health equity.[116] Many workers were furthermore angry that the war, which had been framed as democratic, in fact served to benefit the economic elite. This anger and disillusionment underpinned short-lived efforts to build worker solidarity across sectors and industries including — perhaps most famously — the Winnipeg General Strike of 1919, which was accompanied by sympathy strikes throughout Alberta. Although the Winnipeg strike faced violent suppression by the Royal North-West Mounted Police and ended with no demands met, the Alberta sympathy strikes are, importantly, thought to have helped to bridge some divisions within the labour movement.[117]

Worker resistance continued even during the Great Depression when up to 15 percent of workers in Calgary, Edmonton, and Lethbridge were receiving municipal relief. Under a residualist welfare model, which views government assistance as a last resort, only the most destitute qualified for relief and thus the number of workers suffering was almost certainly much higher. A Hunger March on 20 December 1932, where farmers, farm labourers, and town workers converged on Edmonton, where they faced a formidable Royal Canadian Mounted Police (RCMP) presence, signified both the persistence of workers in dire circumstances and the aggressive pushback by authorities. These tensions set the stage for the 1933 founding of the Co-Operative Commonwealth Federation, the forerunner of the New Democratic Party, and of the Social Credit party which won a majority government in the 1935 provincial election. Although the Social Credit government under Premier William Aberhart initially passed some pro-labour legislation, such as the 1937 bill that granted legal status to collective bargaining, they soon backtracked and by the 1940s had embraced a firm stance

favouring capitalists over workers, to the detriment of workers including their health and well-being.[118]

The post-WWII context of expanded social programs and relative union security — both important contributors to the public's health — interacted in Alberta with the growing prominence of the oil industry, which began to overtake other extractive industries including farming and coal mining. Although oil brought considerable economic prosperity to the province, that prosperity was poorly distributed and workers' ability to benefit from it was limited by the Social Credit government's alliance with the fossil-capitalist nexus and its anti-union sentiment. These dynamics once again speak to inequities in power and resources, which are the root causes of health inequities. Under Premier Ernest Manning, in 1947 the Social Credits amended the Alberta Labour Act and made it more difficult for workers to form unions by stipulating that union certification required the support of a majority of workers, versus a majority of voters. Further changes in 1948 stipulated that organizing could only take place at work during work hours, with employer consent; penalties for violations were described by legal history scholar James Muir as "draconian." (see Chapter 2 for other examples of how Ernest Manning was detrimental to a broad vision of public health in Alberta).[119]

Although the 1960s and 1970s brought a groundswell of activism around issues of social and environmental justice, capitalist imperatives meant that government anti-union sentiment and poor working conditions persisted. In 1962, for example, the Manning government-backed Board of Industrial Relations exempted "inexperienced employees" from the minimum wage, which in practice excluded large numbers of workers in certain industries, such as the garment industry which was dominated by racialized women. In male-dominated jobs, such as construction, companies continued to organize work in such a way that so-called accidents were inevitable. The word "accident" implies that an event was unavoidable, but in fact these are largely preventable had better working conditions been in place; the failure to do so is a political decision. While women were less likely than men to die at work, they likewise faced poor wages and working conditions: one example came from a worker at a private daycare in Calgary in the 1970s who was solely responsible for ten infants with no ability to take breaks. Although increasing unionization of women workers accompanied their increasing labour force participation, this was not without tension in the context of the traditionally male-dominated macho union culture where an influx of any workers, including women, was seen as a threat to union goals of good work for good pay.[120]

The Social Credit government was defeated in 1971. In the context of a period of strong labour influence, the Progressive Conservative government under Peter Lougheed (1971–1975) passed, in 1973, a potentially promising Occupational Health and Safety Act, following the lead of other provinces. The act contained some important items with respect to health and well-being, such as granting workers the right to know about occupational health hazards and to refuse unsafe work. However, it was far from perfect, and it mainly benefited unionized workers who had mechanisms to demand that the items were implemented and enforced. Overall, and despite some initially promising and health-promoting labour-related initiatives, the Lougheed government was not very different from its predecessors in terms of anti-worker sentiment. For example, in response to indications of growing militancy among provincial workers, in 1977 the Lougheed government passed the Public Service Employee Relations Act, which aimed to curtail union power by banning strikes in favour of arbitration; removing issues such as work organization, promotion, training, and termination from the scope of arbitration; and extending the restrictive legislation to include teaching staff of universities and colleges, thus curtailing their union power as well. The Lougheed government remained committed to the Labour Act even though it violated the United Nations' International Labour Organization's Freedom of Association and Protection of the Right to Organize Convention, which Canada had signed.[121] All of these activities served to disempower workers, with negative implications for their health, safety, and well-being.

