The History of Anti-Vaccination in Canada, 1867-1967



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The production of this thesis has seen numerous twists and turns, shifting in both scope and focus. It was born out of a desire to research the history of vaccination in Canada: an exceptionally broad and undefined topic in hindsight. Just when I had settled in to start writing, a new and unexpected event came in the form of the onset of the COVID-19 pandemic at the start of 2020. It was a tumultuous year for vaccine confidence and the relevance of anti-vaccination movements in history seemed to grow with each week. This had the effect of greatly re-shaping my research away from vaccination and instead into anti-vaccination history.

I doubt vaccines will disappear from popular discussions for many years in the future, yet I worry about how quickly this study will become outdated. Nonetheless, the trends identified within this study and its arguments about the history of anti-vaccination will be a useful addition to the literature and will help contextualise moments of anti-vaccination in the past, for those seeking to better understand them. I am also humbled to acknowledge the huge debt I owe to those in my support networks who have helped me complete this work.

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TABLE OF CONTENTS

ABSTRACT ..... **v**
TABLE OF FIGURES ..... **vi**
LIST OF ABBREVIATIONS ..... **vii**
INTRODUCTION **1**
Literature Review 11
Outline of Study 37
Theory and Methodology 40
CHAPTER 1 – Anti-Vaccination Arguments **47**
Smallpox Vaccination – An Overview 50
Smallpox Vaccination – Issues & Concerns 55
Anti-Vaccination in the Early Nineteenth Century 57
Anti-Vaccination in Britain, 1853-1898 62
Advancements in Vaccine Safety and Efficacy 68
Vaccination in Canada after Confederation 78
Anti-Vaccination in Canada 81
Conclusion 86
CHAPTER 2 – 'Pas de vaccination!': The First Anti-Vaccination Movements in Montreal, 1867-1885 ..... **90**
The Development of Public Health in Montreal 93
The First Vaccination Debates, 1871-1879 99
Class and Cultural Identity 111
The Great Smallpox Epidemic, 1885 116
The Impact of the 1885 Epidemic 140
Conclusion 142
CHAPTER 3 – Quacks, Hacks, and Charlatans: Alternative Medicine and Medical Freedom **145**
Defining 'Alternative' Medicine 154
1880 – 1890: Dr. Alexander M. Ross 161
1900 – 1910: Homeopathy under Attack 167
The Canadian Anti-Vaccination League, 1900 175
The Fight for Medical Freedom 185
The Controversy over Christian Science 194

Medical Electricians....201
Dr. Alfred McKay Jordan....204
Conclusion....209
CHAPTER 4 – Ignoble Sacrifice: Anti-Vaccination after WWI....212
The Reshaping of Canadian Society During World War One....214
The Spanish Flu....219
Anti-Vaccination during World War One....226
Ottawa, 1919....229
Toronto, 1919....246
Conclusion....259
CHAPTER 5 – One Hand Washes the Other: The Intersections of 'Anti-' Activism, 1920 – 1960....262
In Defiance of Patriarchal Medicine....270
Anti-Pasteurization, Anti-Chlorination, and Anti-Fluoridation....276
The Links to Anti-Vaccination....290
Anti-Vivisection....297
Conclusion....305
CONCLUSION....308
BIBLIOGRAPHY....317
A. Primary Sources....317
A1. Manuscript and archival sources....317
A2. Printed....318
A3. Electronic....325
B. Secondary Sources....327
B1. Books and Articles....327
B2. Unpublished Theses....345

ABSTRACT

This study investigates the history of anti-vaccination in Canada from 1867-1967. It asks why anti-vaccination rhetoric was so resilient and argues that the longevity of anti-vaccination stems from its function as a populist anti-establishment movement, maintained by key activists and gaining traction at moments of social tension and compulsory vaccination. Its destabilising effect ensured its meaning and appeal adapted easily to different moments and contexts and its portrayal in popular print media served as a means for maintaining presence in the attention economy of the time.

There were times when anti-vaccination asserted a connection to British values, and times it conversely connected its agitators to an imagined Americanised brotherhood of freedom and libertarianism. It provided an avenue for working-class French-Canadians to resist Anglophone domination and bolstered feminist causes by creating space for female voices in male-dominated medical fields. It disturbed increased state power over individual choices in healthcare and was harnessed by labour organisers to disrupt capitalist power. Whilst the main arguments and rhetoric of anti-vaccination were kept alive by a set of key actors, often alternative medical practitioners, anti-vaccination movements episodically emerged as destabilising social movements that appealed to a considerable variety of social groups and individuals over the course of the first century of Canadian Confederation. This thesis helps to expand the literature by reshaping the understanding of past anti-vaccination movements in terms of anti-establishmentism, revealing the persistence of populist rhetoric and tactics, and the influence of social tensions on vaccine confidence at different points in Canadian history.

TABLE OF FIGURES

Figure 1: Image from pamphlet against vaccination published by William Rowley, "Cow Poxed, Ox faced Boy." 1805. Source: Wellcome Collection, https://wellcomecollection.org/works/nv3ggkme..... 60

Figure 2: Vaccinated Daughter with unvaccinated Mother. Source: Jay F. Schamberg, Smallpox and vaccination (Chicago: Press of American Medical Association, 1914), 16. 75

Figure 3: Advertisement for Joseph Emery-Coderre's 'Elixir Tonic' and 'Cough Syrup', which appeared in his publication *The French-Canadian Anti-Vaccinator*, 1885. 110

Figure 4: Image taken from anti-vaccination pamphlet showing a working-class man constrained and forced to undergo vaccination by a policeman and public health official. 123

Figure 5: The Victoria Memorial in Victoria Square, Montreal. Source: Image by author, (29 Dec. 2022). 139

Figure 6: Homeopathy ephemera. Wellcome Collection, https://wellcomecollection.org/works/u9rrze54. 171

Figure 7: Dr. John M. Goode, "Drug Have Killed More People Than War, Pestilence and Famine," *The Ottawa Citizen* (10 December 1910): 17. 203

Figure 8: Anti-Vaccination Rally at City Hall, Toronto, November 1919. Source: City of Toronto Archives, Fonds 1244, Item 2517. 253

LIST OF ABBREVIATIONS

AVLC	Anti-Vaccination League of Canada (Toronto)
CBC	Canadian Broadcasting Corporation
CAM	Complementary and Alternative Medicine
GVWD	Greater Vancouver Water District
MFL	Medical Freedom League (Canada)
SPCA	Society for the Prevention of Cruelty to Animals
UBC	University of British Columbia

INTRODUCTION

In 1875, Canadian readers turned to the columns of various newspapers to stay updated on domestic and international events. One of the hot topics of the summer was the growing anti-vaccination unrest in Britain, as organised protestors gathered in various locales across England in defiance of the Compulsory Vaccination Act.[1] In July the *Globe* informed its Toronto readers about a spectacle of anti-vaccination protestors who gathered in Yorkshire to celebrate the release of a man from the Northampton Prison. The unnamed man had been given fourteen days' confinement for his refusal to have a child vaccinated. The *Globe* described how the celebrated resister was met with a 'purse of gold' by the anti-vaccination crowd, much noise, and a background display of colourful banners 'denouncing the Vaccination Act'. A few months later, readers of the *Montreal Star* learned of a similar incident where English anti-vaccination protestors reportedly "gathered in the hundreds" to welcome a local shoemaker out of prison for suffering the same fate in Banbury.[2]

Although 1875 was a busy year for anti-vaccination activities in Britain, vaccine protests – and media reporting on them – were not limited to the British Isles. That same autumn, a variety of British and American newspapers published columns covering the events of the Montreal anti-vaccination riots, which had erupted in the city during civic attempts to pass a vaccination mandate. The riots occurred in the wake of a tumultuous election during which the Municipal Council pledged to clean up the city and bring about

[1] "Article 6 – No Title", *The Globe* (10 Jul. 1875): 6.
[2] "Anti-Vaccination," *The Montreal Star* (28 Sep. 1875): 2.

compulsory vaccination, particularly in the areas most hit by the prevailing disease.[3] These happened to be the predominantly French-Canadian districts, and the French Canadians gathered *en masse* to disrupt the passing of the vaccination mandate, breaking the windows at city hall and throwing stones at the gathered aldermen.[4] The incident was publicised in domestic papers as well as international ones, with many American newspapers republishing accounts of the riots[5] and the London *Times* writing an editorial questioning the Canadian ability to self-govern if it could not keep the peace in its largest city.[6] Such comments prompted a response from the Toronto *Globe* who admonished the *Times* for the hypocrisy of criticising a few nights of rioting in Canada, when rioting was a more than frequent occurrence in the 'Motherland'. The *Globe* editors dryly inquired, "has the Times forgotten the series of Riots at Oxford in 1867, in connection with the Guy Fawkes celebration? Or the bread riots at Exeter the same year?"[7] The Chicago *Daily Tribune* soon weighed in, commenting on the curious aspersions of the *Times* and the implication that such incidents may lead Canadians to think they are better off "under the protection of the United States."[8]

These conversations demonstrate several interesting features that come to light in an analysis of the history of anti-vaccination movements. The topic was particularly appealing for news outlets seeking to widen readership and stir public opinion on the main events of the day. These columnists talked not just to their readers, but to each other, pulling on domestic political and national rivalries and cultures to help define the terms

[3] "Anti-Vaccination: Particulars of the Disgraceful Riot Around the Montreal Council Chamber," *Courier-Journal* (16 Aug. 1875): 1.
[4] This riot is discussed further in chapter 2.
[5] "Anti-Vaccination," *New York Times* (13 Aug. 1875): 5.
[6] "The London "Times" on the Montreal Vaccination Riot," *The Globe* (15 Sep. 1875): 1.
[7] *Ibid.*
[8] "Canada and the Mother Country," The Chicago Daily Tribune (17 Sep. 1875): 4.

of public discussion and provide easy narratives for readers across the Atlantic. They both reflected the events of the moment and helped shape public reaction to them. In the history of anti-vaccination, media reporting has always played an essential role in collecting opinions, airing debates, and painting images of the great debates around vaccine effectiveness, necessity, and resistance. This study of Canadian anti-vaccination movements in the first century since Confederation delves into these debates and their depiction within popular media of the time to reveal that early anti-vaccination sentiment was not simply a matter of medical scepticism; it intersected with wider social, political, and cultural tensions across Canadian society as it progressed from early Confederation to full nation.

Before discussing the topic further, it is important to clearly define what is meant by anti-vaccination in this study. Although the terms used to describe resistance to vaccination have gone through several shifts over time,[9] this study is specifically concerned with analysing vaccine refusal as collective action, which is often shaped and expounded through media reporting. Scholars of social psychology have pointed out that there is a difference between action and identification.[10] One may vote for a specific political party and not strongly identify with it, just as one may reject or avoid vaccination without identifying with anti-vaccination movements. Conversely, it is equally possible for one to get vaccinated yet identify with the cause and effect of anti-vaccination movements, particularly anti-mandate protests. Historically and today, people can easily

[9] Early nineteenth-century vaccine opponents were often said to be against 'cow-pock' and the term anti-vaccination eventually solidified in popular use by the late nineteenth century. Later movements would be rebranded as medical freedom movements, although the term anti-vaccination was still used within mainstream media. This is discussed further in chapter one of this thesis.

[10] Elisabetta Crocetti et al., "Identities: A developmental Social-Psychological Perspective," *European Review of Social Psychology* 34, no. 1 (2023): 162, https://doi.org/10.1080/10463283.2022.2104987.

be drawn into wider imagined collectives, with motivations embedded in a web of social relations. This helped shape the selection of the case studies included in this research, which does not limit itself to 'mass movements'[11] but looks at both large moments of collective actions as well as the rhetoric of actors who actively advocated against vaccination. While there were many times during this century that anti-vaccination ideas coincided with collective activism in the form of petitions, meetings, and protests, there are also many moments when public enthusiasm in the anti-vaccination cause was lacking and those who vocally opposed vaccination had to find creative ways to advocate and sustain their cause.

The actions of anti-vaccination activists demonstrate the explicit goal of influencing others against vaccination. In the past, this included actions such as writing letters or giving talks in public forums against vaccination, as well as distributing media with the purpose of persuading others to oppose or refuse vaccination. Embodiments of anti-vaccination occurred in corporeal action, through physical participation in rallies, riots, or protests, as well as active lobbying or resistance to powers that enforced vaccination. Anti-vaccination movements were co-constructed and mutually constitutive activist moments that drew strength from association and allyship with other social movements of their time.

Like most social movements, a primary goal of anti-vaccination has been to spread a message and organise support for a cause. The key ideas and language of anti-vaccination were harnessed over time and between locations by certain passionate individuals who tapped into a historical and international intellectual network of anti-

[11] As Bator has done in his analysis of anti-vaccination movements in Canada. Paul Bator, "The Health Reformer Versus the Common Canadian: The Controversy Over Compulsory Vaccination Against Smallpox in Toronto and Ontario, 1900-1920," *Ontario History* 75, no. 4 (1983): 348-373, https://pubmed.ncbi.nlm.nih.gov/11617845/.

vaccination writings and modes of organisation. Successive movements benefited from a long genealogy of anti-vaccination writers and advocates, who built a strong foundation of core rhetoric upon which future advocates frequently drew.

Another feature that added strength to anti-vaccination movements was their populist media form. Anti-vaccination writers and leaders appealed to the concerns of the public by outlining how vaccine mandates, especially in urban settings, coincided with marginalisation and disenfranchisement.[12] They utilised the various media of their day to increase public engagement – distributing pamphlets and broadsheets, organising protests, lectures, and parades, and writing to local newspapers. I have chosen to focus on these sources because they represented moments for cultivating community, and capitalising on existing social divides. Much like today, anti-vaccination movements in the past relied on authoritative voices with claims to medical and scientific expertise to strengthen their influence, usually men who tended to stand outside the medical mainstream but held positions of social respectability.[13]

This thesis uses print media to analyse the history of anti-vaccination in Canada during its first century of Confederation. Throughout this period, vaccination was enforced amongst the Canadian populace through a variety of different mechanisms, including city and municipal vaccination campaigns, provincial policies enforcing vaccination before entry to public schools, varying application of policies by schools and school boards, military admission requirements during the First and Second World Wars, work policies applied by private companies for employment, and a number of moments

[12] A good overview of populism has been laid out by Robert S. Jansen, in the article: "Populist Mobilization: A New Theoretical Approach to Populism," *Sociological Theory* 29, no. 2 (2011): 75–96, https://doi.org/10.1111/j.1467-9558.2011.01388.x. Jansen's framework has been used throughout this thesis as the framework for identifying populism within anti-vaccination in the past.

[13] A good example is Dr. Alexander Milton Ross. See pages 49-56 and 123-126.

when local health powers issued policies requiring vaccination for individuals within their jurisdiction. The response of the public and the actions people took to oppose these enforcements were well commented on within print media, which itself underwent changes in purpose and use over the course of the century, shifting alongside the social changes that transformed Canada after 1867.

While moments of increased vaccination succeeded in expanding the general uptake of vaccines, they also consistently ignited moments of popular anti-vaccination resistance, which varied in size and location depending on who was targeted by vaccinators and the local tensions at play within the community. The largest incidents of vaccine resistance in Canadian history tended to have two main characteristics: they coincided with moments of increased compulsion, and moments of increased social division. Their strength was influenced by the appeal of anti-vaccination as a tool of anti-establishmentism within the specific locale and context. This study uses the definition of populism put forth by Jansen, who regards populism as a cultural tool that disrupts the assertion of power by 'elite' members of society, often through an appeal to nationalism, egalitarianism, and frequently, libertarianism.[14]

Anti-vaccination movements were strongest when they erupted alongside other moments of popular tension and protest. They found power in the turmoil that shook Montreal during the trial of Louis Riel, gained traction alongside peaks in labour unrest and marches for women's rights, grew during tense elections and moments of increased federal or medical authority. Between 1867 and 1967 in Canadian urban centres, these movements were often driven by charismatic and passionate leaders, who drew upon a civil libertarian rhetoric to reach a broader support base across social boundaries. The

[14]Jansen, "Populist Mobilization," 75–96.

historic power of anti-vaccination lent authority to its advocates while providing familiar, simple, and flexible messaging.

With Canada as the geographic lens, this thesis traces how anti-vaccination ideology blossomed into full anti-establishment movements at various periods between 1867 and 1967. During this time, vaccination resistance popped up in numerous contexts across Canada, often finding supporters across a vast variety of social groups. Vaccine opposition as recorded in public print in the past was not localised to any specific class, gender, political ideology, or even linguistic background. Cloaked in the guise of medical and scientific dispute, it consistently emerged in response to moments of vaccine compulsion and found support amongst those who had an interest in disturbing local establishment structures. Its success in reaching a wide audience was influenced by the extent to which opposing vaccination enabled the expression of public dissatisfaction with aspects of the social and political order.

Social constructionism has demonstrated that medical knowledge is conditioned by the social context in which it develops,[15] and vaccination developed and was deployed within the context of growing state power over individuals and their bodies.[16] The use of the technology was necessarily enacted through increasingly organised systems of institutional agents and progressively powerful medical models that defined what constituted 'appropriate' choice in healthcare.[17] The enforcement of vaccination grew as federal, provincial, and local authorities in Canada professionalised and became more

[15] Peter Conrad and Kristin Barker, "The Social Construction of Illness: Key Insights and Policy Implications," *Journal of Health and Social Behavior* 5, no. 1 (2010): S67-79, https://doi.org/10.1177/0022146510383495.
[16] Nadja Durbach, *Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907* (Duke University Press, 2005), 7-8.
[17] Wendy Mitchinson, *Body Failure: Medical Views of Women, 1900-1950* (University of Toronto Press, 2018), 3-6.

coordinated after Confederation. Anti-vaccination thus served as a type of anti-establishment connecting ground, bringing together people from a variety of social backgrounds within urban centres to protest perceived infringements on logic, healing, selfhood, and national and cultural identities.

Although this study is geographically focused on the Canadian experience of anti-vaccination, anti-vaccination was never a movement that isolated itself within national borders. Rather, its historic proponents sought connection and support through Western intellectual knowledge exchange networks between Britain, its colonies, the United States, and Europe. At times, it helped to solidify connections to British identity and European heritage within Canada, while conversely asserting brotherhood with American ideals of individualism and liberty. For those who stood outside the increasingly rigid definitions of acceptable medical practice, anti-vaccination was a helpful tool to push against the standardisation of medical science and the displacement of irregular or alternative medical practitioners from the profession. For French-Canadians, it served as justification for resistance against Anglo-Canadian elitism and French marginalisation. Labour unions used vaccine protests to shape demands for autonomy and workers' rights in their fight against industrial capitalism, while many women identified the push against vaccination as a push for greater female power in both the home and the patriarchal field of medicine.[18]

Despite its social and political function, it is hard to completely divorce anti-vaccination protest from medical and scientific debate. Social movement theory recognises that activist movements are ephemeral and require strong mechanisms that

[18] See pages 155-158.

prevent dissolution over time.[19] It was those with a personal stake in the outcome of scientific disputes surrounding vaccine safety and efficacy that served as the sustainers of anti-vaccination over time. As medicine went through a slow process of professionalisation, backed by provincial and federal authority in the first half of the twentieth century, medical practitioners who fell outside the increasingly rigid definitions of 'orthodox' healing found strength and support in an anti-vaccination identity. While popular vaccine resistance surged in urban centres and receded episodically, its popularity with those who straddled the line of orthodox medicine demonstrates that early twentieth-century medicine in Canada was not necessarily hegemonic or uniform.

Although the medical field gained in prominence and prestige, individual physicians were still jockeying to assert their own authority in a growing and increasingly crowded profession. In her introduction to *Body Failure*, Wendy Mitchinson outlines how many Canadian physicians felt deep personal constraints and insecurities about their individual practice. She concludes: "Bolstered by the prestige of science, the profession was secure; the individual practitioner did not always share that sense of security."[20] This statement sheds light on one important motivation for the promotion of vaccination and the often contemptuous and even visceral dismissal of those who opposed it. The security of the profession, and therefore the place of orthodox practitioners within it, was contingent on a widespread public acceptance and idolisation of scientific medicine. Anti-vaccination struck at one of the core pillars of medical knowledge, and by doing so, undermined the legitimacy of mainstream medical dominance over health, and the legitimacy of public health interventions and policy.

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[19] Klaus Eder, "Social Movements in Social Theory," in *The Oxford Handbook of Social Movements,* ed. Donatella della Porta and Mario Diani (Oxford University Press, 2015), 38.
[20] Mitchinson, *Body Failure*, 14.

The literature on social movements is vast and has undergone several theoretical shifts since the 1950s. As language is key throughout the analysis, this study utilises the definition put forth by Cathcart that a social movement emerges "when the language strategies of a change-seeking collective clash with the language strategies of the establishment and thereby produce the perception of a group's operating outside the established social hierarchy."[21] Scepticism about the efficacy of vaccines and fear over adverse reactions were often expressed in the past, with individual voices and writers popping up periodically to decry the technology and its usefulness. Yet despite the similarities in rhetoric, these contexts and concerns were different from our modern ones and drew on the particular political, economic, and medical issues of their time.

In the period under study, the transition to collective action was frequently achieved through the formation of formalised societies and leagues. Such organisations were modelled off Victorian-era reform societies and enabled community building from disparate social circles.[22] This provided a type of social capital to participants within anti-vaccination movements, who joined together in collective action but nonetheless derived individualised meaning from their participation or association with a movement. Identity theorists have outlined how collective identity informs group action by outlining the boundaries of group belonging, the development of a consciousness about those boundaries, and the politicisation of action in direct opposition to an opposing (often

[21] Robert Cathcart, "Defining Social Movements by Their Rhetorical Form," *Central States Speech Journal* 31, no. 4 (1980): 269, https://doi.org/10.1080/10510978009368066. For an updated overview of discourse and its relation to social movements, see: Teun van Dijk, *Social Movement Discourse: An Introduction* (Taylor & Francis Group, 2023), introduction.
[22] Durbach, *Bodily Matters*, 92-94.

dominant) order.[23] Each chapter of this thesis outlines different pathways that facilitated the emergence of collective action against vaccination at different points in time.

Literature Review

As this study draws on a century of anti-vaccinationism in Canada through print media, it grounds itself in three main areas of historiography. Firstly, it engages with the social history of Canada, drawing parallels between social movements at various times in the past with anti-vaccination agitation and popular vaccination resistance. It secondly builds on many of the findings from Canadian medical history, especially in the history of public health. Lastly, it looks to the wider literature on vaccination and anti-vaccination history, pinpointing the ways in which the Canadian experience of anti-vaccination both mirrors and diverges from the experience of anti-vaccination in other geographic and political locations through time.

Canadian social history blossomed during the 1960s and many early works in this field sought to illuminate the idea of a nation of 'peoples' in Canada's past, often taking survey approaches that highlighted how social factors like class, gender, race, and regional identity impacted the experience of early life in the geographically dispersed country.[24] Much like the people featured in these works, social historians of Canada had to grapple with its inherent regional differences and the divides that were imposed by the

[23] This was first put forth in V. Taylor and N.E. Whittier, "Collective identity in Social Movement Communities: Lesbian Feminist Mobilization," in *Frontiers in Social Movement Theory,* ed. A. D. Morris and C. M. Mueller (Yale University Press, 1992) but has been expanded on since. See: Judith Howard, "Social Psychology of Identities," *Annual Review of Sociology* 26 (2000): 367-393, https://doi.org/10.1146/annurev.soc.26.1.367; James Jasper and Aidan McGarry, eds., *The Identity Dilemma: Social Movements and Collective Identity* (Temple University Press, 2015).

[24] See for example George Woodcock, *A Social History of Canada* (Penguin Books, 1988).

juxtaposition of rural and urban experiences.[25] It was Ramsay Cook who famously coined the "limited identities" thesis, arguing that the variations of regional, ethnic, and class identities within the country formed the very basis for its "Canadianism."[26] This approach heavily influenced the approach of the *Canadian Centenary* series and was expanded upon by his contemporaries, especially in the work of J.M.S. Careless.[27] Although both scholars would later reject the regionalist approach, it served as an important force for illuminating the need for variation in analysis and the flaws in uniform nationalist approaches to history.[28]

Regional approaches encouraged the development of borderlands histories, exploring beyond the political entities that traditionally defined the limits of study to better examine the unique dynamics apparent in points of political and social convergence and divergence within border regions. This implied an inherent relationship between the imagined cultural notion of 'Canada' and its imagined borders, one which fluctuated with the concerns of the day. As New aptly noted in the introduction to his 1998 *Borderlands*:

> For most of its history, Canada has been an Atlantic and an American society, looking east to Europe and south to the States for imperial roots and continental desires - so much so that (for the populations of 'Central' Canada) these two borders came to seem normative angles of cultural disposition.[29]

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[25] J.M.S. Careless, "Metropolis and Region: The Interplay Between City and Region in Canadian History Before 1914," *Urban History Review* 7, no. 3 (Feb. 1979): 99-118, https://doi.org/10.7202/1019408ar.
[26] Ramsay Cook, "Canadian Centennial Celebrations," *International Journal* 21, no. 1 (Autumn 1967): 659-63, https://doi.org/10.2307/40200205.
[27] J.M.S. Careless, "'Limited Identities' in Canada," *Canadian Historical Review* 50, no. 1 (Mar. 1969): 1-10, https://doi.org/10.3138/chr-050-01-01.
[28] P.A. Buckner, "'Limited Identities' Revisited: Regionalism and Nationalism in Canadian History," *Acadiensis* 30, no. 1 (Autumn 2000): 8, https://www.jstor.org/stable/30303153.
[29] William Herbert New, *Borderlands: How We Talk about Canada* (University of British Columbia (UBC) Press, 1998).

These tensions of regionalism – political, cultural, and transnational – are played out in similar ways through media reporting on anti-vaccination movements, themselves fuelled frequently by local tensions but also by moments of refining and re-defining national identity at various points in the Canadian past.

The history of anti-vaccinationism in Canada also reflects the impact of settlement patterns on the social and political development of the country, a common theme that is demonstrated by the literature. The immense size of the country meant that effective collective action was only possible when there was a large enough population gathered within a geographic location to organise in protest. Additionally, as an 'anti-' movement, it was a responsive one. The strength of anti-vaccination movements generally mirrored the strength of vaccination enforcement, which necessitated centralised governance to ensure enforcement. This meant that anti-vaccination movements were generally born within urban centres, though they spread to surrounding towns and cities in waves, encouraged by proximity and the interrelated processes of immigration and migration.

As McKay has eloquently argued in *Reds, Rebels, and Radicals*, Canada was set up as a British liberal project, "counterpoised to the democratic experiment of the United States."[30] Its formation as a liberal state was conceived and enacted by a "relatively small elite group of liberal British North Americans," and implicit in this formation was the notion that the vocal concerns of the people were acceptably heard under the framework of an 'orderly' protest – with the unspoken understanding that only some individuals should be allowed to voice concerns (in an orderly way) based on class, gender, and racial hierarchies.[31] It is not surprising then that the early waves and forms of anti-vaccination

[30] Ian McKay, *Rebels, Reds, and Radicals: Rethinking Canada's Left History* (Between the Lines Publishing, 2005), 54.
[31] *Ibid.*, 54-55.

protest in Canadian history particularly reveal the strong influence of British anti-vaccination movements at the turn of the nineteenth century, with their tendency to organise formal leagues, marches, and gatherings.

It is also not surprising to see a slow cultural shift towards a more American individualism after the turn of the century, when Canada came to grips with its role as an "independent polity" on the global stage.[32] The geographic proximity to the United States ensured a certain amount of social and cultural interchange with American society, which increased as the twentieth century wore on, helped along by the continuous movement of peoples across the border.[33] This was reflected in many aspects of Canadian social life, including in anti-vaccinationism. Historians have more recently pointed to the importance of transnational approaches to studying previously 'Canadian' histories, arguing that many Canadian moments of import are only truly understood when the concept of nation is overcome, and the events of the past are read in a global, transnational context.[34] This is demonstrated in the history of vaccine resistance within the country, which relied heavily on international intellectual networks for both organisation and content dissemination, as well as the international sustainment of a wide variety of alternative approaches to healing. Many of the individuals that appear in this study received their medical training in the United States, especially those who practiced more unorthodox approaches to care.

One last important finding to mention is that moments of anti-vaccination agitation often coincided with general social turmoil and alongside other protest movements from various communities. There was a symbiosis that fostered anti-

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[32] George Woodcock, *A Social History of Canada* (Penguin Books, 1988), 295.
[33] Michael Bliss, ed., *The Social History of Canada* (University of Toronto Press, 2019), 15-17.
[34] See: Karen Dubinsky et al., *Within and Without the Nation: Canadian History as Transnational History* (University of Toronto Press, 2015), 4-5.

vaccination engagement during moments of popular anti-establishmentism. Anti-vaccination sentiment peaked with the turmoil of French/English relations during the trial of Louis Riel, within anti-immigrant and feminist protests, alongside labour unrest after WWI, during other popular health resistance movements in the inter-war period, and during the Quiet Revolution of the 1960s. Thus, looking at anti-vaccination allows for an analysis of understanding how social movements are often interconnected and frequently overlap, finding emotional fuel and political support across causes. This is an area that still needs further exploration in the Canadian historiography. While there has been an abundance of literature on the history of labour protests,[35] and investigations into social protest movements from a variety of cultural, ethnic, and gendered communities in the past,[36] there have been few comparative analyses of how social movements interact with each other and serve as mutually fuelling forces, whether deliberately or coincidentally. Some of this work has been done in the exploration of the history of human rights and social movements,[37] but there have yet to be wider connections made between human

[35] The study of labour movements was one of the earliest forms of social history undertaken in Canada. See: Deian Hopkin, "Class, Community, and the Labor Movement in Wales and Canada, 1890–1930," *International labor and working class history* 33, no. 33 (1988): 90–93, https://doi.org/10.1017/S0147547900004774; Andrew McCormack, *Reformers, Rebels and Revolutionaries: The Western Canadian Radical Movement, 1899-1919* (University of Toronto Press, 1991); Craig Heron and Ian McKay, *The Workers' Revolt in Canada, 1917-1925* (Toronto: University of Toronto Press, 1998); and more recently Don Watson, "'Theirs Was the Crisis. Ours Was the Remedy': The Squatting Movements of 1946 in Britain, Canada, and Australia," *Labour history review* 84, no.3 (2019): 241–265, https://doi.org/10.3828/lhr.2019.12.

[36] See: Ruth Frager, *Sweatshop Strife: Class, Ethnicity, and Gender in the Jewish Labour Movement of Toronto 1900-1939* (University of Toronto Press, 1992); Rhonda Hinther, *Perogies and Politics: Canada's Ukrainian Left, 1891-1991* (University of Toronto Press, 2018); Sasha Crawford-Holland, "The Birth of a Nation in Canada: Black Protest and White Denialism across Canada's Color Lines," *Film history* 32, no.4 (2020): 1-32, https://doi.org/10.2979/filmhistory.32.4.01.

[37] See: Miriam Smith, ed., *Group Politics and Social Movements in Canada* (University of Toronto Press, 2008). The literature on social movements in Canada's past has been particularly influenced by the work of Dominique Clément. See: Dominique Clément, *Canada's Rights Revolution: Social Movements and Social Change, 1937-82* (UBC Press, 2008); "Generations

rights movements and their health freedom and anti-vaccine counterparts. Chapters four and five of this thesis go some way towards illuminating these connections in the Canadian social context.

The second area of literature that intersects with the analysis of this thesis is the history of medicine in Canada. As vaccination was implemented through the apparatus of public health, the history of vaccine resistance movements similarly intersects with a wide variety of historical studies that seek to understand the history of health and healing within the country. The development of medical history was a field aligned closely with the shift towards social history within the discipline.[38] Regional divides ensured an early emphasis on medical history within Canada's largest urban centres, especially Toronto and Montreal.[39] Heavily influenced by the notions of medical power and social control put forth by Michel Foucault, medical historians in the 1980s and '90s began to approach historical analysis in terms of power dynamics and institutional structures. Additionally, this work drew on the sociology of the professions and the sociology of scientific knowledge, analysing power relationships in relation to professionalisation.

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and the Transformation of Social Movements in Postwar Canada," *Histoire sociale* 42, no.84 (2009): 361–387, https://doi.org/10.1353/his.0.0077; *Human Rights in Canada: A History* (Wilfrid Laurier University Press, 2016).

[38] The new interest in medical history was seen in the initiation of the Hannah Institute for the History of Medicine in 1971 in Ontario.

[39] Heather MacDougall, "Researching Public Health Services in Ontario, 1882-1930," *Archivaria*, no. 10 (Summer 1980): 157-172, https://archivaria.ca/index.php/archivaria/article/view/10816; Bator, "The Health Reformer Versus the Common Canadian"; Charles Roland, ed., Health Disease and Medicine. Essays in Canadian History, (Hannah Institute for the History of Medicine, 1984); Margaret Andrews, "The Emergence of Bureaucracy: The Vancouver Health Department, 1886-1914," *Journal of Urban History* 12, no. 2 (Feb. 1986): 131-155, https://doi.org/10.1177/009614428601200203; Heather MacDougall, *Activists and Advocates: Toronto's Health Department 1883-1983* (Dundurn Press, 1990); Michael Bliss, *Plague: A Story of Smallpox in Montreal* (HarperCollins Publishers Ltd, 1991); Benoît Gaumer et al., *Histoire du Service de santé de la ville de Montreal, 1865-1975* (University of Laval Press, 2002); Robert Gagnon, *Questions d'égouts: Santé Publique, Infrastructures et Urbanisation à Montreal* (Editions du Boréal, 2006).

A 1984 economic analysis of the history of healthcare in Canada was undertaken by Ronald Hamowy, revealing the way in which self-regulation of the medical licensing system in the country actively benefited those within the medical establishment.[40] His findings upset the traditional narrative of selfless action as the catalyst for professionalisation. Traditional narratives depicted professionalisation in medicine as a movement to protect public welfare by the restriction of 'quacks' from public practice, in order to protect a helpless and naive public. Hamowy demonstrated that this selflessness was not the only motivation or outcome of professionalisation. Through licensing systems, physicians and surgeons in Canada achieved a number of systemic interventions aimed at placing roadblocks in the practice of medicine by those who were outside the profession, including new students entering the practice, foreign doctors immigrating, and allied and alternative practitioners that sought to expand their place in the field. These insights have informed the analysis of chapter three of this thesis, which provides a discussion of professionalisation in Canadian medicine and the interactions between differing 'alternative' practices with the medical mainstream. Protectionist policies maintained and bolstered physician power, prestige, and wealth, to the detriment of those who worked outside the 'protected profession'.[41]

This was particularly brought into focus through the work of several feminist historians who revealed the gendered way that physicians and the medical profession defined health, illness, and healing work. Wendy Mitchinson helped shape the historical discourse in the Canadian historiography,[42] alongside the work of Dianne Dodd and

[40] Ronald Hamowy, *Canadian Medicine: A Study in Restricted Entry* (Fraser Institute, 1984).
[41] *Ibid.*, 1-8.
[42] See: Ramsay Cook and Wendy Mitchinson, *The Proper Sphere: Woman's Place in Canadian Society* (Oxford University Press, 1976); Mitchinson, *The Nature of Their Bodies: Women and Their Doctors in Victorian Canada* (University of Toronto Press, 1991); *Body Failure*; *Giving*

Deborah Gorham.[43] While the earliest approaches to analysing gender in medicine tended towards the view of women as passive victims in the medical relationship,[44] work in the 1990s sought to subvert and complexify this narrative with more nuanced approaches to women as both patients and healers who participated in, and perpetuated notions of, womanhood and femininity in pursuit of their own individual goals.[45]

Questioning how public health and medical practice benefited from institutional systems of social control similarly ignited historical investigations into the development of immigration policies within the country. The 1990s saw a growing body of literature that looked at the historical discourse on race, immigration, and health policies in Canada, particularly stemming from the influence of eugenics ideology. The first landmark study on the history of eugenics in Canada was *Our Own Master Race* by Angus McLaren.[46] In this work, McLaren demonstrated that the concerns which gave strength to eugenic thinking in Europe and America similarly influenced the development of a Canadian eugenic movement. Concerns over immigrant health, the propagation of the 'feeble-minded', and white racial decline strengthened calls for greater state intervention in the lives of the Canadian populace to ensure that the reproduction of the 'unfit' was 'checked.'[47] Beaud and Prevost drew further links with the influence of eugenic ideology on immigration in Canada through their direct analysis of the use of statistics in the

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Birth in Canada, 1900-1950 (University of Toronto Press, 2017); *Fighting Fat: Canada, 1920-1980* (University of Toronto Press, 2018).

[43] Dianne Dodd and Deborah Gorham, eds., *Caring and Curing Historical Perspectives on Women and Healing in Canada* (University of Ottawa Press, 1994); Deborah Gorham, *The Victorian Girl and the Feminine Ideal* (Routledge, 2013).

[44] Mitchinson, *The Nature of Their Bodies*, 6.

[45] *Ibid.*, 8.

[46] Angus McLaren, *Our Own Master Race: Eugenics in Canada 1885-1945* (Oxford University Press, 1990).

[47] *Ibid.*, 8-9.

measurement of 'racial origin' in Canadian populations during the twentieth century.[48] Their analysis of official reactions to fluctuating immigration numbers has provided some important context in this thesis for understanding the migration of both ideas and people at the turn of the twentieth century.[49]

The literature on medicine and race expanded in the early 2000s to incorporate the Indigenous experience, with the goal of investigating differential health outcomes amongst Indigenous Canadians through a historical lens. James Daschuk demonstrated the role that infectious disease and starvation policies played during colonisation, resulting in a large loss of life amongst Plains First Nations peoples.[50] Doctors served as instruments of colonial control within this context, often arriving to care for Indigenous patients at the behest of the Department of Indian Affairs and alongside other official policing forces.[51] Maureen Lux's work has similarly pointed to the racialised construction of disease and medical treatment.[52] Lux illuminated the complex interplay between the development of federal medical services for Canadian Indigenous peoples and the development of provincial public health, hospital, and medical services. Her analysis in *Separate Beds* particularly critiques historical narratives of Canadian health care as uniformly progressive and liberal, instead emphasising the importance of the racialised context and interactions between patients, physicians, caregivers, and politically

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[48] Jean-Pierre Beaud and Jean-Guy Prevost, "Immigration, Statistics and Eugenics: Measuring Racial Origins in Canada," *Canadian Ethnic Studies* 28, no. 2 (1996): 1–24.
[49] This is particularly relevant in the analysis of chapters three and five.
[50]James W. Daschuk, *Clearing the Plains: Disease, Politics of Starvation, and the Loss of Aboriginal Life* (University of Regina Press, 2013).
[51] *Ibid.*, 105.
[52] Maureen Lux, *Medicine That Walks: Disease, Medicine and Canadian Plains Native People, 1880-1940* (University of Toronto Press, 2001); "Care for the 'Racially Careless': Indian Hospitals in the Canadian West, 1920-1950s," *The Canadian Historical Review* 91, no. 3 (2010): 407–434, https://doi.org/10.3138/chr.91.3.407; *Separate Beds: A History of Indian Hospitals in Canada, 1920s-1980s* (University of Toronto Press, 2016).

structured medical systems for understanding health outcomes and health care impact in the past.

This thesis is indebted to the wider historiography on gender, race, and medical policy, which has done much of the initial research and theorising on how structures of medical power developed in the Canadian past and demonstrated how these structures influenced individuals across a variety of social groups. The focus on anti-vaccination within this study necessarily requires an intersectional approach that recognises the particularity of influences as historical actors sought to leverage, subvert, and resist the power structures involved in vaccine enforcement. Anti-vaccinationists in the past stemmed from a broad spectrum of social communities in Canada. While they united for a varied amount of time under the banner of anti-vaccination, they also had unique competing interests particular to their own complex and changing social identities. These differences are seen in the wide variety of anti-vaccination movements that occurred, and in their varied strength and engagement across geographic spaces and historical time periods. This thesis has attempted to add another layer of understanding to the tapestry of Canadian medical history, by tracing the threads connecting social movements with populist medical movements.

The last and most important area of literature that this thesis engages with is the history of vaccination and anti-vaccination. Anti-vaccination has become an increasingly hot topic for academic analysis. Its clear relevance to modern concerns over vaccine confidence has ensured an abundance of studies in the sciences, social sciences, and humanities, focussing on vaccine resistance in both the past and present. A plethora of publications exist in scientific and social science journals. Much of the literature outside of the historical discipline approaches the topic from a contemporary framework,

attempting to solve concerns about vaccine delay or refusal in the modern world. While they often provide a brief overview of the long history of vaccine resistance, few such studies integrate this history into the analysis of modern movements beyond a general summary of longevity.[53] The anthropological field has been the exception, with the recent publication by Nicole Charles standing out as an excellent example of a historically integrated ethnographic approach to the modern politics of immunization.[54] Charles utilises an understanding of hesitancy as an affect, bringing forward the intuitive and emotional reactions to vaccination that shape hesitancy among populations with a strong distrust of government and medical messaging due to a long history of racism and colonialism.

In the historical field, anti-vaccination has been a topic of interest for some time, sparked initially by the smallpox eradication campaigns in the latter half of the twentieth century. As smallpox vaccine is the oldest inoculation technology still in use, and the most successful, it is perhaps not surprising that a vast number of historical studies focus on the history of vaccination against smallpox. The literature is heavily weighted towards vaccination and anti-vaccination movements in the nineteenth and early twentieth century, before other vaccines were widely introduced into public health campaigns.

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[53] For example: Eve Dubé et al., "Vaccine Hesitancy, Vaccine Refusal and the Anti-vaccine Movement: Influence, Impact and Implications," *Expert Review of Vaccines* 14, no. 1 (2015): 99-117, https://doi.org/10.1586/14760584.2015.964212; Rina Nuwarda, et al., "Vaccine Hesitancy: Contemporary Issues and Historical Background," *Vaccines (Basel)* 10, no.10 (2022): 1595-1616, https://doi.org/10.3390/vaccines10101595; Janet Green et al., "The Impact of the Anti-Vaccination Movement and Vaccine Hesitancy on the Health of the Child," *Pediatric Nursing* 47, no. 5 (2021): 216-43, https://doi.org/10.62116/PNJ.2021.47.5.216; David Callender, "Vaccine Hesitancy: More than a Movement," *Human Vaccines & Immunotherapeutics* 12, no. 9 (2016): 2464-468, https://doi.org/10.1080/21645515.2016.1178434.

[54] Charles completes a remarkable study of vaccine suspicion surrounding the HPV vaccine in post-colonial Barbados. Nicole Charles, *Suspicion: Vaccines, Hesitancy, and the Affective Politics of Protection in Barbados* (Duke University Press, 2021).