INTENSIFICATION OF THREATS TO WORKER WELL-BEING – THE NEOLIBERAL PERIOD IN ALBERTA

While anti-labour sentiment and action were clearly present in Alberta prior to 1980, the neoliberal turn made things considerably worse for workers, including for their health and well-being. As noted earlier in this section and throughout this volume, there are well-established connections between neoliberal policies and health inequity including via austerity and privatization which erode public services upon which most people depend; deregulation of health-damaging industries (e.g., food industry; fossil fuel industry); and economic policy that treats workers as commodities to be exploited for profit.[122]

As described by labour history researcher Winston Gereluk, the global recession of the early 1980s affected Alberta particularly badly because of the province's excessive dependence on oil and gas. Oil companies laid off thousands of employees. In Alberta's capital city of Edmonton, which was further affected by cuts to government jobs, the unemployment rate in 1987 was over 11 percent, and almost 24,000 residents required social assistance and food banks. Rationalized by the misguided view that addressing government deficit (versus supporting

peoples' well-being) should guide policy, the Progressive Conservative governments of Lougheed and then Don Getty (1985–1992) responded with aggressive neoliberal economic and social policy reforms of cutbacks, privatization, and labour-unfriendly legislation that collectively threatened working conditions and worker quality of life. Workers in construction were very badly affected when contractors took advantage of large numbers of unemployed workers to destroy unions. When collective agreements expired, employers locked out workers, declared the agreement no longer in effect, then offered workers their jobs back at significantly reduced pay. In cases where agreements had not yet expired, some employers set up spin-off companies, which allowed them to transfer work and workers to non-unionized environments. These changes were devastating for workers and led in some cases to very negative outcomes for health and well-being such as marital breakdowns, lost homes, and suicides.[123]

Circumstances for workers worsened further in the 1990s. In a global context of shifting power to transnational corporations and a provincial economic context focused almost exclusively on oil, Ralph Klein's success in winning the Progressive Conservative party leadership and shortly thereafter becoming premier (1992–2006) signalled the beginning of what labour studies scholar Jason Foster describes as some of the most tumultuous years in Alberta's history. As discussed in Chapter 4 of this volume, the Klein government's intensified agenda of austerity, privatization, and deregulation led to significant job elimination in core government jobs, nursing, education, and advanced education. He gutted occupational health and safety during the 1990s through a 42 percent budget reduction. In 1993, the Klein government asked all public sector workers to voluntarily accept a 5 percent wage reduction, which was followed by a two-year wage freeze. Meanwhile, minimum wage under Klein was the lowest in Canada for most of the 1990s. Beyond the direct effects of these decisions, Foster highlights the insidious effects of Klein's agenda in terms of an enduring weakening of the public sector and reframing of the dominant narrative so that the destructive neoliberal activities seemed reasonable.[124]

Workers, with the help of supporters, continued to fight back, to some success.[125] In 1994, for example, sixty laundry workers from the Canadian Union of Public Employees at Calgary General Hospital, after having accepted a 28 percent pay cut and then being informed that their jobs were being privatized, staged an illegal wildcat strike for which they were joined in solidarity by other hospital workers. After ten days, the government delayed privatization by eighteen months. In 2000, ten thousand Alberta Union of Provincial Employees health care workers staged an illegal walkout, which led to wage increases and a guarantee of no further contracting. In 2002, teachers, who were still reeling from

dramatic 1994 provincial government cuts to education funding, abandoned their formerly moderate stance and built a province-wide coordinated and overtly political bargaining strategy. A thirteen-day strike, which affected two-thirds of all students in Alberta, eventually led to a sizable wage increase but did not improve classroom conditions, which the Alberta Teachers' Association maintained was the biggest issue. And in 2004, deplorable working conditions at the Lakeside Packing Plant in Brooks, Alberta, prompted a wildcat protest by the mostly Sudanese workers, which ultimately led to unionization by a narrow majority. Despite these successes, however, workers' energy waned under the immense weight of the Klein government's broad-based attacks on workers, and most unions ultimately negotiated settlements that entrenched poor conditions, job losses, and wage reductions, which in turn weakened unions further by reducing their membership.[126]