The first articles outlining historical anti-vaccination appeared in the 1960s and 1980s.[55] These early analyses situated anti-vaccinationism within 'alternative' and 'irregular' medical schools that held a vested interest in rejecting the progress of mainstream medical professionalisation and preserving their own practice. Kaufman's seminal article, published in 1967, provided the first overview of anti-vaccination in America from the early 1800s to 1924.[56] Writing at a time when medical optimism was at its peak, his analysis concluded that anti-vaccination had 'collapsed' alongside the eradication of irregular physicians and the professionalisation of medicine in the country. Porter and Porter showed a similar confidence in the disappearance of anti-vaccination in their analysis two decades later, pinpointing the fall of organised resistance in Britain at the end of the nineteenth century, with the passage of the 'conscience clause' that allowed conscientious objectors in Britain the ability to avoid vaccination. Their study argued that anti-vaccination ideologies held little sway over 'ordinary parents' in times of epidemic, and that the paradigm of preventative medicine was the eventual winner of the vaccination debates.[57] Unsurprisingly, triumphant storylines feature in several broad histories on smallpox eradication.[58]

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[55] Ann Beck, "Issues in the Anti-Vaccination Movement in England," *Medical History* 4 (1960): 310–21, https://doi.org/10.1017/S0025727300025643; R. MacLeod, "Law, Medicine and Public Opinion: The Resistance to Compulsory Health Legislation, 1870–1907," *Public Law* (1967): 107–28, 189–211, PMID: 11636821; D. Ross, "Leicester and the anti-vaccination movement, 1853-1889," *Transactions of the Leicestershire Archaeological and Historical Society* 43 (1967-1968): 35-44, PMID: 11636858.

[56] M. Kaufman, "The American anti-vaccinationists and their arguments," *Bulletin of the History of Medicine* 41, no. 5 (1967): 463-478, http://www.jstor.org/stable/44449885.

[57] Dorothy Porter and Roy Porter, "The Politics of Prevention: Anti-vaccinationism and Public Health in Nineteenth-Century England," *Medical History* 32 (1988): 231-252, https://doi.org/10.1017/S0025727300048225.

[58] See: Donald Hopkins, *The Greatest Killer: Smallpox in History: With a New Introduction* (University of Chicago Press, 2002); John Bowers, "The Odyssey of Smallpox Vaccination," *Bulletin of the History of Medicine* 55 (1981): 17–33, http://www.jstor.org/stable/44442968.

Such celebratory narratives were discarded by the 1990s and early 2000s, influenced by the contemporary resurgence of anti-vaccination movements across the West and a wider decline in the early optimism for disease eradication through vaccination. Elena Conis points to the influence of "liberal social movements" in America that encouraged "critiques of vaccination as sexist, racist, corporatist, and toxic" during this period.[59] Historians once again looked to the past in hopes of explaining vaccine resistance, but this time reframed the approach to focus on the particularities of critiques and concerns voiced by historical actors who resisted vaccines, giving consideration to the validity and legitimacy of their claims. These studies primarily focussed on the origins of vaccine resistance in the United Kingdom, analysing the complexities of class and power relations in nineteenth-century Britain, with anti-vaccination reframed as a social movement about bodily autonomy divided particularly along class lines.[60]

Of particular note was (and still is) the work of Nadja Durbach. Her monograph, *Bodily Matters,* argued that opposition to vaccination helped to shape working-class identity around the body, in response to working-class oppression within the apparatus of a growing medical power over working-class bodies in Britain.[61] Her analysis demonstrated the interconnections between class and gender, and interpreted anti-vaccinationism as an expression of a developing class consciousness. Durbach published several articles with similar themes, particularly highlighting the concerns of working-

[59] Elena Conis, *Vaccine Nation: America's Changing Relationship with Immunization* (The University of Chicago Press, 2016), 10.
[60] See: J. Swales, "The Leicester anti-vaccination movement," *Lancet* 340, no. 8826 (1992): 1019-21, https://doi.org/10.1016/0140-6736(92)93021-E; M. May, "Inoculating the urban poor in the late eighteenth century," *British Journal for the History of Science* 30, no. 106 (1997): 291-305, https://doi.org/10.1017/S0007087497003099; Stanley Williamson, *The Vaccination Controversy: The Rise, Reign and Fall of Compulsory Vaccination for Smallpox* (Liverpool University Press, 2007).
[61] Durbach, *Bodily Matters,* 4-7.

class voices in conversations about bodily sovereignty and the limits of state policy for the protection of public health.[62]

Historian Brunton took the analysis of the British experience further through a comparative approach of regional movements in England, Wales, Scotland, and Ireland.[63] This work added additional layers of complexity by recognising the unique features of vaccination policy across the British Isles. Brunton demonstrated that political tensions shaped how vaccination was implemented on the ground in each country, with tensions heavily shaped by the degree of influence 'rank-and-file' practitioners were able to have over the creation of public vaccinators.[64] Brunton's analysis highlighted the importance of 'assertive localism' in shaping reactions to national medical policies, as local circumstances ultimately dictated the experience of vaccination and shaped opposition to it.[65]

This shift in focus from tensions surrounding bodily control, to a recognition of the underlying influences of political divisions on policy coincided with a wider revision in how medical historians approached narratives of preventative medicine and state

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[62] Idem., "'They Might As Well Brand Us': Working Class Resistance to Compulsory Vaccination in England," *Social History of Medicine* 13, no. 1 (2000): 45-62, https://doi.org/10.1093/shm/13.1.45; "Class, Gender, and the Conscientious Objector to Vaccination, 1898–1907," *The Journal of British Studies* 41, no. 1 (2002): 58-83, https://doi.org/10.1086/386254.

[63] Deborah Brunton, *The Politics of Vaccination: Practice and Policy in England, Wales, Ireland, and Scotland, 1800-1874* (University of Rochester Press, 2008).

[64] For more works focusing on the experience of vaccination in the British Isles, see: Swales, "The Leicester anti-vaccination movement"; May, "Inoculating the urban poor in the late eighteenth century"; Martin Fichman and Jennifer Keelan, "Resister's logic: the anti-vaccination arguments of Alfred Russel Wallace and their role in the debates over compulsory vaccination in England, 1870–1907," *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 38, no. 3 (2007): 585-607, https://doi.org/10.1016/j.shpsc.2007.06.006; Williamson, *The Vaccination Controversy.*

[65] Description used by Holmberg, Blume, and Greenough in: Christine Holmberg et al., *The Politics of Vaccination: A Global History* (Manchester University Press: 2017), 3.

power. The arguments of Peter Baldwin[66] highlighted this shift, showing how dominant political ideologies influenced the development of state medicine in Europe. At the same time, several scholars of vaccination turned their attention globally to better understand its use in colonial and imperial contexts. Bhattacharya, Harrison, and Worboys undertook a deep analysis of the conflicts inherent in the administration of smallpox control measures in India during the colonial era.[67] They demonstrated that the successes of medical policy were subject to mechanisms of friction and resistance across the different levels of administration in the colonial state. Their analysis gave strong weight to the influence of both political and technological factors in shaping vaccine uptake in the past. Bhattacharya's argument for varying vaccine technologies[68] was taken further with the publication of a special issue of the *Bulletin of the History of Medicine* in 2009.[69] This issue brought about a new focus on global approaches to histories of smallpox vaccination and resistance. Highlighting how the negotiation of geographical distance, state policies, and the multiplicities of practice and response, the contributing authors helped redefine the story of smallpox vaccination and resistance in the nineteenth century.

Likely sparked by continued waves of popular anti-vaccination resistance, the last two decades have seen continued waves of interest in histories of vaccination and anti-vaccination. Michael Bennett's publication on the global dissemination of smallpox vaccination in the early nineteenth century provides a comprehensive picture of the early

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[66] Peter Baldwin, *Contagion and the State in Europe, 1830-1930* (Cambridge University Press, 1999).
[67] Sanjoy Bhattacharya et al., *Fractured States: Smallpox, Public Health and Vaccination Policy in British India, 1800-1947* (Orient Longman, 2005).
[68] Sanjoy Bhattacharya, "Re-Devising Jennerian Vaccines?: European Technologies, Indian Innovation and the Control of Smallpox in South Asia, 1850-1950," *Social Scientist* (New Delhi) 26, no. 11/12 (1998): 27-66, https://doi.org/10.2307/3517659.
[69] *Bulletin of the History of Medicine* 83, no. 1, (Spring 2009).

spread of vaccination and its reception in a variety of cultures worldwide.[70] Bennett begins with the first experiments of Jenner in 1796 and ends his analysis after the Napoleonic Wars in 1815. His work uses case studies of vaccination implementation in a variety of localities across Europe, South Asia, and North America. This allows for a nuanced perception of the 'quiet revolution' instigated by vaccination as it spread across the globe. It also highlights the first controversies surrounding its uptake and the contextual roots of resistance in various geographies. Similar to other global approaches, Bennett's study recognises the importance of international conflicts and imperial networks in the dissemination of vaccination practice. Kaitlyn Akel covers a similarly early time period and is more deliberately focussed on vaccine opposition in the first half of the nineteenth century.[71] Akel argues that the latter half of the century has received too much attention as the focus for vaccine resistance, while these movements were actually informed by a long history of vaccine scepticism and distrust since the first use in Britain.

Yet even as approaches to vaccination history became increasingly global, the particularities of local case studies and local context were brought home by the widening of geographic areas for analysis. Anderson's *Colonial Pathologies* directly engaged with the ideological and social control function of vaccination in his discussion of the motivations and prejudices which shaped American health interventions in the Philippines.[72] The specifics of 'successful' vaccine implementation in different colonial contexts were deconstructed by both Jensen and Bastos in their respective examination of

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[70] Michael Bennett, *War Against Smallpox: Edward Jenner and the Global Spread of Vaccination* (Cambridge University Press, 2020).
[71] Kaitlyn Akel, "'A Splendid Delusion:' Reassessing Vaccination in England, 1796-1853," *International Social Science Review* 95, no. 3 (2019): 1-40, https://www.jstor.org/stable/26872105.
[72] Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Duke University Press, 2008).

Portuguese-controlled Goa and the Dutch-controlled West Indies in the early nineteenth century.[73] The work of Jannetta complemented this approach with her analysis of the spread of vaccination in Imperial Japan.[74] The histories of smallpox vaccination from this period opened up the field to the view of vaccination as, in the words of Bhattacharya and Brimnes "intricate negotiations between numerous actors" with a "variety of social responses that change between time & locality."[75] The work of David Arnold is another particularly important example of the unique context of colonisation in defining responses to vaccination. [76]

Regional politics similarly shaped the approach taken by vaccine historians investigating in the United States. In *State of Immunity*, James Colgrove explored the politics of vaccine uptake in America over the course of the twentieth century, primarily through the lens of New York state.[77] Similar to Brunton's findings, Colgrove's analysis pointed to the pragmatism that governed local approaches to vaccination. He contended that political acuity was a much stronger force in shaping vaccination than a "doctrinal

[73] Cristiana Bastos, "Borrowing, Adapting, and Learning the Practices of Smallpox: Notes from Colonial Goa," *Bulletin of the History of Medicine* 83, no. 1 (2009): 141-63, https://www.jstor.org/stable/44448718 and Niklas Jensen, "Safeguarding Slaves: Smallpox, Vaccination, and Governmental Health Policies among the Enslaved Population in the Danish West Indies, 1803–1848," *Bulletin of the History of Medicine* 83, no. 1 (2009): 95-124, https://www.jstor.org/stable/44448716.

[74] Ann Jannetta, *The Vaccinators: Smallpox, Medical Knowledge, and the "opening" of Japan* (Stanford University Press, 2007).

[75] Sanjoy Bhattacharya and Niels Brimnes, "Introduction: Simultaneously Global and Local: Reassessing Smallpox Vaccination and Its Spread, 1789–1900," *Bulletin of the History of Medicine* 83, no.1, (Spring 2009): 3, https://www.jstor.org/stable/44448712.

[76] David Arnold's investigation of vaccination and resistance in colonial India highlights how the fight against vaccination was a fight against a process of medical hegemony and intervention that grew in strength over time, painting vaccine resistance as "an essential element in the evolution and articulation of a particular system of medical thought and action." David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India* (University of California Press, 1993), 7.

[77] James Colgrove, *State of Immunity: The Politics of Vaccination in Twentieth-Century America* (University of California Press, 2006).

adherence."[78] Colgrove backed his argument up with an analysis of the local court challenges and legal battles that shaped the disputes over vaccine uptake, using vaccination as a lens through which to examine "the most important issues in twentieth-century social history."[79]

Elena Conis's *Vaccine Nation* drew similar conclusions, approaching the history of vaccination from a reverse perspective. Rather than asking why people refused vaccination, she sought to explain how vaccination came to be one of the wildest success stories of public health, so fully accepted in social discourse that to question its impact was to alienate oneself socially, culturally, and medically.[80] Although the story of resistance and refusal plays a part in this narrative, Conis asserts that a focus on vaccination disputes obscures the fact that over the course of a century, vaccination came to be "widely accepted by the American public" in a way that was entirely unique within medicine.[81] There were other notable crossovers between Conis's analysis and the wider medical historiography on vaccination. Conis's examination of vaccine acceptance cast light on how conceptions of vaccines changed both scientific and social perceptions of disease and risk, influenced by the particular moments in which they were developed and released to the American public.[82] Sometimes perceptions of risk differed between members of the public and epidemiological messaging, while perceptions of community and family have shifted in relation to promotions of public and private medical care provision. *Vaccine Nation* demonstrates that vaccines may be a medical technology, but

[78] *Ibid.,* 2.
[79] *Ibid.,* 3.
[80] Conis, *Vaccine Nation,* 12.
[81] *Ibid.*, 2.
[82] *Ibid.*, 12-15.

they are also administered as political tools and fundamentally change social perceptions of risk and disease each time they are encountered.

The impact of official government messaging was explored further by Richard Altenbaugh in *Vaccination in America.* This work provides an analysis of the role of children within this messaging.[83] Through the image of the suffering child, the fear of infectious disease was amplified to grow public support in eradication efforts. Altenbaugh's study highlights how the spectre of the suffering child features in public relations campaigns and how children were often subjects for testing in the first large-scale vaccine trials. This messaging placed additional pressure on medical researchers and health policy makers, who initiated a race to develop and disseminate a vaccine for polio. This resulted in numerous ethical issues, as the focus on mass production overcame the concern for safety controls in the now-famous Cutter incident.[84] Altenbaugh notably combines the historical and the modern by devoting two full chapters to tactics used in contemporary anti-vaccination movements.

Although vaccine acceptance in the twentieth-century United States increasingly preoccupied historians of vaccination, there was still a drive to examine the formation of vaccine resistance movements in the past. Walloch's 2015 monograph looked at the earliest period of anti-vaccination movements in the USA, analysing the arguments and concerns of American anti-vaccinationists at the end of the nineteenth century leading up to the landmark case of *Jacobson v. Massachusetts.*[85] In keeping with Colgrove's earlier

[83] Richard Altenbaugh, *Vaccination in America: Medical Science and Children's Welfare* (Palgrave Macmillan, 2018).
[84] For a detailed study of the Cutter Incident, see Paul Offit, *The Cutter Incident: How America's First Polio Vaccine Led to the Growing Vaccine Crisis* (Yale University Press, 2005).
[85] Karen Walloch, *The Antivaccine Heresy: Jacobson v. Massachusetts and the Troubled History of Compulsory Vaccination in the United States* (University of Rochester Press, 2015).

assertion that anti-vaccination was a "diverse and loosely organized social movement,"[86] Walloch points to the ephemeral and sporadic nature of American anti-vaccination organisations and movements.[87] Her analysis demonstrates the polarisation that compulsory vaccination policies created in the public when they were suggested or enforced, arguing that "the Massachusetts antivaccinationists believed that they were fighting for a fundamental right to preserve individual health choices against a corrupt group of medical elitists who sought to establish a state-supported monopoly."[88] A "populism of the body" developed in response, she acknowledges, as concepts of compulsion, authority, and individual choice intimately shaped vaccine refusal in the reform-era.[89]

The historiography on Canadian anti-vaccination movements is not as expansive as those focusing on movements in the United Kingdom and the United States. It is nonetheless highly engaged with questions of how organised vaccine resistance movements relate to historic political and social divides. The famous 1885 Montreal anti-vaccination riot takes a central stage in most analyses, especially in Michael Bliss' *Plague*.[90] Bliss creates a detailed account of the initiation of the Montreal smallpox epidemic that year, and the dramatic race to stop the spread of the deadly infection. This work provides an effective depiction of the complexities of implementing public health policy amongst a scared, angry, and highly divided public. Chapter two of this thesis expands on the context of the 1885 anti-vaccination protests to highlight earlier connections between the movements of 1885 and Montreal anti-vaccination movements

[86] Colgrove, *State of Immunity,* 3.
[87] Walloch, *The Antivaccine Heresy*, 5.
[88] *Ibid.,* 7-8.
[89] *Ibid.,* 8.
[90] Bliss, *Plague*.

over a decade earlier. The episodic reemergence of anti-vaccination reveals an intellectual genealogy of actors and the repeat circumstances in which popular vaccine resistance finds fertile ground.

Another work that investigates nineteenth-century anti-vaccination movements in Canada is the 2004 PhD thesis by Jennifer Keelan.[91] Keelan highlights failures in both the principle and practice of smallpox vaccination during the late nineteenth century and argues that the anti-vaccination movements which arose were rational given the state of knowledge and information at the time. Keelan's writings provide a full analysis of the intellectual justifications put forth by both sides of the vaccination debate, demonstrating that both opposers and advocates for vaccination utilised claims to scientific legitimacy and empirical evidence. Keelan positions herself against earlier arguments that anti-vaccination was pushed as part of sanitary movements and a rejection of bacteriology, arguing that neither vaccination, nor anti-vaccination, strictly accorded itself to specific medical systems. The early anti-vaccination writers that Keelan investigates were key figures for planting the seed of anti-vaccination in Canada at the end of the nineteenth century, and this thesis demonstrates how their early influence contributed to the continued resurgence of anti-vaccination over the next century and a half.

Taking the analysis into the early twentieth century are the early articles published by Arnup and Bator, who looked at vaccine resistance movements in Ontario between 1900-1920.[92] Arnup's discussion pointed to the social and political dimensions that

[91] Jennifer Keelan, "*The Canadian Anti-Vaccination Leagues, 1872-1892*," (PhD Thesis, University of Toronto, 2004).
[92] Although Arnup took her analysis into contemporary anti-vaccination debates in the 1980s and 1990s. See: Katherine Arnup, "'Victims of Vaccination?': Opposition to Compulsory Immunization in Ontario," *Canadian Bulletin of Medical History* 9, no. 2 (1992): 159-76, https://doi.org/10.3138/cbmh.9.2.159, and Paul Bator, "The health reformers versus the common Canadian."

shaped early 'mass movements' against vaccination. She pointed out that anti-vaccinationists came from a wide variety of backgrounds and warned against working-class oppression and the evils of compulsion. According to Bator's work, anti-vaccination was more of a symptom of inadequate health care systems and the problems public health encountered when implementing strategies for large-scale interventions. Bator argues that public health interventions often exacerbated the hardships of the working classes, being designed by middle-class doctors and health officials who had little understanding of the realities of working-class life and did not always act with purely altruistic motives. Bator concludes: "the effectiveness of any public health programme depended on its sensitivity to the common Canadian."[93]

The theme of public health failure was taken further by Laurence Monnais in her monograph titled *Vaccination: Le mythe du refus*.[94] Monnais tells the story of vaccine hesitancy in a much later period, focussing on the measles outbreak of 1988-1989 in Québec. Her analysis highlights how social, cultural, and political changes influenced perceptions of vaccines between the 1960s and 1980s, resulting in generally declining vaccination rates. Monnais draws a direct connection to other popular movements at the time. The anti-vaccination movements seen in 1988-1989 occurred between two referendums on Quebec independence, during a time of heightened linguistic tensions in the country, with many debating whether the French-Canadian province was a distinct society from the rest of Canada. Monnais points to the general dysfunction of the provincial healthcare system and argues that the real factors behind dropping vaccination rates are the real problems with healthcare organisation and access in the province, rather

[93] Bator, "The health reformers versus the common Canadian," 373.
[94] Laurence Monnais, *Vaccination: Le mythe du refus* (Les Presses de l'Université de Montreal, 2019).

than the 'myth' of vaccine refusal and active resistance to vaccination. Her analysis implies that anti-vaccination is thrown around in media reports and by medical professionals as an easy scapegoat for poor vaccination rates, in lieu of undertaking the hard work of fixing failing public health systems.

Additionally, the work of Heather MacDougall on the development of public health in Ontario has discussed historical contexts for vaccine hesitancy, apathy, and resistance movements.[95] MacDougall covers a wide spectrum of topics in her research, ranging from medical ethics, public health policy, and vaccination beliefs. Her work bridges the modern and the historical, sitting alongside other notable studies on the issues associated with vaccine implementation in Canada.[96] One especially important work in the Canadian literature is the edited volume titled *Public Health in the Age of Anxiety*.[97] The authors advocate a 'better conversation' between health care professionals through an interdisciplinary study combining research from epidemiologists, anthropologists, physicians, philosophers, biologists, historians, and others. At its core, this work is aimed at scholars, policy makers, and healthcare professionals. It engages with a historical critique of the "complex history of the development of vaccines in the West", by revealing how medical discourse has reacted to vaccine hesitancy with a tendency to over-state the

[95] Heather MacDougall and Laurence Monnais, "Vaccinating in the Age of Apathy: Measles Vaccination in Canada, 1993-1998," *Canadian Medical Association Journal* 190, no. 13 (3 April 2018): E399-E401, https://doi.org/10.1503/cmaj.171238; "Not Without Risk: The complex history of vaccine resistance in central Canada, 1885-1960," in *Religious and Cultural Roots of Vaccine Hesitancy: Explanations and Implications for Canadian Healthcare,* ed. Paul Bramadat et al. (University of Toronto Press, 2017); Heather MacDougall, "SARS, Pandemic Influenza and the Role of History," in *Epidemic Encounters: Influenza, Society, and Culture in Canada, 1918-1920,* eds. Magda Fahrni and Esyllt Jones (UBC Press, 2012).
[96] See: Bator, "The health reformer versus the common Canadian"; Barbara Lazenby-Craig, "Smallpox in Ontario: Public and professional perceptions of the disease 1884-1885," in *Health, Disease and Medicine: Essays in Canadian History*, ed. Charles Roland (Toronto: 1982), 215-249; "State medicine in transition: Battling smallpox in Ontario 1882-1885," *Ontario History* 75 (1983): 320-346, PMID: 11617844.
[97] Bramadat et al., *Public Health in the Age of Anxiety*.

scientific case for specific vaccines, or not be as transparent as possible about perceived risks.[98] This over-zealous defence feeds the fears of those who are already vaccine hesitant and is often seized by anti-vaccination movements as fuel for their cause. By reviewing the many cultural and religious reasons for not vaccinating, and effectively problematising the common trend of lumping such beliefs into one umbrella 'anti-vaxx' group, the authors provide a nuanced image of a wide spectrum of concerns and grievances from individuals who express hesitancy.

Despite this body of work, there is still much more to be written on the topic of anti-vaccination history. Indeed, the historiography has yet to grapple significantly with the role played by print media in creating, facilitating, and shaping vaccine resistance. The history of print media in Canada is itself an under-researched topic, with Rutherford's 1978 publication still serving as one of the few analyses of the development of mass media in Canada.[99] Rutherford demonstrates how the early fragile publishing industry was tied into large political parties for support, often being a voice-box for opinions about politics. This shifted by the end of the nineteenth century, when the wider success of big-city dailies increased revenue and drove newspapers on an ever-pressing search for more circulation and thus more advertising revenue. The first media giants were born as newspapers consolidated and developed monopolies on the news in the larger cities. Rutherford's conclusions were that mass media generally reinforced established opinions and trended towards mass appeal across the literate populace. However, he also notes that mass media added novelty to widespread conversations and served as a type of open forum for discussion, in some cases helping to maintain political and social engagement

[98] *Ibid.*, 7.
[99] Paul Rutherford, *The Making of the Canadian Media* (McGraw-Hill Ryerson, 1978).

across society. This idea of the media as a type of 'common ground' for public debate has been reinforced in subsequent work on the Canadian media, including Taras' analysis of the more modern threats to the role of the Canadian media system.[100]

The literature is still predominantly focussed on the British and United States contexts. The Canadian literature tends to overly focus on the experience of anti-vaccination in Montreal and Toronto as isolated phenomena, rather than a reflection of the main shifts in Canadian society over this period. Integrating the larger context of Atlantic and North American intellectual exchange with the particularities of urban development within different Canadian regions is key to understanding the episodic resurgence of anti-vaccination movements over time and showcases how anti-vaccination movements reflected social trends. They mirrored the shift away from the British mould to a more American influence and embodied the tensions inherent in defining and formalizing medical professionalisation over the course of a century. Additionally, the role played by the media as a connecting ground and mediator of anti-vaccination has yet to be adequately discussed, while an integrated approach that recognises the appeal of anti-vaccination as a form of populist anti-establishment activism has not yet been achieved. While Durbach dedicates a chapter of her analysis to the discussion of populism, she takes a narrow view that centres on narratives of citizenship in the context of liberal Victorian politics. Colgrove similarly neglects to outline the populist spread of anti-vaccination movements, mentioning it only in passing alongside a brief reference to the efforts of chiropractors and anti-vivisectionists lobbying. While Walloch argues for anti-vaccination as a 'populism of the body,' she also uses this to demonstrate that

[100] David Taras, *Power and Betrayal in the Canadian Media: Updated Edition*. University of Toronto Press, 2019.

"antivaccinationists melded more into the mainstream of American life than historians previously have appreciated." More nuance is needed to pick apart anti-vaccination's appeal as a disruptive social movement that showcased shifting social, ethnic, gender, and political hierarchies.

Additionally, the literature demonstrates a heavy focus on nineteenth-century and early twentieth-century vaccination resistance moments and a tendency to jump over the period between 1920 and 1960. This gives the impression that vaccine resistance disappeared for many decades and that the earlier nineteenth-century movements are intellectually and ideologically divided from their more modern counterparts. Indeed, Conis begins her discussion by defining the "traditional" form of anti-vaccination against a 'new era of vaccine resistance' after the 1960s.[101] While the widespread populism of anti-vaccination did die down across North America and Europe in the mid-twentieth century, there were many connections between vaccine resistance and other on-going 'anti-' populist health movements throughout the century, which appealed to, and were fuelled by, those who had been core organisers of anti-vaccination. Additionally, their use of print media as resources, and the way reporting shaped perception of protests provides insight into anti-vaccination in Canada, as well as histories of social movements and media history in Canada. This aspect of anti-vaccination history has yet to be explored in the wider historiography.[102]

Still needed in the literature is an approach that begins in the nineteenth century and continues its analysis well into the twentieth century, outlining the distinctiveness of specific anti-vaccination moments, while identifying consistent trends and connections

[101] Conis, *Vaccine Nation*, 10-11.
[102] See chapter six.

over time and between locales. One fundamental aspect of anti-vaccination was its destabilisation of hegemonic power, particularly the power of mainstream medicine. Thus, the role of 'alternative' and unorthodox healers in the maintenance and promotion of anti-vaccination over time and between locales needs to be brought back into the forefront of analysis and connected to the wider populist appeal of anti-vaccination as an anti-establishment social movement.

Outline of Study

This work is organised both temporally and thematically. It looks at case studies of anti-vaccination movements in Canada from 1867-1967, tracing collective mass movements alongside the actions of individual anti-vaccination activists and their interactions with commercial print media. The first chapter is concerned with outlining the origins and forms of vaccine resistance over time. It outlines the populist rhetoric and tactics that developed during the first nineteenth-century anti-vaccination movements and traces their deployment alongside the moments of increased vaccination in Canada during the 19th and 20th centuries. This chapter also provides a comprehensive overview of the main developments in vaccine technology during the period under study. Understanding how anti-vaccination messaging was framed and deployed, alongside changes in the technology of vaccination, provides an understanding of both its function as a destabilising tool and its stewardship by agitators.

The next chapter traces the early origins of vaccine resistance in Canada, with the first post-Confederation anti-vaccination movements occurring in Montreal. As Keelan has pointed out, vaccine resistance in this city began with disagreements between physicians who were troubled by the seeming failures of vaccination, followed by a lack

of will to address efficacy and safety issues within the medical community. As the disagreements became more polarised, one Francophone doctor left the professional debate behind and instead turned to the public to garner collective support for his arguments. This chapter reveals he found a ready audience in a city heavily divided by language and culture, with anti-vaccination serving as a channel for the anger and frustrations of the Francophone working class. The city saw several popular protests against vaccination in the late nineteenth century, the most famous culminating in the anti-vaccination riot of 1885. A close examination of these moments demonstrates that anti-vaccination was widely appealing due to its ability to disrupt the power of English elites in the city, and it was particularly galvanised by the enforcement of compulsion by civic authorities.

Chapter three contextualises how the agitations and actions of anti-vaccination movements at this time were shaped by the initial movement towards consolidating a medical mainstream and defining the professional limits on medical practice. This chapter draws a direct connection to the actions of Anti-Vaccination Leagues and the birth of the Medical Freedom movement. The Anti-Vaccination League of Canada, founded in 1900 in Toronto, was modelled after its British counterpart and utilised familiar tactics inspired by other Victorian pressure groups. While many differing motivations convinced various members of the public to support anti-vaccination activism, it cannot be denied that those who practiced ‘alternative’ or ‘irregular’ medicine were some of the primary organisers and advocates against vaccination. Many of these individuals viewed the prerogative to choose one’s doctor and theory of disease as an inherent right of the individual, akin to the right to choose religious beliefs. As Canada’s healthcare sector began to prioritise mainstream medical practitioners, legal restrictions on who could practice the art of

healing grew increasingly strict. Attacking vaccination, a core pillar of mainstream medical authority and power, allowed alternative practitioners to challenge the restrictions to their professional practice and maintain terrain in the medical landscape.

The fourth chapter traces the need to understand anti-vaccination in the context of the massive social and political changes wrought by the First World War. After years of social turmoil, Canadian citizens were visited by the influenza pandemic of 1918. The war had ushered in a moment of unprecedented political power by the government, the military, and the medical establishment, intervening at all levels of daily life in the country. This coincided with the rise of medical professionalism, as the horrors of wartime injury and disease drove home the need for scientifically validated medical knowledge to be protected within the apparatus of state power. As medicine was reorganised into a protected profession, those physicians on the outskirts of the mainstream – homeopathists, osteopaths, chiropractors, hydropaths, and others – found their systems of healing increasingly threatened by provincial legislation. As soldiers resettled into a country dramatically changed by war, and labour strikes spread, many Canadians questioned business, civic, and provincial power to enforce compulsory vaccination after a war supposedly fought in a crusade for freedom. Anti-vaccination was thus an instrument for expressing widespread discontent in a war-weary populace, led by those with an interest in fighting the increasingly strict restrictions on medical practice.

The last chapter of this study makes connections between anti-vaccination and other populist ‘anti’ movements which took place between 1920 and 1960. This period is often seen as a ‘golden age’ for medical research and policy, where public opinion and action tended towards a general respect and adherence to the medical establishment. There was a near absence of organised popular anti-vaccination movements during this

time, across Canada and elsewhere. Yet anti-vaccination sentiment did not disappear. Instead, it found common cause and sustainment through other 'anti' movements that developed during this time, drawing on feminist agitation and capitalist labour movements to organise vocally against other public health measures. Prominent anti-vaccinationists became key voices in the anti-pasteurization, anti-chlorination, anti-fluoridation, and anti-vivisection movements that occurred mid-century, deploying the same populist messaging that served as the bedrock of vaccine resistance and harnessing disestablishment narrative for a variety of concerns.

Anti-vaccination would find a resurgence in the late 1960s and early 1970s in Canada, first in Montreal and then across the provinces. The counter-culture movements that seeded collective anti-establishment protest proved nourishing soil for the renewal of anti-vaccination as an effective force of popular disruption. This study maintains 1967 as a cutoff point, though similar throughlines could be drawn in the appeal of anti-vaccination across the later decades of the twentieth century. This work sheds light on both the particularities of the Canadian experience of vaccine resistance over the first century of Confederation, while providing insight into the mechanisms that enabled anti-vaccination to continuously emerge as a sharpened sword of popular anti-establishment resistance through time.

Theory and Methodology

Historians are limited to the sources available and must often infer thoughts, feelings, beliefs, and ideas through the lens of textual expression. This necessarily limits the picture of past events to information which can be gleaned from mostly written

sources, and this study has attempted to use as diverse a pool as possible to access a comprehensive understanding of anti-vaccination movements in the past.

As this study is an analysis of popular resistance movements, one of its main sources is historical newspapers. The critical discourse analysis utilised by Rietmanova et al. provided a useful methodological example for an analysis of discourse in the Canadian press.[103] The press played a major role in the development and sustainment of anti-vaccination movements, through platforming anti-vaccination debates and ideas, and by connecting the wider public with anti-vaccination activists. Newspapers were one of the primary channels for Canadians across varied social groups and differing expertise networks to engage directly with each other on the debates of the day, often serving as a public forum to hold officials to account. In particular, the 'letters to the editor' sections of local newspapers served as a venue for a variety of individuals to publicly air their views on various controversies. These sections were key avenues for showcasing and amplifying anti-vaccination viewpoints and served in this study as an important source for determining how anti-vaccination proponents actively broadcasted their cause.

Vaccine dissent was a profitable discussion for papers, as it captured the attention of readers and stoked outrage on all sides. A good example of this was a lively back and forth exchange that occurred between Mrs. WC Whitteker and an unnamed correspondent of the *Vancouver Daily World* in 1918.[104] Whitteker wrote to the paper commenting that the matter of vaccines had 'passed from her mind' until she read a letter that had been published in the paper and felt compelled to write in with her own rebuke. The *World* was

[103] S. Reitmanova et al., "'Immigrants Can Be Deadly': Critical Discourse Analysis of Racialization of Immigrant Health in the Canadian Press and Public Health Policies," *Canadian Journal of Communication* 40, no.3 (2015): 471–487, https://doi.org/10.22230/cjc.2015v40n3a2831.
[104] "The Anti-Vaccination Menace," *Vancouver Daily World* (06 May 1918): 4.

owned by notorious mayor Louis D. Taylor, a man who was frequently embroiled in controversy himself and ran his paper with an eye for populism.[105] Many papers used vaccine debates to vie for a space in the attention economy of the day and in turn, newspapers served as important instruments for connecting anti-vaccination leaders with wide support.

Newspaper coverage also played a critical role in preserving words and actions that were generally not preserved in official records. While select repositories of anti-vaccination writings exist in various archives, many moments of Canadian anti-vaccination activism were simply not preserved in the historical record. Mining through historical newspapers for this research involved key-word searching the terms 'vaccine' 'vaccination', and 'anti-vaccination', 'anti-vaccine', in a number of newspaper databases for the century studied, including the British Newspaper Archive, Newspapers.com, the *Toronto Star* archive, the Toronto Daily Herald Archive, the large repository of newspapers accessible through the BAnQ archives, the BC Historical newspaper archives held at the University of British Columbia, and the microform collections and Gazette collections at Library and Archives Canada (LAC). Additionally, archivists at the Victoria, Vancouver, Calgary, and Alberta Archives were requested to perform internal searches for these terms within their own newspaper collections, civic council minutes, and other civic records. Relevant documents were scanned and sent to help provide greater context to the public debates.

Once key moments and key voices were identified, data-linkage was employed to build up the sequence of events over time and to create a larger understanding of certain

[105] Robert McDonald, *Making Vancouver: Class, Status, and Social Boundaries, 1863-1913* (UBC Press, 2011), 177-180.

historical actors who stood out as leaders in anti-vaccination movements. Cross-references with city directory listings enabled the identification of several of the individuals who cropped up in newspaper accounts, building a fuller picture of those who advocated against vaccination, especially their profession. Comparison was additionally made with popular pamphlets, personal letters and scrapbooks, provincial and civic health records, official government policy documents, and historical medical publications, which were held at various university, city, and provincial archives in Canada, or found online as digital sources.

Like all historical studies, there are limitations to the methodology. Newspapers frequently had a bias for sensationalism and a commercial interest in reporting on conflict. While newspapers began as political party mouthpieces and tools for updating readers on local and global events in the second half of the nineteenth century, they expanded into commercial ventures with a vested interest in wide sales and circulation at the start of the twentieth century.[106] Mass circulation led to a corresponding expansion of public interest stories, entertainment, amusement and attention-grabbing content. As Conis observes, vaccine debates provide a ready source of conflict and tensions, while the very style of media reporting may construct the impression of a coherent divide between "anti-vax" and "pro-vax," when in practice the landscape is far more fragmented and complex.[107] Indeed, the history of constructing polarisation through media is itself an interesting insight into the way disagreements and debates are reported and constructed.

The use of print and official sources necessarily privileges certain voices. The concerns of many of Canada's non-Anglophone citizens are underrepresented, while the

[106] Minko Sotiron, *From Politics to Profits: The Commercialization of Canadian Daily Newspapers, 1890-1920* (McGill-Queen's UP, 1997), 15-29.
[107] Conis, *Vaccine Nation,* 205; 221.

opinions of illiterate historical actors are limited to records of collective, embodied action or quotes filtered through newspaper reporting. The sentiments of communities of colour are also lacking due to how anti-vaccination movements self-defined their communities in the past. While Canadian anti-vaccination leagues brought together different linguistic, gender, and class groups, they were dominated by white communities and voices.

The division along racial lines is emblematic of how medicine, rights, and rationality were limited within Canadian society in the past. Historians of race have demonstrated that definitions of the Canadian nation as a British dominion were inherently built on the displacement and marginalisation of Indigenous peoples and the exclusion of non-white immigrants.[108] A similar parallel can be seen in the development of the medical profession in Canada and definitions of medical authority. Indigenous and other non-white communities, such as Asian Canadians, were frequently denied choice in adherence to public health policies, facing stricter enforcement and harsher punishments if they attempted to resist. Mitchinson has argued that medicine was "a cultural system itself, and an appendage of the colonial state structure,"[109] while Arnold has argued that "all modern medicine is engaged in a colonizing process."[110] This is certainly seen in the history of vaccination in Canada. Indigenous communities have long been subject to forced vaccination by officials within the Department of Indian Affairs,[111] while Chinese communities were usually the first targeted for quarantine and mandatory vaccination

[108] See: Fred Burrill, "The Settler Order Framework: Rethinking Canadian Working-Class History," *Labour-le Travail* 83 (2019): 173–197, https://doi.org/10.1353/llt.2019.0007; Sunera Thobani, *Exalted Subjects: Studies in the Making of Race and Nation in Canada* (University of Toronto Press, 2007).
[109] Mitchinson, *Body Failure*, 12.
[110] Arnold, *Colonizing the Body*, 9.
[111] As Woodcock pointed out in his early study of Canadian society, the political structures imposed by European colonisation invented the social category of 'Indian' by reducing the vast variety of Indigenous cultures, experiences, and concerns down into a seemingly homogenous singular group. See: George Woodcock, *A Social History of Canada* (Penguin Books, 1988), 35.

when disease outbreaks occurred.[112] Because of the inherent power imbalances, racialised communities were less likely to seek the expertise of white, male practitioners, who made up the majority of the medical field – both mainstream and alternative. This defined who was labelled (or chose to identify) with anti-vaccination, as well as who anti-vaccinationists targeted with their messaging.

Mainstream medical disdain for anti-vaccination was historically shaped around an assumption that anti-vaccinationists should 'know better.' Anti-vaccination was depicted as the wilful irrationality of those who were believed to have the capacity for both seeing and understanding vaccine effectiveness. Keelan's research demonstrated the keen irony of the anti-vaccination debates, with both sides claiming to be the enlightened and rational thinkers fighting against opponents who chose to actively ignore logic and evidence in favour of what they labelled as "savage" thinking.[113]

This study draws on a number of theories which are informed by social scientific frameworks. Several ideas from social constructivism and social movement theory are utilised to help explain the spread and popularity of anti-vaccination movements when sentiment peaked at various points in time, and to explain the inter-connections between different popular movements that absorbed the language of anti-vaccination to gain popular support. It is also informed by the affective turn and agrees with Mitchinson's assertion that historians have long addressed many aspects of affectiveness in the past, "but without using the specific terminology of affectiveness."[114] This study discusses the influences of emotion, feeling, and non-rational thinking through a historical lens,

[112] This is discussed further in chapter three.
[113] Charles Higgins, *Horrors of Vaccination Exposed and Illustrated* (The De Vinne Press, 1920), 142-143.
[114] Mitchinson, *Body Failure*, 8.

embedded in specific context and implicit in the eruption and evolution of social movements.

At its core, this is a social history that demonstrates the interactions between culture, class, gender, and scientific discourse in historical protests against vaccination within Canadian urban centres. The unique regional and civic contexts of Canada provide the backdrop for its chapters, highlighting anti-vaccination agitators connected with different communities and social classes in its messaging, capitalising on anger over compulsion, existing social tensions, and the anti-establishment appeal of the movement. There were moments when anti-vaccination movements resulted in violence, and times when they succeeded in overturning compulsory vaccination policies. There were moments when anti-vaccination leaders protested with an engaged and enthusiastic populace, and instances when anti-vaccination voices were ignored or actively rejected by their local audiences. The focus of analysis fluctuates between the micro and the macro, focusing in on the actions of certain individuals as they fanned the flames of vaccine opposition, then broadening out to provide insight into the larger context of coinciding social and political tensions that served as sparks to popular resistance. As time passed, anti-vaccination sentiment ebbed and flowed, but it never truly disappeared from popular movements in the first century of Canadian Confederation, serving as an insightful mirror for many of the developments that occurred in Canadian medicine during this time.

CHAPTER 1 – Anti-Vaccination Arguments

Organised vaccine resistance movements have gone through several moments of rebranding in the past. While the earliest opposers were labelled "against Vaccine Inoculation."[1] Terms like 'anti-vaccinarian' and 'anti-vaccination' and even 'anti-vacc' were first deployed alongside the popular vaccination resistance movements in Britain during the latter half of the nineteenth century.[2]

Identity constructions serve hegemonic functions, and the next century saw a whole host of name changes for organised vaccination resisters. With vaccination firmly entrenched in medical orthodoxy and backed by public policy in various ways across North America, many anti-vaccination leagues rebranded into 'medical freedom' groups between 1910 and 1930. This rebranding tapped into the language of populism, pitting activists against an 'elite' class represented by allopathic (mainstream) doctors and public health officials. This was not isolated to Canadian anti-vaccination movements. In her discussion of anti-vaccination in Massachusetts in the early twentieth century, Walloch argues that anti-vaccinationists identified as "grassroots frontline warriors engaged in a battle for medical freedom against a privileged class of physicians who sought to monopolize the profession."[3] This political mission remained a core aspect of vaccine resistance throughout the century, as Monnais has shown in her later discussions of anti-vaccination in Montreal. *La Ligue pour le vaccin libre*, established in 1965, was similarly

[1] "Naval News," *Sun (London)* (07 Nov. 1807): 2.
[2] "The Opposition to Chloroform," *Weekly Chronicle (London)* (26 Jan. 1850): 4.
[3] Walloch, *The Antivaccine Heresy*, 112.

fashioned as a fight for medical freedom against a proclaimed "scalpel dictatorship."[4] The labels chosen by those who opposed vaccination would eventually diversify into a wide range of descriptions invoking elements of choice, freedom, responsibility, defence, consent, awareness, and action.[5]

Drawing on the frameworks for populism put forward by Fuentes,[6] and Lasco and Curato,[7] this chapter demonstrates how anti-vaccination served as a populist force that cultivated a core set of critiques about vaccination to appeal to a wide public. Like all populist movements, its narratives created a moral category of 'the people' juxtaposed with an (often symbolic) corrupt and influential 'elite' who represented a (frequently medical) establishment at different moments in time. While crafting a narrative of shared values and rationality – often ironically deployed by elite voices that spoke for 'the people' – it contained both logical arguments and recurrent moments of paradoxical action, spurred by existing social tensions and shaped by the goal of disrupting power structures. Empowered by claims to logic, safeguarding, and liberty, anti-vaccination movements served to accomplish individual as well as collective aims, whilst drawing power from their long history and a core set of established rhetoric.