Although Klein's provincial leadership ended in 2006, circumstances for workers, and thus the implications of those circumstances for health and well-being, did not improve. In 2008, when Alberta reached the peak of one of its many economic booms based on oil, 166 workers died in industrial accidents.[127] When the global financial crisis of 2008 hit, Alberta was once again especially badly impacted due to its single-industry economy when 80,000 jobs were lost in ten months.[128] These enduring economic, political, and social challenges, and their significant implications for well-being and health equity, formed the context for the historic 2015 provincial election of the NDP under Rachel Notley. Compared to previous governments, the provincial NDP achieved some important gains for workers such as increasing the minimum wage from one of the lowest in Canada at $10.20/hour to one of the highest at the time at $15/hour and in updating safety rules for farms. On other issues, such as environmental policy, evaluation of the NDP's legacy is decidedly less positive (see also Chapter 8) and this is a crucially important issue as we transition to a more sustainable economy that is supportive of workers in Alberta and beyond.[129]

Overall, despite significant implications of work for well-being and health equity,[130] engagement of mainstream public health with the broader political economic factors that shape the landscape and quality of work and the power and dignity of workers is limited. It is with the goal of strengthening this intersection, which is integral to a broad version of public health, that we have include a section on worker health from a political economy perspective in this volume. The dynamics outlined here have only persisted in the context of the COVID-19 pandemic where those jobs with the highest risk of exposure to the virus also tended to be poorly paid and precarious and were disproportionately held by women, racialized populations, and immigrants. An important recent analysis showed

that these workers were more likely to contract the virus *despite* being equally or more likely to be vaccinated than comparison groups, thus pointing to the need to focus on improving working conditions and pay for essential workers rather than a narrow and reductive focus on individual's decisions around whether or not to be vaccinated.[131] Shifting upstream in this way, to centre root causes of poor health in their social, economic, and political systems and structures, rather than place dominant reliance on technical biomedical solutions such as vaccines and their uptake by individuals, is a long-standing challenge for public health.[132]

This history also contains important examples of resistance by workers; that is, efforts to rebalance power inequities which are the root causes of health inequities. Examples of worker resistance likewise continue to accrue, such as the pandemic-inspired collective efforts that prompted legislated paid sick days in British Columbia and federally (but not in Alberta).[133] While the challenges of capitalism may seem overwhelming, historical political economy analysis makes clear the imperative of collective mobilization even if it is not always successful. Indeed, if our concern is population well-being and health equity and its structural causes, there is no alternative.

Conclusions

With the aim of showcasing *prevention* as a fundamental public health orientation and activity, we summarized some aspects of the history of prevention in Alberta using three examples: tobacco control, community water fluoridation, and workers' health. Our range of examples collectively illustrate the intersectoral nature of prevention, which includes roles for different levels of government, academic researchers, and civil society; the imperative of collective action, by citizens and organizations; and the continuing need for prevention — especially in its upstream primary and primordial forms — as a key part of a broad vision of public health. [134]

We titled this chapter "Mobilizing Preventive Policy." Preventive policy is a broad concept that can range from specific legislation around discrete issues — such as tobacco and fluoridation — to an overarching re-orientation of government, economy, and society to be much more attuned to upstream drivers of poor health and health inequity, as illustrated by our example of workers' health.[135] The latter is especially well-aligned with a broad vision of public health that anchors this volume, and to which we hope our analysis here can contribute.

NOTES

1 Canadian Public Health Association (CPHA), *Public Health: A Conceptual Framework,* CPHA Working Paper (Ottawa: CPHA, 2017), https://www.cpha.ca/public-health-conceptual-framework; Public Health Agency of Canada, *Core Competencies for Public Health in Canada: Release 1.0* (Public Health Agency of Canada, 2008), https://www.phac-aspc.gc.ca/php-psp/ccph-cesp/pdfs/cc-manual-eng090407.pdf. John Last, ed., "Prevention," *A Dictionary of Epidemiology*, fourth ed. (New York: Oxford University Press, 2001).

2 Last, *A Dictionary of Epidemiology*, "Primordial prevention"; CPHA, *Public Health: A Conceptual Framework*.

3 Centers for Disease Control and Prevention (CDC), "Prevention," https://www.cdc.gov/pictureofamerica/pdfs/picture_of_america_prevention.pdf.

4 At Les Hagen's request, this section of the chapter is dedicated to the memory of the Honourable Stanley Schumacher, Q.C., Honorary Patron of Action on Smoking & Health (ASH) 1993 to 2008.

5 "History of the Surgeon General's Reports on Smoking and Health," Smoking & Tobacco Use, CDC, accessed 34 September 2020, https://www.cdc.gov/tobacco/data_statistics/sgr/history/index.htm.

6 Jessica Reid et al., *Tobacco Use in Canada: Patterns and Trends*, 2019 ed. (Waterloo, ON: Propel Centre for Population, Health Impact, University of Waterloo, 2019), https://uwaterloo.ca/tobacco-use-canada/sites/ca.tobacco-use-canada/files/uploads/files/tobacco_use_in_canada_2019.pdf. Notwithstanding the steady decline in smoking prevalence since the 1960s, the 2017 national prevalence estimate (15%) was significantly higher than in 2015 (13%).

7 Christopher Rutty and Sue C. Sullivan, *This Is Public Health: A Canadian History* (Ottawa: CPHA, 2010); Alan Davidson, *Social Determinants of Health: A Comparative Approach* (Don Mills, ON: Oxford University Press, 2015); Margot Shields, "Smoking Bans: Influence on Smoking Prevalence," *Health Reports* 18, no. 3 (2007).

8 Kirsten Bell, Amy Salmon, and Darlene McNaughton, "Alcohol, Tobacco, Obesity and the New Public Health," *Critical Public Health* 21, no. 1, (2011); Kirsten Bell et al., "'Every Space is Claimed': Smokers' Experiences of Tobacco Denormalisation," *Sociology of Health & Illness* 32, no. 6 (2010); Katherine L. Frohlich et al., "Creating the Socially Marginalized Youth Smoker: The Role of Tobacco Control," *Sociology of Health & Illness* 34, no. 7 (2012).

9 "Health Fact Sheets, Smoking, 2017," Statistics Canada, accessed 4 September 2020, https://www150.statcan.gc.ca/n1/pub/82-625-x/2018001/article/54974-eng.htm. Estimates refer to the national average excluding the territories, as drawn from the 2017 Canadian Community Health Survey, in which coverage in the territories was partial.

10 Lindsay McLaren, "In Defense of a Population-Level Approach to Prevention: Why Public Health Matters Today," *Canadian Journal of Public Health* 110, no. 3 (June 1, 2019), https://doi.org/10.17269/s41997-019-00198-0.

11 The World Health Organization Framework Convention on Tobacco Control provides a foundation for countries to implement and manage tobacco control, which includes six key components: monitor tobacco use and prevention policies; protect people from tobacco smoke; offer help to quit tobacco use; warn about the dangers of tobacco; enforce bans on tobacco advertising, promotion and sponsorship; raise taxes on tobacco. "MPOWER," Tobacco Free Initiative (TFI), World Health Organization, accessed 4 September 2020, https://www.who.int/tobacco/mpower/en/.

12 This section largely begins in the 1970s; however, interest in tobacco control in Alberta may have begun quite a bit earlier than this. According to *Towards a Healthier City: A History of the Edmonton Board of Health*, in the 1940s, the Women's Christian Temperance Union put forth a proposal for restrictions on smoking in public places to Edmonton City Council. Although a civic regulation was apparently already in place for smoking in 'public conveyances,' Council declined the proposal on the basis that the Board of Health did not consider smoking to be a public health problem. Maureen Riddell and Richard Sherbaniuk, *Towards a Healthier City: A History of the Edmonton Board of Health, 1871–1995* (Edmonton: 1995), 51.