The continuous rebranding of vaccine resistance by its adherents signals how anti-vaccination leaders framed their cause in relation to the issues, concerns, and struggles of

[4] Monnais, *Vaccination,* 146.
[5] While Vaccine Choice Canada is the largest and most vocal anti-vaccination network in Canada, other anti-vaccination groups worldwide include the Australian Vaccination-risks Network, the Icelandic Ábyrg framtíð (Responsible Future) party, and the British pressure group JABS. The United States in particular has a number of organised anti-vaccination groups, such as: The Children's Health Defence, the National Vaccine Information Center, the Freedom Angels Foundation, Learn the Risk, and various state-based local groups.
[6] Juan Fuentes, "Populism: Timeline of a Concept," *Contributions to the History of Concepts* 15, no. 1 (Summer 2020): 47-48. https://doi.org/10.3167/choc.2020.150103.
[7] Gideon Lasco and Nicole Curato, "Medical Populism," *Social Science & Medicine* 221 (2019): 1-8, https://doi.org/10.1016/j.socscimed.2018.12.006.

their time. As vaccine resistance movements erupted in the context of shifting societal values, it was in the best interest of anti-vaccinationists to abandon old labels in favour of more popularly appealing and effective ones. In fact, the continued use of the label 'anti-vaccination' has been maintained mainly by those who, in a populist framing, would represent establishment voices – politicians, the media, and mainstream academic, medical, and scientific experts.

This chapter engages with the language and labels used by anti-vaccination voices over time. It points to the many similarities in anti-vaccination movements over time, especially in their main critiques of vaccination and the tactics that they used. Identifying patterns in anti-vaccination rhetoric is helpful because it provides a framework for understanding and categorising the complex variety of anti-vaccination discourse in the past. It also provides insight into how anti-vaccinationists shared ideas and spread awareness of their movement, despite the wide distances in geography and even time between anti-vaccination movements.

This chapter relies on critical discourse analysis to illustrate how the discourse around vaccines and anti-vaccination served to construct specific social realities.[8] Historical actors on both sides of the vaccination debate asserted epistemic authority over defining the outcomes of vaccination. A critical discourse approach reveals that anti-vaccination served as a form of 'anti-society', explicitly formed with the purpose of opposing an aspect of mainstream society and considered to be taboo, and sometimes, illegal.[9] Like most anti-societies, anti-vaccinationists developed and utilised a type of anti-language using key words and formulaic phrases to shape messaging. This created a

[8] Paul Baker and Sibonile Ellece, *Key Terms in Discourse Analysis* (Continuum International Publishing Group, 2011), 26.
[9] *Ibid.*

shared sense of identity and allowed for resisters to mock not just the practice of vaccination, but institutions of state power, public health, and mainstream medicine.

There was additional strength in repetition of arguments, providing participants with an easily accessible shared language of resistance which gained power by its transnational use and continued emergence and circulation. It connected vaccination opponents with a long genealogy of writings that built upon each other, decade after decade, gaining authority from their historicity and accumulation. The anti-vaccination movements in Britain would set the stage for vaccine resistance in Europe and North America, serving as both an example to emulate and a resource for intellectual and popular support. Although anti-vaccinationists adapted their activities to the unique demands of local circumstances and shaped their focus alongside particularities of local vaccination policy, they recognised the value in maintaining webs of connection across national boundaries and frequently drew on resources and support from like-minded movements across borders. When coupled with the growing force of print media, this developed a sustaining ecosystem for the circulation of anti-vaccination ideas across the Atlantic and provided strength for the development of new pockets of resistance over time.

Smallpox Vaccination – An Overview

The history of anti-vaccination cannot be understood without an understanding of the origins of vaccination. Although the term ‘vaccination’ is used today to refer to a variety of immunity-engendering technologies, for much of the nineteenth century, vaccination referred to just one type of technology: the use of cowpox lymph to inoculate an individual against infection from smallpox. This form of vaccination spread rapidly in

the first decades of the 1800s, perpetuated by eager supporters and officials who sought to harness its potential for eradicating smallpox in countries across the world. However, several logistical and safety issues hindered its effective use as a technology, frustrating its supporters and giving strength to its detractors.[10]

Edward Jenner was the first to publish a scientific study of vaccination, securing his name as its discoverer. However, Jenner's experiment was not born from the mind of one individual but stemmed from a long legacy of human attempts to engender immunity to the fearful, disfiguring, and often deadly disease of smallpox. With recurring epidemics and mortality rates around 30-40%, smallpox was a serious concern in the past.[11] Yet observation demonstrated that once someone had caught smallpox, they were unlikely to catch it again. Thus, the idea of immunity to smallpox developed in areas where the disease routinely broke out and early inoculation practices (also called variolation) developed. Original forms of inoculation involved taking biological material from the pustules of someone who suffered from a mild case of smallpox and giving it to someone who had not yet caught the disease. The goal was to generate a mild case of infection, with the hope it would create long-term immunity from the deadlier forms of smallpox. There is evidence of this practice in Asia for many centuries, with the Chinese Emperor K'ang recording the inoculation of his children in the seventeenth century.[12] Inoculation was practiced in India, in various parts of the Ottoman Empire, and was initially brought

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[10] The problems with early vaccination have been well-documented by historians. See: Durbach, *Bodily Matters*, 19-20, 124-133; Andrea Rusnock, "Catching Cowpox: The Early Spread of Smallpox Vaccination, 1798-1810," *Bulletin of the History of Medicine* 83, no. 1, (Spring 2009): 17-36, https://doi.org/10.1353/bhm.0.0160; Bhattacharya and Brimnes, "Introduction: Simultaneously Global and Local"; Keelan, *The Canadian Anti-Vaccination Leagues*, 78-86; Walloch, *The Antivaccine Heresy*, 27-57.

[11] Miquel Porta and John Last, "Smallpox," in *A Dictionary of Public Health,* 2nd ed. (Oxford University Press, 2018).

[12] Arthur Boylston, "The Origins of Inoculation," *Journal of the Royal Society of Medicine* 105, no. 7 (2012): 309-13, https://doi.org/10.1258/jrsm.2012.12k044.

to North America through the knowledge of Onesimus, an enslaved man who was transported across the Atlantic from modern-day Southern Libya.[13] Onesimus shared his knowledge with the Protestant minister Cotton Mather, who subsequently inoculated many of his neighbours, causing a local stir during a smallpox outbreak in the early eighteenth century.[14]

Jenner picked up on the practice only after it was disseminated into England, but his unique contribution to inoculation was to demonstrate that cowpox material could induce the same immunity as smallpox material. This was far safer for all, as inoculation gave an active infection to the recipient and there was always a danger the disease could turn virulent or that the infected individual would spread their infection onto the community, causing an outbreak. However, cowpox did not spread between humans in the same manner as smallpox did, and its infectious effects were far milder.[15] Jenner demonstrated this by experimenting on a young boy, James Phipps, whom he inoculated with cowpox matter. After waiting a few months, Jenner undertook a 'challenge' study with smallpox inoculation. Phipps failed to react to the smallpox matter and Jenner thus concluded that the cowpox had made him previously immune. Jenner would eventually publish these results, causing a sensation in the scientific and medical community. His discovery would be labelled the most important discovery of the 'enlightened' age, forever enriching the 'stock of medical science'.[16] Vaccination with cowpox lymph would spread across the world through the conscious and deliberate efforts of its

[13] Margot Minardi, "The Boston Inoculation Controversy of 1721-1722: An Incident in the History of Race," *The William and Mary Quarterly* 61, no. 1 (2004): 47-48, https://doi.org/10.2307/3491675.
[14] *Ibid.*
[15] Rusnock, "Catching Cowpox," 18.
[16] "To the printer of the Ipswich Journal," *Ipswich Journal* (01 Mar. 1800): 4.

supporters.[17] The term 'vaccine' itself stems from the use of cowpox matter in this process, as *vacca* is the Latin word for cow. However, the word 'vaccination' took some time to enter common usage. During the first decade of the nineteenth century, vaccination was often referred to as 'vaccine inoculation', 'cow-pock inoculation', or simply described as the use of 'cowpock'.

Vaccination soon replaced the older practice of inoculation, which was eventually outlawed in Britain in 1840.[18] In the same year, vaccination was provided free to all members of the British public through the poor law boards. When this failed to increase general uptake of the practice, compulsory laws were passed in 1853. However, the logistics of enforcing compulsory vaccination took time, and it wasn't widespread in Britain until stricter regulations enabling the government to find and punish avoiders were enacted in 1867, in 1871, and again in 1874.[19] Compulsion was also established elsewhere, with Germany instituting one of the more widespread systems for compulsory vaccination in Europe, also in 1871.[20] In both America and Canada, mandatory vaccination was left up to the purview of state, provincial, or civic authorities, rather than federal.[21] The state of Massachusetts passed compulsory legislation first in 1855, while Ontario and Quebec both passed compulsory vaccination legislation in the 1880s.[22]

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[17] Rusnock, "Catching Cowpox"; Bhattacharya and Brimnes, "Introduction: Simultaneously Global and Local."
[18] "Smallpox and Vaccination," *Oxford University and City Herald* (05 May 1838): 4.
[19] For a description of this see: Durbach, *Bodily Matters,* 1-4.
[20] For more context on vaccination in Germany, see: Axel Hüntelmann, "Smallpox Vaccination in The German Empire. Vaccination Between Biopolitics and Moral Economy," *Asclepio* 72, no. 1 (2020): 1-16, https://doi.org/10.3989/asclepio.2020.01; Malte Thießen, "Security, Society, and the State: Vaccination Campaigns in 19th and twentieth century Germany," *Historical Social Research* 46, no. 4 (2021): 211-315, https://doi.org/10.12759/hsr.46.2021.4.211-315.
[21] The exception to this is the federally-run health services for Indigenous peoples in Canada, and the federally-run immigration programs which dictated vaccine requirements for immigrants.
[22] See Conis, *Vaccine Nation* for more on the American context, and pages 45-66 and 72-75 of this thesis for more information on the Canadian context.

Compulsory laws were rarely permanent, however, with most being ignored, lightly enforced, repealed, and reintroduced at various points in time depending on the local situation and need.

In 1967, the World Health Organisation initiated a campaign to eradicate smallpox worldwide, utilising a mixture of increased health surveillance, case finding, and ring vaccination[23] techniques to stop smallpox in places it was still actively spreading. Smallpox was officially declared eradicated in 1980. Most Western countries had already stopped giving the vaccine regularly to their citizens by this point. Britain ended routine smallpox vaccination in 1971, and both Canada and America followed suit in 1972.[24] Although the vaccine has been removed from regular immunization recommendations now, and the disease no longer spreads in the wild, there have still been times in the past fifty years when the smallpox vaccine was once again brought into the public spotlight. In 2003, the United States initiated a smallpox vaccination campaign as a strategy for preparedness against possible bioterrorism, which saw several adverse side effects.[25] Smallpox vaccination is also used as a prevention of mpox (monkeypox), which broke out in the USA in 2003 and again in many countries globally in 2022.

[23] Ring vaccination is the practice of vaccinating all those who have been in contact with a smallpox infection, as well as their own contacts. The idea is to create a ring of immunity around each case of infection, thereby stopping its spread without requiring a mass vaccination of all individuals in the community.
[24] Read more about this in Gareth Millward, *Vaccinating Britain: Mass Vaccination and the Public since the Second World War* (Manchester University Press, 2019).
[25] Dirk Haselow, "Vaccination-Related Side Effects, Humoral Immunity, and Adverse Events during the Civilian Smallpox Vaccination Campaign, Arkansas, 2003," *Wiley Periodicals, Inc.* (2016): 129-138, https://doi.org/10.1111/phn.12208.

Smallpox Vaccination – Issues & Concerns

The traditionally positive narrative of smallpox vaccination leading to worldwide eradication is one that overlooks the many complexities and roadblocks of this story. One of the first problems encountered by medical practitioners who wanted to vaccinate in the early 1800s was supply. Cowpox was a relatively rare disease in cattle and sourcing it naturally was difficult. It was nowhere to be found in most of northern Europe, Asia, or America.[26] Rusnock has demonstrated that practitioners went to great lengths to source, preserve, and transmit cowpox lymph across the world during the early years of its use.[27] Different techniques were developed to maintain lymph effectiveness during long journeys and within warmer climates. Some strategies included soaking a thread in fresh lymph liquid then drying it for transport, sending dry scabs across the ocean either loose or preserved between glass plates, and even various attempts at developing special insulated vessels to protect lymph from heat and exposure during longer transports across warmer climates.[28] To sustain supply, vaccinators would often harvest lymph from the arm of a freshly vaccinated individual and use this matter in subsequent vaccinations. This technique was used during the infamous Balmis Expedition, using orphans as incubators for the vaccine during the voyage and vaccinating them arm-to-arm along the way.[29]

These initial attempts to spread vaccine matter have raised questions about the nature of the technology during much of the nineteenth century. Rather than assuming

[26] Rusnock, "Catching Cowpox," 18-22.
[27] *Ibid.*
[28] *Ibid.*
[29] For a full English account of this famous expedition, see: Michael Smith, "The 'Real Expedición Marítima de la Vacuna' in New Spain and Guatemala," *Transactions of the American Philosophical Society* 64, no. 1 (1974): 1–74, https://doi.org/10.2307/1006158.

that smallpox vaccine was uniform and standardised, historians Bhattacharya and Brimnes pointedly argue for a recognition of a "multiplicity of vaccines" in use across the world at this time.[30] Such complexities of supply ensured that the vaccine matter scraped onto an arm in the Indian subcontinent was a much different substance than the one that was scraped onto an arm in North America. Although vaccinators in the nineteenth century may have been convinced that they were using one genuine form of cowpox in their inoculations, it would be a long time before technology had advanced to the point of being able to identify specific viruses in a laboratory setting. Moreover, the work of Worboys has demonstrated that early interpretations of germs by medical and scientific researchers were never a straightforward or standardised process, resulting in a multiplicity of germ 'theories' and germ practices, with competing immunological models that were utilised both formally and informally throughout the period between 1865 and 1900.[31]

The bacteriological revolution was still in its infancy in the 1880s, and the isolation of smallpox virus would not be accomplished until the 1930s.[32] When this occurred, three separate and distinct strains of pox virus were found in vaccine matter: cowpox, smallpox, and *vaccinia*, a third virus that has no known natural origin. Vaccinia virus is today utilised as the active ingredient in modern smallpox vaccines.[33] Retroactive scientific investigation undertaken by the microbiologist Derrick Baxby has argued the vaccinia strain may have originated from the continued combination of smallpox and cowpox viruses over time, possibly through the use of arm-to-arm inoculation for many

[30] Bhattacharya and Brimnes, "Introduction: Simultaneously Global and Local," 3-5.
[31] Michael Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865-1900* (Cambridge University Press, 2000), 2.
[32] Keelan, The Canadian Anti-Vaccination Leagues, 68.
[33] For a detailed discussion of definitions of vaccination and smallpox agents see Keelan, The Canadian Anti-Vaccination Leagues, 38-40.

years.[34] Baxby has also postulated it may be related to a form of horsepox, now extinct.[35] Either way, it is unknown how often actual cowpox virus was truly present in the vaccine matter used across the world in the nineteenth century.

Anti-Vaccination in the Early Nineteenth Century

When it was first introduced, vaccination seemed to be a boon of innovation; it was as effective as inoculation at engendering immunity, yet safer, as it didn't risk the possibility of a smallpox outbreak. As vaccination spread, official vaccine institutes were soon founded in London, Nottingham, Sussex, and other cities across Britain.[36]. It wasn't long before several hospitals, dispensaries, and charitable institutes abandoned inoculation in favour of the new technology. This raised concerns for inoculators. Inoculation was good business in the late 1700s, largely popularised across England by the Sutton family after 1767.[37] By the end of the eighteenth century, many public institutions like hospitals and poor houses provided inoculation to children and other poor residents upon admission.[38] This ensured a stable means of income for inoculators and gave them a place of privilege in the medical landscape as the early defenders against the scourge of smallpox. The replacement of inoculation with vaccination caused friction

[34] Derrick Baxby, "Inoculation and Vaccination: Smallpox, Cowpox, and Vaccinia," *Medical History* 9 (1965): 383-85, https://doi.org/10.1017/s0025727300031045.
[35] Derrick Baxby, "The Origins of Vaccinia Virus – An Even Shorter Rejoinder," *The Journal of the Society for the Social History of Medicine* 12, no. 1 (1999): 139, https://doi.org/10.1093/shm/12.1.139 and Derrick Baxby, *Jenner's Smallpox Vaccine: The Riddle of Vaccinia Virus and its Origin* (Heinemann Educational, 1981).
[36] Brunton, *The Politics of Vaccination*, 13.
[37] David Van Zwanenberg, "The Suttons and the Business of Inoculation," *Medical History* 22, no. 1 (1978): 71-82, https://doi.org/10.1017/s0025727300031756.
[38] Peter Razzell, "The Decline of Adult Smallpox in Eighteenth-century London: A Commentary," *The Economic History Review* 64, no. 4 (2011): 1324-1325, https://www.jstor.org/stable/41262532.

amongst practitioners who were poised to lose both their income and social position with the shift.

By 1804, an official anti-vaccination camp had arisen, led by several medical men: Drs. William Rowley, Benjamin Moseley, John Birch, and apothecary John Jones (under the pseudonym Robert Squirrel).[39] Professional and financial motivations fuelled their publications. These men instigated a textual campaign against vaccination, hoping to scare people away from the practice. Their publications were numerous and generally aimed at the literate and semi-literate lay public, who would have been their main customers in the competitive medical marketplace. Through quick publishing, vivid illustrations, and sensational claims, they sought to spread popular fear against vaccination, while promoting their own practice and expertise.

These earliest anti-vaccination writings established the essential form of critiques about vaccination that would be used over the next two centuries. Although the specifics would shift and adapt, these arguments can generally be distilled down into five main claims: 1) Vaccination is ineffective, 2) Vaccination is harmful, 3) Vaccination is promoted for conspiratorial reasons (generally money or power), 4) Vaccination goes against a belief system (sometimes a religious belief system, but often a particular theory of disease causation or medical practice),[40] and 5) Vaccination contravenes personal or natural rights. These criticisms spoke to concerns about safety, efficacy, and power dynamics in the process of implementing vaccination, and highlight the social construction of medical treatment, which had consequences beyond the biological.

[39] Williamson, *The Vaccination Controversy*, 87.
[40] Frequently those who rejected vaccination also did not believe in the germ theory of disease or adhered to alternative medical systems. See chapter five for a full discussion of this.

Early anti-vaccinationists took these very real concerns and sensationalised them through popular publishing. Their work arguably set the stage for the appeal of anti-vaccination as a populist medical movement that re-emerged frequently. Lasco and Curato contend that three characteristics are needed in medical populism: an appeal to 'the people', a performance of crisis, and a simplified, dramatized rhetoric.[41] While there was not quite a cohesive imagined political entity of 'the people' across the anti-vaccination writings from the early nineteenth century, there were frequent lamentations about the gullible 'public' and the 'common people' within these early publications.[42] Early vaccination opponents certainly provided a display of urgency, employing a dramatized vocabulary that benefited from widespread suspicion and anxieties about doctor care. The underlying truths to their arguments gave weight to their aggrandised versions and helped strengthen existing suspicion against the practice.

Firstly, they claimed that vaccination was ineffective. Rowley's 1805 pamphlet made this point directly in its title: *Cow-pox Inoculation No Security Against Small-pox Infection. With above 500 proofs of failure.*[43] Secondly, they asserted that vaccination with cowpox resulted in a variety of malignant diseases, including tuberculosis, smallpox, and various forms of abnormal growths which resembled the bestial origin of vaccine matter. They avowed vaccinated individuals would develop repulsive features and be infected with "cowpox mange, cow-pox *facies*, cow-pox *scabies*, cow-pox *tinea*, and *elephantiasis bovilla.*"[44] One of the pamphlets by Squirrel claimed that cow-pox

[41] See: Lasco and Curato, "Medical Populism," 1-8.
[42] William Rowley, *Cow-pox inoculation no security against small-pox infection* (London: printed for the author by J. Barfield, 1806), 32, 99.
[43] Rowley, *Cow-pox inoculation no security against small-pox infection*, title page.
[44] Brunton*, The Politics of Vaccination,* 14. See also, Rob Boddice, "Bestiality in a Time of Smallpox: Dr. Jenner and the "Modern Chimera": Philosophical, Cultural, and Historical Perspectives," in *Exploring Animal Encounters*, edited by Dominik Ohrem and Matthew Calarco (Palgrave Macmillan, 2018).

"originates in scrofula," while Moseley claimed to have observed "many tumours, ulcerations, *green* discharges, rank itches, scaldheads, inveterate corrosions, distorted joints, and rotten bones" from cowpox vaccination.[45] Rowley's work contained drawings of children with deformed bodies and faces to illustrate his claims.



Figure 1: Image from pamphlet against vaccination published by William Rowley, "Cow Poxed, Ox faced Boy." 1805. Source: Wellcome Collection, https://wellcomecollection.org/works/nv3ggkme.

[45] Robert Squirrell, *Observations addressed to the public in general on the cow-pox* (London: Printed by W. Smith & son, 1805), title page. Benjamin Moseley, *A review of the Report of the Royal College of Physicians of London, on Vaccination* (London: Longman, 1808), 13.

Their third argument was conspiratorial, raising doubts about the motivations of physicians who backed vaccination. The critics frequently claimed Jenner and his fellow vaccination supporters pushed vaccination to increase their personal wealth, pointing to the money Jenner received from Parliament as a reward for his discovery. They also declared vaccinators to be unscrupulous men who took "what liberty they pleased" by experimenting on children without consent or concern for the rights of parents.[46] In his *A Treatise on the Lues Bovilla, or Cow Pox*, Moseley declared: "children cannot judge for themselves: know nothing of the game that is playing, and are compelled into a lottery, where there can be no losers but themselves."[47] These accusations were meant to incite class frictions by accusing other medical men of using their positions in society to abuse and exploit the poor. Keelan and Durbach have both demonstrated that as vaccination became increasingly integrated with institutional authority, especially through its use in hospitals, poor houses, and other public institutions, it was labelled a 'tyrannical' affront to the liberty of the individual.[48]

However, these early writings had yet to put forth an 'us' and 'them' division as would be seen in the widespread populist movements later in the century. The vaccine opposers of this early era still viewed themselves as representatives of the medical establishment, though they wrote for public audiences. After condemning vaccination proponents for financial greed and abuse of power, they generally turned to the promotion of their own expertise. The pamphlets they published devoted a great deal of space to describing the accomplishments of those who wrote them, listing publications,

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[46] Benjamin Moseley, *A Treatise on the Lues Bovilla, or Cow Pox* (London: Longman, Hurst, Rees, and Orme, 1805), 3.
[47] *Ibid.*
[48] See: Keelan, *The Canadian Anti-Vaccination Leagues,* 103-110, and Durbach, *Bodily Matters*.

affiliations, and testimonials of expertise in practice. They also promoted inoculation over vaccination, which was the expertise of both Moseley and Rowley.

The association with medical knowledge during a time when there was a plurality of medical practice (and far fewer political mechanisms enforcing a medical mainstream) prevented these early writers from developing a truly populist following or movement. Their publications were as much advertisements as they were adversarial, generally designed to be read by those outside the medical profession. These early anti-vaccinationists used letters, pamphlets, and vivid images to circulate their ideas, which were effective at conveying messages quickly and easily, especially to those who were semi- or illiterate. While this first wave of vaccine opposition foreshadowed the tactics and arguments of later movements, it was during the second half of the nineteenth century that anti-vaccinationism truly mobilized large portions of the population. This was directly triggered by the integration of vaccination with state power through the passage of compulsory vaccination policies in Britain.

Anti-Vaccination in Britain, 1853-1898

Although vaccination was directly tied to both medical and institutional power in various ways during the first half of the nineteenth century, it was the introduction of national compulsory policies that ignited popular resistance *en masse* in Britain. Indeed, the size and strength of anti-vaccination resistance movements in Britain, Canada, and America demonstrate a relational response to the intensity of top-down pressure for vaccination. Before 1853, vaccination was both encouraged and made freely available to

British citizens through the Poor Law system.[49] Yet acceptance remained a personal choice, and many individuals avoided it. This was partly due to the inherent problems with supply and safety, and partly due to the nature of vaccination under the poor laws – poor law boards paid a 'paltry' eighteen pence for the procedure, which did little to encourage high quality practice.[50] One scathing critique declared it to be a "worthless system" perpetuated by "the poverty of some and the thoughtlessness of others."[51] Those suspicious of the vaccinator and the quality of lymph used by the poor law guardians frequently avoided the procedure unless it was enforced on them by an institution. This of course exasperated public officials, who felt that a vital life-saving measure was being neglected due to what they saw as the 'ignorance' and 'indifference' of the poor.[52]

The passage of compulsory vaccination in 1853 was meant to discipline the poorer classes of society into submitting to vaccination. However, when the new law was brought in, there was little oversight or enforcement. It would be another decade before the machinery of administration and policing was in place to compel the legislation.[53] New systems of surveillance and penalties were introduced in 1867 and 1871, and it was in resistance to these measures that the populism of anti-vaccinationism truly blossomed. Durbach has demonstrated the integration of anti-vaccination with popular working-class protest during this time.[54] She describes anti-vaccination as both an organised national movement in Britain with specific goals, as well as a concentrated, 'grassroots resistance' that took the form of localised demonstrations and "individual acts of civil

[49] Durbach, *Bodily Matters,* 15-17.
[50] "Compulsory Vaccination Not Necessarily Efficient Vaccination," *Association Medical Journal* (15 Apr. 1853): 313.
[51] *Ibid.*
[52] Durbach, *Bodily Matters*, 20-22.
[53] *Ibid.,* 37.
[54] Durbach, "'They Might As Well Brand Us.'"

disobedience."[55] Porter and Porter have demonstrated that the middle and upper-class leaders of these anti-vaccination movements were chiefly concerned with the principles of individualism and liberty, while relying on the actions of working-class agitators to strengthen the movement and its following.[56] The first Anti-Vaccination League was founded in 1866 in Finsbury, by Richard Butler Gibbs. British anti-vaccination writings spread across Europe and North America, fuelling outbreaks of organised vaccine resistance in France, Prussia, the United States, and Canada.[57] While various national anti-vaccination organisations were established in many countries, local protests served as the heart blood of such networks.

In their formalised organisation, anti-vaccination leagues in England fit into the larger phenomenon of Victorian political 'pressure groups' aimed at reforming objectionable legislation through organised disruptive action.[58] Like many leagues and opposition organisations at the time, including temperance agitators, anti-vivisectionists, and anti-corn law leagues, the anti-vaccination leagues used social gathering to enhance

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[55] Durbach, *Bodily Matters*, 37.
[56] Porter and Porter, "The Politics of Prevention," 231-252.
[57] For a discussion of vaccination and its resistance in nineteenth century Europe see: Peter Baldwin, *Contagion and the State in Europe, 1830-1930* (Cambridge University Press, 1999), especially chapter four; Claudia Huerkamp, "The History of Smallpox Vaccination in Germany: A First Step in the Medicalisation of the General Public," *Journal of Contemporary History* 20, no. 4 (1985): 617-35, https://www.jstor.org/stable/260400; Hüntelmann, "Smallpox Vaccination in the German Empire"; Yves-Marie Bercé, *Le chaudron et la lancette, Contes populaires et médecine préventive, 1798-1830* (Presses de la Renaissance, 1984); Nelson and Rogers, "The Right to Die?"; Marcello Trucas, "The Falconi's Needle against Anti-vaccination: A Minimally Invasive Tool in the Nineteenth Century," *Vaccine* 38, no. 9 (2020): 2266-272, https://doi.org/10.1016/j.vaccine.2019.12.063. In the United States: Kaufman, "The American anti-vaccinationists and their arguments"; Walloch, *The Antivaccine Heresy*; Colgrove, *State of Immunity.* In Canada: Arnup, "Victims of Vaccination?"; Keelan, *The Canadian Anti-Vaccination Leagues*; For a detailed discussion of anti-vaccination movements in the latter half of the nineteenth century, see: Durbach, "They Might as Well Brand Us"; *Bodily Matters*; Porter and Porter, "The Politics of Prevention."
[58] For a full discussion of Victorian pressure groups and their role in politics, see: Peter Griffiths, "Pressure Groups and Parties in Late Victorian England," *Midland History* 3, no. 2 (1975): 191-205, https://doi.org/10.1179/mdh.1976.3.3.191.

their impact. They organised lectures, debates, concerts, tea parties, parades, and meetings, distributing large numbers of pamphlets or broadsheets to spread their theories. Membership generally required payment of a fee and the receipt of a membership card, allowing one to demonstrate association with the cause and signal solidarity with other members. Some anti-vaccination leagues used these funds to help pay the punishment fines of their less well-off members, while certain wealthier members were known to show up at public auctions to buy back the items seized from those who refused, or could not pay, the fines for non-compliance with the vaccination law.[59]

The efforts of the British leagues were directed at overturning compulsory vaccination policy, lobbying local and national governments, and using popular power to place pressure on politicians. However, Durbach has found that they also worked to advocate for working-class social reforms and labour rights, serving as the "part and parcel of working class political life."[60] Anti-vaccination leagues were formed in over two hundred towns across England in the late nineteenth century, with their strongest representation in the industrial towns of the north and among working-class communities in the cities.[61] This distribution signals the anti-establishment function of anti-vaccination movements. In practice, vaccination targeted the bodies of the working class. Vaccination laws endangered job security and threatened those who were too poor to pay fines with the possibility of continued and recurring imprisonment and hard labour.[62] Thus, while

[59] In 1884, a rally was organised and led in Stratford by Miss Jessie Craigen and "a few friends" in support of a blacksmith who had refused to pay his fine and had his goods seized by the courts. The goods were sold off at a public auction, and Craigen purchased the goods herself. She then proceeded to give a strong speech to two hundred onlookers about the evils of vaccination, while her friends distributed pamphlets titled *Robbery by Act of Parliament*. "Anti-Vaccination," *Banbury Advertiser* (13 Nov. 1884): 7.
[60] Ibid, 93.
[61] Durbach, *Bodily Matters,* 38, 92.
[62] Ibid, 107-112.

leagues attracted a diverse membership, it was the labouring classes who fuelled the popular resistance. There was an especially strong representation in Lancaster, which served as the site of a massive demonstration of anti-vaccinationists from all over England on March 23, 1880. Thousands congregated in the town to form a large parade with "bands, banners, flags, cartoons, mottoes, effigies", while copies of the Vaccination Acts were ceremoniously burnt by the crowd.[63]

While localised resistance across England gave the cause support and visibility, it was difficult for individual leagues to have sway with the political elites of London without some form of organised political lobbying. National leagues were thus formed in the capital to unify and direct the actions of other civil anti-vaccination organisations towards an explicit challenge of vaccination legislation. The first national league, titled the National Anti-Compulsory Vaccination League, was formed in 1874 by the avid reform campaigners Mary and William Hume-Rothery.[64] A rival national league was later initiated in 1880 by William Young, William Tebb, and William White in the form of the London Society for the Abolition of Compulsory Vaccination, later re-founded as the National Anti-Vaccination League in 1896.[65] These leagues and their organisers were solidly middle class. They published regular scholarly journals to disseminate their critiques, including the *Anti-Vaccinator and Public Health Journal* and the *Vaccination Inquirer*.[66]

The collective lobbying of anti-vaccinationists was eventually effective in Britain. Massive public support for the movement in the 1880s led the government to establish a

[63] "London Society for the Abolition of Compulsory Vaccination," *The Vaccination inquirer and health review,* no. 8 (Nov. 1879): 236.
[64] Porter and Porter, "The Politics of Prevention," 234-241.
[65] *Ibid.*
[66] *Ibid.*

Royal Commission to investigate the efficacy of vaccination in 1889.[67] Although asserting the value of the technology, the commission demonstrated the failings of compulsory policy, pointing to the pervasive anger caused by repeat fines, imprisonment, and sentences to hard labour for those who resisted vaccination.[68] In 1898, the British government introduced the conscientious objector clause, allowing individuals who objected to vaccination on 'conscientious grounds' exemption from the compulsory regulations. This legislation was broadened in 1907, and organised vaccine resistance in Britain generally dissipated.[69]

Although the anti-vaccination leagues fit the category of Victorian and Georgian era reform organisations, they were not solely confined to Britain. Similar leagues were founded elsewhere – frequently in reaction to application of compulsory policies. In the Netherlands, the *Bond ter Bestrijding van Vaccinedwang* was founded in 1881,[70] while the first international anti-vaccination meeting was held in Paris in December 1880.[71] Future meetings of the International Anti-Vaccination League occurred in Berne, Switzerland, and the strong compulsory policies in Germany ensured that local leagues were founded in many German towns.[72] In the United States, anti-vaccination leagues thrived in the 1870s as smallpox epidemics led to several compulsory vaccination laws being passed in different states and municipalities. The Anti-Vaccination Society of America was founded in 1879, while another Anti-Vaccination League was set up in New York City a few years later, followed by one in Iowa.[73] Other leagues include the New

[67] Williamson, *The Vaccination Controversy*, 233
[68] *Ibid.* 236.
[69] Durbach, *Bodily Matters,* 10.
[70] Stuart Blume, "Anti-vaccination movements and their interpretations," *Social Science & Medicine* 62, no. 3 (2006): 628, https://doi.org/10.1016/j.socscimed.2005.06.020.
[71] Kaufman, "The American anti-vaccinationists and their arguments," 464.
[72] *Ibid.*
[73] Walloch, *The Antivaccine Heresy,* 4.

England Anti-Compulsory Vaccination Society which began in Hartford, Connecticut,[74] and various local anti-vaccination societies founded in Minnesota, Iowa, California, and other states over time. Canada also saw the first founding of anti-vaccination leagues in this period, first in Montreal in 1877 and 1885, then in Toronto in 1889.[75]

Advancements in Vaccine Safety and Efficacy

These moments of anti-vaccination resistance occurred alongside major developments in vaccine and medical science over the course of the nineteenth and twentieth centuries. While anti-vaccinationists decried vaccination as "unscientific and filthy,"[76] physicians and scientists alike set out to make it far safer and more effective. Many critiques of the technology rightly pointed to the problems with maintaining a clean lymph supply that also held its effectiveness as a shielding agent from infection. While the arm-to-arm harvesting method helped to maintain quantity, there were inherent problems with the technique that concerned both practitioners and detractors. Secondary transmission of diseases like hepatitis, syphilis, or tuberculosis was a constant risk, while contamination in the harvesting and storing process for lymph introduced stray bacteria that could aggravate or inflame the vaccination wound. Lurking contaminants were hazards to the patient, sometimes resulting in painful swelling or other adverse reactions at the site of lymph insertion, as well as secondary disease transmissions.[77] Indeed, writing in 1892, famed physician William Osler described several complications that

[74] Kaufman, "The American anti-vaccinationists and their arguments," 464
[75] This is outlined in detail in chapter two.
[76] National Anti-Vaccination League, London Society for the Abolition of Compulsory Vaccination. *The Vaccination inquirer and health review.* London (1882-1883), 37, https://hdl.handle.net/2027/hvd.32044103009270.
[77] Walloch does a detailed analysis of the risks of vaccination during the nineteenth century. See: Walloch, *The Antivaccine Heresy,* 42-46.

could arise from vaccination, including, "deep excavated ulcers," "sloughing and deep cellulitis," "Erysipelas" and "deep gangrenous ulceration."[78] These early concerns stimulated new developments in harvesting vaccine matter, as well as new techniques of storing and applying vaccine lymph over the course of the century.

The first major development in vaccine safety was the use of animals as a source for lymph supply. During the first half of the nineteenth century, supply was usually maintained by a vaccinator through the harvesting of fresh lymph from a recent vaccination pustule located on the arm of a patient. Presumably 'clean' and 'healthy' patients were selected by the vaccinator for this purpose, but without medical testing for diseases, it would have been difficult to guarantee the health of the donor used for collection.[79] The liquid matter was then saved on the point of a lancet (usually ivory, silver, or gold), soaked into a cord, or dried on a glass slide. Sometimes, a vaccinator waited until the pustule dried into a scab that was almost ready to fall off the patient's arm before harvesting it.[80] Dried scabs would be transported between two glass plates that were sealed with wax, or simply in paper envelopes. As Rusnock has outlined, transporting vaccine was a cumbersome process that was often unreliable.[81] The vaccine could be inactivated during transport and was especially liable to degradation in potency when transported over long distances or in warmer climates.[82] New strains of cowpox were difficult to find in the wild, and even the most ardent producers found it tricky to maintain a constant supply from the arms of patients. The 1866 discovery of a

[78] William Osler, *Principles and Practice of Medicine*, (New York: D. Appleton and Company, 1893), 61. https://hdl.handle.net/2027/coo.31924105912848.
[79] Not to mention the possibility of adverse reactions to blood type or Rh factor, both concerns which were unknown at the time.
[80] Henry A. Martin, *Vaccination and vaccine virus* (1861), 5, https://wellcomecollection.org/works/fappkmcw.
[81] Rusnock, "Catching Cowpox," 18-22.
[82] *Ibid.*

spontaneous case of cowpox in Beaugency, France, helped to bolster supplies worldwide, but this was far from a stable or lasting solution.[83]

The use of animals to maintain supply originated first in Italy in 1840, later spreading to France in 1860.[84] Four techniques developed for producing animal lymph. The first was to inoculate the young cow with fresh cowpox taken directly from other cows. This, of course, was only possible if a case of cowpox existed that could be used for transmission – the Beaugency strain helped with this method after its discovery, but this option was not available to all vaccine producers. The second method was to use lymph taken from horsepox, referred to as 'equination'.[85] New research has demonstrated that horsepox virus is closely related to vaccinia virus and is a possible origin for the virus used in modern vaccines.[86] The third option was the use of human lymph matter, taken from an active vaccine pustule and inserted into the cow udder.[87] The last method that developed in the mid-century was to use human smallpox matter from an actively infected individual and to pass it through several cows to 'attenuate' the virus (make it less severe), before harvesting the new matter for vaccine lymph.[88] These differences reflected disagreements in the medical community about the nature of pox viruses. Some medical

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[83] Clarissa Damaso, "Revisiting Jenner's Mysteries, the Role of the Beaugency Lymph in the Evolutionary Path of Ancient Smallpox Vaccines," *The Lancet Infectious Diseases* 18, no. 2 (2018): E55-63, https://doi.org/10.1016/s1473-3099(17)30445-0.

[84] José Esparza et al., "Early Smallpox Vaccine Manufacturing in the United States: Introduction of the "animal Vaccine" in 1870, Establishment of "vaccine Farms", and the Beginnings of the Vaccine Industry," *Vaccine* 38, no. 30 (2020): 4774, https://doi.org/10.1016/j.vaccine.2020.05.037.

[85] *Ibid.*

[86] José Esparza, et al., "Equination (inoculation of Horsepox): An Early Alternative to Vaccination (inoculation of Cowpox) and the Potential Role of Horsepox Virus in the Origin of the Smallpox Vaccine," *Vaccine* 35, no. 52 (2017): 7222-230, https://doi.org/10.1016/j.vaccine.2017.11.003.

[87] Edward Cator Seaton, *A Handbook of Vaccination* (United States: J.B. Lippincott, 1868), 25-27.

[88] Walloch, *The Antivaccine Heresy*, 28-30

men argued cowpox and smallpox were two separate and unique strains of pox disease, while others believed that cowpox was simply smallpox of the cow.[89] Either way, vaccine matter was then harvested from the pustules that appeared on the heifer (regardless of the method used to infect it), and this product was labelled 'bovine lymph.'

Bovine lymph had the advantage of eliminating syphilis transmission through vaccination, as syphilis could not infect cows. It also meant that supply could be regulated and maintained on site if an appropriate production system was established. Vaccine farms soon developed all over Europe to meet the demands of supply. The first vaccine farm in America was established in 1870, with at least fourteen producers founded across the United States by the end of the century.[90] Canada initially received most of its vaccine supply from the Royal Institute in London, but provincial vaccine farms were established in Ontario and Quebec after the 1885 smallpox epidemic, to ensure a clean and regulated supply chain for local use.[91] Much like the acceptance of a bacteriological view of disease causation,[92] the shift to bovine lymph was not an immediate process, however. Many physicians continued to use humanised lymph right up to the end of the century, arguing it was more potent and effective than bovine lymph. In Britain, arm-to-arm vaccination

[89] This debate was seen in the pages of the Boston Medical and Surgical Journal, regarding the experiments of Dr. John C. Martin in Attleboro, Massachusetts. "Experiment on the Development of Vaccine Virus," *Boston Medical and Surgical Journal* (12 Apr. 1860) 228-230. For discussion of this in the historiography see Keelan, *The Canadian Anti-Vaccination Leagues*, 58-68.
[90] Esparza et al., "Early Smallpox Vaccine Manufacturing in the United States," 4774.
[91] "Medico-Chirurgical Society," *Gazette* (05 Nov. 1885): 3 and "Latest from Quebec," *Gazette* (09 Jul. 1886): 1. The Ontario vaccine farm was established in 1885 in order to ensure oversight in lymph quality and production. William Spaulding, "The Ontario Vaccine Farm, 1885-1916," *Canadian Bulletin of Medical History* 6 (1989): 45-50, https://doi.org/10.3138/cbmh.6.1.45.
[92] Worboys argues that the shift from a 'physiological' conception of disease, to an 'ontological one' that associated disease with specific causal agents separate from the body was both complex and uneven in medical practice at the turn of the nineteenth century. See: Worboys: *Spreading Germs*, p5.

was eventually outlawed in 1898.[93] In 1902, the United States passed the Biologics Control Act which gave the Public Health and Marine Hospital Service the power to undertake inspections of vaccine lymph supplies to ensure safety.[94]

Aside from the developments in lymph technology, vaccination techniques also shifted over the course of the nineteenth century. Variation in technique was often contextual and shaped by the experiences and opinion of individual doctors. Issues of 'failed' vaccinations – operations that did not produce the proper pustule or run the usual course of eruption and scabbing – were a continuous problem. If a person was scratched and smeared with lymph, but had no reaction, the operation was a failure and would not produce the necessary immunity. This happened frequently with inactivated lymph but could also result if the person already had immunity to smallpox, in which case, their body would not react to the vaccination. To increase the rate of success, some physicians made multiple scratches on the arm to maximize the chances for the vaccine to 'take'.[95] Yet there was no consensus within the medical community about how many lesions should be made on the skin before the lymph was smeared. Numbers ranged from one to five incisions in hopes that more incisions would enable the vaccination to succeed.[96]

Differences of opinion also occurred over the need for re-vaccination. The long-term protection of vaccination was shown to reduce over time and re-vaccination was slowly introduced to counteract this, especially during times of outbreak.[97] Some

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[93] Franco Buonaguro et al., "The XIX century smallpox prevention in Naples and the risk of transmission of human blood-related pathogens," *Journal of Translational Medicine* 13, no. 33 (2015): 2, https://doi.org/10.1186/s12967-015-0400-9.
[94] Walloch, *The Antivaccine Heresy*, 55.
[95] S.F. Dudley and P.M. May, "Some Observations on the Immunity and Disability Caused by Vaccinia," *The Journal of Hygiene* 32, no. 1 (1932), 26.
[96] Derrick Baxby, "Smallpox vaccination techniques; from knives and forks to needles and pins," *Vaccine* 20 (2002): 2140–2149, https://doi.org/10.1016/s0264-410x(02)00028-2.
[97] Great Britain. Local Government Board, "Vaccination." (1888), https://wellcomecollection.org/works/ean6tfb5.

physicians nonetheless continued to swear that a single vaccination gave lifetime protection, while others suggested re-vaccination every five, seven, or ten years to ensure immunity.[98] This topic came under much dispute in Montreal throughout the 1870s. During an 1871 meeting of the *Société Médicale de Montreal*, a number of attending physicians were adamant that a single vaccination provided lifelong immunity, while others claimed re-vaccination should occur every few years, especially in times of outbreak.[99] Canadian federal immigration policy would eventually require all incoming individuals to demonstrate evidence of vaccination within seven years of their arrival to Canada.[100] By the end of the century, re-vaccination was generally recommended for children when they reached school age in both Britain and North America.