13 Les Hagen, interview by Rogelio Velez Mendoza, 30 November 2018; Rutty and Sullivan, *This Is Public Health*. Another key non-profit group was the Non-Smokers' Rights Association, which began in Toronto in 1974 and has been active in campaigning for tobacco legislation and regulation at the municipal, provincial, and federal levels ever since. "What We Do What is the NSRA?," Non-Smokers' Rights Association, accessed 7 September 2020, https://nsra-adnf.ca/what-we-do/what-is-the-nsra/.

14 Sarah Milov, "Grass Roots Activists Won the War on Smoking. Can They Win the War on Climate Change?" *Washington Post*, 29 June 2017, https://www.washingtonpost.com/news/made-by-history/wp/2017/06/29/grass-roots-activists-won-the-war-on-smoking-can-they-win-the-war-on-climate-change/?noredirect=on&utm_term=.827c9b7d331e.

15 "Not Fast Enough for GASP. Statistics Show Smokers are Becoming a Dying Breed," *Calgary Herald*, 21 May 1979;.

16 "Getting a G(R)ASP on the Problem," *Edmonton Journal*, 2 October 1975, 23. The *Edmonton Journal* reported that GASP-Edmonton presented to the deputy minister of health, Dr. Jean Nelson in February 1977. They proposed that smoking be completely banned areas such as elevators, libraries, and supermarkets and at least partially banned places like arenas, restaurants, and, planes. They presented a petition containing 13,136 names collected by GASP groups in Edmonton and Calgary. "The GASP Message: Smokers Beware of Fines in the Air," *Edmonton Journal*, 8 February 1977, 25.

17 Alberta. Legislative Assembly of Alberta, 21 April 1977 (Eric Musgreave, PC); "Getting a G(R)ASP on the Problem," *Edmonton Journal*.

18 Alberta, Legislative Assembly of Alberta, 28 April 1977. All Hansard Transcripts are available at https://www.assembly.ab.ca/assembly-business/transcripts/transcripts-by-type.

19 John Gogo, PC MLA for Lethbridge-West, and John Ashton, PC MLA for Edmonton-Ottewell. Alberta, Legislative Assembly of Alberta, 28 April 1977. The enforcement comment echoes points of opposition made during the seatbelt debate (see Chapter 3).

20 The meeting announcements described the group as an "Environmental action group supporting the rights of the non-smoker" (e.g., "Public Notices," *Edmonton Journal*, 24 January 1977, 32). To illustrate its strong presence, in 1980 alone, GASP was mentioned explicitly at least seven times in the *Edmonton Journal* in the context of the municipal bylaw deliberations, where they were often portrayed as the main or only anti-smoking group.

21 "The GASP Message: Smokers Beware of Fines in the Air," *Edmonton Journal*, 8 February 1977, 25; "Council in Brief," *Edmonton Journal*, 22 May 1980, 30.

22 "You and Your Heart. Smoke can Cause Irritation," *Edmonton Journal*, 6 April 1977, 27.

23 "GASP Group Wants Bylaw to Segregate the Smokers," *Edmonton Journal*, 12 June 1980, 25.

24 "Council in Brief," *Edmonton Journal*, 22 May 1980, 30.

25 "Cloud of Smoking Controls Hovers over Council Session," *Edmonton Journal*, 16 September 1980, 13.

26 Barb Livingstone, "Curb your Puffing or Pay the Penalty," *Edmonton Journal*, 14 January 1981, 1.

27 Ottawa was the first city to pass a municipal bylaw in 1976, and Toronto passed theirs in 1979. "Key Issues: Municipal Bylaws," Non-Smokers' Rights Association, accessed 7 September 2020, https://nsra-adnf.ca/key-issues/second-hand-smoke/municipal-bylaws/. Vancouver city council passed a bylaw in late 1986 banning smoking in many public places. The city ban was extended to restaurants and cafes in 1996. Maryse Zeidler, "30 Years Ago Smoking in Public Places was Banned in Vancouver – and Smokers were Outraged," *CBC News*, 4 December 2016, https://www.cbc.ca/news/canada/british-columbia/smoking-bylaw-vancouver-history-1.3875548.

28 Public notices of regular GASP meetings continued to appear in the *Edmonton Journal* throughout 1981, 1982, and 1983.

29 In December 1981, for example, GASP spoke in support of efforts to remove the University of Alberta's exemption from the city's smoking bylaw. "Smoking May be Out for U's Faculty Council," *Edmonton Journal*, 9 December 1981, 25.

30 "Butt-out Backers Rewarded for Huffing about Puffing," *Edmonton Journal*, 25 April 1984, 18.

31 David Howell, "Bylaw gets Tougher on Public Smokers," *Edmonton Journal*, 10 April 1985, 15.

32 "Bylaw Charges GASP-inspired," *Edmonton Journal*, 10 July 1985, 22; Judy Schultz, "Be Sure to Complain about Rude Smokers (Feedback)," *Edmonton Journal*, 17 July 1985, 48.

33 Mike Sadava, "Council Toughens Smoking Bylaw: Anti-smoking Group Applauds Council's Efforts," *Edmonton Journal*, 25 March 1991, 15.

34 "Nonsmokers Set to Unite," *Calgary Herald*, 23 April 1975, 28; "Anti-smoke Group Aims Pollution Blow," *Calgary Herald*, 1 May 1975, 25.

35 "Arenas Plan Crackdown on Smoking," *Calgary Herald*, 26 February 1977, 27.

36 Don Martin, "Ryan Runs Out of Puff on Bylaw," *Calgary Herald*, 23 January 1980, 1; "Passing Anti-smoking Torch (letter)," *Calgary Herald*, 31 January 1980, 8.

37 Portia Priegert, "No-smoking Regulations Lack Teeth, Says Pears," *Calgary Herald*, 19 March 1985, 17. In terms of "lacking teeth", Calgary's initial bylaw appears to have been more lenient than Edmonton's: while it required restaurants and lounges to establish non-smoking areas, it left the amount of designated non-smoking space or number of seats to the discretion of the operators of the businesses.

38 Starting with Calgary in 1988, all Olympic Games have been declared tobacco-free. "Tobacco Free Olympics," Tobacco Free Initiative (TFI), World Health Organization, accessed 7 September 2020, https://www.who.int/tobacco/free_sports/olympics/en/; Les Hagen, interview; Carmen Chai, "50 Years after Historic Report, Canadian Officials Reflect on Anti-smoking Efforts," *Global News*, 10 January

2014, https://globalnews.ca/news/1074275/50-years-after-history-making-report-canadian-officials-reflect-on-anti-smoking-efforts/.

39 Provincial legislation concerning smoking existed in Alberta prior to the 1970s. This included: An Act respecting the Use of Tobacco by Minors (1922, 1942), which prohibited sales of tobacco to minors except under written request from a parent, guardian or employer; An Act respecting the Welfare of Children (1925), which outlined the powers of officers and others to confiscate cigarettes from a child, and to detain and search a child suspected to have cigarettes; An Act to License and Regulate Public Vehicles on Highways (1927), according to which drivers of public vehicles carrying passengers are not permitted to smoke while driving; and An Act to Provide for the Imposition of a Tax on Purchasers and Users of Tobacco (1969) that outlines amounts and parameters of provincial tax on tobacco products.

40 The overlap and continuity between GASP-Edmonton and ASH is illustrated by common members, such as Dr. Roger Hodkinson who served as president of GASP-Edmonton and spokesperson for ASH in the mid-1980s. See for example Paul Cashman, "GASP Wants Puffers to Pay for Anti-smoking Agency," *Edmonton Journal*, 9 April 1985, 15. The name change from GASP to ASH occurred in 1987. Les Hagen, interview.

41 Daniel Stoffman, "The Ability of the Tobacco Industry to Stay Healthy While its Customers Get Sick is One of the Most Amazing Marketing Feats of All Time," *Globe and Mail, Report on Business Magazine*, September 1987; Garfield Mahood, "Warnings that Tell the Truth: Breaking New Ground in Canada," *Tobacco Control* 8, no. 4 (1999). For example, federal legislation for a total ban on cigarette advertising was proposed in 1971, but the decision was made under federal Liberal leadership to go with voluntary guidelines for industry at that time. That said, the *Canadian Charter of Rights and Freedoms*, which became law under the federal Trudeau government in 1982, helped set the stage for legal protection of non-smokers from tobacco smoke in public areas. Rutty and Sullivan, *This Is Public Health: A Canadian History*.