The introduction of the Germ Theory of Disease (hereafter Germ Theory) during the latter half of the nineteenth century was the next turning point for vaccine technology. As Germ Theory became the basis of medical investigation, there were several breakthroughs in bacteriology that helped to advance vaccine safety. Laboratory developments allowed for observation of vaccine matter under a microscope and the identification of contaminating bacteria in samples. The use of fresh lancets between vaccinations was recommended to avoid impurities and the sterilisation of all cloth and instruments was introduced. In his 1886 instructional for vaccination, American physician Dr. William Hardaway noted this change when he remarked, "the habit of using one point

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[98] Alexander Knox, *The Existing State of Our Knowledge of Vaccination and Revaccination as Preventative of Small Pox: Being a Comprehensive Practical Examination of the Subject* (London: Taylor, Walton & Maberly, 1850), 20-24. This debate and its effect on vaccine confidence is also acknowledged and discussed by Keelan. See: Keelan, *The Canadian Anti-Vaccination Leagues*, 63-64.

[99] "Société Médicale de Montreal, December 20, 1871" *L'union médicale du Canada* 2, no 1 (Feb. 1872): 76-78.

[100] Library and Archives Canada. AC: RG17, Vol. 1000, File 166056. Superintendent of Immigration, Ottawa. Letter From T.A.A. Adams, Port Arthur, Asking Information Re: Vaccination of Immigrants (1905/02/06).

or quill for two persons is both filthy and dangerous."[101] Experiments by Dr. Sydney Copeman in the 1890s in Britain demonstrated that adding glycerine to the lymph helped to kill contaminating bacteria.[102] Glycerinated vaccine was soon produced and distributed widely as a safer vaccine material.

There were also significant developments in the field of immunity studies during the late 1800s. The work of Pasteur in France helped to solidify the use of the term 'vaccination' for other procedures which provided immunity to infection. Pasteur's use of the term for all immunizing agents was a direct homage to the work of Jenner, whom he dubbed "the greatest of Englishmen."[103] The term was incorporated into the lexicon of other preventative technologies and new vaccines against rabies, anthrax, cholera, plague, and typhoid were developed by the end of the century using attenuated pathogens grown within a laboratory setting.[104] A number of studies were undertaken on identifying smallpox virus over the next century and a half. The earliest microscopic studies that reported finding 'viral elements' in vaccine lymph occurred in 1886 and 1905/6.[105] However, it wasn't until 1931 that microscopic technology was advanced enough to conclusively isolate the viral components of vaccine lymph.[106] Work completed by A.W. Downie in 1939 demonstrated that the virus used in vaccination, *vaccinia*, was different

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[101] William Hardaway, *Essentials of vaccination: A compilation of facts relating to vaccine inoculation and its influence in the prevention of smallpox* (St. Louis: J.H. Chambers & Co., 1886), 110, https://hdl.handle.net/2027/uiuc.2638875_001.
[102] Sydney Monckton Copeman, *Vaccination, Its Natural History and Pathology* (United Kingdom: Macmillan, 1899), 150-170.
[103] Ian Bailey, "Edward Jenner, Benefactor to Mankind," in *History of Vaccine Development*, edited by Stanley Plotkin, 21-25 (Springer, 2011), 25.
[104] Hervé Bazin, "Pasteur and the Birth of Vaccines Made in the Laboratory," in *History of Vaccine Development*, edited by Stanley Plotkin (Springer, 2011), 43.
[105] Catherine Thèves et al., "The Rediscovery of Smallpox," *Clinical microbiology and infection* 20, no. 3 (2014): 210-218, https://doi.org/10.1111/1469-0691.12536.
[106] *Ibid.*

from both cowpox virus and smallpox virus.[107] Studies in DNA sequencing further developed over the course of the century.[108]



Fig. 11.—Mother and daughter. The daughter, through vaccination, although exposed, did not contract the disease.

Figure 2: Vaccinated Daughter with unvaccinated Mother. Source: Jay F. Schamberg, Smallpox and vaccination (Chicago: Press of American Medical Association, 1914), 16.

The study of vaccine efficacy became far more rigid and systematic in the early twentieth century. Although empirical evidence of the protective power of vaccination was abundant (see for example, Figure 2), there was a lack of systematic studies to substantiate this. Statistical record-keeping was inconsistent, generally collected by

[107] Jose Esparza et al, "Beyond the myths: Novel findings for old paradigms in the history of the smallpox vaccine," *PLoS Pathogens* 14, no. 7 (2018): e1007082, https://doi.org/10.1371/journal.ppat.1007082.
[108] Scott Goebel et al, "The complete DNA sequence of vaccinia virus," *Virology*, 179 (1990): 247-266, https://doi.org/10.1016/0042-6822(90)90294-2.

singular individuals who had an interest in the subject, or by individuals within institutions, rather than across populations as a whole. Physicians interested in determining the true efficacy of smallpox vaccination undertook intense studies in the early twentieth century that charted the time, frequency, and course of vaccination alongside its impact on infection rates. The detailed monograph produced by Dr. William Hanna, who studied smallpox patients at the city and port isolation hospitals in Liverpool, is an exemplary demonstration of this kind of work.[109] Hanna undertook a thorough statistical analysis of the length of vaccine immunity and the prophylactic effects of smallpox vaccination post-exposure.

In addition to these field studies, the growth of laboratory research led to several scientific experiments to both test the efficacy of vaccination as a practice, and to develop more potent lymph matter.[110] Monkeys became a staple animal for methodical experiments in scientific laboratories during the first half of the twentieth century,[111] as they were the only other creature seen to be susceptible to smallpox infection.

Although historians have rightly questioned portrayals of vaccination as a lone or heroic driver of declining smallpox mortality in the nineteenth century, a point that was vividly made by Anne Hardy in her *Epidemic Streets*,[112] its central role in the abatement of the disease has been repeatedly demonstrated.[113] The case of an outbreak in Windsor,

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[109] Derrick Baxby, "Studies in Smallpox and Vaccination," *Reviews in Medical Virology* 12, no. 4 (2002): 201-09, https://doi.org/10.1002/rmv.361.
[110] Copeman, "Modern Methods of Vaccination and Their Scientific Basis," 269-273.
[111] Jay Schamberg, *Smallpox and Vaccination* (Press of American Medical Association, 1914), 17.
[112] Anne Hardy, *The Epidemic Streets: Infectious Diseases and the Rise of Preventive Medicine 1856–1900* (Oxford, 1993), especially chapter 5.
[113] Over the last seventy years, a wide range of studies have consistently identified vaccination as a decisive factor in reducing smallpox mortality. See: Henry James Parish, *Victory with vaccines: the story of immunization* (E. & S. Livingstone, 1968), 57-58; Alex J. Mercer, "Smallpox and epidemiological-demographic change in Europe: the role of vaccination,"

Ontario in 1924 provides support to its importance. Historians Barreto and Rutty argue that this epidemic is a clear indicator of the importance of vaccination in the effective eradication of the disease.[114] Unlike sanitary diseases like cholera, typhoid, and tuberculosis, which thrived through poor sanitation and were most prevalent amongst the poorer areas of a city, smallpox infection closely tracked vaccination coverage. In this case, the majority of infected individuals were those who had not been vaccinated, with a devastating 71% mortality rate amongst the unvaccinated who were infected. In contrast, no one who had been vaccinated within the previous twelve years contracted the infection, and "no one who had ever been vaccinated died of smallpox."[115] Lastly, they point out that "vaccination of almost the whole population stopped the epidemic abruptly and completely."[116]

Demand for vaccine pushed advances in laboratory research and allowed for new developments in manufacturing in the early twentieth century. Whilst vaccine production at this time still relied on heifers for incubation and harvesting, as well as glycerine for sterilisation, it was found that these processes did not always succeed in cleansing all contaminating bacteria from the final product.[117] A small amount of carbolic acid was

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Population Studies 39 (1985): 307, https://doi.org/10.1080/0032472031000141496; Marie Nelson and John Rogers, "The Right to Die? Anti-vaccination Activity and the 1874 Smallpox Epidemic in Stockholm," *Social History of Medicine* 5 (1992): 374, https://doi.org/10.1093/shm/5.3.369; Luis Barreto and Christopher J. Rutty, "The Speckled Monster: Canada, Smallpox and its Eradication," *Canadian Journal of Public Health / Revue Canadienne de Santé Publique* 93, no. 4 (2002): I4. http://www.jstor.org/stable/41994066; Some have also speculated that the explosion in world population during the nineteenth century was a direct result of vaccination, as the procedure led to an unprecedented increase in the number of individuals who lived past infancy. See: Catherine Thèves et al., "The rediscovery of smallpox," *Clinical Microbiology and Infection* 20, no. 3, (2014): 210-218.

[114] Barreto and Rutty, "The Speckled Monster," I4.

[115] *Ibid.*

[116] *Ibid.*

[117] A study by Dr. Joseph McFarland, who served as professor of pathology and bacteriology at the Medico-Chirurgical College at Philadelphia, traced a number of tetanus infections to glycerinated lymph sold by one producer in the USA. This demonstrated that glycerine did not

therefore introduced to the lymph, which was subsequently stored for a period of time at freezing temperatures. This prolonged the life of the active vaccinia virus, while destroying lingering secondary bacteria.[118] The final product was then re-examined for traces of contaminants before it was again stored at a cold temperature until use. In the United States, only certain laboratories which conformed to these strict requirements for sanitary production were given a license to sell their vaccine, ensuring a supply that was far safer and of much higher quality than the vaccines produced at the end of the nineteenth century.[119]

Vaccination in Canada after Confederation

The Confederation of Canada in 1867 established the nation as a dominion and reconstituted the country into the four provinces of Ontario, Québec, Nova Scotia, and New Brunswick. Confederation formed the new dominion into a tiered arrangement of federal, provincial, and local civic governments. The *British North America Act* served as the guiding principle for oversight of health in the country, outlining the medical responsibilities at each level of government. Canadian policy often found itself at the crossroads between British and American schools of thought, with the British example serving as the basis for most legislation, and America as a magnifying glass for witnessing the outcomes of policy when applied to a rapidly expanding population.[120] Vaccination was enshrined in political policies in various ways across the country, at federal,

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always destroy contaminating tetanus bacteria in vaccine. Walloch, *The Antivaccine Heresy*, 93-94.

[118] White, *Smallpox and Vaccination,* 41-42.

[119] *Ibid.,* 43.

[120] Neil Sutherland, "'To Create a Strong and Healthy Race': School Children in the Public Health Movement, 1880-1914," *History of Education Quarterly* 12, no. 3 (Autumn, 1972): 317, https://doi.org/10.2307/367516.

provincial and civic levels. Federal policy regulated vaccination at ports of entry and amongst Canadian Indigenous populations. Historian Mark Humphries has argued that ill health at this time was viewed as an external threat to the national body, imported into the nation through 'dangerous' immigrants.[121] Thus the regulation of health amongst immigrants and international travellers was a key aspect of federal responsibility, including the running of marine hospitals and quarantines, which provided vaccination to those on incoming ships. Newly arriving immigrants were subject to vaccine mandates at the port of entry which varied by social class, with those in steerage class all vaccinated on arrival.[122] The federal Department of Indian Affairs assumed the task of vaccinating Canada's Indigenous populations, often using fear of infectious spread and narratives of government protection as a key justification for controlling the movements of Indigenous peoples.[123]

As a British dominion, Canada passed comparable laws requiring domestic vaccination, although their implementation was divided between civic and provincial authorities. Amongst the four confederated provinces, vaccination policy was first introduced by Ontario with the 1877 passage of the *Act Respecting Vaccination and Inoculation*.[124] Mirroring its British counterpart, this Act required mandatory vaccination of all infants in the province. It further stated that city Boards of Health would have the authority to take 'all possible means' in preventing disease spread during epidemics, including instituting quarantine, isolation, vaccination, and increased reporting of

[121] Mark Humphries, *The Last Plague: Spanish Influenza and the Politics of Public Health in Canada* (University of Toronto Press, 2013), chapter two.
[122] Library and Archives Canada. R617 vol. 467, file: 51120. C. W. Covernton, Toronto. Report on Medical Inspection of Steamship for Vaccination Marks (1886/01/15-1886/01/18).
[123] See: Lux, *Medicine that Walks* and Daschuk, *Clearing the Plains*.
[124] Ubaka Ogbogu, "*Vaccination and the Law in Ontario and Nova Scotia (1800–1924)"* (PhD Thesis, University of Toronto, 2014), 94-96.

infections. A later amendment to the Act in 1886 required mandatory vaccination of unvaccinated people during smallpox outbreak,[125] as well as opening the way for school trustees to require proof of vaccination for smallpox as a condition for school attendance within their schools.[126]

Provincial governments would establish permanent boards of health in the coming decades and eventually be given oversight of medical institutions – hospitals, asylums, and charitable foundations. These boards would liaise with the local health boards in the various cities, towns, and counties across the provinces, providing guidance on policy, offering recommendations, and collecting vital statistics. Oversight of sanitation and disease within cities was regulated locally by municipal and civic authorities. Before the smallpox epidemic of 1885, city councils generally established only temporary boards of health to handle moments of health crisis, and MacDougall has demonstrated that these were largely ineffective at implementing true health reform.[127] Local and divided responses to infectious outbreaks were the norm, with ambiguous lines of jurisdiction. By the end of the century, vaccination was part of the responsibilities of various administrative authorities. Educational boards implemented requirements for vaccination within local school systems, while the civic boards of health were generally responsible for paying public vaccinators and deciding when public vaccine programs should be expanded. These local differences would impact both vaccine policy and resistance over the course of the next century.

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[125] *Ibid.*, 96.
[126] *Ibid.,* 38.
[127] MacDougall, "Researching Public Health Services in Ontario," 157-158.

Anti-Vaccination in Canada

In Canada, the first anti-vaccination league was founded in Montreal in 1875.[128] Similar to their counterparts in other metropolises, the first league was started by those with positions of respectability and authority in the community, mainly physicians and educated men.[129] The arguments they used were in line with those propagated through contemporary intellectual networks of anti-vaccination resistance in Britain and the United States and reflect the development of specific forms of anti-vaccination language which were based on the failings of the technology and its implementation. The assertion of the five main critiques allowed Canadian detractors to tap into the power of a widespread, transnational campaign. Mirroring the assertions of London anti-vaccination writers William Young and Charles Creighton,[130] the Montreal anti-vaccinationists declared that most doctors regarded vaccination "not only as useless but even dangerous" due to the spread of "syphilitic and other diseases."[131] When Canadian physician Alexander M. Ross published the *Anti-Vaccinator* in the 1880s, he labelled vaccination the child of 'Ignorance and Superstition,' calling it a 'medical delusion' and an "enormous source of revenue for the medical profession."[132] Labelling vaccine lymph as 'pus', 'poison', 'unnatural', 'unclean', and 'filthy' became staple terms for anti-vaccinationists on all sides of the Atlantic Ocean, along with declarations that vaccination was a 'fetish', a 'superstition', a 'fallacy', a 'deception', and a 'delusion'. Ross highlighted the rights-based argument when he called vaccination a violation of liberty and compulsion a

[128] See chapter two, pages 46-51 for a full discussion.
[129] For an expanded discussion on this, see pages 69-71.
[130] Durbach, *Bodily Matters,* 131.
[131] Translated from French. "Société Médicale de Montreal," *L'union médicale du Canada* 1, no. 1 (Feb. 1872): 72.
[132] Alexander Ross, "Small-pox," *The anti-vaccinator, and advocate of cleanliness* (1885), 1.

'slaughter of the innocents.'[133] The populist form of arguments came forward when Ross acknowledged that doctors who supported vaccination were a 'majority', but "majorities have no monopoly on truth."[134]

Ross similarly appealed to populist rhetoric that pitted the medical 'majority' against 'the people' in the fight for vaccination. "The majority bled the people for a century," he wrote, "the majority mercurialized the people till they became walking barometers." Anti-vaccination was painted as an 'awaking' of 'the people' to the bitter truth of being dominated and experimented on.[135] Testimonies from British anti-vaccinationists, especially Charles Creighton, Edgar M. Crookshank, William J. Collins, and Herbert Spencer were consistently cited for authoritative support. Alfred R. Wallace's assertion that vaccination was "utterly powerless for good" and "a certain cause of disease and death in many cases," would hold a prominent position in the Canadian anti-vaccination discourse through time.[136]

While its actions peaked in 1885 during the Montreal epidemic, the activities of the Montreal league would fizzle out over the next year. The life cycle of movements mirrored the circumstances of vaccination, which was generally a pragmatic implementation from municipal and civic authorities as a response to infectious outbreaks, rather than strictly enforced. Attempts at an Anglo-Canadian revival in Toronto in 1888 lasted only a few months, in response to a small outbreak in Toronto and the reactive implementation of a vaccination order. It would be over a decade before collective effort sustained the rebirth of another anti-vaccination movement in Canada. This rebirth was a direct consequence of the enforcement of compulsory vaccination

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[133] *Ibid.*
[134] *Ibid.*
[135] *Ibid.*, 2.
[136] Alexander Ross, "Fallacies and Delusions of the Medical Profession" (Toronto: 1888).

within Ontario public schools. On 18 January 1900, the national Anti-Vaccination League of Canada (AVLC) was formed, declaring itself a newly centralised union of the previously separate anti-vaccination societies of Toronto and Montreal.[137]

Although there were several advances in vaccine technology by the start of the twentieth century, the critiques from previous decades continued to reemerge, cloaked in the language that had become a signal of anti-vaccination. One 1907 pamphlet of the AVLC denounced vaccine producers as 'exploiters at work' declaring there to be "millions of money behind [vaccination], and millions annually made out of it."[138] It labelled vaccination a 'medical fetish', a 'gigantic superstition,' and a 'monstrous fraud.' Intellectual lineage was invoked again, with many of the same names referenced as authority figures. Wallace, Spencer, Collins, Crookshank, and Creighton were all cited, alongside the testimonials by Ross from two decades prior. In response to the advancements in medical prophylaxis, the idea of induced immunity was directly disputed, with claims that "eminent physicians have no respect for it," and an assertion that the only means for preventing disease was to "obey Nature's laws by hygienic living."[139] Vaccinators, anti-vaccinationists accused, experimented on 'pauper children' in Britain, while in Canada vaccine devotees were labelled adversaries of the public that 'should be relieved of duty'.[140]

However, by this time, the British anti-vaccination movements had effectively died down with the passage of the conscientious objection clause in 1898 and its widening

[137] The Anti-Vaccination League of Canada, *Vaccination in Canada: A Reply to a Pamphlet Published by The Provincial Board of Health, Ontario* (The Anti-Vaccination League of Canada: Toronto, 1907).
[138] *Ibid.*
[139] *Ibid.*, 43.
[140] *Ibid.*, 30.

in 1907.[141] Canadian anti-vaccination discourse thus became increasingly integrated with American anti-vaccination networks, which were still actively organising in several states. In 1911, the *Ottawa Citizen* published a long speech from the president of the Anti-Vaccination League of America, calling vaccine "putrid matter" that 'poisoned' the blood and caused more disease than it prevented.[142] To stop vaccination was to stop "the tears and cries and pains and miseries of the people."[143] The changes in the technology were used to demonstrate a "constant shifting of theory and practice" that only proved vaccination's inadequacy from the very beginning.[144]

New methods of vaccine cultivation soon arose in the early twentieth century, including the growth of vaccine matter within a variety of animals to maintain potency and prevent secondary contaminants, alongside the introduction of glycerine, carbolic acid, and refrigeration techniques. Nonetheless, after a vaccine campaign in 1918, a letter written to the editor of the *Vancouver Daily World* declared that there was "overwhelming proof" of the "inadequacy, failure, and folly" of the "medical fetish."[145] That same year, Ethel Cuthbertson wrote to the *Calgary Herald* arguing that vaccination used 'putrid' and 'poisonous' pus that weakened the physique, while causing syphilis and other illnesses.[146] An anonymous writer who self-titled themselves 'anti-vac' wrote several similar letters to the same paper, again quoting the works of Wallace, Creighton, and Crookshank.[147] In 1919, various anti-vaccination writers reiterated the claim of vaccination as a 'filthy nostrum' and a 'medical fetish' amidst growing popular vaccine

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[141] Durbach, *Bodily Matters*, 9-10.
[142] "Health Needs and Civic Action," *Ottawa Citizen* (15 Apr. 1911): 16.
[143] *Ibid.*
[144] *Ibid.*
[145] "Against Vaccination," *Vancouver Daily World* (29 Apr. 1918): 4.
[146] "Mrs. Cuthbertson on Vaccination Again," *Calgary Herald* (12 Feb. 1918): 6.
[147] "Some Arguments Against Vaccination," *Calgary Herald* (16 Mar. 1918): 6: "Where Vaccination Does Not Prevail," *Calgary Herald* (02 May 1918): 6.

resistance in Ottawa and Toronto.[148] Vaccination was decried as a "filthy practice"[149] and a "great crime against the innocents."[150] The *Ottawa Citizen* began publishing a regular column on medical freedom in 1919, drawing on the arguments of anti-vaccinationist Charles M. Higgins, who accused health officials and vaccinating doctors of 'concealing' facts from 'the people.'[151]

The overall study of pox viruses grew rapidly in the interwar years. Smallpox and vaccinia viruses were eventually identified and isolated, while intradermal vaccination became more common due to its success and lower adverse reaction rate.[152] Yet in 1929, Herbert Nowell wrote a long diatribe against vaccination which was published in the *Vancouver Sun*, citing Creighton, Crookshank, and Collins (among a number of others) as experts who had declared vaccination a fraud.[153] A year later in Saskatchewan, Ernst Duval wrote to his local newspaper claiming there was "a kind of conspiracy" orchestrated by doctors to keep the 'common people' in the dark about the truth of vaccination – "as it would be detrimental to medical interest."[154] Cancer and other diseases, he asserted, were the direct result. Another writer to the Kingston *Whig-Standard* the same year posited that more physicians would condemn vaccination if not for the "coercive injunction of the state" which made it a "prescription enforced by law"

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[148] S.L. MacBean, "More About Vaccination," *Ottawa Citizen* (04 Apr. 1919): 20.
[149] "Health Officer Gives Case for Vaccination," *Toronto Star* (13 Nov. 1919): 23.
[150] "Vaccination Called 'Crime' By the Antis," *Toronto Star* (06 Nov. 1919): 2.
[151] Lux, "Medical Freedom Column," *Ottawa Citizen* (16 Oct. 1920): 10. Chas. M. Higgins, Horrors of Vaccination Exposed and Illustrated (Brooklyn NY: 1920), https://ia800704.us.archive.org/28/items/39002086340891.med.yale.edu/39002086340891.med.yale.edu.pdf.
[152] J.A. Toomey and R.B. Hauver, "Intradermal Vaccination," *American Journal of Diseases of Children* 35, no. 2 (1928): 186–192.
[153] H. Nowell, "Thinks Victoria Should Investigate Vancouver Mania of Medical Men," *Vancouver Sun* (26 Jan. 1929): 6. Nowell is discussed further on pages 166, 171, and 175.
[154] "The Star-Phoenix Letter-Box," Star-Phoenix (26 Apr. 1930): 22.

on the people.[155] In 1950, the Alberta Anti-Vivisection and Humane Education Society once again declared that vaccines were "poisonous products."[156]

In 1965, Dr. Paul-Emile Chevrefils, a chiropractor from Montreal, published *Les Vaccins Racket et Poisons?*.[157] The book was a short, edited volume of reprinted papers from the 1884 International Anti-Vaccination Conference in Charleroi, Belgium. In his introduction to the historic re-prints, he argued that the opposition between vaccinators and anti-vaccinationists was a momentous struggle that still defined the modern experience of health. He asserted that vaccination was ineffective and dangerous, and was pushed by a 'medical corporation' for "control over a population held in wilful ignorance in order to maintain a monopoly on health disciplines."[158] There was, he contended, no 'scientific proof' to justify the practice, while health officers took "revenge on innocent children" by "dumping their vaccine poison in the interest of private companies."[159] Chevrefils would be instrumental in reorganising anti-vaccination campaigns in both Quebec and Ontario in the late 1960s and early 1970s. "In my opinion," he posited, "vaccines serve to limit the development of less developed and less informed peoples in constitutional freedom."[160]

Conclusion

This chapter has provided a discussion of two important aspects of anti-vaccination history in Canada. It provided a breakdown of the evolution of vaccine

[155] "Vaccination – Unscientific, Unphilosophical, Impracticable, and Dangerous," *The Kingston Whig-Standard* (19 Sept. 1930): 4.
[156] "The Campaign Against Inoculation," *Calgary Herald* (28 Apr. 1950): 4.
[157] P.-E. Chevrefils, *Les Vaccins Racket et Poisons? Extrait du 4ieme Congres International Charleroi 26, 27 et Juillet 1885. Ligue Universelle des Antivaccinateurs* (Ottawa 1965).
[158] Translated from French. *Ibid.* 3-4.
[159] Translated from French. *Ibid.*, 157.
[160] Translated from French. *Ibid.* 3-4.

technology during the century covered by this analysis, as well as a genealogy of anti-vaccination arguments over time. Throughout this period, the procedure of vaccination underwent significant changes aimed at addressing concerns about vaccine safety and efficacy. The initial reliance on arm-to-arm vaccination and humanised lymph was abandoned in favour of bovine sources to maintain supply and eradicate disease transmission. Advancements in bacteriology eventually led to the systematic inspection of vaccine matter and the introduction of glycerine, carbolic acid, and temperature control to eradicate foreign bacteria and preserve potency. Advancements in laboratory science allowed for new developments in the field of immunology, especially with the work of Koch and Pasteur on attenuating bacterial pathogens for vaccination, and the eventual identification of viruses for use in the vaccine. New intradermal techniques helped to minimise adverse reactions while maintaining immunological stimulation. All these advances demonstrate that physicians and medical practitioners who utilised vaccination maintained a deep concern for achieving the most effective outcome from its use, and a loyalty to a technology that would come to represent the core achievement and success of scientific medicine.

While these advances were celebrated by many in the medical community, the continued changes to the technology were taken by vaccine opponents to be evidence of its failures. The continued developments that displaced previously held 'truths' about immunity were seen as evidence that vaccination was built on faulty conclusions and 'fads' amongst its supporters. Opposition to vaccination quickly followed its introduction in public institutions and policy in Britain in the early nineteenth century. Unlike with later popular movements, this early resistance was led by those who had a personal stake in inoculation and felt that their profession was being displaced by the institutionalisation

of vaccination with cowpox. This vocal group of detractors would nonetheless set the stage for anti-vaccination arguments over the next two centuries, questioning its effectiveness, asserting its harmfulness, claiming that vaccination was contrary to logic and intrinsic rights, and that its use was motivated by power or money.

The rhetoric would develop into a populist form in the latter half of the century, expanding into a widespread working-class movement in Britain and diffusing across national boundaries into Europe and North America. Canadian anti-vaccinationists harnessed the power of international support networks and local concerns with vaccination to organise their own Anti-Vaccination Leagues in first Montreal, and then Toronto. The reinforcement of a wide network of anti-vaccination intellectuals and a long historicity that was continuously built up helped to maintain the anti- language of the movement, opening avenues for individuals to connect their resistance with other social movements across geographic space and through time.

These patterns are important not only for the provision of a modern framework for identifying and making sense of anti-vaccination in the past. They also facilitated past anti-vaccinationists' ability to maintain their identity, even when widespread popular interest in anti-vaccination dwindled. As the next chapters will reveal, the popularity of anti-vaccination surged and retracted in relation to changing social contexts and medical circumstances. They were also bolstered by the changes in print media and newspaper circulation, which was heavily invested in the attention economy. Those who disseminated anti-vaccination arguments in Canada found the most fertile conditions for widening support at times of heightened social turmoil and in response to compulsory vaccine enforcement. In these moments, the anti-establishment nature of anti-vaccination

appealed to a wide public audience, ensuring the connection of core agitators with platforms for popular support, and an anti-vaccination movement was born.

CHAPTER 2 – 'Pas de vaccination!': The First Anti-Vaccination Movements in Montreal, 1867-1885

> *"A mon avis, les vaccins servent à limiter le développement des peuples moins évolués et moins renseignés en liberté constitutionnelle. Ils sont imposés par les conquérants aux nations conquises, exemple: Philippines, Quebec, Irlande."*
>
> - Dr. Paul-Émile Chevrefils, 1965[1]

On a cold December morning in 1964, five children put on their winter coats in the quiet suburban neighbourhood of St. Laurent, Montreal, and walked to their local school. They were a large family, with the youngest just seven years old and the oldest fourteen. When they arrived, they stood on the front steps and waited expectantly to enter. But school officials barred their way, determined to prevent the children from walking through the doors. None of the five could show evidence of a smallpox vaccination scar. The next day, they walked to school again, only to be again turned away. Their father, Dr. Paul-Émile Chevrefils, was a local chiropractor and physician in the city, as well as an avowed anti-vaccinationist. He refused to have his children receive any immunization. To have them attend school in compliance with the legislation in Québec, he had written false vaccination certificates for his oldest children. When it was discovered, the school had refused to allow any of the five to return to school until they were vaccinated.

For the next two weeks, Dr. Chevrefils would order his children to walk through the December snow each morning, only to be sent away from school again and again.

[1] Chevrefils, *Les Vaccins Racket et Poisons?*, preface.

Finally, Chevrefils decided he would walk with them and attempt to force the school to let the children in. When he arrived, Chevrefils angrily argued with the school officials, decrying vaccination and the compulsory regulations within the province. The authorities were called, and Chevrefils was forcibly removed from the property by four policemen while he "shouted, kicked, and fought" in protest.[2] He was released from police custody later that day, but swore he would "continue to haunt school corridors until his children are allowed to attend school."[3]

Chevrefils was not the first anti-vaccinator in Montreal. Rather, he drew on a long history of French-Canadian anti-vaccination sentiment which blossomed during the first decades after Confederation. Indeed, Montreal served as the site of Canada's very first Anti-Vaccination League, as well as the location of its only anti-vaccination riots. Although gatherings, protests, and large anti-vaccination meetings occurred in numerous locations across Canada, only in Montreal did vaccine opposition turn to violence and the destruction of property.

This chapter seeks to explain how anti-vaccination movements erupted in Montreal during the 1870s and 1880s. It traces how an initially academic medical debate regarding the efficacy and safety of vaccination shifted into a mass mobilisation of the French working-class public. To contextualise this, we must look at the influence of several factors: the lack of consensus amongst the medical profession about vaccination, the state of public health in the city, the devastation of a smallpox epidemic, the social culture of working-class citizens, the political tensions between the French and the

[2] "Anti-Vaccination Doctor Struggles with Police," *Ottawa Citizen* (15 Dec. 1964): 38.
[3] *Ibid.*

English in both the city and the country at large, and the actions of both city officials and anti-vaccination voices.

The events which led to two waves of popular vaccine opposition reveal that anti-vaccination was more than a rejection of vaccine technology or a disagreement about its efficacy. While certain voices stood out as the main detractors and vocal opponents of vaccination, the Montreal movements of the nineteenth century were appealing and powerful due to their anti-establishment nature, which helped to connect the labouring classes in a united cause that subverted the social hierarchies of the city. The rhetoric put forth by vocal anti-vaccination leaders reflected the widespread resentment among a disgruntled French working-class public.

Yet it was the collective, embodied protests of working-class men that served as a mechanism for disruption and an outlet for expressing discontent during a time of particularly tumultuous political and social friction. Attendance at anti-vaccination talks, gatherings, protests, and eventually riots, served as social moments of identity assertion which channelled communal anger at how city officials were handling their civic duties and frustration with conditions of poverty and inequality that perpetuated the uneven spread of smallpox through the city – especially through the largely Francophone east end.

While anti-vaccination voices decried the safety and efficacy of vaccination and condemned the implementation of compulsory policy, for the men who gathered in the streets and civic buildings, vaccination represented yet another example of English dominance and oppression, and their collective presence was a force to disrupt it. Opposition to vaccination, therefore, served as a useful method of asserting French-

Canadian opinion, presence, and voice while destabilising hegemonic power in a city of divided identities.

The Development of Public Health in Montreal

Officially incorporated in 1832, the city of Montreal would see a continuous struggle for supremacy between its Francophone and Anglophone residents as it grew in industrial, commercial, and political power over the course of the nineteenth century. These tensions peaked at certain moments: in 1849, when a mob burned the Parliament building, and in 1885 during the trial of Louis Riel. Alongside these social and political tensions, the city underwent continued bureaucratisation and developed a sophisticated and complex public health system. Originally overseen by the city council, public health responses grew from makeshift reactionary efforts before Confederation, to structured and eventually permanent preventative measures.

This was not a smooth transition. New measures in public health were often opposed, removed, and then reinstated alongside the shifting politics of the time. Indeed, Keelan has tellingly called the first public health officers a 'beleaguered lot', frequently frustrated in their attempts to implement health reforms in the city.[4] Before the 1880s, public health interventions in Montreal were generally limited. The city was known to be a dismal environment, with poor quality drinking water, limited drainage and waste removal, and minimal oversight of the handling of food and milk sold for consumption.[5] In emergency situations, such as an infectious outbreak, temporary health measures would

[4] Keelan, *The Canadian Anti-Vaccination Leagues 1872-1892*, 11.
[5] Patricia Thornton and Sherry Olson, "Mortality in Late Nineteenth-Century Montreal: Geographic Pathways of Contagion," *Population studies* 65, no. 2 (2011): 157, https://doi.org/10.1080/00324728.2011.571385.

be implemented on an *ad hoc* basis. Disease outbreaks were not uncommon, and infant and child mortalities were exceptionally high due to the frequent presence of diarrhoeal diseases and other contagions.[6]

Public health strategies in Montreal were only minimally present in the early by-laws and were generally aimed at encouraging citizens to self-regulate the cleanliness of their own lots, buildings, and persons.[7] After the city was inaugurated, the city council enacted regulations requiring the removal of stagnant water, sufficient drainage for all structures, and 'appropriate' cleanliness of houses, yards, and animals. Inspections were to be undertaken by the local Fire Department and fines were threatened in cases of violation.[8] These limited measures would be expanded in 1852 by the establishment of a local health committee, or board of health, aimed at protecting *la Santé Publique*. The committee was to be headed by the mayor, alongside fifteen citizens and the city police.[9] These individuals were empowered to enter any dwelling, at any time of day, to complete a sanitation inspection and mandate interventions or the removal of health risks – as defined by the individual doing the inspecting – and to fine or imprison those who did not comply.[10] According to the regulations, the health board could also restrict the movement of people when infectious outbreaks occurred, reserving the right to detain any immigrant and their belongings. It was the job of the board of health to implement localized quarantines within city neighbourhoods or at designated quarantine hospitals that were

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[6] *Ibid.*
[7] City of Montreal Archives. Montreal, Quebec, City Council, file no. 040 - Regulation relating to harmful effects on health. – 1841, https://archivesdeMontreal.ica-atom.org/no-040-reglement-relatif-aux-nuisances-a-la-sante-1841.
[8] *Ibid.*
[9] *Ibid.*, file no. 186 - Règlement pourvoyant à l'établissement d'un bureau de santé et à des mesures pour conserver la santé publique. – 1847, https://archivesdeMontreal.ica-atom.org/no-186-reglement-pourvoyant-a-letablissement-dun-bureau-de-sante-et-a-des-mesures-pour-conserver-la-sante-publique-1847.
[10] *Ibid.*

temporarily established for these purposes.[11] Yet for many of its early years, the bureau was an impermanent intervention, lasting only as long as an epidemic and often lacking the means to undertake truly effective action. This pattern continued until 1870, when a permanent board of health was established in the city for the first time.[12]

Historians Gaumer, Desrosiers and Keel have pointed out how the early attempts at public health interventions in Montreal were in line with similar urban developments in the city's neighbouring geography.[13] Montreal was a metropolis that served as a transit point for immigrants, goods, and transportation between Quebec, New York, and Toronto. This constant flow of goods and people ensured that infectious disease and poor sanitation were continuous concerns.[14] Additionally, between 1867 and 1896, the city experienced rapid growth as individuals migrated into the urban centre from both the surrounding countryside and Europe. The Montreal city council responded to the influx of residents by establishing two posts for permanent health officers in 1870, followed soon after by an official health office.[15] The appointment of permanent officers was an important step towards increased health oversight. Dr. Alphonse-Barnabé Larocque assumed one of the roles and played a key part in stabilising the activities of the health office through the first implementation of statistical recording systems within the city.[16] However, despite the movement towards greater oversight of health and sanitation in the

[11] *Ibid.*
[12] *Ibid.*, Pièce P0037 - No 37 - Règlement établissant un bureau de santé dans la Cité de Montreal. – 1870, https://archivesdeMontreal.ica-atom.org/no-37-reglement-etablissant-un-bureau-de-sante-dans-la-cite-de-Montreal-1870.
[13] Benoît Gaumer et al. *Histoire du Service de santé de la ville de Montreal, 1865-1975* (Québec: University of Laval Press, 2002), chapter one.
[14] Benoît Gaumer et al., "The Montreal Health Service from establishment to dismantling (1865-1975)," *Polysémie de la santé. Institutions et pratiques sociales en France et au Québec 1750-1980* 12 (Apr. 1994): 1-4, https://doi.org/10.4000/ccrh.2748.
[15] *Ibid.*
[16] Gaumer et al. *Histoire du Service*, chapter one.

city, these features were not always a top priority for city officials. Larocque found himself frequently at odds with the city council members as he pushed for greater health interventions and reforms for the city.

While quarantine was the standard approach to controlling outbreaks of cholera and typhoid, a key tool deployed during smallpox epidemics was vaccination. By the time of Canadian Confederation, vaccination was generally accepted by a majority of medical and political authorities in the British Empire to be effective at preventing smallpox.[17] Vaccination had been made compulsory in the United Kingdom in 1853 for all children, and Canadian health authorities would pass similar compulsory measures in the following half century. Henry R. Gray, who served as both a city councillor and the chairman of the Montreal Board of Health during the 1885 smallpox outbreak, declared that: "vaccination carried out in a methodical, judicious and scientific manner is, without a doubt, the most powerful weapon known to science."[18]

However, despite the professed confidence in vaccination by those in positions of civic power, vaccination campaigns were frequently opposed and often only minimally effective at controlling the spread of smallpox when it appeared in Montreal. Jennifer Keelan's analysis of Montreal smallpox vaccination campaigns at this time found that vaccination was not always so altruistic when it was recommended. It was often seen as the most efficient and least expensive means of handling smallpox and therefore preferred

[17] There was nonetheless a vocal and consistent group of individuals who decried the effectiveness of vaccination and argued it was unsafe and ineffective. See the work of Nadja Durbach for more discussion of Anti-Vaccination movements in the United Kingdom.
[18] Translated from French. *Rapport sur L'Etat Sanitaire de la Cite de Montreal, pour l'Annee 1885 par le Dr. Louis Laberge, Medecin de la Cite* (Montreal: La Compagnie D'Imprimerie Perrault, 1886), 17.

over addressing the underlying social conditions thought to be responsible for spreading the disease.[19]

Historians have often puzzled over the resistance to smallpox vaccination in the city. Arguments as to its cause have ranged from Michael Bliss' suggestion that French Canadians had a cultural aversion to vaccination,[20] to the arguments by Farley, Keating, and Keel who propose that vaccination failed due to bureaucratic reasons, hindered by poor planning and lack of political will.[21] The work of Jennifer Keelan proposes that opposition to vaccination in nineteenth century Montreal was based on empirical frameworks and evidence available at the time, combined with a distinct cultural context.[22]

This chapter will uncover another aspect which informed popular opposition to smallpox vaccination – the appeal of anti-vaccination as a populist means of asserting working-class and Francophone dissent. There were two moments in the late nineteenth century when the learned medical disagreement surrounding vaccination in the city spilled into public debates. This occurred in 1872-5 and again in 1885. The critiques published against vaccination came in various forms of print media and were deeply engaged with the trans-national anti-vaccination networks. In Montreal, they were led by two socially prominent physicians in the medical community. However, they resulted in widespread, physical protest amongst working-class men in the city twice: in 1875 when

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[19] See Keelan, *The Canadian Anti-Vaccination Leagues 1872-1892*, 12.
[20] See: Michael Bliss, *Plague: A Story of Smallpox in Montreal* (HarperCollins Publishers Ltd, 1991). Keelan also touches on this when discussing the long prevalence of 'folk' remedies for preventing and treating smallpox which encouraged resistance to vaccination. See Keelan, *The Canadian Anti-Vaccination Leagues 1872-1892*, 12.
[21] Michael Farley et al. "La vaccination a Montreal dans la seconde moitie du 19e siecle: Pratiques, obstacles et resistances," in *Sciences et médecine au Québec. Perspectives historiques*, ed. Marcel Fournier et al. (Quebec Institute for Research on Culture, 1987).
[22] Keelan, *The Canadian Anti-Vaccination Leagues 1872-1892*, 11-16.

a collection of labouring men arrived at the doorstep of town hall, intimidating city aldermen during the vote for compulsory vaccination, and in 1885, when a large gathering of mostly Francophone men stormed through the city streets and attacked a number of buildings in what was labelled an anti-vaccination riot of the 'ignorant and superstitious'.[23] In both cases, the collective movement was responding to the threat and use of compulsory vaccination policy in the city. Also present in both moments was a wave of French-Canadian nationalism amongst agitators, who were also the most impacted by both smallpox outbreaks. While vocal vaccination opponents were blamed for stoking agitation and public fervour against vaccination, both movements were successful at rallying widespread discontent within the city at local authorities, the social conditions of infection, and larger symbols of power within the city. In both cases the city hall was damaged, as well as the medical offices of the most vocal advocates for vaccination.