42 Les Hagen, interview. Within the Canadian public health community, Epp is perhaps most known for the 1986 report, *Achieving Health for All: A Framework for Health Promotion*, also known as the Epp Report, which makes reference to tobacco reduction as an example of the strategy of healthy public policy. Jake Epp, *Achieving Health for All: A Framework for Health Promotion* (Ottawa: Health and Welfare Canada, 1986), https://www.canada.ca/en/health-canada/services/health-care-system/reports-publications/health-care-system/achieving-health-framework-health-promotion.html.

43 *Non-smokers' Health Act*, Statutes of Canada 1988, c. 21 (vol. 1); *Tobacco Products Control Act*, S.C. 1988, c. 20 (vol. 1).

44 Les Hagen, interview.

45 Briefly, the federal Established Programs Financing (EPF) plan, introduced in 1977, provided funding to provinces and territories for health care and post-secondary education. Upon the enactment of the Canada Health Act of 1984, EPF funding was made conditional on provinces' alignment with the criteria of the act. In 1995, the EPF and the Canada Assistance Plan (established in 1966 to fund social assistance programs) were combined into the Canada Health and Social Transfer (CHST), and then in 2004 the CHST was restructured into the Canada Health Transfer and the Canada Social Transfer. "History of Health and Social Transfers," Department of Finance Canada, modified 15 December 2014, https://www.canada.ca/en/department-finance/programs/federal-transfers/history-health-social-transfers.html.

46 Dene Creswell, "Non-smokers Forge Restaurant Campaign," *Edmonton Journal*, 6 February 1984, 11; Katherine Dedyna, "Smoking Council Draws GASP Fire," *Edmonton Journal*, 3 October 1985, 22.

47 Katherine Dedyna, "Smokers May be Threat to their Fellow Workers," *Edmonton Journal*, 30 September 1985, 45.

48 Dedyna, "Smokers May be Threat," *Edmonton Journal*; Dedyna, "Smoking Council Draws GASP Fire," *Edmonton Journal*.

49 Richard Helm, "'Death and Disease' Funds Ballet — Anti-smoking Group," *Edmonton Journal*, 13 November 1985, 17; "Dancers Protest Cigarette Sponsors," *Edmonton Journal*, 18 February 1986, 2.

50 See for example, "'Dance of Death' Protests du Maurier Aid for Ballet," *The Citizen, Ottawa*, 18 February 1986, B8; Les Hagen, interview.

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Control Act, 27 October 1993); Bill 215, the Non-Smokers' Health Act (25 October 1994); and Bill 208, the Prevention of Youth Tobacco Use Act (7 December 1999).

53 Alberta. Legislative Assembly of Alberta, 14 May 1992.

54 Alberta. Legislative Assembly of Alberta, 25 October 1994; 7 December 1999.

55 The Alberta Tobacco Reduction Centre started in 1995 and ran for about three years, and the Alberta Tobacco Reduction Alliance began in 1998/99 and ran for about four years. Les Hagen, interview; Alberta Ministry of Health, *Annual Report 1998–99* (Edmonton, 1999), 40.

56 The World Health Organization Framework Convention on Tobacco Control was developed in response to the globalization of the tobacco epidemic, and emphasizes the importance of price and tax measures, measures to protect people from exposure to tobacco smoke, regulation of the contents of tobacco products, and regulation of tobacco product disclosures. The framework convention is significant in that it was the first treaty negotiated under the auspices of the World Health Organization, and it "represents a paradigm shift in developing a regulatory strategy to address addictive substances". World Health Organization, *WHO Framework Convention on Tobacco Control* (Geneva: World Health Organization, 2003, updated reprint 2004, 2005), https://www.who.int/fctc/text_download/en/.

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68 Reports of mottled enamel in Grassy Lake and in Granum, in southern Alberta, came in around 1935 from the provincial travelling clinic and from a local school principal. G. Clarke and C.R. Castaldi, "Fluorine, Fluorides and Fluoridation in Alberta," *Canadian Journal of Public Health* 52 (1961); Osman James Walker and Elvins Yuill Spencer, "The Occurrence of 'Mottled Enamel' of Teeth in Alberta and its Relation to the Fluorine Content of the Water Supply," *Canadian Journal of Research* 15, Sec. B (1937).