Although smallpox hit the Montreal Francophone population the hardest during both outbreaks, many refused to conform to the orders of the city health board regarding vaccination, quarantine, and inspection. Such behaviour was labelled irrational by city and health officials and taken as justification for increasingly invasive interventions meant to discipline and control those who refused to conform. Conrad and Barker have shown that definitions of deviant behaviour and social problems are not given, but often a result of "claims-making" and "moral entrepreneurialism" by social groups – in this case, medical officials.[24] Such claims-making overlooked the living conditions in the poorest area of the city, the lack of adequate sanitation reforms, escalating frustration with

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[23] "The Dominion of Canada," *The Times* [London] (31 Aug. 1875): 9.
[24] Peter Conrad and Kristin Barker, "The Social Construction of Illness: Key Insights and Policy Implications," *Journal of Health and Social Behavior* 5, no. 1 (2010): S68, https://doi.org/10.1177/0022146510383495.

the ineffectiveness of the board of health, the competing opinions and approaches of Anglophone and Francophone physicians, and external political tensions in the country between French and English Canadians. These factors all combined to catalyse popular distrust in not just vaccination, but resistance against the tightening of health measures amongst a segment of the French-speaking community. The result was the organisation of resistant gatherings, protests, and riots, all common methods for working-class individuals to express discontent at the time. The history of vaccine perceptions in Montreal must therefore be understood through the mechanisms of social identity and intergroup threat, which shaped popular opposition to vaccination policies in the city.

The First Vaccination Debates, 1871-1879

After Confederation, the city of Montreal saw increased movements towards the establishment of a unique French-Canadian medical professional identity. There were over 600 Francophone physicians in the province, many of whom had a vested interest in expanding their professional profile in the developing medical community.[25] The Medical Association of Canada was founded in 1867, with several French-Canadian founding members. Within a few years, more professional organisations were founded in Montreal to cater to the burgeoning Francophone medical class. The Montreal Sanitary Association was assembled in 1867 and in 1871 the *Société Médicale De Montreal* was formed. The *Société* soon initiated the publication of a monthly journal, *L'union médicale du Canada*, which recorded various clinical case studies presented by its members and published the minutes from each meeting of the society for the interest of the wider learned community. In their flagship issue, the journal editors professed to be "full of

[25] "Prospectus," *L'union médicale du Canada* 1, no. 1 (Jan. 1872): 1-2.

energy and love for science" and dedicated to both following its progress and contributing to its extension "through the publication of their work, the exchange of their ideas, and the material encouragement" of their class.[26]

It was amongst the members of the *Société* that the first Canadian debates about vaccination occurred. An epidemic of smallpox had been raging across Europe in 1870-71, and the efficacy of vaccination was a hot topic of dispute both internationally and domestically. Members of the *Société* held divided opinions on different aspects of vaccination, such as the likelihood of an adverse reaction, the purity of the vaccine lymph in use in the city, the need for revaccination over time, and the actual effectiveness of the practice. Unfortunately for the physicians locked in this debate, the evidence required to prove any of the above one way or another could not generally be found in the local experience of the city. Montreal had no organized method of recording births and deaths, which meant that it was very difficult to determine how much of the city was vaccinated, and how many deaths occurred from smallpox infection. Dr. Alphonse-Barnabé Larocque, the health officer of the city, was deeply concerned with this oversight and made it his mission to push for better statistics and record-keeping. Part of his plan was the reporting of all new births to the public vaccinators employed by the city.[27] This would allow for increased oversight in statistical recording, as well as the ability for all new-borns to be vaccinated before the age of three months old. His proposed system would bring the city closer in line with British compulsory policy.

Larocque's proposed policy was divisive amongst the physicians in the *Société*, who held a variety of opinions regarding vaccination and its techniques of application.

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[26] *Ibid.*
[27] "Assemblee Des Médecins Vaccinateurs Publics," *L'union médicale* 2, no 1 (Feb. 1872): 68-70.

Some *Société* members were for vaccination and continued revaccination, some promoted a first vaccination but were against further revaccination, while others were against vaccination altogether. Dr. Larocque's enthusiasm for increased application and oversight of the procedure was backed by several of his colleagues, with Drs. Bruneau, Mont, Rottot, and Desrosiers all professing high regard for the procedure. In various presentations to the society, these men cited statistics from Ireland, France, Prussia, and especially the United Kingdom to back their claims to the positive protection provided by vaccination.[28] Several others professed indecision due to concerns over inadequacies in data, lymph purity and efficacy, and even differing beliefs in the actual dangers of smallpox infection itself. In 1871, one physician, Dr. Dagenais, claimed he wasn't ready to give an opinion one way or another, but believed that smallpox was only a childhood disease and therefore elderly doctors and nurses didn't catch it.[29] There were, however, several members of the *Société* that were avidly against continued vaccination in the city. The most notable was the president of the *Société* himself, Dr. Joseph Emery-Coderre (hereafter Coderre), who had given several lectures against the practice in professional settings over the previous few years and was outspoken in his denunciation of vaccination within *Société* meetings.

Coderre based his arguments on several factors. He carefully picked apart the statistics provided by the proponents of vaccination, claiming the data was impossible to prove due to the limited oversight in recording deaths and illnesses. He also brought forth his own evidence collected over several years as a medical practitioner in the city. Coderre had personally lost two of his children shortly after vaccination, and this experience likely

[28] "Société Médicale De Montreal, December 20, 1871" *L'union médicale* 2, no 1 (Feb. 1872): 76-78.
[29] *Ibid.*

influenced his opposition to vaccination.[30] His early professional stance on vaccination was highly academic – he disagreed with the evidence provided by the pro-vaccine physicians, proposing countering statistics from both international anti-vaccination sources in Britain, as well as from his own observations in Montreal. He was especially concerned with evidence of adverse reactions or secondary transmissions caused by vaccination and cited the possibility of the transmission of syphilis, scrofula, and other infections through tainted lymph as being a cautionary reason to stop vaccinations in the city.[31]

Although there were several opinion articles in the news over the issue in 1872, the debate was generally limited to the voices of learned men in the city. Coderre did find an avid external supporter in the figure of Gonzalve Doutre, a lawyer who was a well-known figure amongst the professional class. Doutre utilised print media to translate Coderre's data into a number of publicly accessible writings, publishing notes and letters within newspapers and local magazines for the middle classes. Controversy and wit were his fuel, and he frequently derided Coderre's (and therefore his) opponents in the *Société* in the public print, labelling them contradictory and blind to logic. Through these media sources, he initiated public arguments with Drs. Desrosiers and Mont on several occasions. In one witty letter published in *La Minerve*, an influential local broadsheet, he declared: "I will tell Dr. Desrosiers what Talleyrand said to a logician of his ilk: You are allowed to differ in opinion with others, but please do not differ in opinion with yourself."[32] The pro-vaccination members of the *Société* made a point of responding in kind, pointing to Doutre's lack of medical credentials and, they declared, gentlemanly

[30] Keelan, *The Canadian Anti-Vaccination Leagues*, 119.
[31] Joseph Emery-Coderre, *Vaccination: Etude sur les Effets de la Vaccination* (Montreal: Des Presses A Vapeur De 'Le Minerve', 1875).
[32] "Vaccination," *La Minerve* (19 Jul. 1872): 3.

manners. The wit and sarcasm that flew through the black and white papers were a useful source of entertainment for the print media industry, which found engagement through political and social commentaries.

The debate intensified in 1874 after several cases of adverse reactions occurred in the city from vaccination. The board of health had recently purchased its own heifer to produce clean vaccine lymph for the public supply in an effort to address concerns about secondary disease transmission through the use of an animal source.[33] To produce lymph, the pus from a recently vaccinated individual would be harvested and then injected into the cow. As the sores grew, they would be harvested for more lymph to be used in vaccinations. However, if a vaccinator was completing several vaccinations all at once, it was still easier to do an arm-to-arm vaccination, where they harvested the lymph from the vaccination sore of a 'healthy' child for the subsequent vaccination of other children. Indeed, many member doctors still preferred the arm-to-arm method, declaring that it produced a more potent and effective vaccine than an animal-derived source.[34] Its dangers for cross-contamination were still little understood even by educated doctors. Dr. George Baynes, editor of the *Public Health Magazine* of Montreal, published an article on vaccination in 1874 that warned against transmitting viruses or other diseases from person to person, yet instructed that this could be avoided as long as the lymph used had no 'blood or other secretion' from the person it was harvested from.[35]

In the spring of 1874, a recently vaccinated child developed a fever and diarrhoea, soon followed by a swollen arm and a gangrenous infection around the vaccination site. The boy was the son of a Madame LeBlanc and had been vaccinated by a public

[33] "La Vaccination," *L'Opinion Publique* (24 Sept. 1874): 1.
[34] George Baynes, "Vaccination – a few remarks on its efficacy," *Canada medical and surgical journal* 2, no. 8 (Feb. 1874): 344, https://www.canadiana.ca/view/oocihm.8_05177_20.
[35] *Ibid.*

vaccinator, who issued him a certificate of vaccination confirming that the vaccination had been successful. His mother soon brought him to a different doctor for inspection, and Coderre and two of his colleagues took an interest in the case, declaring the boy to be in a precarious situation from his injury.[36] This diagnosis was opposed by Larocque, who assembled a panel of his own supporters to re-assess the case. The panel eventually asserted that the infection in the child's arm had not been caused by the vaccination. Furious at this verdict, Coderre and his colleagues went public with their observations of the case, publishing it in *La Minerve* for all to read.[37]

This was a local scandal that brought forward a lot of interest beyond just the medical community. The publicity around the LeBlanc case took the rivalry between Coderre and Larocque into the public eye through first the newspapers, and secondly through pamphlets and other printed sources that would soon follow. Coderre recognised that the board of health held a certain power in the city, backed by official municipal authority. Yet he was determined to prove his arguments and sway the opinion of the everyday citizens of Montreal to his side. In September of 1874, he learned of another child that had experienced a bad reaction to vaccination and brought the child to a photographer to gain visual evidence of the infected arm. The infant, from the Labelle family, presented a particularly intense reaction and had a swollen arm covered with numerous red spots and another gangrenous eruption. It was vividly unpleasant to perceive. Coderre had numerous photographs made of the child's arm and proceeded to hang the images in several windows across town, an incident which was reported on scandalously in local newspapers.[38] The Labelle photograph, Coderre believed, would

[36] "Bureau De Sante: Vaccination," *La Minerve* (25 Jul. 1874): 3.
[37] *Ibid.*
[38] "La Vaccination," *L'Opinion Publique* (24 Sept. 1874): 1.

warn the public of the dangers of vaccination while proving his arguments against vaccination to the community at large. Coderre was rewarded with an eruption of angry and disgusted reactions from citizens. Passers-by were described to stop and gape in horror at the *photographie hideuse*.[39]

The transition of the debate from the academic realm to the public spotlight created deep fissures in the Montreal medical community. Dr. Dagenais, formerly on the fence regarding vaccination, declared himself with Coderre. Dr. Bibaud also chose the side of the 'anti', having also lost a child to a 'choleric rash' after vaccination.[40] A larger number of members still supported vaccination, and the public vaccinators and other public officials rallied to prove their claims about safety and efficacy, and the need to obey health measures when introduced. A highly pro-vaccination mayor was elected in 1875, Dr. William Hingston. Hingston was of Irish Catholic descent and had served as a physician and surgeon for several years at the Hôtel-Dieu, the Catholic hospital of the city.[41] He made it his mission to increase municipal public health programs, in particular the vaccination programs.

While Coderre still published his views frequently in academic settings, he had recognised the power of public opinion and popular engagement. With the help of his supporters, he organised public gatherings and meetings in the city that were aimed at engaging a lay audience. In March, a "citizens' assembly" made up mostly of individuals "from the eastern part of Montreal" occurred in Papineau Marketplace.[42] The east end of the city was generally populated with French-Canadians and the citizens gathered to protest compulsory vaccination, which they pronounced "an attack on individual

[39] *Ibid.*
[40] "Vaccination," *La Minerve* (19 Jul. 1872): 3.
[41] Coderre also worked at Hôtel-Dieu for a number of years.
[42] "Assemblee Publique," *Le Franc-Parleur* (31 Mar. 1875): 1.

liberty."[43] It was the right of the father to make a decision about vaccination for his own children, they avowed, not the municipal authorities. The gathered group made a remarkable attempt at wresting control of public health measures away from city officials. They formed an association called the *Association Sanitaire de la Cité* which they claimed would "take care of public health" and take any "necessary measures" to ensure that the city officials would "do nothing contrary to the wishes of this assembly and of the Citizen's Health Association."[44] Membership in the association would cost $1.00/year and all members would be "protected" from any actions of the health board. They also formed the first official 'League against Compulsory Vaccination'.

The tensions peaked in the summer of 1875 when the city council moved to pass a by-law introducing compulsory vaccination. Smallpox cases had begun to rise that year, hitting especially hard amongst the poorer French-speaking east end. As the number of infections increased, the city initially set up an isolation hospital and by the end of August, moved towards mandating compulsory vaccination. The reaction among the Francophone population and the Citizens' Health Association was swift and angry. During a meeting of city council, a large crowd gathered around the city hall, throwing stones through the windows in anger. The councillors were intimidated by the violence and eventually announced that the vaccination by-law would be abandoned. Satisfied with the outcome, the gathered mob moved onwards, turning their wrath on the house and pharmacy of Dr. Larocque himself, ransacking his residence in retribution for the role he had played in encouraging compulsion.[45]

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[43] *Ibid.*
[44] *Ibid.*
[45] "The Dominion of Canada," *The Times* [London] (31 Aug. 1875): 9.

The aftermath of the riots saw a distinct divide between French and English reporting on the incident. English newspapers decried the 'mob rule' in the city and labelled the violence as an "extraordinary outbreak of ignorance and superstition."[46] The fault was blamed on French-Canadian residents, who were declared to hold "a deep-rooted prejudice against vaccination."[47] In contrast, French newspapers barely covered the episode. The difference in coverage reflects the strong cultural divide between the pro- and anti-vaccination camps. It was more common for the Anglo-Canadian physicians to declare in favour of vaccination, while the loudest opponents in the city were Francophone. Coderre himself had a history of French nationalism, having been a member of the *Fils de la Liberté* (Sons of Liberty), an organisation that fought for French-Canadian independence during the Rebellion of 1837.[48] He was formerly imprisoned for his involvement in the organisation and had had a close relationship with the brother of André Ouimet, its leader. Although Coderre left his radical activism behind when he entered medicine in the 1840s, it had a lasting impact on his personal viewpoints and practice. The anti-vaccination meetings of the city were held primarily for Montreal Francophone citizens and similarly included a distinct air of French rebellion. One orator claimed that vaccination was an "English remedy, and that Englishmen had a pride in engrafting their "beastly" virus on the Christian children of fair Canada."[49] The appeal to French-Canadian nationalism is also likely a reason for the lack of Irish working-class participation in the protests at the time. Indeed, if the papers are to be believed, the Irish

[46] "Letter from Mr. St. Pierre," *Gazette* (27 Aug. 1875): 2; "The Dominion of Canada," *The Times* (London) (August 31, 1875): 9.
[47] "Mr Justice Ramsay on the late Riots," *The Daily Witness* (25 Sept. 1875): 2; "Vaccinophobia," *Gazette* (Montreal) (August 31, 1875): 2.
[48] Édouard Desjardins, "Emery-Coderre, Joseph," in Dictionary of Canadian Biography, vol. 11, University of Toronto/Université Laval, 2003–, accessed March 29, 2025, https://www.biographi.ca/en/bio/emery_coderre_joseph_11E.html.
[49] William H. Hingston, *Remarks on Vaccination* (Montreal: Louis Perrault & co., 1876): 21.

widely accepted vaccination measures.[50] The pro-vaccination Irish-Catholic Hingston served as a good foil to Coderre's French anti-vaccination. The board of health and other supporters of vaccination were accused of Anglo-nationalism for their zealous defence of the practice. One journalist declared that when it came to rulings about vaccination "not a single Englishman" voted against the opinions of the pro-vaccination camp: "Would it be a question here of professing the sacred rights of nationality?" the journalist quipped.[51]

By 1876, the board of health was reassembled, isolation hospitals were set up, and vaccination offices were established in various areas to encourage the public to seek vaccination. Vaccinators were instructed to increase the official systems of documentation, recording and issuing vaccination certificates to those who were vaccinated, drafting reference cards for those who preferred to be vaccinated by their own physicians, and noting the names and addresses of any who were "unwilling."[52] Hingston himself weighed into the academic debate, publishing his own study on vaccination which included supporting statistics from the hospitals in Montreal, as well as evidence from all over Europe.[53] Hingston was well aware of the cultural divides creating friction in the city and he acknowledged this by specifically avoiding the often parroted British statistics and authors, instead citing American authorities. He wrote that he "purposely quoted at greater length from Continental than from British authorities" and that "American authority, quo ad the vaccine question, cannot be suspected of partiality."[54]

Coderre was also accused of having a financial stake in his anti-vaccination lobbying. He had personally patented several tonics and tinctures which he advertised to

[50] "La vaccine et ses effets," *La Minerve* (3 Sept. 1885): 2.
[51] "La Vaccination," *L'Opinion Publique* (24 Sept. 1874): 1.
[52] Hingston, *Remarks on Vaccination*, 5.
[53] *Ibid.*
[54] *Ibid.*, 21.

patients as treatments for symptoms of infection, including fever, cough, and general wellness. In one article written by a Dr. C.J. Samson during the controversies of 1874, Samson accused him of profiteering from his anti-vaccination campaign by using it to better market his medicines.[55] Indeed, in a practical guide to medical care he co-wrote for the Sisters of Providence, his patented medicines were listed under many of the recommended treatments for general symptoms associated with smallpox infection.[56] A decade later, Coderre would start his own anti-vaccination journal, frequently using it as a platform for advertising his tonics and cough syrups (figure 3).[57] His critics accused him of using the vaccine controversy to bring himself "into prominence from comparative obscurity, and in this way, though they were not directly paid for what they did, increased their clientele, and as a natural consequence, their income."[58]

[55] "Vaccine," *Le Courrier du Canada* (12 Aug. 1874): 2.
[56] National Library of Canada, CIHM/ICMH microfiche series. No. 01734. Traité élémentaire de matière médicale et guide pratique des Soeurs de Charité de l'Asile de la Providence, https://www.canadiana.ca/view/oocihm.01734.
[57] *L'anti-vaccinateur canadien-français* 1, no 1 (24 Dec. 1885): 1-18. http://www.canadiana.ca/view/oocihm.8_06330_1.
[58] "Letter from Mr. St. Pierre," *Gazette* (Montreal) (27 Aug. 1875): 2.



LIQUOR QUINILÆ IODIDI Co.—CODERRE.

ELIXIR TONIQUE

DE

J. EMERY-CODERRE, M. D.,

Professeur de Matière Médicale et de Thérapeutique.

Approuvé par les Professeurs de l'École de Médecine et de Chirurgie de Montréal, Faculté de Médecine de l'Université Victoria.

L'ELIXIR TONIQUE est préparé sous la direction immédiate du DR. J. EMERY-CODERRE, et cet Elexir est administré avec succès, depuis plus de 30 ans, dans les maladies qui réclament l'emploi des Toniques ; il peut être continué sans inconvénients,—dans la Chlorose, ou paleurs couleurs, la Leucorrhée, ou fleurs blanches, la Dysménorrhée, ou menstruation difficile, l'Anémie, ou appauvrissement de sang, la débilité générale, les Scrofules, Dartres et autres maladies du la peau, etc., etc., etc.

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DOSE :—Une demi-cuillerée à une cuillerée à thé dans un demi petit verre de vin blanc (sherry) ou de sirop avant chaque repas, mettre le contenu de cette fiole dans une grande bouteille de vin blanc (une pinte) ou de sirop, une grande cuillerée ou ½ petit verre 3 fois par jour, avant chaque repas ; aux enfants au-dessus de 7 ans, la moitié de la dose, et à ceux au-dessous de 7 ans, le quart de la dose dans un peu de vin blanc ou de sirop de sucre blanc, 3 fois par jour,

En vente chez tous les principaux Pharmaciens.

" SIROP EXPECTORANT "

DE

J. EMERY-CODERRE, M. D.,

Professeur de Matière Médicale et de Thérapeutique

Figure 3: Advertisement for Joseph Emery-Coderre's 'Elixir Tonic' and 'Cough Syrup', which appeared in his publication *The French-Canadian Anti-Vaccinator*, 1885.[59]

Claims of profiteering were not exclusive to anti-vaccination activists but also formed one of the core critiques of compulsory vaccination by those who wrote against it. Coderre and his colleagues cast municipal vaccinators as materially motivated, more concerned with stabilising their own incomes than the safeguarding of public health. This line of argument was reiterated across multiple anti-vaccination publications, and it would become a recurring rhetorical strategy.

[59] *L'anti-vaccinateur canadien-français* 1, no 1 (24 Dec. 1885): 18, http://www.canadiana.ca/view/oocihm.8_06330_1.

The debate died out over the next few years as the question of compulsory policy went away. In 1878, a new French-Canadian mayor was elected, Jean-Louis Beaudry. Beaudry had been mayor on and off in the city for several decades and was decidedly against interventionist health measures. Beaudry levelled a scathing criticism at the health board when he regained his position, declaring it "a heavy burden" on the city designed to "maintain useless officials."[60] His rhetoric followed the libertarian argument, declaring: "I deplore our present system of vaccination, as odious and repulsive to our idea of liberty. I am in favor of vaccination, but I do not want that it should be made unbearable to the people, and in assuming the shape that it has, seems to me an absurdity."[61] Indeed, he believed that the city council would need to review its current funding for vaccination by the board of health in the city in the spirit "of patriotism".[62] The budget of the health board was cut from its initial $25,000, to $11,000 within two years.

Class and Cultural Identity

The events of the 1870s should be contextualised within a larger understanding of the competing identities present in the city of Montreal and their impact on the social experience of disease. The city was ethnically divided along three major lines: Anglo Protestant, Irish Catholic, and French Catholic.[63] The work of historians Thornton and Olson has vividly highlighted how these cultural identities impacted living standards and

[60] Quoted in Michael Farley et al. "Les Commencements de L'Administration Montrealaise de la Sante Publique (1865-1885)," *Revue d'histoire des sciences, des techniques et de la médecine au Canada* 6, no. 2 (May 1982): 85.
[61] *Ibid.*
[62] *Ibid.*
[63] Thornton and Olson, "Mortality in Late Nineteenth-century Montreal," 157.

mortality across the city, with the Anglo-Protestant community generally occupying the upper echelons of social circles, holding higher paid positions in the professions or merchant classes, while the French Catholics were predominantly employed in lower-paid positions as day labourers or semi-skilled workers.[64] These divides structured geographic distribution in the city, as well as mortality rates and family size. While Protestant families were generally smaller and saw a decline in infant mortality rates between 1860 and 1880, French-Canadian families generally had more children and consistently high rates of infant mortality. Montreal additionally saw an economic depression in 1873, which exacerbated the daily struggles for those on the lower ends of the economic strata.[65] Economic anxieties were frequently a backdrop to epidemics, heightening tensions.

The geographic settlement of the city reflected these divisions. The Anglo-Protestant communities predominantly occupied the higher ground, nearer to Mount Royal, which had better drainage and cleaner air. The Francophone community clustered around the east end of the city, while the Irish Catholic community was concentrated along the dockyards.[66] As anti-vaccination leaders grew more and more frustrated with the lack of progress in academic debates about vaccination, they purposely mobilised the Francophone public to grow support for its opposition. This was vividly seen in the choice of locations for meetings and rallies, as well as messaging. Coderre and his colleagues recognised the power of public sentiment when they consciously displayed the Labelle images in the east end of the city – especially among the illiterate. The choice of location for the public meetings was also strategic, meant to access an already frustrated and

[64] *Ibid.*
[65] Peter De Lottinville, "Joe Beef of Montreal: Working-Class Culture and the Tavern, 1869-1889," *Labour/Le Travailleur* 8, no. 9 (Autumn/Spring 1981/82): 10-11.
[66] Thornton and Olson, "Mortality in Late Nineteenth-century Montreal," 157.

disenfranchised Francophone public in the east end of the city. The resulting agitation reflected both the success of their messaging, and the impact of proposed compulsory vaccination, both of which primarily impacted the local Francophone community.

Unfortunately, the historical sources available today do not preserve much in the way of lay perspectives on vaccination. The views of Montreal's working-class community can only be accessed through the records of their actions, preserved in various newspapers, council minutes, and official reports. It is, however, clear that there was strong opposition to vaccination which peaked in relation to increased pressures to vaccinate, especially when mandatory vaccination policy was proposed. Such a policy predominantly targeted the lower economic classes who could not afford to pay a trusted family physician and were additionally more likely to experience outbreaks of smallpox due to their impoverished circumstances – i.e. the Francophone east end. The presence of a crowd at the public meetings of the *Association Sanitaire de la Cité* in the east end of the city, and the violence directed at City Hall in August 1875, demonstrate that many French-Canadian individuals cared deeply about the topic. They resisted the proposed vaccination by-law in the forms available to them: through physical organisation, occupation, and violence.

These resistance strategies embodied notions of working-class identity and masculinity which crossed linguistic barriers. Public displays, including 'drunkenness, blood sports, and street brawls' were an assertion of working-class masculinity in late nineteenth-century Victorian Canadian culture.[67] Drury et al. pinpoint two 'pathways of influence' that lead people to participate in rioting behaviour.[68] The first is cognitive,

[67] De Lottinville, "Joe Beef of Montreal," 10-11.
[68] John Drury, et al. "A Social Identity Model of Riot Diffusion: From Injustice to Empowerment in the 2011 London Riots" *European Journal of Social Psychology* 50, no. 3 (2020): 646–61.

derived from affirmation of identity with a wider collective. The violence displayed at the city hall in August 1875 fit well into a collective assertion of dissent and disagreement with the actions of an Anglophone-dominated city council. The men congregated at city hall were mostly from the lower classes in the city, with one alderman stating that there was "probably not over a score of voters among the number of dirty-looking rascals. They were mainly boys from 16 to 20."[69] These men were not property holders and thus unable to vote in the civic elections, meaning the only mechanisms of political influence available to them were through class organisation. The targets selected for destruction symbolised Anglo-institutional power. This speaks to Drury et al.'s second pathway of influence, empowerment.[70] Locations and targets of the rioting behaviour helped to empower the crowd by making symbols of power in the city feel vulnerable. Thus, rioting was an avenue to the construction, maintenance, and assertion of French working-class identity.

The crowd exploited present fears amongst the upper classes that the city was seeing increased threats to its social peace from the growing number of labourers and factory workers arriving in the city.[71] Riots held a specific space in the psyche of city officials, for they subverted traditional power structures in favour of the lower classes whilst laying responsibility squarely on the shoulders of the city council. During the elections of 1871, a large volunteer militia was organized by city politicians due to the threat of potential riots, and the threat from the crowd during the city council meeting of

[69] "City Council," *Gazette* (19 Aug. 1875): 2.
[70] Drury, et al. "A Social Identity Model of Riot Diffusion."
[71] De Lottinville, "Joe Beef of Montreal," 10-11.

August 1875 was enough to successfully intimidate councillors into discarding the proposed by-law on vaccination.[72]

The anti-vaccine riot of 1875 was not the only Francophone riot that year – another riot occurred in the fall, in response to controversy over the burial of Joseph Guibord. Guibord was a founding member of the liberal-leaning *Institut Canadien de* Montreal, which had been condemned by the Roman Catholic Church, a strong conservative power in the city. His burial in a Catholic cemetery was denied, and when attempts were made to inter him in the cemetery anyway, the burial was opposed by a large mob of Francophone citizens.[73] Gatherings of this sort provided a certain amount of power to the working classes, who used the common belief in their 'rascal' character and the underlying threat of violence to weigh in on debates from which they were generally excluded.

In the end, the protest of the crowd was incredibly successful. The plans of Dr. Larocque and Dr. Hingston for implementing mandatory vaccination were placed on hold and eventually dropped. The new mayor elected in 1878 actively opposed the previous ambitions of the health board and decreased its funding and power significantly – successfully achieving the initial goals of the *Association Sanitaire de la Cité*. Discussions about mandatory vaccination would fade from the debates of the Montreal medical community for nearly a decade, until another great epidemic hit the city, claiming thousands of lives.

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[72] "The Unpaid Claims of Volunteers for Services during Last Provincial Elections," *Gazette* (01 Feb. 1872): 2.
[73] "The Guibord Burial," *Gazette* (09 Oct. 1875): 2.

The Great Smallpox Epidemic, 1885

In 1885, the city of Montreal saw one of Canada's most influential and devastating smallpox epidemics.[74] By official count, there were 9,600 cases of infection and 3,234 deaths – nearly 2 per cent of the city's population.[75] Children were the primary victims, especially amongst the French-Canadian communities in the east end of the city.

The epidemic was fuelled by Montreal's continued industrial and population growth in the 1880s. Trade through the city's ports had begun to explode as the newly constructed Canadian Pacific Railway brought in massive shipments of grain from the west. The city also served as a major transit area, with increased industry and the associated labour demand stimulating high migration to the urban centre. Consequently, the demographics of the city had shifted towards a predominantly French-speaking metropolis, despite the domination of Anglophone speakers before Confederation.[76]

Yet civic health interventions were struggling to keep up with the rapid expansion of the city, especially under a restricted city budget. Sewage drainage, waste removal, and other sanitary programs were still haphazard at best, while arguments for increased spending on health and sanitation caused friction amongst civic officials.[77] Dr. Alphonse-Barnabé Larocque held office as the city medical officer until 1885, when he was succeeded by Dr. Louis Laberge. Laberge would remain in the post until 1913. While in office, he oversaw the transformation of the makeshift city health board into a full Bureau

[74] Historian Michael Bliss expertly narrates the story of this epidemic in his *Plague: A Story of Smallpox in Montreal.*
[75] Bliss, *Plague*, 259.
[76] Gaumer et al., "Le service de santé de la ville de Montreal," 132-33.
[77] For more on the history of public health in Montreal at this time, see: Gaumer et al., *Histoire du Service de santé de la ville* de Montreal, *1865-1975*.

of Hygiene and Statistics, with an expanded staff of contagious disease inspectors, purpose-built isolation facilities, and even a municipal laboratory.

Smallpox arrived in Montreal in February of 1885. One railway conductor, George Longley, reported feeling unwell when his train arrived at the station. Red spots had formed on his face and hands, and he was travelling from Chicago, where a smallpox outbreak had been recently reported. A physician was called, and he was quickly pronounced infected.[78] Smallpox was known to have differing levels of virulence as it spread. Catching the 'mild' form of the disease was unpleasant, resulting in a fever and a full body rash of raised papules. Yet the severe afflictions were far worse. In some cases, the papules would fill with clear liquid, painfully erupting and permanently scarring the face and body. The worst form of the disease was haemorrhagic smallpox, also called the 'black pox'. In these cases, the patient bled directly from their spots into the underlying skin, creating a gruesome black discolouring of the infected areas. This form was almost always fatal.

Longley was lucky that his case was mild, and the spots were few. He was taken to the Montreal General Hospital, where the smallpox diagnosis was confirmed. However, the hospital refused to admit him for fear of the contagiousness of the disease. He was redirected to the Catholic hospital, Hôtel-Dieu. The nursing sisters in charge of the hospital agreed to accept him despite the danger. It was not long before the institution became a site of further infection. Other patients began to develop smallpox symptoms in various parts of the building. The initial diagnosis had occurred on February 28th. By April 1st, the first death occurred, claiming the life of a young girl named Pélage

[78] "Anti-Vaccination Riot," *Gazette* (29 Sept. 1885): 5.

Robichaud. Soon her sister, Marie, demonstrated symptoms of the dreaded haemorrhagic form. Marie had died by April 11th.[79]

As more and more cases were found, it became clear that the hospital could not contain the outbreak. The public was outraged at the quickness of its spread, with the press accusing hospital administration of 'culpable carelessness' and 'wicked indifference'.[80] It was determined that the whole building would have to be severely disinfected to stop the continued transmission. The Hôtel-Dieu proceeded to discharge most of its patients back into the city and undertook a thorough disinfection. The hospital declared itself officially 'smallpox-free' by the end of April. Yet the release of its many former patients into the city, mostly French Catholics, would instigate further transmission.[81] Some physicians would later condemn the release of patients as a "negligence absolutely criminal," causing the disease to spread "like fire in dry grass" through the streets of Montreal.[82]

Within weeks of the first reported case, the board of health recommended the immediate commencement of vaccination for all residents.[83] Public vaccination clinics were set up in a number of districts, with the main one at city hall.[84] A smallpox hospital was opened (in this case an isolated, open-air barn) and two public vaccinators were sent

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[79] "The Late Epidemic," *The Montreal Herald and Daily Commercial Gazette* (09 Jan. 1886): 7.
[80] "The Smallpox Outbreak," *Gazette* (Apr. 18, 1885): 8.
[81] Bliss, *Plague,* 11-37.
[82] Drs. Macallum, Sheard, Oldright, and others, "The Value of Vaccination," *The Canada Lancet* 39, no. 8 (Apr. 1906), 707.
[83] "Board of Health," *Gazette* (18 Mar. 1885): 3.
[84] National Library of Canada, CIHM/ICMH microfiche series. No. 05135. Morel de la Durantaye, *A Brief History of The Small Pox Epidemic*, 14-20, https://www.canadiana.ca/view/oocihm.05135/2?r=0&s=1; "Board of Health," *Gazette* (18 Mar. 1885): 3.

into the infected east end to vaccinate those in close contact with any reported victims.[85] Most medical and state institutions moved to have all resident inmates vaccinated.[86]

For those who had previously opposed vaccination, the new policies spelled disaster. It wasn't long before Coderre restarted his previous anti-vaccination activities, distributing several popular pamphlets in French and holding public meetings to disseminate his research on the topic.[87] Although Coderre's main audience was the lay community, he nonetheless maintained his professional engagement, in hopes of convincing more medical and other educated men towards his views. To this end, he published both popularly and professionally, even initiating an official anti-vaccination journal by the end of the year.[88]

While Coderre maintained his position as a leader in French anti-vaccination conversations, his vocal advocacy would fall off in the summer of 1885 when he faced a personal tragedy with the passing of his wife in July of that year.[89] He would withdraw from public life for several months while a new anti-vaccination activist stepped onto the Montreal stage. Dr. Alexander Ross was a man passionate about reform. He aligned himself with several anti-establishment causes throughout his life and had a certain talent for polemic writing. He was a learned naturalist, a fellow of various professional societies, and had spent many years in the United States as an active abolitionist. Ross's activism

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[85] "The Board of Health," *Gazette* (21 Mar. 1885): 3.
[86] "Vaccinations," *Gazette* (18 Apr. 1885): 3.
[87] "Les Anti-Vaccinateurs," *La presse* (14 Oct. 1885): 2; National Library of Canada, CIHM/ICMH microfiche series. No. 23809. Joseph Emery-Coderre, *Vaccination: étude lue à la Société médicale de* Montreal, 1872.
[88] *L'anti-vaccinateur canadien-français* 1, no 1 (24 Dec. 1885): 18, http://www.canadiana.ca/view/oocihm.8_06330_1.
[89] "By the Way," *Gazette* (30 Jul. 1885), 3. Coderre was back in anti-vaccination circles by the end of the year, even attending the international congress of anti-vaccinationists held at Charleroi, in Belgium that October. "Montreal Anti-Vaccinationists Abroad," *Gazette* (16 Oct. 1885): 4.

was remarkably energetic and wide-reaching, and he had an impressive ability to target and organise public sentiment. One of his admiring biographers would style him a "modern knight errant" occupied with "a long championship of the enslaved, whether by temporal power, by human passions, or by the hands of ignorance and prejudice."[90]

Ross had grown up in a middle-class home, losing his father at a young age. He worked to support himself and his family as a teenager, before travelling to New York in search of greater prospects. His medical education was attained through self-study and mentorship by the celebrated surgeon Dr. Valentine Mott, as well as tutoring in hydropathy under Dr. Russell Thacher Trall. Trall's particular brand of medical practice – which has been subsequently labelled as 'Physical Puritanism' by historian James Whorton – fit well with Ross' reformer personality.[91] Trall saw his medical system as a revolutionary holistic system, using hydropathy for treatment and incorporating religious ideology alongside an emphasis on healthy eating, sanitation, and exercise. Ross' education therefore favoured a drugless and bloodless approach to the treatment of disease, which was partly what led him on the path to anti-vaccinationism. However, it was also personal loss that stimulated his crusade, as he, like Coderre, had lost two children shortly after vaccination.[92]

Utilising Coderre's research along with the expansive English anti-vaccination literature, Ross generated an enormous amount of content for distribution.[93] Historian

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[90] J. Newman Smith, *A brief sketch of the life and labours of Alexander Milton Ross, philanthropist and scientist* (Toronto: Imrie & Graham, 1892), 3.
[91] James Whorton, *Nature Cures: The History of Alternative Medicine in America* (Oxford University Press, 2002), chapter four.
[92] Fisher Rare Book Library, University of Toronto. Alexander Milton Ross and The Canadian Anti-Compulsory Vaccination League, volume 2. Newspaper clipping, undated. "Canadian Anti-compulsory Vaccination League Scrapbooks, 1883-1890."
[93] Some prominent publishers of anti-vaccination literature include William Tebb, William White, and Peter Alfred Taylor. For more details about the English anti-vaccination movement, see Porter and Porter, "The Politics of Prevention," 236-240.

Keelan estimates his total number of pamphlets, postcards, and broadsheets printed for distribution to be over one hundred thousand items.[94] He generally wrote for a public audience and drafted his pamphlets in true populist form. Compulsory vaccination, he declared, was enacted by a "greedy and heartless 'Medical Combine' …which outrages the most sacred rights of the people and enriches a monopolistic medical oligarchy."[95] Large capital letters appeared throughout his works to easily convey the main points to those with less reading skills, while images and large headlines parroted his primary claims. For those who wanted more information, there was greater detail in the body and several quotes from prominent men in support of his work. Through these documents, he declared that vaccination was "poisoning the life-blood of our race with manifold foul and dangerous diseases of the blood, the skin, the eyes, and the ears."[96]

Ross drew on the claims made by the anti-vaccination community both domestically and abroad, with the goal of undermining its acceptance in Montreal. He frequently minimised the threat of the disease, writing during the middle of the 1885 epidemic: "smallpox is not epidemic in Montreal at present; it is sporadic and in general endemic… but considering the density and character of our population of 200,000 people of mixed nationalities, there have been *very few cases*" (emphasis in original).[97] He also lambasted public health officials for driving "thousands of our usual summer visitors away from the city," and injuring "our trade and commerce to the extent of millions."[98]

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[94] Keelan, *The Canadian Anti-Vaccination Leagues*, 187.
[95] Alexander Ross, *Memoirs of a Reformer, 1832-1892* (Toronto: Hunter, Rose & Company, 1893), 228.
[96] Alexander Ross, *Anti-Vaccinator* (30 Sept. 1885): 3.
[97] *Ibid.*
[98] National Library of Canada, CIHM/ICMH microfiche series. No. 93535. Alexander M. Ross, "Stop! A Pitiable Sight! People Driven like Dumb Animals to the Shambles!! Tyranny of Doctorcraft!!!" (21 Aug. 1885), https://babel.hathitrust.org/cgi/pt?id=aeu.ark:/13960/t7wm29713&view=1up&seq=1.

Through such rhetoric, Ross situated epidemics within a broader context of economic vulnerability, highlighting how outbreaks intensified existing pressures on the working-class population, many of whom depended on insecure, casual employment in shipping and related trades. This damage was done, he said, because of public announcements of illness and 'scare' tactics from the board of health. The panic about an epidemic he assigned to the greed of medical authorities and "the columns of an ignorant, tyrannical, and time-serving press."[99]

His argument then took a darker note, suggesting a "conspiracy of interested silence" amongst city officials and vaccinators, who were accused of using vaccination to gain financial benefit and power.[100] After quoting an English anti-vaccination physician who declared that "a small-pox panic in London is worth one million pounds sterling to the profession!" he pointedly asked his audience: "*What is our panic worth*?"[101] The fact that there was a threat of compulsory vaccination laws fed heavily into this conspiratorial narrative, and Ross argued that such actions demonstrated both a grotesque violation of personal liberties and an attempt by government and health officials to play 'Gods.'[102]

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[99] Fisher Rare Book Library, University of Toronto. Canadian Anti-compulsory Vaccination League Scrapbooks, 1883-1890, volume 3. Pamphlet, Alexander Milton Ross and The Canadian Anti-Compulsory Vaccination League, "Telling Unpopular Truth," (1886).
[100] National Library of Canada, CIHM/ICMH microfiche series. No. 93535. Alexander M. Ross, "Stop! A Pitiable Sight! People Driven like Dumb Animals to the Shambles!! Tyranny of Doctorcraft!!!" (21 Aug. 1885), https://babel.hathitrust.org/cgi/pt?id=aeu.ark:/13960/t7wm29713&view=1up&seq=1.
[101] *Ibid.*
[102] J. W. Collins, "Vaccination," *Manitoba Free Press* (04 Mar. 1885).

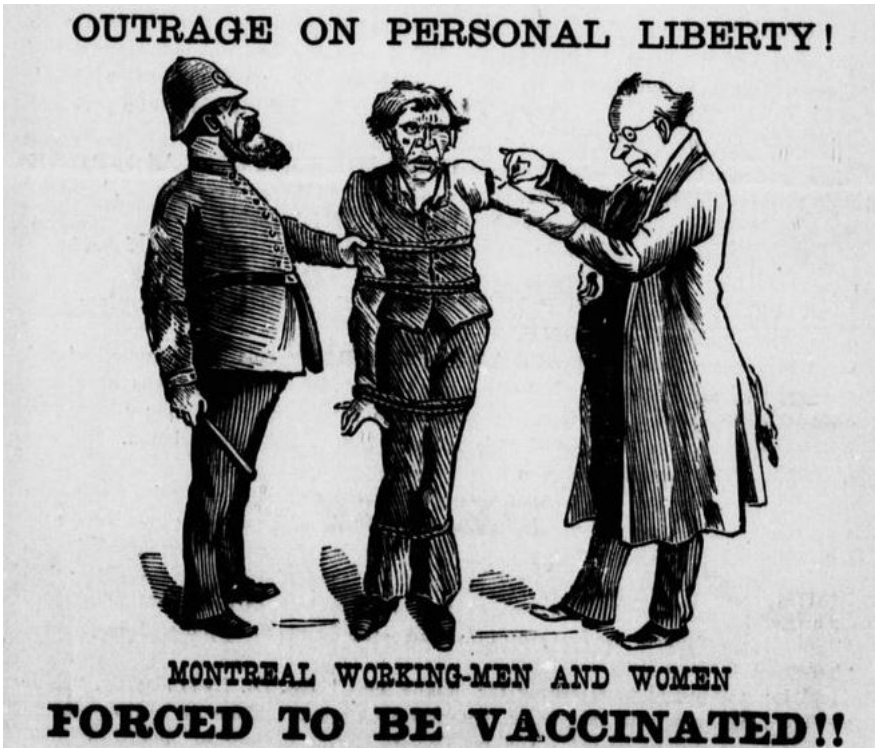


Figure 4: Image taken from anti-vaccination pamphlet showing a working-class man constrained and forced to undergo vaccination by a policeman and public health official.[103]

Although much of his rhetoric was focused on growing social divisions and the creation of an 'us/them', 'lay/elite' divide,[104] he directly attacked the technology of smallpox vaccination, drawing on the established anti-vaccination rhetoric. His many prints declared that vaccination was not only ineffective at preventing the spread of smallpox, but it was also actively harmful to those who received it. After citing several cases of individuals who had been vaccinated and nonetheless became infected, he drew on the established language of anti-vaccination by declaring the practice a 'poisonous,' 'filthy' and 'dangerous' rite that contaminated the blood. In Ross' medical understanding, the principle of vaccination was suspect – for how could you prevent one disease with the

[103] Ross, "Stop!!"
[104] A common feature of populist rhetoric.

insertion of another?[105] Additionally, the frequency of adverse reactions to vaccination was seen as proof the technology was unsafe. Therefore, if it didn't prevent infection, and it could result in debilitating reactions or even death, vaccination was "utterly useless" and exceptionally dangerous.

The last theme Ross expounded fit with his medical understanding of disease: that clean air and proper sanitation were the true interventions that would successfully reduce infection. Ross and his supporters only had to look at the deplorable state of sanitation in the city, especially in the east end where most of the infections were occurring, to find vectors of disease transmission and exacerbation of infections. Even before the epidemic, Ross was highly critical of the state of living in these areas of the city, which he declared were "reeking with rottenness and unmentionable filth" due to the excessive number of cesspits and decaying animals that dotted the courts, alleys, and lanes of the neighbourhoods.[106] The state of living in the east end "supplied the very condition necessary for the incubation, nourishment and growth of small-pox" he proclaimed, and thus the victims of the outbreak were not victims of infection so much as victims of 'municipal neglect'.[107] With his training in hydropathy and belief in a holistic approach to healing that platformed good nutrition and cleanliness, Ross rightfully linked the deplorable conditions of sanitation and living with the increase in spread of smallpox infection. The only true protection against disease, he wrote, was "cleanliness in person

[105] For the state of evidence at the time, this was not a wholly illogical assertion, as the work of Keelan has demonstrated.
[106] Fisher Rare Book Library, University of Toronto. Canadian Anti-compulsory Vaccination League Scrapbooks, 1883- 1890, volume 3. Pamphlet, Alexander Milton Ross and The Canadian Anti-Compulsory Vaccination League, "Telling Unpopular Truth," (1886).
[107] *Ibid.*

and habitation, in pure air and water, and plain, wholesome food."[108] As public engineering and sanitation projects were expensive to undertake, he saw vaccination as a quick-fix solution meant to enrich the public vaccinators and absolve city officials of their responsibilities, rather than spending the money on implementing the necessary sanitary reforms, which were costly.[109]

Despite his strong condemnation of medical tyranny, Ross was not against medical expertise or authority as a rule. After all, his own medical title gave weight to his arguments, and he frequently appealed to the support of other learned men both in Montreal and abroad to back up his claims. The international anti-vaccination community was quite helpful in this regard and many of them wrote letters in support of his claims, parts of which he published in his pamphlets and broadsheets as added support. Ross would go on to compile three full scrapbooks which contained numerous letters and articles written to him (or about him) by prominent anti-vaccination figures across the world, including the Right Honourable Lord Clifton, Dr. Alfred Russel Wallace, and Alfred Milnes, M.A. By appealing to external authorities, he was able to circumvent the scathing criticisms which were rained on him by members of his own profession in Montreal, who denounced him as one of the "cranks, irrationals and fanatics who will join any society which has anti- emblazoned on its flag."[110] It is important to note that claims to learned authority and medical knowledge existed on both sides in these debates

[108] Fisher Rare Book Library, University of Toronto. Canadian Anti-compulsory Vaccination League Scrapbooks, 1883- 1890, volume 1. Alexander Milton Ross and The Canadian Anti-Compulsory Vaccination League, "Canadian Anti-Compulsory Vaccination League." Undated.
[109] This was a valid critique, as debates about public spending in city council demonstrate.
[110] "The Anti-Vaccination League," *Canada Medical and Surgical Journal* 14, no. 7 (Feb. 1886): 438, https://www.canadiana.ca/view/oocihm.8_05177_163/56?r=0&s=1.

– and as Keelan has noted, both sides asserted that the evidence and science supported their conclusions.[111]

Ross's decision to take up the cause of anti-vaccination fit well with both his medical beliefs as well as his personal identity. He saw himself as a great reformer, a saviour to the less fortunate and oppressed, and a man who stood outside the mainstream.[112] This is a key feature of many anti-vaccination leaders over time, an aspect which is explored further in chapters four and five of this thesis. Ross, however, made a concerted effort of preserving his reformist activities in a uniquely overt way compared to most. When he first began to speak out against vaccination, he sent an account of his previous abolitionist work in the United States to several international anti-vaccination allies. Many read his accounts with admiration, making a direct connection between the fight against slavery and the fight against compulsory vaccination legislation. His personal promotion gained him a place of prestige in anti-vaccination circles locally and internationally. William Tebb, one of the most active British anti-vaccination leaders, wrote a letter directly to the *Montreal Herald* lauding Ross' resistance of "injustice and oppression" and work to overturn the "most indefensible of all tyranny" by fighting compulsory vaccination.[113] Tebb drew a direct comparison between Ross' resistance to 'Slave Laws' and his resistance to vaccination law.

Ross's personal and professional identity was built around the image of a saviour crusader. In many of his writings he painted himself the hero of his own story, as the "only doctor; who had dared to doubt the *fetish*" of vaccination and to challenge

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[111] This is the argument put forth by Keelan, in *The Canadian Anti-Vaccination Leagues.*
[112] Ross published two works about his life as a reformer – he was a leading abolitionist voice and anti-slavery advocate before he took on the mantle of anti-vaccination advocate.
[113] Fisher Rare Book Library, University of Toronto. Canadian Anti-compulsory Vaccination League Scrapbooks, 1883- 1890, volume 1. Alexander Milton Ross and The Canadian Anti-Compulsory Vaccination League, "Canadian Anti-Compulsory Vaccination League." Undated.

mainstream acceptance of the practice and the power of city health officials.[114] One publication in particular illustrated his need for admiration. Towards the end of the 1885 epidemic, he composed a long poetic tract titled *Story of a Crime* that gave a lyrical account of the 'criminal' use of vaccination 'in the land of the Canucks.' Poems and songs such as this were aimed at a lay public, as they could be easily read and distributed orally when crowds gathered. The tract sang of the "cries for help and pity" voiced by 'the people' surrounded by filth, while rich authorities ignored the dirty streets and instead declared that all people should bow and worship the "powerful magic" of vaccination."[115] According to this song, only one doctor (Ross) stood against the 'dainty Peacock' (Laberge), declaring he would "bow his head to naught but TRUTH (capitalisation in original)."[116]

One wonders how Coderre took these claims, given he was the initial leader of the anti-vaccination movement and had stood against the practice for a full decade before Ross arrived on the scene. Although French pamphlets preserved from this time are hard to come by (in contrast to the English ones, many of which Ross preserved in his personal scrapbooks) there are several moments in the public record that mentioned Coderre publishing and distributing his own pamphlets, as well as organising public meetings and gatherings to protest vaccination.[117] Whatever his personal feelings about the enthusiastic crusade waged by Ross, the few surviving letters from Coderre demonstrate an appreciation for Ross's work and especially for his feverous production of material.

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[114] Emphasis in original. By fetish, Ross is referring to vaccination. Alexander M. Ross, "Story of a Crime: A Deed without a Name," (Montreal 1885), http://www.canadiana.ca/view/oocihm.92544.
[115] *Ibid.*
[116] *Ibid.*
[117] "Les Anti-Vaccinateurs," *La presse* (14 Oct. 1885): 2; "Notes," *Gazette* (26 Oct. 1885): 2; "The Central Board of Health," *Gazette* (23 Nov. 1885): 2.

Coderre would write to Ross requesting copies of his pamphlets for further distribution, and in both men's writings there was a conscious effort to reach a wider public by bridging the cultural divide between the French and English in the city. Ross's poem repeatedly stated that vaccination harmed "both French and English" alike, and Coderre's letters asserted: "Justice accepts no evasions, no subterfuges; Why then, may not Englishmen, Frenchmen and the rest of mankind under the British Flag, defend themselves under the plea that all laws or Acts of Parliament relating to vaccination are void."[118]

As the anti-vaccination campaign was waged, the smallpox epidemic raged on. More vaccination stations were set up in various areas of the city as cases continued to increase dramatically. Although the increased access to vaccination ensured nearly fifteen hundred people were vaccinated daily, the disease was still spreading quickly in the poorer neighbourhoods.[119] Morbidity rates climbed in July and August, and city health officials pressed for more coercive measures to increase vaccination. Employers were encouraged to introduce mandatory vaccination among workers, often threatening dismissal for any who refused.[120] Heavy fines were given to those who did not follow health board recommendations, especially those who attempted to hide their infected loved ones at home. Any infected person was forcibly removed into quarantine facilities once discovered, and health officers nailed placards to the doors of infected houses, warning the neighbours and community of the danger within.[121]

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[118] Fisher Rare Book Library, University of Toronto. Canadian Anti-compulsory Vaccination League Scrapbooks, 1883- 1890, volume 1. Alexander Milton Ross and The Canadian Anti-Compulsory Vaccination League, "Canadian Anti-Compulsory Vaccination League." Undated.
[119] Bliss, *Plague,* 53, 165-170.
[120] "The Public Health," *Gazette* (02 Sept. 1885): 5.
[121] National Library of Canada, CIHM Microfiche series. No. 05135. Morel de la Durantaye, *A Brief History of The Small Pox Epidemic*, 14-20, https://www.canadiana.ca/view/oocihm.05135/2?r=0&s=1.

It is key to note here the tension between the messaging of the 1885 anti-vaccination literature (which focussed on class divides) and the actual enactment of public health measures during the epidemic. Although vaccination stations were set up in various locations in the city, the health measures, including door-to-door visits and placard placements, were strictest in the Francophone east end. This fact was intrinsic in shaping the widespread anger and resistance to health measures in the city. As health board interventions increased, so did the resistance of the Francophone community. Removal to a quarantine facility often meant a lonely and miserable death, away from home and family. Children were the most common victims of the infection, and terrified parents were especially protective against their children's removal to the hospitals and quarantine facilities, fearing they would never return.[122]

There were several moments when this led to confrontation between the health officials and the public. Communities began to band together to block the sanitary officers from accessing certain neighbourhoods. It took a full force of policemen lining the streets of one community to ensure the sanitary officials could carry out an inspection.[123] In another case, two officials were attacked by parents wielding an axe while they attempted to remove an infected child from their home.[124] On the 4th of November, a particularly violent refusal by Elie Gagnon involved him barricading his family inside their residence while firing shots at the health inspectors and police who attempted to remove sick individuals from the household.[125]

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[122] "The Public Health," *Gazette* (08 Sept. 1885): 5.
[123] "The Public Health," *Gazette* (29 Sept. 1885): 2.
[124] *Ibid.*
[125] Eric H. Reiter, *Wounded feelings: litigating emotions in Quebec, 1870-1950* (University of Toronto Press, 2019), 151.

Many citizens also resented the placement of placards on their doors. Being labelled infected could place a family in a precarious position, especially when they worked from the home, for, "as soon as the placards are affixed their means of living are stopped."[126] One woman flourished a knife when a health official attempted to place a placard on her door, declaring she was "a true Canadian!"[127] To those singled out, the placards represented the creation of a new class of citizen, defined as an infected menace to their own community.

These measures were not enough to stem the tide of infections. Reports from the board of health the following year would estimate the epidemic infected around 20,000 people in the city and caused 3,000 deaths.[128] In a city with just over 220,000 inhabitants, these were high numbers.[129] The health board pushed for more vaccinations. In an effort to address concerns, Dr. Larocque sat down to be publicly vaccinated to demonstrate the safety of the vaccines. He pronounced to the gathered crowd who came to watch, "if this vaccine is as bad as it is said… in three days I will be dead."[130] Larocque survived the feat with no complications, but his efforts made little difference. Only two days later, a news story was released reporting that several infants at a local asylum had developed infections after they were vaccinated.[131]

It is key to note the role that the press played as both informant and inflammatory agent. While Ross and Coderre published their own pamphlets for distribution, the

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[126] "Board of Health," *Gazette* (22 Nov. 1878): 4.
[127] Bliss, *Plague,* 168.
[128] Keelan, *The Canadian Anti-Vaccination Leagues*, 42.
[129] It is difficult to get a clear picture of the exact population size but estimates place Montreal's population at 225,000 during this time. See: Paul-Andre Linteau, *The History of Montreal: The Story of a Great North American City* (Baraka Books, 2013), 87, and Sherry Olson and Patricia Thornton, *Peopling the North American City: Montreal 1840-1900* (McGill-Queen's University Press, 2011), 56-61.
[130] Translated from French, "La Variole," *La presse* (11 May 1885): 4.
[131] "The Board of Health," *Gazette* (13 May 1885): 8.

various news outlets were similarly vying for space in the attention economy. At the end of the nineteenth century, most newspapers in Canada served as the voice pieces of specific political parties and interests.[132] They provided an educational function in society, often displaying long accounts of city council sessions, court proceedings, and political debates within their pages for public consumption. Additionally, they were generally unprofitable ventures, running with only a few staff and a printing press. Yet things were beginning to change in the 1880s and 1890s, as urban centres and transportation networks expanded, especially in Montreal and Toronto. Distribution networks expanded alongside transportation networks, and as the number of readers for certain publications grew, advertising revenue grew along with it. Publishing on topics that stirred up controversy was essential, as daily news publications came to serve as not just educational tools, but self-proclaimed defenders of the public interest and vocal avenues for maintaining "the privileges of the people."[133]

Of course, the social role of papers as political and social critics, combined with heightened competition for market share, meant that sensationalised stories became increasingly popular. The end of the nineteenth century saw the birth of what has been called 'yellow journalism' or 'tabloid journalism' which relied on embellished and aggrandised accounts, dramatic headlines, and reports on the personal scandals of prominent public figures.[134] One notorious incident readily demonstrated the propensity of the press to publish distorted stories when it suited their aims. In October of 1885, a story surfaced in the *Montreal Gazette* that Ross was discovered to be vaccinated when he boarded a train to Toronto. As per the provincial regulations in both Ontario and

[132] Minko Sotiron, *From Politics to Profits: The Commercialization of Canadian Daily Newspapers, 1890-1920* (McGill-Queen's University Press, 1997), 3-4.
[133] *Ibid.,* 11.
[134] *Ibid.,* 19.

Québec, all passengers required proof of vaccination before they could cross provincial boundaries. Although he initially declared to the inspecting officers that he had no proof to give, when threatened with being deboarded, Ross rolled up his sleeve to reveal vaccine scars on his arm. The outcome of the incident made headlines, with the *Montreal Gazette* gleefully reporting:

> The anti-vaccination physician was prevailed upon to retire into one of the compartments, where he took off his coat, rolled up his sleeve, bared his arm and exhibited three perfect vaccination marks, the latest of which, evidently comparatively fresh, had, according to the doctor himself, been performed within the last twelve months.[135]

The story of Ross sporting three vaccination scars, one of which was supposedly fresh, quickly spread, republished in papers across not just Quebec, but also the rest of the country and even into the United States. Ross had worked hard to build up his personal notoriety, and a story that exposed him as a hypocrite was vividly appealing to many on the pro-vaccination side, feeding into the self-righteous indignation at the dishonesty and self-interest of anti-vaccinationists.

Yet when all the evidence is weighed up, it seems unlikely that the original story was entirely truthful. It is more likely that Ross had faded old scars from childhood vaccinations, which the examining doctor chose to interpret as modern for both the sake of a good story and the sake of discrediting Ross. Yet it is difficult to know the truth of this incident as contradictory evidence was presented on all sides of the scandal. Ross immediately published his own response denouncing the account of the doctor, calling it "a malicious lie, and the stab of an assassin."[136] Within days, he swore an oath in front of the Mayor of Toronto that he only sported one, very old, vaccine scar – obtained in

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[135] "Three Times Vaccinated," *Gazette* (14 Oct. 1885).
[136] For an in-depth discussion of this, see Keelan, *The Canadian Anti-Vaccination Leagues*, 198-201.

childhood. In addition to his oath, Ross had three colleagues examine his arm and write affidavits in support of his evidence.[137] On the opposition side, five physicians who supported vaccination measures, including Dr. Covernton, President of the Ontario Provincial Health Board, declared they would "all sign affidavits" testifying to his recent vaccination status, as proof to the public that his propaganda was a facade.[138] The scandal eventually settled down as political events took over the attention of reporters, but descriptions of the incident would resurface a number of times over the next decade, whenever murmurs of anti-vaccinationism resurfaced.[139]

The newspapers that circulated across Montreal during the epidemic reflected the public divide between English and French opinions on vaccination. Large Anglophone papers like the *Montreal Gazette* had long identified with the interests of the English upper classes. A conservative party organ published by the White brothers, the *Gazette* had a readership of between ten and twelve thousand in 1885.[140] It served its educational purpose by publishing general reports on various economic markets, international news from across the British Empire, and reporting frequently on the debates and discussions within council meetings. During the epidemic, it often reproduced and released long health reports and updated its readers to stay informed on the progress of health measures and disease within the city. Part of this involved publishing frequent testimonials on the value of vaccination from the health board, local doctors, government officials, and even prominent businessmen.[141] Support for vaccination was not divided along political lines

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[137] *Ibid.*
[138] "Toronto Topics," *Gazette* (11 Oct. 1888).
[139] "A Correction," *Victoria Daily Times* (30 Aug. 1892): 4.
[140] Paul Rutherford, *A Victorian Authority: The Daily Press in Late Nineteenth-Century Canada* (University of Toronto Press, 2019), 235.
[141] See for example the long testimonial of Hon. Senator Alexander Walker Ogilvie. "The Value of Vaccination," *Gazette* (15 Sept. 1885): 2.

either, as an analysis of the respectively Liberal and radical *Montreal Herald*[142] and *Montreal Star* demonstrates, both English publications.[143] The *Star* editorials held a healthy dose of disdain for the opinions of laymen in health matters, encouraging readers to listen to doctors and particularly Dr. Laberge on matters of health.[144] In fact, the *Star* frequently used the need for vaccination as a means of criticising commercial and capitalist power in the city, accusing local businessmen of caring more for profits than for lives when they didn't insist upon universal vaccination in the workplace and updating factory conditions to be more safe and sanitary.[145] It also dedicated ample space to long diatribes against Ross, so much so that Ross initiated a $10,000 libel suit against the paper.[146] Its competitor the *Herald* also supported compulsory vaccination, declaring "the hour has come when the most decided and far-reaching measures for the public safety must be taken."[147]

The larger Francophone publications of *La Minerve* (a conservative party publication), *La Presse* (radical), and *La Patrie* (liberal) took a different approach to vaccination that was far more divided. *La Minerve* was more inclined to side with the dominant stance of the medical profession, quoting English statistics that showed vaccine efficacy and particularly focussing on the Irish Catholic acceptance of vaccination as a good example of Catholic adherence to the practice. The words of an Irish Catholic priest, Reverend Dowd, were featured prominently as he asserted that "the Irish understand perfectly the advantages of vaccination and have full confidence in this remedy as the

[142] At this time known as the *Montreal Daily Herald and Daily Commercial Gazette*.
[143] Rutherford has labelled the Montreal Star publisher Hugh Graham a 'maverick' and defines both the Star and the Herald in the 1880s as politically 'radical' papers. See Paul Rutherford, *A Victorian Authority*, 236-237.
[144] "Sure Cures," *The Montreal Star* (13 Jul. 1885): 2.
[145] "Smallpox and Private Responsibility," *The Montreal Star* (18 Aug. 1885): 2.
[146] "Gross Misstatements," *The Montreal Star* (12 Dec. 1885): 3.
[147] "The citizens meeting today," *Gazette* (05 Sept. 1885), 1.

most effective preventative against this disease."[148] This interview was followed up with excerpts from some of Hingston's reports on the effectiveness of vaccination. *La Presse* and *La Patrie* were more middle ground in their approach, generally republishing their support for the health measures in the city but also making a point of calling out civic officials and city vaccinators for using poor quality lymph supply. The deaths of two children in May 1885 from severe inflammation after vaccination were condemned in both papers, who described their demise in gruesome terms and blamed health officials for negligence.[149] However, when Coderre presented this case at the international meeting of anti-vaccinationists in Belgium that fall, citing the reports from La Presse, the paper made sure to distance itself from his assertions.[150]

The papers were not above inflaming the French/English divides, with each linguistic camp drawing battle lines within the discourse. The English papers gladly provided space to angry and condescending diatribes about the 'ignorance' of the Francophone classes, with one commentator declaring that the French-speaking population was "singularly callous to the deadly character of the disease."[151] During on-going debates about the vaccine supply and local quality of lymph provision, the *Montreal Star* featured the letter of a medical student who derided the French-Canadian residents of the city for not understanding the value of vaccination. He wrote, "If our Franch Canadian *confreres* place such small value on [vaccination] services, it is their own fault, and not the fault of the Health office, which has no obligation to supply any practitioners, outside of their own vaccinators, with lymph."[152] He went on to bemoan that the "lower

[148] Translated from French. "La vaccine et ses effets," *La Minerve* (03 Sept. 1885): 2.
[149] "Communication," *La presse* (6 May 1885): 3; "Chronique-Montreal," *La Patrie* (28 May 1885): 4.
[150] "Les Anti-Vaccinateurs," *La Presse* (14 Oct. 1885).
[151] "The Smallpox Epidemic," *The Gazette* (01 Sept. 1885): 4.
[152] "Correspondence: A Student on Doctor Lamarche," *The Montreal Star* (18 Aug. 1885): 4.

orders of the French Canadian should not be so much blamed as they are about their ignorance of the contagious nature of smallpox, the benefits of vaccination, and of sanitary matters generally."[153] It was the French medical men, he declared with a veiled reference to Coderre, that were to blame for not properly instructing 'their people.' In response, the Francophone press attacked the 'reckless' and 'exaggerated' claims of their English rivals, who were accused of harming the city economy with "flashy and grim headlines, dismal commentary, [and] gloomy interviews" that alarmed both citizens and outsiders.[154]

In this respect, Ross was not entirely off the mark when he condemned the actions of the press. Adding fuel to the fire of cultural division was good for newspaper sales and catered well to each paper's readership. The differences between the papers also reveal a disconnect between far-reaching claims to safety and efficacy of the vaccine and the lived reality of vaccination at the time. While the doctors and vaccination promoters published notices that pronounced "that vaccination does not, in any instance, produce scrofula or other hereditary disease," and "that neither the evidence hitherto furnished to, not the experience of, the members of this society, is of a character to lead to the conclusion that syphilis is ever inoculated with vaccine lymph," there were nonetheless reports of gruesome deaths, adverse reactions and laments about the social and economic cost of public health messaging.[155]

By autumn, the health board resolved to pass compulsory vaccination. Knowing full well how controversial it would be, they attempted to keep the measure as gentle and cautious as possible. The previous riots from 1875 were still vivid in the minds of health

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[153] *Ibid.*
[154] "La variole," *La Minerve* (28 Aug. 1885): 2.
[155] "Vaccination," *Gazette* (29 Aug. 1885): 5.

officials and the turmoil in the city made it a hotbed of anti-vaccination sentiment. This time, to ensure a gentler approach amongst the public, they were determined to be organised and coordinated. The plan devised by the aldermen and members of the board of health called for door-to-door visits by physicians. At each visit, the physician would inspect residents for evidence of vaccine scarring. Those without a scar would be asked to submit to voluntary vaccination. If they refused, their name would be recorded, and more persuasive approaches would be used later. This could include further visits from health officials accompanied by both policemen and a member of the clergy.[156]

Compulsory measures were adopted in late September and many of the targeted citizens viewed the measures with seething anger. Tensions were high between the English aldermen, who had supported mandatory vaccination, and the French aldermen who opposed it.[157] The police were working overtime to quell unrest in the city, while infected people were being evicted from their homes by worried landlords and attacked by scared neighbours. On September 28, riots broke out.

Compulsory vaccination was the spark that ignited several nights of unrest. Yet the rioting was also influenced by prevailing political tensions caused by the on-going trial of Louis Riel. Riel was a Métis man who had been arrested for leading two rebellions against the colonial expansion of Canada to the west. For many French-Canadians, Riel represented a Francophone, Catholic hero who had fought against his English oppressors.[158] Ontario and Québec were heavily divided as to the extent of his guilt, with

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[156] "Civic Board of Health," *Gazette* (26 Sept. 1885): 2.
[157] Bliss, *Plague,* 168.
[158] Riel remains a controversial figure in Canadian history and his memory is invoked frequently in movements for both French and Indigenous sovereignty. In 1994, Member of Parliament, Suzanne Tremblay, introduced an unsuccessful bill to revoke Riel's conviction as part of an attempt to appeal to French-Canadian nationalist movements. For a detailed discussion of the significance of Riel within Canadian society see Jennifer Reid, *Louis Riel and the Creation of*

public gatherings occurring in each province to either defend or condemn the Métis leader. On September 18th, a crowd in Millstone, Ontario staged a mock execution of Riel by stuffing and hanging an effigy, then lighting it on fire.[159] In Montreal, several public rallies occurred across the summer and fall, with passionate speeches given in his defence. French sympathizers declared that "the Orangemen… are threatening to drive the French-Canadians out of the country" and "to save Riel was to save their nationality."[160] Explicit connections were made to the epidemic. Some of the speakers declared that – contrary to public belief – it was not the French who had brought the illness to the city, but the English, "in their nasty poisoned rags from the slums of London."[161] Just as the board of health agreed to move forward with compulsory vaccination, a date was announced for Riel's execution.

As dusk descended on September 28, a number of French-Canadians swarmed into the city centre of Montreal seeking vengeance. According to one witness, the streets were "black with men and boys," numbering in the "several thousands."[162] Dr. Larocque's residence was the first target of the crowd. His house was attacked with stones and set alight, while men shouted jeers for him to come out and face justice. The crowd then moved on to City Hall, where the Central Health offices were located. Many people were still inside the building awaiting their turn to be vaccinated when the crowd began to smash windows with stones, crying: "Pas de placards, pas de vaccination!"[163] Minor

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Modern Canada: Mythic Discourse and the Postcolonial State (University of New Mexico Press, 2008).

[159] "Condensed Telegrams," *The Grenada Sentinel* (26 Sept. 1885), 6.

[160] "The Riel Agitation," *Gazette* (28 Sept. 1885): 3.

[161] *Ibid.*

[162] National Library of Canada, CIHM Microfiche series. No. 05135. Morel de la Durantaye, *A Brief History of The Small Pox Epidemic*, 14-20, https://www.canadiana.ca/view/oocihm.05135/2?r=0&s=1.

[163] "Emeute a Montreal," *L'Étoile du Nord* (03 Oct. 1885): 7.

injuries were reported amongst those inside who fell victim to the falling glass and rocks during the attack.[164] The mob continued on to the city square, regally overlooked by a large monument to Queen Victoria.



Figure 5: The Victoria Memorial in Victoria Square, Montreal. Source: Image by author, (29 Dec. 2022).

Streetlamps were shattered, while windows of other government buildings became fresh victims of hurled stones. Some of the more excited men in the crowd reportedly climbed onto the statue of the Queen and demanded of the audience: "Who should rule the town?" to which the crowd replied: "The French!"[165] After a few hours of rioting and mayhem, the police managed to subdue the mob, though many vowed to return the following evening.[166]

[164] "Anti-Vaccination Riots at Montreal," *Star*, issue 5470, (18 Nov. 1885), 4.
[165] *Ibid.*
[166] *Ibid.*

The next day, the mayor and city council called in the local militia for armed protection. Police were issued with firearms – an uncommon thing for policemen to carry at the time – and sent out to patrol in force. Faced with the armed men, the rioters decided against a second demonstration. However, the calm did not last indefinitely. Further demonstrations would occur over the next few months – not explicitly in protest of vaccination, but in protest of the scheduled execution of Riel. Indeed, it was soon stated that during the September riots, vaccination had only been a 'pretext' and "the agitation… about Riel and the recent anti-vaccination disturbances" were "closely connected."[167]

The Impact of the 1885 Epidemic

The epidemic eventually ran its course, and authorities breathed a sigh of relief as smallpox hospitals were emptied and closed, and vaccination stations shut down. Smallpox continued to reappear in Montreal throughout the next century, though never in the same strength or with the same violent episodes.[168] Meanwhile, the neighbouring province of Ontario eyed the chaos of the epidemic with unease. Montreal had officially become an infected locale, a blackened spot on the fabric of the Canadian health landscape. The free movement of ships, trains, goods, and people meant that smallpox could easily be introduced elsewhere if not contained.

In September, the Ontario Provincial Board of Health used its power to enact strict provincial regulations. Municipalities were ordered to actively report new cases of infection. Sanitary policemen were appointed to enforce immediate confinement of the sick in temporary quarantine tents. All infected houses, clothes, bedding, boats, and other

[167] "Riel's Case in London," *Gazette* (02 Nov. 1885): 5.
[168] Bliss, *Plague*, 264.

goods touched by an infected person were to be immediately disinfected, or, if necessary, burned. Those in proximity to infectious cases were likewise to be confined, unless they could prove they had been vaccinated within the previous seven years. Medical Inspectors were appointed to the docks and train stations, with full authority to "make a strict inspection" of all arriving vessels and passengers. If smallpox was identified on board a vessel, all passengers were required to submit to compulsory vaccination unless they consented to quarantine or could demonstrate a recent vaccination. Municipalities were given the same powers to enact "systematic and compulsory performance of vaccination."[169] There was even a reported case of one health official breaking down a door "with an axe," and holding any objectors down for forcible vaccination.[170]

In Montreal, both Ross and Coderre faced even greater censorship from their peers after the riots. The French press, which had previously published a few of Coderre's letters, now refused to reprint any correspondence he sent. He responded by calling more public meetings and protests.[171] By November Coderre was charged with neglecting to report a case of smallpox under his care, and he was brought before the health court for trial. Ross would soon relocate to Toronto, where he would set up another anti-vaccination society and continue his medical reform activism.

[169] National Library of Canada, CIHM/ICMH microfiche series. No. 51091. Provincial Board of Health of Ontario. Regulations issued by the Provincial Board of Health in the matter of smallpox, http://www.canadiana.ca/view/oocihm.51091.
[170] "Precautions adopted in Ontario," *Gazette* (01 Sept. 1885): 3.
[171] "Notes" *Montreal Gazette* (26 Oct. 1885): 2.

Conclusion

This chapter has provided a detailed analysis of the first two waves of anti-vaccination in Canada. Between 1870 and 1885, there occurred two epidemics of smallpox in Montreal which placed local pressure on the city to act to protect its citizens. The response in both cases was reactive more than preventative. After the outbreaks began, health officials reached for the options best known to protect against contagious smallpox at the time: isolation and vaccination. Despite these measures, the contagion spread through the city largely unchecked both times, leading to many moments of individual suffering and death, as well as tense social relations across the city. When initial vaccination and quarantine measures failed to contain the outbreaks, city officials moved towards compulsion. Both times, this triggered popular unrest, protest, and violence within the community, particularly amongst the French working class. Throughout both moments, a cohort of vocal and impassioned anti-vaccinationists held prominence, growing in profile and presence through their engagement with printed media. The commodification of sensationalism was echoed by the local press in the city who provided a public forum for frequent banter and pointed exchanges between the anti-vaccinationists and vaccine promoters.

Yet it was ultimately the motion towards compulsion that stimulated mass action in both cases. The populist tactics and rhetoric of Coderre and Ross were matched by popular support *en masse* only when the civic officials increased the pressure to vaccinate and moved toward official coercion. In 1875, the threat of compulsion was met with a large crowd of young, largely Francophone working-class men gathering at the council chambers and vocally opposing the discussions of mandatory vaccination in the city. These men used their physical presence as an implied threat to the social order, which

limited their participation in the civic process and privileged wealthy property owners over the poorer classes. A similar dynamic gave impetus to the violent riots orchestrated by French working-class men a decade later, who had little power to stop the order for the execution of Louis Riel. French nationalism collided with anti-vaccination to shake the English dominance in the city during the epidemic of 1885, a dominance that heavily structured both infection rates during the epidemic and limited the effectiveness of public health interventions.

It is easy to see that the appeal of anti-vaccination movements amongst the wider public was tied to its function as an anti-establishment force. The arguments put forth by Ross in particular recognised this allure, emphasising the role of class in shaping vaccination policy and calling for mass protest to protect the rights and bodies of the working-class men of Montreal. Ross's populist rhetoric sought to tap into the friction that resulted from inherent inequalities in the social conditions of the city. He sought to leverage widespread resentment against vaccination to enhance his own public image, and he saw publicity and print media as the most effective mechanism for this. Yet much as Keelan found in her own study of these movements, there is a big difference between perceptions and assertion of medical authority within a professional realm, and the acceptance and internalization of that authority amongst the public.[172] While vaccination became a wedge issue in the struggle between orthodox and unorthodox practitioners in the latter half of the century, it did not always succeed in mobilising the masses.[173] Rather, it was the impetus to disrupt moments of rising establishment power that proved the most

[172] Keelan argues that Canadians continued to decide for themselves about adopting new medical technologies. See Keelan, The Canadian Anti-Vaccination Leagues, 149.
[173] Keelan, *The Canadian Anti-Vaccination Leagues,* 149.

effective at stimulating vaccine resistance, especially when that power combined with compulsion.

CHAPTER 3 – Quacks, Hacks, and Charlatans: Alternative Medicine and Medical Freedom

> *"With the allopathic school straddling the country like a colossus, experimenting in a never-ending succession of fads and theories- extracting, dissecting, probing and dosing to its heart's content- such a tyranny is too disturbing to contemplate."*
>
> - The Hamilton Spectator (28 Mar. 1919).[1]

Contentions over expertise, regulation, and acceptable healing practice have been at the heart of medical debates and controversies in Canada for the past two centuries. They frequently intertwined with contentions over vaccination and a patient's right to choose systems of medical care, striking at the heart of concerns about agency in the health experience. These tensions reflect deep concerns and fears over health, healing, and power. Foucault emphasised how the ability to define what is considered medically 'normal' or 'abnormal' has served as one of the principal forms of power within modern society.[2] Conrad and Barker took this further, arguing that both medical knowledge and the illness experience are socially constructed – shaped by understandings of disease, treatments, and how what is 'biologically' effective is socially negotiated.[3] Historically, attempts at imposing a single agreed upon form of healing practice (the medical 'mainstream') were seen as an affront to personal rights and an attempt by regular

[1] "Federal Health Department: Extract from the Hamilton Spectator," *Ottawa Citizen* (28 Mar. 1919): 20.
[2] Michel Foucault, *Discipline and Punish: The Birth of the Prison,* translated from the French by Alan Sheridan (Penguin Books, 1991).
[3] Conrad and Barker, "The Social Construction of Illness," S68-69.

practitioners to maintain a state-sanctioned monopoly on the field of healthcare. Indeed, over the course of the early twentieth century, Canada saw the creation of several medical establishments that gained increasing power through professionalisation and the regulations of norms and practices. An emphasis should be placed on the plurality of these establishments, as the Canadian healthcare system was regulated in a variety of forms, with differences between civic, provincial, and federal authorities, and further variations across provinces. Yet for those who pushed for increased regulation of medical practice, imposing standards of medical knowledge, expertise, and treatments were essential steps towards protecting the populace from 'quacks', 'charlatans' and 'snake oil' salesmen who would exploit the fears and sufferings of another for financial gain.

This chapter investigates the intersections of anti-vaccination and alternative medical practice during the first decades of the twentieth century. This era marked a shift in Canadian culture, from an imperial British colony to an independent polity on the world stage. It also spans the cultural shifts from British emulation towards a uniquely Canadian social framework, defined by multicultural identity and an increased association with the United States. The solidification of a medical 'mainstream' was a gradual process in Canada, beginning with the development of professional organisations that certified doctors for practice in each province, and eventually fixed into place with federal regulations after World War One. The power that came with this shift would increasingly give medicine jurisdiction over virtually anything in society that was related to health or illness.[4] However, the processes of professionalisation – and medicalisation – were by no means straightforward or inevitable, and were frequently disrupted by popular pushback, especially from alternative practitioners and anti-vaccination movements, a point that

[4] Conrad, "Medicalisation and Social Control," 214-215.

Bator has demonstrated in his analysis of Ontario health reform and vaccination at the turn of the century.[5]

However, one thing overlooked by both Bator's and Arnup's analyses is the role played by alternative medical practitioners in the anti-vaccination movements at this time. Those who subscribed to an 'alternative' medical system found power in anti-vaccination sentiment and often touted vaccine resistance in popular print media to cultivate support in their fight for a place in the medical marketplace. This eventually translated into a 'medical freedom' movement in the first decades of the twentieth century. Medical freedom became an ideological call to arms for a variety of alternative medical practitioners, constructed around a populist narrative of a vertical antagonism between mainstream elitist professionals – often labelled a medical 'oligarchy' – and the freedom of the people to choose their healthcare practices.[6] This was informed in no small part by the shifting relationship between Canada and its southern neighbour. As social historians have demonstrated, the republican vision of the United States as a realisation of liberty and freedom for all held a strong appeal to alternative practitioners, and they modelled their tactics increasingly on the model of American populism. In the introduction to *The Americanization of Canada*, Allen Smith declares "No country was more fully aware of the United States, both as a symbol and an intractable reality, than Canada."[7]

While concerns over alternative medicine rose to the forefront of popular and medical discourse at the end of the 20st century, the historical literature similarly took an interest in the subject. The seminal 1987 edited volume by William F. Bynum and Roy

[5] Bator, "The health reformers versus the common Canadian," 348-350.
[6] This analysis is drawing on the outline of populism put forth by both Jansen and Fuentes. See: Jansen, "Populist Mobilization," 84, and Fuentes, "Populism," 56.
[7] Allen Smith, "Introduction," in *The Americanization of Canada* by Samuel Moffett (University of Toronto Press, 1972), ix.

Porter, *Medical Fringe and Medical Orthodoxy, 1750-1850* set the tone for later historical approaches to studying the professional place of irregular medical practice.[8] In it, they argued that the supposedly rigid dialectical borders between orthodox and unorthodox medicine were historically more flexible and socially constructed than generally assumed, especially in the 17th and 18th centuries. This perspective re-defined how to look at supposed 'mainstream' and 'fringe' practices in the past, instead re-envisioning historic medical schools as shifting, dynamic identities that frequently defined themselves through their opposition to other rival practices. This, it was argued, was the early nature of medical practice in Britain before an official registration system established a clear line between the 'regular' physician and the 'fringe', specifically with the *Medical Act* of 1858 and the establishment of the Medical Register.[9]

Later explorations that focussed on alternative healing during the twentieth century approached alternative medicine through a political lens, recognising that the ultimate dividing line separating the conventional from the non-conventional in medicine was authority backed by state power. Saks argued in *Orthodox and Alternative Medicine*, "as medical orthodoxy is defined by its political legitimacy, alternative medicine is therefore defined by its political marginality."[10] The notion of legitimacy is essential to understanding how alternative medical practices increasingly clashed with establishment power as the century wore on. Connecting these political strands with a wide variety of unorthodox healing practices is Johnston's substantial edited volume, *The Politics of Healing*.[11] Covering the evolution of homeopathy, health foods, cancer treatments,

[8] William Bynum and Roy Porter, *Medical Fringe and Medical Orthodoxy 1750-1850* (Routledge, 2019).
[9] *Ibid.*, 2.
[10] Mike Saks, *Orthodox and Alternative Medicine: Politics, Professionalization and Health Care* (SAGE Publications, 2003), 3.
[11] Johnston "Introduction," 2.

mental health, anti-vaccination and anti-fluoridation movements, gendered and religious approaches to healing, and the contemporary medical 'culture wars', this volume offers a diverse and comprehensive look at how alternative medical practices developed and evolved in twentieth century America.[12]

The link between anti-vaccination and alternative medicine has not gone unnoticed in the literature on anti-vaccination. Early writers like Kaufman argued that irregular physicians were the main proponents of vaccine resistance, often pushing anti-vaccination due to commercial interests.[13] However, more recent discussions have moved away from this view. Walloch, for instance, argues that anti-vaccinationists "melded more into the mainstream of American life than historians previously have appreciated,"[14] while Keelan's study highlights how such movements were generally appealing, given the state of both medical practice and scientific knowledge at the end of the nineteenth century.

Although it is good to recognise the wide reach of anti-vaccination sentiment at different points in time, we should be cautious about negating the unique status of anti-vaccination as a mechanism of asserting alternativeness. Anti-vaccination movements have frequently been led by those who actively defined themselves as irregular, unorthodox, eclectic, and separate from the dominant. This distinctive locality had both power and appeal, especially as a means for disrupting the political power that backed mainstream approaches to medicine. As medicine became more professionalised over the

[12] It is not alone however, with other notable works including: James Whorton, *Nature Cures: The History of Alternative Medicine in America* (Oxford University Press, 2002); Bivins, *Alternative Medicine?*; and more recently, Colleen Derkatch, *Bounding Biomedicine: Evidence and Rhetoric in the New Science of Alternative Medicine* (University of Chicago Press, 2016).
[13] Martin Kaufman, "The American Anti-Vaccinationists and Their Arguments," *Bulletin of the History of Medicine* 41 (1967): 463–78.
[14] Walloch, *The Antivaccine Heresy*, 4.

course of the early twentieth century, anti-vaccination enabled an identification with the exceptional and uncommon that provided both notoriety and survival for alternative healing therapies. This was particularly powerful through its populist discourse, which named the dominant medical establishment a power-hungry and elitist tyrant, in contrast to the freedom-fighting people.

By examining the relationship between anti-vaccination and alternative medical movements in Canadian history, this chapter will necessarily grapple with the question of when anti-vaccination ideology transitioned from a seemingly 'reasonable' stance to the supposed 'unreasonable' rejection of the scientific principle of immunity. It will ask the question, w*hen does 'anti-vaccination' become synonymous in mainstream discourse with 'anti-science'?* The answer requires investigating the specific history of alternative medical practice in Canada and tracing the interrelationship between scientific discourse, anti-vaccination, and alternative medicine over time. As Bivins has pointed out in her work, the rising fascination and faith in science defined the medical conversations of the early twentieth century, with both mainstream and irregular medical practitioners laying claim to its authority. [15] But it was the success of the mainstream in asserting dominance and regulation of practice through state-sanctioned power that enabled its arguments to win out. [16]

As medicine became increasingly professionalised, political support was an important mechanism to secure legitimacy and dominance for those who studied and practiced within a biomedical framework, leading to the increased marginalisation of

[15] Bivins has pointed out how the 'sweeping cultural authority' given to science is a 'new' phenomenon of the late 19th and early twentieth century, especially within medicine. See: Bivins, *Alternative Medicine?,* 4.
[16] This generally also coincided with the increased reliance on laboratory medicine and scientific principles to validate data and theories through rigorous study.

irregular medical practices. However, this transition was more than just political. Although Saks, Johnston, and others have argued that defining the 'alternative' in healing practice is essentially a political question, I argue it is firstly an ideological one. While it is difficult to lump the wide range of irregular healing practices together into a group, there is one important distinction that shaped how the early division between the regular and the irregular physician came about in Western medicine: the acceptance of the germ theory of disease.