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73 G. Clarke and C.R. Castaldi, "Fluorine, Fluorides and Fluoridation in Alberta;" Riddell and Sherbaniuk, *Towards a Healthier City*.

74 MacLean, *History of Dentistry in Alberta*; Harry Knowlton Brown, "Mass Control of Dental Caries by Fluoridation of a Public Water Supply," *Journal of the Canadian Dental Association* 17, no. 11 (November 1951).

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76 Catherine Carstairs, "Cities without Cavities: Democracy, Risk, and Public Health," *Journal of Canadian Studies* 44, no. 2 (2010); Catherine Carstairs and Rachel Elder, "Expertise, Health, and Popular Opinion: Debating Water Fluoridation, 1945–80," *Canadian Historical Review* 89 (2008); Lisa Watson, "The Edmonton Fluoridation Controversy," *Alberta History* 38 (1990). These points of opposition have been remarkably consistent over time and place. See for example McLaren and McIntyre, *Drinking Water Fluoridation in Canada*.

77 Carstairs, "Cities without Cavities;" "Obituary: Dr. William H. Hill," *Canadian Medical Association Journal* 89, (September 7, 1963), 526; "Past Presidents," Alberta Public Health Association; W.H. Hill, "Fluoridation of Water" [Letter to the Editor], *Canadian Journal of Public Health* 43, no. 7 (July 1952), 320-321.

78 Specifically, around 1951 or 1952, the city of Edmonton wished to implement fluoridation. Deputy Minister of Health W.W. Cross had checked the legislation and found that there was nothing to prevent the city from taking such action. "Plebiscite by Municipalities May Settle Fluoridation Issue," *Calgary Herald*, 18 February 1956, 1.

79 *An Act to Amend the Public Health Act*, S.P.A. 1952 c. 68.

80 Clarke and Castaldi, "Fluorine, Fluorides and Fluoridation in Alberta." The report was authored by O.J. Walker, professor of chemistry at the University of Alberta and H.R. MacLean.

81 Watson, "The Edmonton Fluoridation Controversy;" "Water Fluoridation Attack Launched By Woman MLA," *Edmonton Journal*, 4 March 1954; "Mrs. Wood Scores Water Fluoridation," *Calgary Herald*, 5 March 1954; "Member Opposes Water Fluoridation," *Edmonton Journal*, 29 March 1955.

82 MacLean, *History of Dentistry in Alberta*; Clarke and Castaldi, "Fluorine, Fluorides and Fluoridation in Alberta;" Watson, "The Edmonton Fluoridation Controversy."

83 *An Act to Amend the Public Health Act*, S.P.A 1956, c. 42. The amendment also stipulated that if approval for fluoridation was not secured, the municipality must wait at least one year before holding another plebiscite. In 1958, a further amendment extended this waiting period to two years to make it consistent with the two-year mandatory waiting period before rescinding a fluoridation bylaw. *An Act to Amend the Public Health Act*, S.P.A 1958, c. 63; "Fluorine Bill Would Limit Bylaw Voting," *Edmonton Journal*, 27 February 1958, 19.

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85 Clarke and Castaldi, "Fluorine, Fluorides and Fluoridation in Alberta;" Alberta Department of Public Health, *Annual Report 1957* (Edmonton: Printed by L.S. Wall, Queen's Printer, 1959), 8.

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87 Clarke and Castaldi, "Fluorine, Fluorides and Fluoridation in Alberta."

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89 "Fluoride Battle Averted," *Edmonton Journal*, 19 April 1966; *An Act to Amend the Public Health Act*, S.P.A 1966, c. 77.

90 *Public Health Act*, S.A. 1984, c. P-27.1. See item 101 "The Municipal Government Act is amended" on page 251.

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92 Carstairs, "Cities without Cavities;" Clarke and Castaldi, "Fluorine, Fluorides and Fluoridation in Alberta."

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94 Carstairs, "Cities without Cavities."

95 Therefore, although the estimated costs for the community water fluoridation and fluoride supplement programs were approximately $3/child age 0–13 for each program, when one takes into account the differential reach (100% vs 16%), the supplement program is much costlier (>$20/child age 0–13). Calgary fluoridation files, held at AHS — Historical Collections.

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