The discovery and acceptance of bacteria and other microorganisms as the direct cause of disease provided the basis for a scientific model of medicine. While the acceptance and incorporation of germ theory into medical understanding took time (a key point demonstrated by Worboys),[17] this was a key catalyst for the associated re-organisation of early medical pluralities into a duality of 'mainstream' vs 'other' over the course of the late nineteenth century and early twentieth century. Worboys has demonstrated that this was a complex process, with a variety of germ 'theories' developing within medical discourse, compounded by differing 'germ practices' between medical actors in various disciplines.[18] The wide acceptance of the tenet of vaccine-induced immunity to smallpox within the scientific community was partly due to the wide acceptance of Pasteurian notions of 'attenuation' and lowered germ virulence, which were seen as a natural process within nature, as evidenced by the cowpox/smallpox relationship.[19] The acceptance that germs – and later, bacteria and viruses – were the direct cause of illness would become the shibboleth that differentiated those within the medical mainstream from those without.

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[17] Michael Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865-1900* (Cambridge University Press, 2000), 2-6.
[18] *Ibid.*
[19] *Ibid.,* 243-244.

Romano's historical analysis of Ontario professional identity in the nineteenth century argued that the "profession of medicine was formed well in advance of modern medicine," with an emphasis on collective identity through education and licensing.[20] This ensured that professional elevation was tied to legislation, a fact helped by the early association of physicians with politics.[21] Mainstream medicine gained an early prominence within the country by the founding of professional colleges for regulating practice within each province.[22] The College of Physicians and Surgeons of Ontario was the first English association, alongside its French counterpart the *Collège des médecins du Québec*. Both organisations existed before Confederation and would become the main regulatory bodies for physician licensing in their respective provinces after 1867. Manitoba's Provincial Medical Board followed soon after, becoming the College of Physicians and Surgeons of Manitoba in 1876.[23] Other licensing regulatory bodies were founded as new provinces were formed, including the College of Physicians & Surgeons of Alberta in 1905, and the College of Physicians & Surgeons of Saskatchewan in 1906.

Medical dominance expanded in 1912 with the passage of the *Canada Medical Act* and the creation of the Medical Council of Canada (MCC). It would continue to solidify with the establishment of federally and provincially regulated licensure for many medical specialties after the First World War.[24] At this time, Canada was declared to have

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[20] Terrie Romano, "Professional Identity and the Nineteenth-Century Ontario Medical Profession," *Histoire Sociale* 28, no. 55 (1995): 77-79, https://hssh.journals.yorku.ca/index.php/hssh/article/view/36803.
[21] *Ibid.*, 85.
[22] For a good discussion of how regulation and licensing led to medical domination of a select community of mainstream medical practitioners in Canada, see Ronald Hamowy, *Canadian Medicine: A Study in Restricted Entry* (Fraser Institute, 1984).
[23] Manitoba Historical Society archives, "Manitoba Organization: College of Physicians and Surgeons of Manitoba," accessed 01 Jan. 2025, https://www.mhs.mb.ca/docs/organization/collegephysicianssurgeons.shtml.
[24] For further discussion on this, see Humphries, *The Last Plague*, especially chapter ten.

'assumed the status of nationhood', and the proposal was put forth for a federal regulatory body for medicine.[25] There was a strong substantiation of medical power through military and political backing between 1914-1919. During and after the First World War, new restrictions were placed on who could legitimately be called a 'doctor' or an 'expert' in medical practice and therefore exercise the legal ability to provide healthcare. The Royal College of Physicians and Surgeons of Canada was officially established in 1929. Yet official definitions of expertise were not uniformly shared across the populace, and many opposing definitions arose from those who rejected germ theory and alongside it, the concept of vaccine-induced immunity.

Medical botanists, hydropaths, homeopaths, faith healers, eclectics, and others fought against the direct tie between state-sanctioned power and orthodox medicine. Frequently, vaccination was the battleground. By World War One, this had caused a shift in how anti-vaccinationists branded their movement – drawing away from defining themselves as opposed to vaccine policy and instead envisioning themselves as part of a broader movement for medical freedom and personal choice in healthcare. This allowed for several diverse alternative medical movements to unite through anti-vaccination, with the collective cause of disrupting the emergence of a mainstream monopoly and fighting against expanding federal and provincial power over medical practice. Alternative medical practitioners harnessed the populist rhetoric and anti-establishment aspects of anti-vaccination to bolster the cause of unorthodox healing practice as they faced increasing restrictions on their ability to ply their trade.

[25] T.C. Routley, "The founding of the Royal College of Physicians and Surgeons of Canada," *Canadian Medical Association Journal* 73, no.2 (15 Jul. 1955): 104-106, https://pmc.ncbi.nlm.nih.gov/articles/PMC1825990/.

Defining 'Alternative' Medicine

One of the main issues with attempting to compile a historical analysis of alternative medicine is the difficulty in defining the diverse array of non-orthodox healing practices. Labels like 'traditional medicine', 'complementary medicine', and 'holistic medicine' are newer linguistic inventions that generally fail to fully encompass the vast array of healing approaches within alternative medicine, past and present.[26] Some schools of healing were more formalised, with Cooter defining homeopathy, mesmerism, medical botany, and hydropathy as the 'big four' of the nineteenth century.[27] These sects boasted institutes for study and professional organisations across Britain and North America. Other schools of healing like chiropractic, osteopathy, medical botany and Christian Science would also see a widespread uptake in North America, especially towards the turn of the twentieth century.[28] Training varied from formal study in an institute, to less formalised apprenticeships and self-study. There were also many more individualised approaches to healing such as electro-biology, astrology, and naturopathy that maintained a presence throughout the twentieth century, finding followers and advocates in various communities. Lumping these diverse groups into one category has its difficulties.

However, there are some commonalities in alternative approaches which have been teased out already in the literature. A paramount feature is the construction of irregular practice as a juxtaposition to the 'regular', particularly in terms of official status. Saks has pointed to the legal marginality of alternative approaches to medicine, defined

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[26] Saks, *Orthodox and Alternative Medicine*, 3.
[27] Roger Cooter, *Studies in the History of Alternative Medicine* (Macmillan, 1988), xiv.
[28] It should be noted that alternative practices like acupuncture are left out of this analysis, largely because these alternative practitioners did not join in the anti-vaccination movements in Canada, as far as I have been able to discover. More research needs to be done to pinpoint why certain schools of healing found anti-vaccination appealing, while others did not. See, Bivins, *Alternative Medicine?,* for more discussion of the history of acupuncture and the increasing interest in 'oriental' philosophies, religions and medical and health practices in this period.

through their contrast with state-sanctioned mainstream medicine.[29] The official status and state backing of orthodox medicine was a frequent point of contention for many alternative practitioners in the past, who viewed themselves as persecuted and marginalised. Durbach has highlighted how the rhetoric of alternative practitioners in the nineteenth century defined their rival orthodox caregivers as "aristocratic tricksters."[30] The monopolising drive and desire to persecute those who practiced outside the mainstream led alternative practices to embrace medical plurality and find power through alliances with other alternative practices. None of these healers, Durbach argues, "suggested that their system retain a monopoly."[31]

Additionally, there were certain features of practice that tended to go hand-in-hand with alternative approaches to healing. Many irregular treatments approached health in a holistic way, viewing interactions between diet, exercise, behaviour, character, morality, and environment as intrinsic to both health and illness. In her seminal work on Christian Science, Mary Baker Eddy wrote, "Mind governs the body, not partially, but wholly."[32] A holistic approach was utilised by osteopathy as well, which viewed disease as the result of abnormal 'reactions' of energy stored in body cells.[33] The direct relation of bodily structures to one another across the whole body as a system was seen as integral to maintaining 'normal relations' of energy and informed osteopathic use of bodily manipulations for treatment.[34] Holly Folk, a historian of chiropractic healing, has demonstrated how chiropractors utilised a metaphysical understanding of illness, locating

[29] Saks, *Orthodox and Alternative Medicine,* p.3.
[30] *Durbach, Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907*, 31.
[31] Ibid, 28.
[32] Mary Baker Eddy, *Science and Health: With Key to the Scriptures* (Boston: Author, 1888), 5.
[33] Dain Tasker, *Principles of Osteopathy*, 4th ed. (Los Angeles: Bireley & Elson, 1916), 33-34.
[34] *Ibid.*

health within a concept of metaphysical 'vitality'.[35] It is not a surprise that alternative healing practices hold wide appeal. Treating the body as a whole system to be regulated and balanced has an innate allure as it fits well with how individuals tend to experience both health and illness. Indeed, Worboys points out that disease practices were just as important as disease theories in understanding the solidification of mainstream vs alternative medical care and cannot be analysed in isolation.[36]

Alternative approaches also tended to privilege the patient's understanding of their own health and bodies, relying on self-help and individual autonomy in treatments. Compared to the privileging of expertise in the mainstream and the reliance on the authority of a doctor's observation and opinion, alternative approaches often empowered the patient to take charge of their own health and healing.[37] Bivins' analysis of the patient role in negotiating the balance of power in the healing process highlights the importance of autonomy in the use of heterodox healing.[38] A key narrative frequently put forth in alternative medical discourse was that of a 'health democracy', which allowed for the expression of "individualism, egalitarianism, and self-determination" in healing.[39] At the turn of the twentieth century in Canada, this approach was intimately connected to the growth of libertarian ideals and a social shift towards Americanisation.

Perhaps one of the most important features of alternative approaches to medicine was the fact that treatments tended to be less interventionist and 'gentler' than those in the mainstream. Most alternative practitioners at this time subscribed to a 'drugless' and 'bloodless' approach to healing. Hydropathic healing emphasised the importance of

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[35] Holly Folk, *The Religion of Chiropractic: Populist Healing from the American Heartland* (University of North Carolina Press, 2017), introduction.
[36] Worboys, *Spreading Germs*, 6-7.
[37] Durbach, *Bodily Matters,* 31.
[38] Bivins, *Alternative Medicine?,* 2-5.
[39] Holly Folk, *The Religion of Chiropractic,* 2-3.

cleanliness, exercise, water, clean eating, and temperance.[40] For faith healers like the Christian Scientist, healing and health was a mental and faithful exercise, promoted through contemplation, reflection, and prayer. The emphasis on non-intervention was a palatable and far more agreeable treatment strategy to many who feared or distrusted the sometimes-unpleasant procedures and medicines that were prescribed by mainstream physicians – including vaccination. In contrast, alternative medical approaches offered remedies that seemed more 'natural' and softer on the body.

Alternative medical procedures have always been minority healing systems. This was increasingly true as the regulation of medical practice became stricter, and many of the eclectic colleges and unorthodox schools in North America were shut down. By the end of the First World War, formal schools for studying alternative medicine in North America were far fewer and much more marginalised than they had been in the previous century.[41]

Yet this marginalisation is another part of the appeal of alternative practice. Unsanctioned healing approaches provided an avenue to the subversive for those who leaned towards counter-culture movements, serving as a conduit for breaking free of the mainstream and conventional. The hint of a form of special knowledge or understanding of illness provided the allure of promise - especially to those with limited treatment options within the mainstream. The words of Rene Caisse, a Canadian nurse who invented Essiac, an herbal remedy that claimed to cure cancer, serve as a telling example of this.[42]

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[40] Jane Adams, *Healing with water: English spas and the water cure, 1840–1960* (Manchester University Press, 2015), 156-159.
[41] Stephen Petrina, "Medical Liberty: Drugless Healers Confront Allopathic Doctors, 1910–1931," *The Journal of Medical Humanities* 29, no. 4 (2008): 211-212, https://doi.org/10.1007/s10912-008-9063-3.
[42] The efficacy of Essiac is still under investigation, with some modern laboratory studies finding that the herbal components prepared in high concentrations were natural anti-cancer

At a hearing before the Ontario Legislature where she petitioned for the ability to use her remedy in cancer treatments, she argued: "The patients I have treated were given up by the medical profession to die... I have spent the best part of 15 years of my life-giving back hope, comfort, and in many cases, life to these doomed patients."[43] Her words highlight the significance of desperation and dissatisfaction that drove people towards alternative forms of healing, particularly when mainstream medical options are unappealing or unavailable.

Perhaps not as pervasive but still frequent in alternative practice was the method of advertising and promotion. The smaller and more individualised healing systems, without their own institutes or organisations, generally relied on mass advertising to reach clients. This required a certain populist approach that built a mystique around the image of a secret formula, a single practitioner, or a novel form of treatment. Those who took this approach would perhaps fit the more traditional mould of the 'quack' doctor. Porter highlights how medical quackery was "at the leading edge of advertising... [generally those] who actively and energetically peddle their services in the medical marketplace."[44] The famed Vancouver 'Energician', Dr. Alfred McKay Jordan,[45] frequently utilised this approach, placing full-length advertisements in many newspapers and running various healing shows at local theatres of Vancouver in the 1920s.[46] Such practitioners combined

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agents. See: Stephen Leonard et al, "Essiac Tea: Scavenging of Reactive Oxygen Species and Effects on DNA Damage," *Journal of ethnopharmacology* 103, no. 2 (2006): 288–296, https://doi.org/10.1016/j.jep.2005.09.013; Veronica Marignac et al, "Preclinical Study of Genuine Essiac Formula: A Cancer Treatment Eight-Herbs' Tea Minimizes DNA Insult of X-Rays," *Clinical cancer investigation journal* 9, no. 4 (2020): 126–135, https://doi.org/10.4103/ccij.ccij_73_20.

[43] "Asks Special Hearing," *Gazette* (01 Mar. 1938): 7.

[44] Jonathan Barry, "Publicity and the Public Good: Presenting Medicine in Eighteenth Century Bristol," in *Medical Fringe and Medical Orthodoxy 1750-1850,* edited by William Bynum and Roy Porter (Routledge, 2018).

[45] Jordan is discussed further on pages 130-133.

[46] See pages 146-147.

treatment and performance in their modes of healing. Personal testimonials from patients generally served as the basis for efficacy.[47] Other promotion strategies appealed to a supposed historical pedigree for treatments. Caisse originally marketed her herbal concoction as an "ancient Ojibway Indian, herbal remedy."[48] This mode of advertising was heavily condemned by the Medical Association as "derogatory to professional character," for if "such nostrum be of real efficacy" it should not be patented or shrouded in 'mystery' so that it could be used by all physicians in the pursuit of healing.[49]

One last and essential feature that needs to be outlined here is the rejection of the germ theory of disease by most alternative practitioners. Although it took some time to be widely accepted in the medical profession, germ theory would come to serve as the key divider between those within the mainstream and those without. Germ theory led the way for scientific biomedical approaches to the understanding and treatment of disease by the turn of the twentieth century. It also led to an increasing division between medical diagnosis and bedside healing practice. For those who subscribed to alternative practices, bacterial and viral explanations for illness were illogical – how could so many germs not be identified, yet still be prescribed such powers as the causation of smallpox? Although most alternative systems were willing to recognise that germs existed by the turn of the twentieth century, many did not accept that germs were a direct cause of specific diseases.

It was frequently contended by irregulars that germs were harmless and unrelated to illness. One famous example was Dr. John B. Fraser, a Toronto irregular physician that made it his mission to disprove that germs caused disease. He claimed to have completed

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[47] J.K. Crellin et al., eds., *Alternative Health Care in Canada: Nineteenth and Twentieth-century perspectives* (Canadian Scholars Press Inc., 1997), 56.
[48] *Ibid.*, 41-42.
[49] Ontario Medical Association, *Constitution and by-laws and code of ethics of the Ontario Medical Association* (Toronto: W. Briggs, 1899), 20.

numerous tests where he ingested diphtheria bacteria with no adverse results, while also claiming that his investigations "demonstrated that germs appear after the onset of the disease, not before."[50] A chiropractor, Ebenezer J. Chattoe, claimed in 1919 that the local smallpox outbreak was "simply the work of nature in throwing off the poison that got into people's systems during the flu epidemic."[51] Osteopaths held a similar opinion, arguing that while bacteria were able to cause diseases, illnesses were only possible when germs had "suitable soil" to infect the body.[52] This is reflective of what Worboys has identified as the dominant metaphor for germ theories in Britain during the late nineteenth century, which relied on a 'seed and soil' concept.[53] According to this school of thought, infections were only possible when the body was mechanically misaligned, and structural adjustments that restored good circulation would easily stop bacterial and viral infections. Alternative practitioners generally saw healing and medicine as alike to religious belief, arguing that if people were free to choose their own faith, they should also be free to choose their own system for medical care.

Since most alternative understandings of health focussed on general holistic approaches, treatments were seldom disease-specific, as in biomedical practice. While most doctors – orthodox or otherwise – agreed with the need for better sanitation and generally hygienic practices, the explanations for why these were necessary differed

[50] "Anti-Compulsory Vaccination Society Very Strongly Endorsed," *Ottawa Citizen* (25 Apr. 1919): 2
[51] "Meeting Denounces Forced Vaccination," *Toronto Daily Star* (17 Nov. 1919): 17.
[52] M. Clayton Thrush, "Osteopathic versus Drug Treatment," *The Canadian Journal of Medicine and Surgery* 25, no. 3 (Mar. 1909): 157.
[53] Worboys, *Spreading Germs,* 6.

greatly. According to Harold M. Davy, a sanitary engineer[54] in the Department of Public Works:

> Intelligent, and discriminating people, whether leyman [*sic*] or medicine men, know that the causes of disease are usually either in unnatural food, over-eating, improper ventilation, infrequent bathing, sexual access, worry, lack of balance, exercise, and immoderate habits of all kinds.[55]

It is perhaps not surprising then that vaccination was (and still is) a rallying point for alternative medicine movements. It was one of the first legally mandated mainstream medical practices, providing state support for a technology that in many ways defined the orthodox understanding of disease. It was an invasive procedure that actively introduced a microbe into the body with the goal of producing immunity. For those who rejected bacteria as the cause of disease – let alone viruses, which could not yet be seen or identified under a microscope at the end of the nineteenth century – this was an unnecessary 'pollution' of the body with no benefits to the patient. To germ-deniers, it directly harmed the constitution, corrupted the blood, and disrupted the health of the patient. Its only purpose, they argued, was to increase the wealth and power of mainstream medical doctors.

1880 – 1890: Dr. Alexander M. Ross

In 1887, Dr. Alexander M. Ross drafted a 'bold letter' to the public declaring that vaccination was useless, harmful, and pushed by those who had a particular interest in profiteering.[56] This letter was one of many he wrote after he made a name for himself

[54] Sanitary engineers were frequently aligned with various alternative medical practices. They were seen as the antithesis of orthodox Public Health officials, who maintained a clean environment for health in cities but did not enforce invasive procedures on the public.
[55] "Anti-Compulsory Vaccination Society Very Strongly Endorsed," *Ottawa Citizen* (25 Apr. 1919): 2.
[56] Alexander Ross, "About Vaccination" *Manitoba Free Press* (01 Dec. 1887).

during the 1885 smallpox outbreak in Montreal. Re-locating to Toronto, his publishing over the next few years expanded beyond decrying vaccination, and he began to refine and promote his own type of medical system and philosophical understanding of disease. As mentioned in the previous chapter, Ross undertook an apprenticeship in hydropathy in the United States when he was younger.[57] He practiced a drugless and bloodless form of medicine aimed at regulating health through adherence to what he believed was a 'natural' lifestyle. This meant getting plenty of fresh air and exercise, the consumption of only 'natural' foods such as roots, nuts, and grains, and exclusively drinking clean water.[58] Symptoms of disease, he argued, were not caused by some external contagion or other force, but by the body as a method of expelling 'unnatural' substances that had somehow been consumed.[59] Thus, disease could be avoided through personal regulation, sanitation, and morality. He professed: "A very large proportion of the human race commit suicide with their teeth, they eat unnatural food, drink unnatural drink, live unnatural lives, generate unnatural offspring and die unnatural deaths."[60] His system of medicine matched well with other theories about hygienic medicine, a similar brand of medical sectarian practice in the United States.

Yet mainstream medicine – referred to as allopathic medicine by alternative medical practitioners at this time – was also in the middle of an important paradigm shift. Germ theories of disease were beginning to make waves in the medical and scientific communities on both sides of the Atlantic. It took a while for many to accept the idea that small biological organisms were the direct causal agents behind disease, and that these

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[57] See pages 56-63 for more information about Ross.
[58] Fisher Rare Book Library, University of Toronto. Alexander Milton Ross, Canadian Anti-compulsory Vaccination League Scrapbooks, 1883- 1890, volume 3. "Food Reform," (Toronto, 1888).
[59] *Ibid.,* "Natural Medical Principles" (undated).
[60] *Ibid.,* "The True Elixir of Life," newspaper column, undated.

germs or microbes could be individually identified through scientific observation. Worboys has insightfully pointed out that even the term 'germ' was nebulous, as scientists used a variety of terms to describe bacteria, including 'chemical agents', 'organised ferments', 'morphologically specific parasites,' and others.[61] Pasteur's work on fermentation in the 1860s in France was an early instigator for the development of a variety of germ theories, which would solidify into formal immunological models by the 1880s.[62] Nonetheless, by the end of the century, germ theory had been generally accepted into the orthodox medical understanding of disease causation.[63]

Although germ theories helped to shape Canadian medical approaches as early as 1881, acceptance within Canadian practice wasn't a straightforward process.[64] This was partly due to the limits of scientific study at the time. Classifications of bacteria were frequently evolving as scientists learned more about these microorganisms and their behaviour. The changing definitions were sometimes confusing and far from universal. Additionally, there was difficulty in completely isolating causal microbes from sick patients for comparison, meaning the determination of a specific germ as the cause of a specific disease was a slow process. This was also before technology had advanced enough to identify viruses, so there were several viral diseases circulating in which a causal agent could not be identified. Worboys has argued that these issues caused a variety of unique 'germ practices' to develop within medicine, further complicating any form of

[61] Worboys, *Spreading Germs,* 2.
[62] *Ibid.*
[63] For a full account of the discovery and eventual acceptance of germ theory, see John Waller, *Discovery of the Germ* (Icon Books, 2000). For a discussion of the variety of germ theories and practices at the end of the nineteenth century, see Worboys, *Spreading Germs.*
[64] National Library of Canada, CIHM/ICMH microfiche series. No. 27557. The germ theory in disease and fermentation: extracts from a paper read before the Hamilton Association by Prof. W. A. Wright on Thursday ev'g, (28 Apr. 1881), https://www.canadiana.ca/view/oocihm.27557.

universal approach or acceptance.[65] For these reasons, practitioners of medicine, especially in alternative circles, were sceptical of the new theory.[66]

Ross rejected germ theory as both unscientific and counter-intuitive. In one pamphlet he published in 1888, titled *Fallacies & Delusions of the Medical Profession*, he declared it to be the newest "medical delusion" to be pushed by superstitious and irrational doctors.[67] The "Koch tuberculosis craze," he asserted, was akin to the 'vomiting craze', 'bloodletting craze', 'sweating craze', and other 'silly' medical practices which rose and fell with time. He mused that with a little common sense, "Koch and his delusion [would be] consigned to the same tomb with other dead delusions."[68]

Ross' hygienic medicine saw health as the 'natural tendency' of the body; a type of equilibrium that the body would attempt to return to whenever it encountered an injurious force. Symptoms of disease were, in his philosophy, a "remedial action" taken by the body to "expel impurities, poisons, and extraneous matters."[69] Thus, the introduction of any form of drug or pharmaceutical to treat disease was to pollute the body more, taking it even further from the "comfortable state" of health it was consistently seeking. It is therefore easy to see why he vehemently opposed vaccination, which he saw as actively contaminating a healthy body. Ross went so far as to declare: "Of the two evils - smallpox and vaccination - vaccination is the greatest."[70]

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[65] Worboys, *Spreading Germs.*
[66] National Library of Canada, CIHM/ICMH microfiche series. No. 94308. Clarence T. Campbell, "The germ theory in relation to therapeutics: A pamphlet read before the Canadian Institute of Homeopathy Jun. 15, 1886," https://www.canadiana.ca/view/oocihm.94308.
[67] Fisher Rare Book Library, University of Toronto. Alexander Milton Ross, Canadian Anti-compulsory Vaccination League Scrapbooks, 1883- 1890, volume 3. "Fallacies & Delusions of the Medical Profession," (Toronto, 1888).
[68] *Ibid.*
[69] Fisher Rare Book Library, University of Toronto. Alexander Milton Ross, Canadian Anti-compulsory Vaccination League Scrapbooks, 1883- 1890, volume 3. "Food Reform," (Toronto, 1888).
[70] *Ibid.* Alexander Ross, "Compulsory Vaccination," *Toronto Daily News* (03 Nov. 1888).

His understanding of health and medicine was similarly informed by his reformer ideology and libertarian understanding of rights. The hygienic approach to treatment was hyper-individualised, emphasising the importance of self-determination and personal choices. Policies that made vaccination compulsory were a stark contrast to this approach, violating the autonomy of the individual. Ross avidly believed that "no man or set of men have any right to compel any person to undergo any surgical operation whatever, against his or her will."[71]

It was not just compulsory vaccination that he attacked in his populist publications. He additionally spoke out against any sort of tightening of restrictions over medical licensing and practice. The licencing of physicians began early in Canada, done through different medical boards in Ontario. There were three main groups of practitioners in the mid-nineteenth century, the 'regulars,' the homeopaths, and the 'eclectics'.[72] The licensing boards for these practitioners joined together with the foundation of the College of Physicians and Surgeons of Ontario in 1869, with a board formed by a representative of each of the main medical universities, twelve 'regular' physicians, five homeopaths and five eclectics.[73] The involvement of the competing schools in the establishment of medical legitimacy at this time created what historians

[71] "About Vaccination", *Manitoba Free Press* (01 Dec. 1887): 1.
[72] Eclectics were a medical sect that originated in the 1820s in New York, born out of Thomsonian and medical botany. Eclectics utilised botanical compositions, eschewing mineral compositions used by mainstream physicians. Additionally, they frequently borrowed aspects of treatment from other systems. For a full description of the history of Eclecticism in Canada, see: Jim Connor, "A Sort of 'felo-de-se'": Eclecticism, Related Medical Sects, and Their Decline in Victorian Ontario," *Bulletin of the History of Medicine* 65, no. 4 (1991): 503-27, https://www.jstor.org/stable/44442641.
[73] Richard Edwards, *Ideology of Science, Industrialization, and the Professionalization of Medicine in Canada, 1880-1920* (Master Thesis, York University (Toronto), 1986), 175.

Gidney and Millar referred to as "a free trade in reputable medical ideas."[74] The College soon introduced a Medical Register (similar to the system in Britain) which gave exclusive licensing for medical practice in the province to those on the register, requiring the passing of an examination put forth by the College, and the presentation of some sort of medical qualification that proved they had undertaken a form of formal study.[75]

However, the eclectics were soon removed from the college governing body. According to Connor, this was part of a movement by the Eclectics to self-amalgamate into mainstream medical practice and abandon sectarianism.[76] Many Eclectics had elected to take degrees in regular medicine and saw the value of merging into the mainstream. In 1874, the five eclectics on the board agreed to stay on but would not appoint any successors. Thus, by 1879, Eclecticism as a sect of medical care was legally no more.[77] By 1891, the number of regular physicians on the council was increased. Yet the medical council was still concerned with the quality of physicians. There was fear that licensed physicians could be on the official Register, despite a lack of mainstream education or training.[78] Stricter amendments to the Medical Act would soon come in,

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[74] R. Gidney and W. Millar, "The Origins of Organized Medicine in Ontario, 1850–1869," in *Health, Disease and Medicine: Essays in Canadian History. Proceedings of the First Hannah Conference on the History of Medicine*, *McMaster University, June 3-5, 1982*, edited by Charles G. Roland, 65-95 (Toronto: The Hannah Institute for the History of Medicine, 1984), 88.
[75] The Ontario medical register from May 1866 to Jun. 1887. Hamilton, Ont.: Printed and published under the direction of the Council of the College of Physicians and Surgeons of Ontario, 1887, https://www.canadiana.ca/view/oocihm.8_01922_10.
[76] Connor, "A Sort of 'felo-de-se'," 522
[77] *Ibid.*
[78] Clarence T. Campbell, Medical legislation in Ontario: the annual address at the meeting of the Canadian Institute of Homeopathy, Hamilton, 14 Jun. 1892, https://archive.org/details/cihm_10278/mode/2up.

allowing for physicians to be removed from the Medical Register if they were found to be "guilty of any infamous or disgraceful conduct in a professional respect."[79]

Ross saw the increasing control over who could obtain a medical licence as a violation of the rights of patient choice. Likening choice of medical system with the choice of religious ideology, he asserted: "The convictions of the individual should be inviolable in the domain of medicine as that of religion or politics, and coercion in that is nothing less than tyranny."

Ross eventually moved to the United States to continue his work in hygienic medical practice. Working with Susanna and Mary Dodds, he co-founded the St. Louis Hygienic College of Physicians and Surgeons, a sectarian college that taught his precepts of natural medical treatments revolving around diet, exercise, and non-interventionist therapies.[80] His writings demonstrate a certain self-aggrandising flair that would be a characteristic of the medical marketing of later individualistic medical practitioners.[81]

1900 – 1910: Homeopathy under Attack

Compared with other alternative practices, homeopathy was unique in the medical field for its long-standing acceptance and official presence within the mainstream medical

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[79] William Renwick Riddell, "The medical profession in Ontario: a legal and historical sketch," Reprinted from Canadian journal of medicine and surgery, Toronto, (Sept. 1911), https://www.canadiana.ca/view/oocihm.77855.

[80] Martha Clevenger, "From Lay Practitioner to Doctor of Medicine: Woman Physicians in St. Louis, 1860-1920," *Gateway Heritage 8*, no. 3 (1987): 12-21, PMID: 11616997; George M. Rose, *A Cyclopaedia of Canadian Biography: Being Chiefly Men of the Time* (Toronto: Rose Publishing Co., 1888), 118.

[81] In 1892, he would commission a short biography of his life and the following year, he published a personal memoir. See: Judson Newman Smith, *A brief sketch of the life and labours of Alexander Milton Ross, philanthropist and scientist* (Toronto: Imrie & Graham, 1892); National Library of Canada, CIHM/ICMH microfiche series. No. 40423, https://www.canadiana.ca/view/oocihm.40423, and *Ibid.,* No. 12954, Alexander Milton Ross, *Memoirs of a reformer (1832-1892)* (Toronto: Hunter, Rose, 1893), https://www.canadiana.ca/view/oocihm.12954.

landscape. Indeed, there was a Homeopathic representative sitting on the Medical Council of Canada up until 1968.[82] Its origins are similarly long-standing. In 1796, the same year that Edward Jenner carried out his first cowpox vaccination experiments, a German physician named Samuel Hahnemann conceptualised a new theory of medical practice which would become homeopathy. Involving the use of highly diluted mixtures to 'cure' disease, his teachings would spread all across the world, founding institutes for study, hospitals, and organisations of devout followers.[83] Although homeopathic treatments have since been proven to have little, if any, effect on curing disease,[84] the system has enjoyed lasting notoriety and has been making recent comebacks in popularity.

Homeopathy had a strong foothold in nineteenth century North America, with numerous homeopathic colleges and hospitals founded in various cities.[85] In Canada, the first homeopathic practitioners set up practices in Toronto in 1846 and Montreal in 1863, forming homeopathic dispensaries and eventually a homeopathic hospital in both cities.[86] Additionally, many homeopathists also trained in regular, or 'allopathic' medicine, at established medical schools. The trend of mixing practice between regular and homeopathy was seen in the advertisement for one Montreal homeopathist in 1863, who announced a long list of illustrious credentials including graduation from the Royal

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[82] J.K. Crellin, et al., *Alternative Health Care in Canada*, 55.
[83] Das has undertaken an interesting study in the introduction and adoption of homeopathy in Colonial India. Shinjini Das, *Vernacular Medicine in Colonial India: Family, Market and Homeopathy* (Cambridge University Press, 2019).
[84] Robert Mathie, "Controlled Clinical Studies of Homeopathy," *Homeopathy: The Journal of the Faculty of Homeopathy* 104, no. 4 (2015): 328-32, https://doi.org/10.1016/j.homp.2015.05.003; Aijing Shang et al. "Are the Clinical Effects of Homoeopathy Placebo Effects? Comparative Study of Placebo-controlled Trials of Homoeopathy and Allopathy," *The Lancet (British Edition)* 366, no. 9487 (2005): 726-32, https://doi.org/10.1016/s0140-6736(05)67177-2.
[85] Thomas Nichol, "The Misrepresentations of Homeopathy," *Montreal Tracts on Homeopathy* No. 5. (Montreal; W. Drysdale & Co., 1888), https://www.canadiana.ca/view/oocihm.39195.
[86] National Library of Canada, CIHM/ICMH microfiche series. No. 01752, *History of Homeopathy in Montreal* (1895), https://www.canadiana.ca/view/oocihm.01752.

College of Surgeons of Edinburgh and the University of Toronto, before obtaining a license from the Homeopathic Medical Board of Upper Canada.[87] The duality of training meant that many homeopathists would switch between the two fields rather than being 'tied' to a specific system.[88] This inter-changing of medical systems enabled better cohesion between the schools when they were merged into one licensing board after Confederation.

Early homeopathic practitioners were not initially opposed to vaccination. Hahnemann himself approved of the procedure.[89] There were a lot of theoretical synergies between the tenets of homeopathy and the idea of vaccine-induced immunity. Homeopathic theory relied on the creed 'like cures like', with many of their prepared tinctures for the ill made with substances that would cause the same symptoms when given to 'healthy' patients.[90] This made logical sense with how vaccination utilised a diminutive or weakened dose of a disease to prevent future infections. Historian Davidovitch has argued that there was no single consensus on vaccination and its effects amongst homeopaths, just as there was no one consensus on vaccination among those practicing orthodox medicine.[91] Homeopathists were generally in line with vaccine policy in the nineteenth century, as long as their own type of 'homeopathic vaccination' was upheld as equally useful to the version promoted by the mainstream.[92] This version

[87] "Homeopathy," *Montreal Gazette* (02 Mar. 1863): 1.
[88] "Quacks and Empirics," *Canadian Journal of Homeopathy* 1, no. 3 (Mar. 1856): 1.
[89] Nadav Davidovitch, "Negotiating Dissent: Homeopathy and Anti-Vaccination at the Turn of the Century," in The *Politics of Healing: Histories of Alternative Medicine in Twentieth-Century North America,* edited by Robert Johnston (Routledge, 2003), 13.
[90] John Henry Clarke, *Homoeopathy: All about It; Or, The Principle of Cure* (London: Homoeopathic Publishing Company, 1894), 9.
[91] Davidovitch, "Negotiating Dissent," 12.
[92] For instance, the Canadian Journal of Homeopathy published articles on the best practice of smallpox vaccination on infants. See, *Canadian Journal of Homeopathy* 1, no. 7 (Jul. 1856): 96.

of vaccination involved extracting a disease matter, preparing the remedy through intense dilution, and then oral administration.

However, the divide between homeopathists and regular doctors grew wider as the century progressed.[93] Homeopathy became more professionalised and more rigid in its dogma, while medical understanding advanced and new investigations into the biological causes of disease shaped therapeutic treatments. Although some schools of homeopathy, especially in the USA, still embraced vaccination as a homeopathic remedy that demonstrated the modern methods of breakthroughs of homeopathic research,[94] others regarded the acceptance of vaccination, anti-toxins, and serums as a method of courting favour with opponents in the mainstream.

By the end of the century, the restrictions on practice in Ontario had tightened and the divide between mainstream physicians and homeopathists had widened. The Medical Register was introduced to remove "uneducated, incompetent and dishonest persons, who preyed on the misfortunes of the sick and distressed."[95] Although many individual physicians had always been happy to announce their views on homeopathy as a system "neither more nor less than quackery",[96] by 1900, even mainstream medical journals were decrying the "blind diabolisms" from homeopaths who rejected "sane common sense."[97]

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[93] For a full discussion of this, see Connor, "A Sort of 'felo-de-se'."
[94] Davidovitch, "Negotiating Dissent," 17.
[95] National Library of Canada, CIHM/ICMH microfiche series. No. 10278. Clarence T. Campbell, Medical legislation in Ontario: The annual address at the meeting of the Canadian Institute of Homeopathy, Hamilton, 14 Jun. 1892, https://www.canadiana.ca/view/oocihm.10278.
[96] Mark S. Wade, "Dr. Wade and Homeopathy," *Daily News Advertiser (Vancouver)* (16 Mar. 1890): 9. Wade had previously decried the special privileges of homeopathists to register for medical licensing in British Columbia in a self-published pamphlet. See: Mark S. Wade, Notes on medical legislation in British Columbia, (Victoria, B.C.? : s.n., 1890), https://archive.org/details/cihm_16417/mode/2up.
[97] "Homeopathic Opposition to Science," *The Canadian Journal of Medicine and Surgery* 8, no. 3 (Sept. 1900): 210.

Famed physician William Osler publicly denounced homeopathy as quackery, publicly refusing an invite to speak at a dinner for the New York Homeopathic College.[98] Eventually, friction developed over the continued representation of homeopathy on the council of the College of Physicians and Surgeons of Ontario.[99] By 1899, the Ontario Medical Association explicitly forbade any of its members from consulting or sharing medical cases with homeopaths and other alternative practitioners.[100]

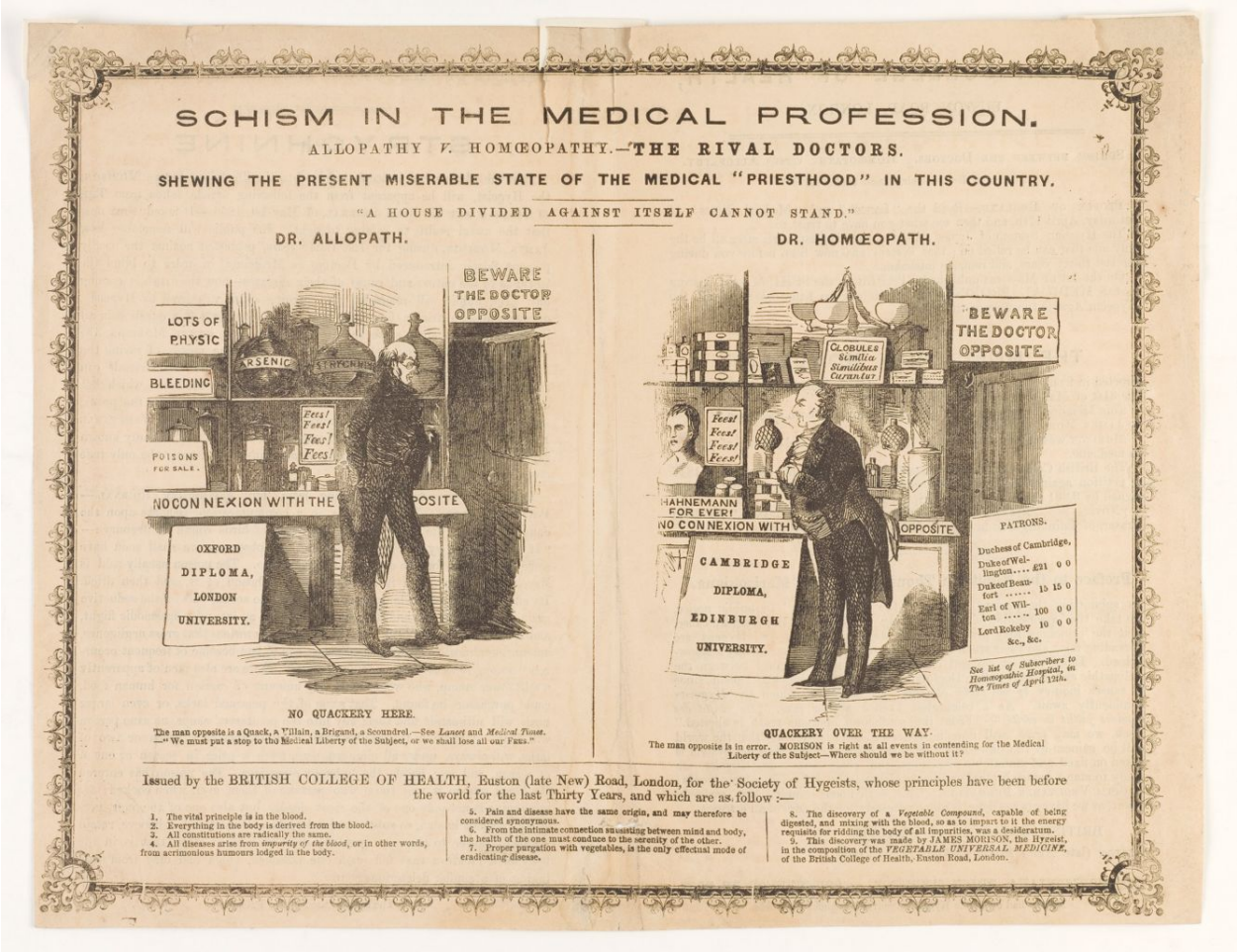


Figure 6: Homeopathy ephemera. Wellcome Collection, https://wellcomecollection.org/works/u9rrze54.

[98] "Dr. Osler's Latest Word," The Daily Standard (18 May 1908): 4.
[99] J.W. McLaughlin, "Should the Medical Profession of Ontario be Self-Governed?" *The Canadian medical review* 5, no. 6 (Jun. 1897): 210.
[100] Ontario Medical Association, *Constitution and by-laws and code of ethics of the Ontario Medical Association* (Toronto: W. Briggs, 1899), 20.

Yet even as members of the mainstream medical community were predicting the eventual dissolution of homeopathy as a field of care,[101] it was reaching its height of power in Canada. Canada's first homeopathic hospital opened in 1887 as the Toronto Homeopathic Free Dispensary, soon converted to the Toronto Homeopathic Hospital in 1890. In 1894, the Montreal Homoeopathic Hospital was opened with strong local support.[102] The hospital had been funded by wealthy Montreal patrons in response to the refusal by the regular city hospitals to institute homeopathic wards.

Although homeopathy was still a minority practice, with only sixty homeopaths practicing in Ontario in 1897, compared to 2,500 regular physicians,[103] it maintained a strong enough position to keep a steady clientele.[104] This was in large part due to the support of middle and upper-class women. It was a wealthy 'lady friend' of the Montreal homeopaths who provided the initial donation for purchasing and renovating the building that would serve as the homeopathic hospital. Additionally, the hospital committee, administrative staff, and core nurses were mostly female.[105] The Women's Auxiliary of the Montreal Homeopathic Hospital would go on to be the main publishers of the monthly *Montreal Homeopathic Record*, the main medical journal for homeopathists in the country. Indeed, one of Canada's first female physicians, Dr. Emily Stowe, obtained her license after pursuing a homeopathic medical education in the United States.[106] The

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[101] Alonzo Benjamin Palmer, *Homoeopathy: What is it?: A statement and review of its doctrines and practices* (Detroit: Geo. S. Davis, 1881), preface.
[102] *History of Homeopathy in Montreal* (Montreal, 1895), https://ia802705.us.archive.org/9/items/cihm_01752/cihm_01752.pdf.
[103] J.W. McLaughlin, "Should the Medical Profession of Ontario be Self-Governed?," *The Canadian medical review* 5, no. 6 (Jun. 1897): 210.
[104] Personal Advertisements for Homeopaths, *Ottawa Citizen* (13 Feb. 1911): 4; (10 Nov. 1911): 5; (02 May 1912): 4.
[105] *History of Homeopathy in Montreal* (Montreal, 1895), https://ia802705.us.archive.org/9/items/cihm_01752/cihm_01752.pdf.
[106] Vivien Hamilton, "Medical Machines as Symbols of Science?: Promoting Electrotherapy in Victorian Canada," *Technology and Culture* 58, no. 4 (October 2017): 1022-1023.

support and uptake of homeopathy by women helped to characterise it as a feminised form of treatment, which emphasised "gentle" approaches, in comparison to the "heroic," masculine depictions of mainstream medicine, which increasingly relied on laboratory science.[107] The difference between homeopathic administration, which was orally taken, versus the use of incision or injection by the vaccinating physician is a good example of this dichotomy.

In 1902, the front page of the *Montreal Homeopathic Record* featured an exposé on vaccination, highlighting the debates ongoing in the United States about its use in the profession, and outlining the various homeopathic forms of vaccination which were believed to be far safer and just as effective.[108] These included 'Vaccininum', 'Variolinum' and 'malandrinum'. The former two involved diluting the virus "beyond its toxic force", while the latter was used to prevent vaccination from 'taking' in a patient. *The Record* made sure to draw a distinct line between these forms of smallpox prevention and allopathic vaccination.[109]

It was during this moment of tensions that several Canadian homeopaths made their first vocal forays into anti-vaccination. In 1899, two Ottawa homeopaths printed a circular for wide distribution that vividly objected to vaccination practice.[110] Drs. D.C. Maclaren and the aptly named A. Quackenbush became vocal anti-vaccination proponents after the local board of health suggested increased vaccination that year. In one interview with the press, they declared that as homeopathists, they wished "to state publicly that we definitely oppose vaccination and desire to warn the intelligent public

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[107] Erin Steuter, "Contesting the Rule(s) of Medicine: Homeopathy's Battle for Legitimacy," *Journal of Canadian Studies* 37, no. 3 (2002): 95.
[108] "Data Wanted," *Montreal Homoeopathic Record* 6, no. 8 (Aug. 1901): 1.
[109] *Ibid.*, 2.
[110] "General News," *Globe* (10 Feb. 1899): 1

against it."[111] The reasons they gave were that "its boasted powers are utterly delusive," it "is always attended with serious risks to life and health," and lastly, that in spite of all statements guaranteeing the purity of the vaccine, "it is inconceivable how any such putrid matter can ever be considered pure."[112] Other homeopathists would be key leaders in later anti-vaccination protests. Dr. Henry Becker, a well-known homeopathist in Toronto[113] as well as one of the representative homeopaths on the council of the Ontario College of Physicians and Surgeons,[114] was one of the leading instigators of the Toronto anti-vaccination protests in 1901-1906, and again in 1919.[115]

These practitioners were assisted by the arguments of other medical sects, who insisted that the declining smallpox rates were due to better sanitation and hygiene, rather than vaccination. It was often asserted by those who subscribed to an environmental and holistic approach – sanitary engineers, hydropaths, and naturopaths especially – that while vaccination was constantly applauded as the fix for smallpox, cleanliness was the true cure. Clean cities, proper waste disposal, and regular washing were declared the real cause of the reduction in smallpox rates over time. In the 1880s, anti-vaccinationists accused public health officials of neglecting civic sanitary reforms and instead were promoting vaccination to save money.[116] The bathing and water-cures promoted by naturopaths worked well with these arguments, as did the 'bloodless' and 'drugless' approaches of other alternative care practices such as chiropractic and osteopathy.

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[111] "At the Capital," *Globe* (12 Feb. 1899): 8.
[112] *Ibid.*
[113] Frederick Smily, "The medical directory of Toronto and suburbs," (Toronto: R.G. McLean, 1903), 6, https://www.canadiana.ca/view/oocihm.83332.
[114] Bator, "The health reformers versus the common Canadian," 350.
[115] See pages 80 and 111-116.
[116] "The Provincial Health Bill," *Gazette* (27 May 1886): 5.

The Canadian Anti-Vaccination League, 1900

The classic analysis put forth in the 1980s by Coburn, Torrance, and Kaufert still holds true in many ways, with their argument for a 'rise to dominance' up until World War One, and a 'consolidation' of dominance in the interwar period.[117] Vaccination debates were one of the key battlegrounds in this process, as the medical community began to tighten its claims to legitimacy and regulation.

Another wave of anti-vaccination protest came at the turn of the century. It was instigated in response to changing enforcement of vaccine requirements in Toronto public schools and periodically swelled between 1900 and 1906, when the anti-vaccinationists succeeded in overturning the legislation requiring vaccination of all students. Throughout this time, the moments of greatest popular support for the anti-vaccination league came in direct response to the moments of compulsory enforcement. Yet the practicalities of ensuring all children were vaccinated meant that the actual application of compulsory policy was more pragmatic than strict. As such, popular agitation waxed and waned. It was the sustained efforts of the league that kept the pressure on the board of education to remove its vaccination requirements. This was a prolonged campaign that took nearly six years, and it was led by a vocal and energetic group of alternative practitioners in the city, particularly homeopaths. They harnessed the long heritage and historical authority of the movement to bolster their toolkit of arguments, connecting with other unorthodox systems that rejected vaccination and with the international anti-vaccination community in England and the United States.

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[117] David Coburn, George Torrance and Joseph Kaufert, "Medical Dominance in Canada in Historical Perspective: The Rise and Fall of Medicine?" *International Journal of Health Services* 13, no. 3 (1983): 407-432, https://doi.org/10.2190/d94q-0f9y-vyqh-px2v.

In early 1900, the Toronto Board of Education made the decision to enforce a strict adherence policy for smallpox vaccination in public schools. A few cases of smallpox had been reported at Toronto Junction[118] that February, raising concerns about possible cases spreading through the city in the spring.[119] Although technically health legislation required all pupils to produce a certificate of vaccination before attendance at school, in practice, few schools in Toronto had enforced this previously. It was commonly reported in the newspapers that some of the certificates produced by parents were suspected fakes, and there were known cases of doctors selling fraudulent certificates to hesitant parents.[120] In fear of potential outbreaks, the Toronto Public School Board ordered all schools to undertake an inspection of student arms. Satisfactory evidence of a smallpox vaccination scar was needed, or the student would be removed from school and could not return until they were vaccinated. An important distinction here was the need to furnish a visible scar – meaning that only allopathic vaccination was acceptable.

This policy was stricter than any before, and even raised cautions from the city Health Officer, who generally approved of more diplomatic approaches to vaccine enforcement.[121] This is a trend that historian James Colgrove identified as common for state medical officials when it came down to individual instances of vaccine

[118] City of Toronto Archives. Fonds 200, Series 518, File 4. Letter Medical Health Officer to Secretary, Local Board of Health, 08 Feb. 1900. At this time called the Town of West Toronto Junction, The Junction had its own town council and federal electorate until it was merged with Toronto in 1909.
[119] City of Toronto Archives. Fonds 200, Series 779, File 6. Board of Control Minute Book 1900, 16 Feb. 1900; "May Reach City," *Globe* (08 Feb. 1900): 7.
[120] City of Toronto Archives. Fonds 200, Series 518 - File 4. Letter Medical Health Officer to James L. Hughes, 14 Mar. 1900; "Smallpox Frauds," *Globe* (25 Apr. 1901): 12.
[121] City of Toronto Archives. Fonds 200, Series 518 - File 4. Letter Medical Health Officer to Dr. M.J. McCullum, 14 Feb. 1900.

application.[122] Nonetheless, the Board declared that failure to demonstrate a scar would result in exclusion from school, and the order was issued.

It did not go well. The previous neglect of regulations meant that there was an abundance of unvaccinated children already attending schools across the city. The local papers reported that nearly five thousand children were sent home that week from school.[123] The Health Officer, who administered free vaccination at City Hall, soon found himself overwhelmed with the sudden demand. Long lines formed around the building as parents scrambled to get their children vaccinated and re-admitted into the city schools. In the end, the crowd was simply too large for the officer and his four assistants to handle. The haggard physician eventually ordered the children back to school, vowing that special arrangements would be made for them to be temporarily admitted until a health official could visit each school and vaccinate children directly.[124] This became one of the first instances of vaccination clinics being conducted within schools themselves.

The AVLC was reborn in the wake of this turmoil. Through newspaper editorials, many expressed outrage at the chaos in the city, with one school trustee declaring it was "perfect rot" to let thousands of children "run on the streets because they have not been vaccinated."[125] The suddenness of compulsory enforcement and the extent of the resulting disruption catalysed a wave of frustration from the public. Quick organisation of an Anti-Vaccination League began. Participants were from a range of backgrounds, though solidly in the middle classes, including barristers, religious preachers, and

[122] Colgrove, State of Immunity, 2.
[123] "Board of Health," *Globe* (15 Feb. 1900): 8.
[124] *Ibid.*
[125] "They Objected," *Globe* (16 Feb. 1900): 9.

politicians.[126] The League began to meet regularly to discuss its plans in Broadway Hall in central Toronto. They presented their first petition to the Toronto Board of Education, requesting the repeal of the compulsory mandate.[127] Several local businesses joined in the efforts, including the local City Dairy company, which denounced compulsory vaccination in their ads while promoting their 'clarified milk' product.[128]

Vaccination soon became a talking point in political discussions, resulting in the election of a vocal anti-vaccinationist mayor. Although he served only a short one-year term, Mayor Ernest A. MacDonald saw the power of public debate through the media. In the Toronto dailies, he alleged that vaccination was a 'dirty, filthy practice,' and that he would not undergo the procedure under any circumstance, nor allow his child to do so.[129] He reportedly wrote a personal letter to the school inspector when a young child he knew was sent home for not displaying a clear vaccination scar. The enforcement of vaccination by provincial legislature was a 'barbarous and tyrannical act' he asserted, applied at "the caprice of the school authorities."[130] When the Board of Health submitted a bill of $250.00 for the purchase of vaccine supplies to the city, MacDonald motioned to reject the bill, saying it was akin to paying for murder.[131]

A number of homeopathic and irregular physicians provided a backbone to the movement, with the homeopathic Doctor Henry Becker, as one of its most vocal leaders. He was joined by fellow homeopaths Drs. Edward Adams, Joseph D. Tyrell, and E.G.

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[126] Some examples found in various news articles include Ziba Gallagher, a partner in a barrister office, Rev. J.C. McCuaig, a congregational minister, and even Mayor Macdonald himself. Bator found similar trends in his analysis of this movement. See: Bator, "The health reformers versus the common Canadian," 352-353.
[127] "They Objected," *Globe* (16 Feb. 1900): 9.
[128] "Compulsory Vaccination," *Globe* (26 Feb. 1902): 14.
[129] "The Mayor Calls Vaccination Vile," *Toronto Daily Star* (16 Feb. 1900): 2.
[130] *Ibid.*
[131] W.A.Y. "Mayor of Toronto and Vaccination," *The Canadian Journal of Medicine and Surgery* 7, no. 4 (Apr. 1900): 271.

Lennox (who was also a dentist).[132] Other practitioners included Dr. Thomas W. Sparrow, who trained in chemistry, and Dr. L. H. Evans, who was an ophthalmologist and would later be placed on trial for forging a cheque from a deceased patient.[133] The debates and the characters who led them proved excellent fodder for public attention and gave an edge on viewership in the competitive print media market.

There were a few 'regular' physicians involved in this early movement as well, including the prominent Dr. E.K. Richardson.[134] In a circular letter distributed in December of 1900, they advocated conscientious objection to vaccination, echoing the recent introduction of similar provisions in Britain. Their claims were reasonable and made sense with the technology of the time.[135] There were still risks involved with the procedure, and much to learn about its biological origin. Additionally, truant laws meant that keeping children out of school could lead to legal consequences for a parent, leaving them few options. They asked for what was 'reasonable and right' by appealing for the removal of compulsory mandates.[136]

> The truant by-law is strictly enforced, and thus these ratepayers, parents and guardians, are driven to the alternative of becoming liable to a fine for non-attendance at school of the children or of having them submit to an operation which they conscientiously, and with good reason, believe is productive of great harm in many cases.[137]

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[132] The professions of these men were determined by cross referencing their names from various newspaper articles, a circular letter by the Anti-Vaccination League in 1900, and the Toronto City Directory from 1900. Ontario Archives, File - F 5-1-0-1025. *Circular letter from a number of doctors opposing vaccination*, 01 Dec. 1900; Toronto: The Might Directory Co. 1900.
[133] The event caused quite a scandal in the Toronto newspapers, who followed the trial vehemently. "Says she was Asked to sign blank paper," *Toronto Star* (11 Oct. 1912): 23.
[134] Richardson was a staunch patriot and would nonetheless accept vaccination mandates when he later served in the First World War.
[135] See pages 44-50 for a discussion of vaccine technology at the turn of the century.
[136] Ontario Archives, File - F 5-1-0-1025. *Circular letter from a number of doctors opposing vaccination*, 01 Dec. 1900.
[137] *Ibid.*

Concern over the failure of health interventions in the city helped the AVLC spread their message. Tuberculosis and typhoid were the number one causes of death in Toronto during this time.[138] Critiques of the role that schools played in the transmission of tuberculosis were published frequently in the papers, and the city officials were under fire for a perceived lack of intervention. One writer declared: "The tuberculosis fiend stalks about with little or no opposition, mowing down his thousands annually… should we not see to it that some of the causes... be removed?"[139]

Additionally, popular sentiment against the city board of health had become inflamed in recent years. The actions of the medical health officer – and especially the spending of the health department – were frequently politicised by rivalries in city hall.[140] Although Dr. Sheard had made several successful changes since he took the office in 1893, there were still high rates of infection and recurring problems with sanitation.[141] Rainwater persistently caused overflow of sewage systems in the city, leading to the contamination of dwellings and the flooding of streets, buildings, and homes with wastewater. The city experienced fluctuating outbreaks of typhoid and enteric fever between 1900-1906, as city officials debated the best way to address sewage removal and improve waste management.[142] The slow progress in addressing the issue fuelled political divisions in the city, with frustrated citizens pointing to stagnation in addressing the

[138] R. Barkin and I. Gentles, "Death in Victorian Toronto, 1850-1899," *Urban History Review / Revue d'histoire urbaine,* 19, no. 1 (Jun. 1990): 14–19, https://www.jstor.org/stable/43562007.
[139] "The Health Question," *Globe* (23 Feb. 1901): 9.
[140] MacDougall, *Activists and Advocates,* 23.
[141] For a good description of the living conditions of Toronto at this time, see Michael Piva, *The Condition of the Working Class in Toronto, 1900-1921* (Ottawa: University of Ottawa Press, 1979), 113-142.
[142] Toronto Archives, Fonds 200, series 783, file 8. "City clerk with reference to scheme for the disposal of sewage and forwarding a copy of a resolution adopted by Council in relation thereto," (28 Jan. 1903).

problem and opponents accusing the former mayor of talking 'clap-trap' to 'influence electors.'[143]

Mr. R.S. Weir, who served as secretary-treasurer of the League,[144] made a habit of writing regular columns in newspapers commenting on the high rates of tuberculosis, claiming that the increased incidences were due to the 'weakening' effects of vaccination.[145] The bovine origin of vaccine matter provided a kernel of logic to his claims. Bovine tuberculosis was a continuous concern for children, who could contract the disease through the consumption of infected dairy products. However, Weir pointed to the high infection rates as evidence for contamination of vaccine lymph – sourced from cows - with bovine tuberculosis. He frequently asserted that tuberculosis was "propagated and fostered by the practice of vaccination," either directly through the lymph or indirectly by 'poisoning' the blood and leaving them constitutionally weakened, unable to fight off other diseases.[146] In the face of these claims, any disease outbreak could be taken as evidence of the negative effects of vaccination. Indeed, vaccine resistance peaked again during 1902 after an outbreak of scarlet fever in the province and a second flare-up in smallpox cases.[147] A few years later, an epidemic of whooping cough led to 16 child deaths, causing another flare-up of public fear and resentment.[148]

Yet popular support was still limited to moments of increased compulsion, and it waned as people lost interest and continued with their own lives. The regular publicization of anti-vaccination meetings in the local newspapers ceased a few months after the initial

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[143] "A Record of Failure," *Globe* (18 Jul. 1902): 4.
[144] R.S. Weir should not be confused with Judge Robert Stanley Weir, who lived in Montreal at this time. Robert S. Weir is listed in the Toronto Directory as a proprietor, though few details exist beyond this.
[145] R.S. Weir, "Tuberculosis and Public Schools," *Globe* (15 Dec. 1904): 8.
[146] "Correspondence," *Vancouver Daily World* (03 Jul. 1908): 4.
[147] "To Check Scarlet Fever," *Globe* (12 Feb. 1903): 8.
[148] "The Provincial Health," *Globe* (30 Sept. 1905): 15.

turmoil of February 1900, and while the core members of the AVLC still met, the general support diminished.[149] Through continued paid advertisements and open letters, the AVLC laboriously encouraged citizens to send their names and addresses to the AVLC headquarters to sign their petition. Their first petition was soundly ignored, but they would continue to hold regular meetings and agitate for the repeal of the requirement over the next six years.[150]

The lack of support for anti-vaccination from both public officials and the wider public meant populist tactics were a key tactic for continuing momentum of the cause. In March 1903, a large anti-vaccination gathering took place at the nearby town of West Toronto Junction (soon to be amalgamated with the city of Toronto), where Becker gave an impassioned speech.[151] He and his colleagues criticised the "butchery of doctors and tyranny of the people," complaining that the local council "talks much and does little."[152]

That same year a sympathetic mayor was elected to city council. He quickly called a public meeting to discuss the controversial issue. Although this meeting was open to the whole city, it was mainly, if not exclusively, attended by anti-vaccinationists, with all presenters and speakers decrying vaccination as unscientific, harmful, and ineffective. At the end, a resolution was passed calling for the repeal of the compulsory vaccination laws for Toronto school attendance.[153] This resolution was not official – it was simply a mechanism of demonstrating agreement amongst the crowd in their views. The passing

[149] The last public notice found for a meeting of the AVLC was in April, but as the circular was produced on Dec 1, 1900, it is assumed the main agitators continued to meet throughout this time.
[150] "Local Briefs," *Globe* (06 Mar. 1900): 4; "Cities Danger from Smallpox," *Globe* (27 Feb. 1900): 3.
[151] "Plenty of Talk at the Junction," *The Toronto Daily Star* (20 Mar. 1903): 3.
[152] "Anti-Vaccinationists: Public Meeting Held at Toronto Junction," *Globe* (21 Mar. 1903): 31.
[153] "Evils of Vaccination," *Globe* (10 Apr. 1903): 12.

of such motions was a common practice of Victorian pressure groups, serving as a democratic assertion of a group which felt its views were being ignored.

Arguments for parental rights were particularly appealing to the wider populace and gained good traction in the media. While public health experts were arguing for the banning of 'mouth toys' in schools and the introduction of new scientific principles to both school and home life,[154] Weir argued that parents should have ultimate authority over the health of children, and the ultimate authority over decisions regarding their medical procedures. This included the ability to choose which doctor they wanted to see, and which theory of medicine they followed - homeopathic and other alternative medical practitioners included. The legal adherence to a vaccination exclusively controlled and administered by allopathic physicians was one of the early steps towards the exclusion of alternative medical practitioners from the medical marketplace.

In one angry letter published in 1901, Weir described the case of a father who had his son 'vaccinated homoeopathically', yet the child was still refused admittance to school. Weir argued: "Shortly afterwards, the truant officer visited the parent and threatened persecution if the child was not got to school. A nice position this is! A fire on either side: go as he may, the parent must be burned!" In another open letter to the provincial health officer, Weir wrote: "If the public are desirous of raising children with clean and robust constitutions, they will insist on the repeal of this 'vicious legislation' without delay."[155] The "individual liberty of parents" was at risk of censure by the state.[156]

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[154] "Canada: Conference on School Hygiene," *The British Medical Journal* 1, no. 2254 (12 Mar. 1904): 631.
[155] "A Dangerous Operation," *The Kingston Daily News* (26 Mar. 1901): 2.
[156] "Anti Vaccination Wins," *Globe* (02 Mar. 1906): 12.

The debate came to a head in 1906. In February of that year, the Provincial Board of Health began to debate its role in public health policy, and it was decided that amendments to the Health Act would be ideal at addressing the prevailing concerns across the province. At a special meeting, the health board moved to increase its power over enforcing vaccination, alongside an increase in its authority to disinfect vehicles crossing provincial borders and requiring all municipalities to seek its approval of water supply systems.[157]

Within a month of this meeting, the AVLC delivered a new petition to the public-school board, this time containing (it was reported) thousands of signatures.[158] A special board meeting was called and League members turned out in force.[159] Only one doctor showed up to argue in favour of vaccination, and he was quickly silenced by the crowd. In the presence of overwhelming pressure, the Board of Education voted almost unanimously to remove the vaccine requirement for admittance to city public schools. One of the justifications they later cited was the pressure they felt to "do police work" by serving as the main mechanism of vaccination enforcement. With a provincial law already in place that required vaccination of infants, the board felt it should not be given the additional burden of enforcing vaccination on grown children.[160]

This saga marked one of the great 'victories' for anti-vaccination in Canada. Although the overturning of vaccination requirements would later be reversed in Ontario, it was a moment that demonstrated the power of alternative 'quacks' at upsetting the growing rise of the medical establishment. The previous thirty years had been

[157] "To Amend Health Act," *Globe* (16 Feb. 1906): 4.
[158] The actual number of signatures on the petition is disputed: The Anti-Vaccination League claimed it had over five thousand signatures, while health officials claimed it was a thousand.
[159] J. W. S. McCullough, "Relation of the Medical Profession to the Public," *The Canada Lancet* 41, no. 2 (Oct. 1907): 120.
[160] McCullough, "Relation of the Medical Profession to the Public," 110.

characterized by continuous legal and official support for increased regulation of the medical profession in the province, as well as increased support for vaccination. The assumption that political policy would continue to back the position of the 'mainstream' was shaken.

The Fight for Medical Freedom

In 1912, an amendment to the *Canada Medical Act* established a new national governing body – the Medical Council of Canada (MCC). The MCC oversaw the creation of a uniform assessment for medical practice across the country, allowing physicians to practice medicine in any province across the country if they were listed on the new national Medical Register.[161] Previous to this, the provinces individually regulated both the qualifications for medical education and medical practice, which prevented physicians from easily moving between provinces to practice. Most provincial medical licensing programs had protections or options for practice by those who stood outside "the regular profession."[162] However, to adhere to the new regulations, each province would amend their legislation to adopt the new national standards, requiring all physicians to pass a national examination before they could be qualified for practice in the country.

This new homogenizing system of credentials caused a stir amongst those in irregular medicine. Although homeopaths were still represented officially with three

[161] British Columbia. Chapter twenty-three. An Act to amend the "Medical Act". Accessed on July 20, 2023, https://www.bclaws.gov.bc.ca/civix/document/id/hstats/hstats/1913164656. It took a while for this to become standardised across all the provinces however, and a '10 year' clause was initially put in place to avoid physicians suddenly picking up and moving across the country *en masse*. This clause stipulated that only physicians who had been registered provincially for 10 years could relocate and practice in a different province with no restrictions.
[162] Robert Wynyard, "Registration under the Canada Medical Act," (1914?): 4. National Library of Canada, CIHM/ICMH microfiche series. No. 75698, https://www.canadiana.ca/view/oocihm.75698.

representatives on the MCC, they were an increasingly marginalised community, and there was little room for acceptance of any other alternative practitioners. The main body of the council was made up of two medical representatives from each of the provinces and one from each medical university in the country.[163] It was clear that this new examining body would reinforce the position of regular medicine in the country – indeed, this was one of the main goals of the legislation. The establishment of the MCC was a major win for mainstream medical practitioners and it led many, especially those in public health, to push hard for the establishment of a federal department of health.[164]

Across Canada, the response was the organisation of several "Medical Freedom" leagues – a trend that had begun in the United States a few years previous.[165] This signified one of the first conscious shifts in self-identity by anti-vaccinationists, a trend which would continue as anti-vaccination movements became increasingly stigmatised in public discourse over the course of the next century. In early March 1912, the Anti-Vaccination League of Canada was re-branded into the Ontario League of Medical Freedom. It declared its guiding principles to be: Opposition to "a monopoly of healing practice to any system or systems of healing," resistance to any form of "compulsory medicinal treatment," especially compulsory vaccination,[166] and disapproval of the use "of public funds, public schools, or other public institutions for the dissemination of literature, the advertising of theories, or the furtherance of the propaganda of any

[163] *Ibid.*, 6.
[164] "Opposes Federal Department of Health," *Ottawa Citizen* (11 Jan. 1913): 21. A federal Department of Health was finally established in 1919. For more on this topic, see: Humphries, *The Last Plague*.
[165] Canadian newspapers were reporting on American Medical Freedom Leagues in 1910. "Organise Against Physicians," *The Berlin News Record* (16 May 1910): 1.
[166] The statements of the League members specifically drew a line that they were not opposed to vaccination in general, but to the *compulsion* to vaccinate with regular practitioners.

particular system of healing."[167] One's choice in healthcare, they declared, was akin to one's choice in faith, and the attempt to establish 'state medicine' was the same as establishing a 'state religion'. This coincided with a shift in anti-vaccination branding that signified a closer cultural affiliation with the United States. To fight against vaccination was now only a part of the fight against the domination of mainstream medicine. In Canada, it served as one of the tools for a libertarian overthrow of the aristocratic institutions inherited from the 'old world' and the embrace of a new, Americanised order. As Smith noted in the introduction to Moffett's *The Americanization of Canada*, at this time: "Americanization and emancipation were synonymous and interchangeable terms."[168]

The league was led by familiar faces from its initial iteration, mostly middle-class businessmen, reverends from various Protestant churches, and unorthodox practitioners, especially homeopaths and osteopaths.[169] The president of the league was Robert Carswell, a prominent legal publisher and active member of the Church of the New Jerusalem (Swedenborgian).[170] John D. Nasmith, a wealthy businessman who had previously served as vice-president of the anti-vaccination league, stepped in as the vice-president for the new Medical Freedom League. The league appealed to populist sentiments, demonstrating a distrust of medicine backed by state power, which it argued was the work of "a great class seeking privilege and monopoly."[171] Restricting medical choice, it argued, was to place restrictions on personal belief. The League decried the new

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[167] "League of Medical Freedom was Organized Last Night," *Toronto World* 32, no. 11,546 (13 Mar. 1912): 4, https://www.canadiana.ca/view/oocihm.N_00367_19120313.
[168] Allen Smith, "Introduction," in *The Americanization of Canada* by Samuel E. Moffett (University of Toronto Press, 1972): xii.
[169] "Against Compulsion," *The Ottawa Citizen* (22 Mar. 1912): 7.
[170] *The Municipality of Toronto: A History*, vol. III (The Dominion Publishing Company: Toronto and New York, 1923), 87-88.
[171] *Ibid.*

legislation as a move to "imperil one of the most sacred rights gained by the people since the dawn of modern time; that it would be a blow to scientific advance and sound intellectual progress; that it is unnecessary; that it would be a step away from democracy and towards Russianized bureaucratic methods."[172]

Another Medical Freedom League was founded the following year in Alberta with a similar purpose. The Alberta League utilised the same list of tenets from its Ontarian precursor, opposing a "monopoly of healing practice", "compulsory vaccination under any and all circumstances," and any attempts to remove the "inalienable right to employing in the hour of illness the practitioner or system of our choice."[173] The Albertan League, however, added an extra clause to their tenets, reflecting some of the regional dynamics at play in the country. To have centralised medical authority in the hands of the Federal government was, they argued, threatening the provincial right to self-regulation. The Albertan League labelled the new legislation as an 'infringement' of 'Dominion bureaucratic power' – a claim that appealed to those in the western provinces who felt unfairly represented in federal affairs. Indeed, the division between federal oversight and provincial autonomy has been a point of contention in national discussions for the past century.[174]

Yet the events in Canada were not unique – the ability of irregular practitioners to practice their trade was being contested throughout the Western world, and Medical Freedom Leagues were active in Britain and across the United States. Indeed, despite the appeal to American ideals of freedom, Canada had been less intense in its prosecution of

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[172] "New Medical League is Against Any Monopoly," *Toronto Daily Star* (20 Mar. 1912): 3.
[173] "Alberta Medical Freedom League is Formed Here," *Calgary Herald* (08 Oct. 1913): 1.
[174] These divisions were a major theme in the social history literature on borderlands and regionalism. See, James Careless, "Metropolis and Region: The Interplay Between City and Region in Canadian History Before 1914," *Urban History Review / Revue d'histoire urbaine* 7, no. 3 (Feb. 1979): 99-118, https://doi.org/10.7202/1019408ar.

alternative medicine compared to its southern neighbour, where the battle for medical legitimacy had been raging fiercely for many years.[175] The (American) National League for Medical Freedom had been founded in New York City in 1910, and its members were very active in publishing reports, journals, and several books outlining demands for medical freedom and concerns over the attempted passage of the Owen Bill, which would have established a federal department of health in the USA.[176] These conversations easily spilled over into the Canadian context, as many of the medical sects were in close contact across the border, and American publications were frequently reprinted for Canadian readers.

The North American leagues additionally found allyship across the Atlantic in the form of the Peoples League of Medical Freedom of England, which sent dispatches for publishing in North American newspapers and journals, denouncing the supposed successes of inoculation in Britain and the British Empire. In 1913, one such dispatch was reprinted in the *Ottawa Citizen*, declaring that anti-typhoid inoculation was barely used in England and that its success among military forces across the Empire was greatly exaggerated.[177] These transnational alliances helped to promote the collective cause of Medical Freedom in all three countries and provided intellectual networks for the exchange of ideas, strategies, and propaganda.

One of the core battlegrounds of the Medical Freedom Leagues was vaccination policy. Although not all members of the leagues whole-heartedly denounced vaccination as a technology,[178] the Medical Freedom Leagues were always against compulsory medical treatment, and thus vaccination policy was one of the main issues that focussed

[175] Petrina, "Medical Liberty," 206.
[176] *Ibid.*
[177] "Anti-Typhoid Inoculation in England," *Ottawa Citizen* (03 Apr. 1913): 14.
[178] "Organised to Oppose the Vaccination Law," *Toronto Daily Star* (13 Mar. 1912): 4.

League action. The provincial policy in Ontario had required compulsory vaccination of school children and the general population in times of outbreak since 1885, though its enforcement was not always uniform.[179] According to provincial legislation, children were to be vaccinated after birth, and schools were to refuse admission to unvaccinated children. We have already seen that the various school boards independently made the decision on whether to enforce this requirement and the success of the previous league in having its enforcement overturned with the Toronto Board of Education. The Medical Freedom League was keen to continue its fight in schools, and one of the first acts of the Ontario Medical Freedom League was to pass a resolution condemning compulsory vaccination requirements and medical inspections for school children. The resolution was sent to the local boards of education, demanding a revision of the provincial guidelines and an opposition to them within local schools.[180]

Although the League claimed their numbers to be at five hundred members when speaking directly to the local newspapers, only about thirty individuals turned out in the first official protest of the Ontario League. In March 1912, a deputation of the League visited the provincial secretary to protest the marginalisation of alternative schools of healing, compulsory vaccination in schoolchildren, and compulsory quarantine measures for communicable disease.[181] They were quickly dismissed. The failure of lobbying and disappointing turnout from members signalled a need to shift tactics, and the league began ramping up their populist writings.[182] It placed advertisements in the newspapers, finding strong support from the burgeoning Southam family who ran a number of publications

[179] See pages 71-74.
[180] "Medical League Opposes Compulsory Vaccination," *Toronto Daily Star* (23 Mar. 1912): 13.
[181] "Vain Appeal for Changes in the New Health Act," *Toronto Daily Star* (21 Mar. 1912): 2.
[182] "A League for Medical Freedom," *The Daily Standard* (22 Jun. 1912): 6.

across the country and had strong connections to Carswell through the publishing industry.[183] Their language became stronger and more accusatory. In one article, a league member wrote that mainstream doctors were "medical terrorists" who were "systematically filling the papers with fear-creating statements and rumours, all of which are calculated to further the scheme of the political doctors in their attempt to secure augmented power and special privileges."[184] It certainly helped to have a publishing magnate as League president, and they began to print and send circulars by mail to many prominent citizens in Toronto.[185]

In 1912 and 1913, the Albertan health authorities made efforts to enforce vaccination of children in public schools within the major cities.[186] Opposition to compulsory vaccination was especially strong in Calgary, where the Trades and Labor Council officially opposed the measure.[187] A local anti-vaccination society was founded in 1912, which was soon transformed into the Medical Freedom League in 1913.[188] The *Calgary Herald* – one of the large newspapers owned and run by the Southam family - served as a local mouthpiece for both anti-vaccination and medical freedom narratives, publishing long opinion pieces against vaccination, and platforming letters from the public with similar views. It was similarly supported by the *Edmonton Journal*, which printed a number of anti-vaccination interest stories soon after it was bought by the

[183] The Southams and the role they played in promoting anti-vaccination and alternative medicine is discussed in detail in chapter four, see pages 105-106 and 138.
[184] "Fearlessness and Health," *The Grain Growers' Guide* (01 May 1912): 26.
[185] "A League for Medical Freedom," *The Daily Standard* (22 Jun. 1912): 6.
[186] "Alberta Health Act and Its Relation to Medical Inspection," *Public Health Journal* 3 (Mar. 1912): 153–54, https://www.canadiana.ca/view/oocihm.8_06872_19.
[187] "Labor Men of City are up in Arms Against Compulsory Vaccination Law Which Will Take Effect Soon," *Calgary Herald* (16 Dec. 1912): 1.
[188] "Alberta Medical Freedom League is Formed Here," *Calgary Herald* (08 Oct. 1913): 1.

Southam family.[189] An appeal to medical freedom was frequently embedded in these stories, which argued for conscientious objections and the honouring of personal belief systems about healing alongside vocal objections to the efficacy of vaccine technology.

The debates in the USA over the Owen Bill leaked northward during this time. In 1913, proposals for a Canadian federal department of health came forth, sparking fear amongst alternative practitioners and another wave of medical freedom activism. "A federal health department," one letter published in the *Ottawa Citizen* warned, "with a physician as its cabinet minister, might quickly be a federal department of allopathic medicine with absolute powers."[190] By 1914, the medical freedom leagues were arguing against medical inspections in schools, which were declared to be "one of the most potent means of bringing to an irreducible minimum the real and serious danger of disease contagion."[191] Medical inspections implied compulsion, and therefore went against the tenets of the medical freedom leagues.

It is hard to tell how effective these organisations were. The Medical Freedom Leagues certainly served as frustrating agitators at a time when mainstream medical power was growing. A federal department of health did not materialise until after the First World War, partly due to a lack of political will influenced by space given to the medical freedom narrative through their connections to publishing and the media. The medical freedom activists also served as a voice box of criticism to other types of interventionist medicine which were growing troublingly prominent. Medical freedom activists opposed the rising "mania" for removing tonsils, a procedure that they deemed to be both

[189] "Mother Strongly Opposed to Forced Vaccination of Children," *Edmonton Journal* (17 Nov. 1913): 8. The Southam family purchased the *Edmonton Journal* in 1912.
[190] "Opposes Federal Dept. of Health," *The Ottawa Citizen* (11 Jan. 1913): 21.
[191] "Medical inspection," *Calgary Herald* (05 Jan. 1914): 6.

dangerous and unnecessary.[192] They criticised public health campaigns which utilised fear and guilt to push citizens into compliance.[193] They also pushed for greater democracy in medical choice and bodily autonomy, at a time when mainstream medicine in Canada and abroad was deeply influenced by eugenics thinking.[194] The arguments for Medical Freedom resonated with many individuals who felt that new developments in health policy curtailed individual rights and freedoms, limited choice, and stifled dissent through an increasingly medicalised ideal of health.

The allegation that the medical mainstream was trying to establish a medical monopoly through the suppression and exclusion of alternative practices was correct in many ways. The increased regulation of medical practice actively sought to systematically eradicate non-mainstream approaches to health. Instituting standardised examinations and licensing regulations enabled legal mechanisms for prosecuting those who did not conform, while creating new codes of conduct and accountability in practice. The establishment of new research laboratories, hospitals, and clinics ensured more consistent oversight in healthcare, while fostering innovation in biomedical approaches to treatments. The goals of medical progress and protection of the public were at the forefront of professionalisation and thus, to mainstream practitioners, necessitated the suppression of alternative systems.[195] In many ways, vaccination served as a mechanism of social advancement, as its proven efficacy allowed physicians to establish their position

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[192] "Tonsil Hunters: Medical Freedom," *Ottawa Citizen* (04 Oct. 1916): 12.
[193] The National League for Medical Freedom, "Fearlessness and Health," *The Grain growers' guide* 4, no. 40 (01 May 1912): 26, https://www.canadiana.ca/view/oocihm.8_06965_156.
[194] For more on this, see: McLaren, *Our Own Master Race* and Erika Dyck, *Facing Eugenics: Reproduction, Sterilization, and the Politics of Choice* (University of Toronto Press, 2013).
[195] Many articles were published in Canadian medical journals in the first decades of the twentieth century voicing exactly this concern. One such example is: M. Clayton Thrush, "Osteopathic versus Drug Treatment," *The Canadian Journal of Medicine and Surgery* 25, no. 3 (Mar. 1909): 153-166.

as the rightful instruments of official disease control. Such a valuable position was defined as a cut above the alternative practitioners - the laymen, the cranks, and those simply incapable of 'reasoning logically.'[196]

Yet the attitudes of those in the medical mainstream did not always match their professed altruism and ultimate goals of service. The ego that accompanied this heightened medical authority was also substantial. One physician in 1920 declared: "I am one of those who believe that the laity should have no say in the matter of whether any given procedure is or is not advantageous for the public health… it is perfectly monstrous to suppose that the ordinary person, quite untrained to weigh evidence… is qualified to form an opinion."[197] Vaccination signified jurisdiction over both public health and the individual body; a responsibility too 'momentous' to allow "any unintelligent, prejudiced or credulous parent to decide… [for] his children."[198] As one public health official stated: "What science pronounces to be beneficial, the layman must submit to. What we want in these days is less superstition and more faith - in science."[199]

The Controversy over Christian Science

Yet what it meant to have faith in science was certainly a topic up for interpretation. It was the mission of all healing systems to explain the origin of disease and elucidate an effective method for countering illness. The exact explanations and methods were where most systems differed, and alternative medical practitioners challenged mainstream explanations for disease with their own theories and systems.

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[196] Editorial, "Vaccination," *The Canada Lancet* 53, no. 3 (Nov. 1919): 105.
[197] D. Fraser Harris, *The Canada Lancet* 53, no. 7 (Mar. 1920): 317.
[198] *Ibid.*
[199] D. Fraser Harris, "Objections to Vaccination," *The Canada Lancet* 53, no. 7 (Mar. 1920): 316.

Much like mainstream practitioners, alternative medical systems frequently claimed – and believed – that their methods were both scientific and logical. They utilised systematic methodologies, published them, and seemingly reproduced successful results in multiple patients. Testimonies from healed patients added to the body of seemingly empirical evidence for effectiveness. These systems challenged mainstream tenets of what it meant to heal scientifically - and perhaps no system did this more so than Christian Science.

Christian Science was an alternative healing system that caused a stir across North America in the late nineteenth century and early twentieth century. It was a type of faith healing movement founded in the United States, by Mary Baker Eddy, which professed that the material body was non-existent, and the material world was an illusion. As such, the experience of disease was explained as an expression of mental disturbance, which could be cured through study, prayer, and mental control. Its main doctrine was elucidated in its core text, *Science and Health with Key to the Scriptures*, originally published by Eddy in 1875 and republished and edited many times by her over the following decades. Science, according to Eddy, was simply the laws of God, demonstrated by the miracles of Jesus. By bringing oneself closer to the "primitive Christianity" as practiced in the scriptures, one would access the healing power of the Divine Mind.

Though she saw it as divine inspiration, Eddy's philosophy owed its legacy to several other alternative healing movements which argued for a 'vital force' in the regulation of health.[200] Earlier approaches to healing such as mesmerism, magnetic healing, and other mental healing practices viewed disease in similar forms, as obstructions of an equilibrium in the vital energy. Indeed, a 'vital energy' concept was

[200] Patricia Jasen, "Mind, Medicine, and the Christian Science Controversy in Canada, 1888-1910," *Journal of Canadian Studies/Revue d'Études Canadiennes, 32*, no. 4 (1998): 5, https://muse.jhu.edu/article/673362.

intrinsic to both chiropractic and osteopathic approaches to care as well.[201] Throughout her early life, Eddy sought out a number of healing practices; toying with food cures, water cures, homeopathy, mesmerism, and other types of mind cures. It was her critique of other systems, combined with her association with the spiritualist community and a deep Christian religiosity that led her towards her own theory of healing in Christian Science. After learning about homeopathy, she concluded that the method of distilling a drug down into such an infinitesimal amount that it was no longer present in a solution meant that any success in healing must be due to the power of the mind, not the solution itself.[202] She would eventually argue that other systems like mesmerism were the converse of her own, falsely teaching that the body was a separate entity from the mind. Mainstream medicine generally approached treatment with a material reductionism, viewing the body as a machine to be repaired by the skilled physician-craftsman. Her version rejected this, seeing the body as the construct of the individual mind.

Eddy was a forceful personality, and she worked hard to ensure her doctrine stayed separate and distinct from other religious sects. Her church worked hard to grow, expanding to build new churches along the eastern coast of the United States and into Canada. The largest number of converts were in Ontario and British Columbia, with a smaller spattering of churches built in the prairie provinces. The first two decades of the century saw significant growth in conversions, with only 2,619 professed followers in 1901, to nearly 14,000 twenty years later.[203] Despite the intense rejection of materialism and the material world, Eddy was very concerned with both growing her following and

[201] For more on this, see: Folk, *The Religion of Chiropractic,* especially chapter three, and Norman Gevitz, "Osteopathic Medicine: From Deviance to Difference," in *Other healers: Unorthodox Medicine in America*, edited by Norman Gevitz, (The Johns Hopkins University Press, 1988).
[202] Jasen, "Mind, medicine, and the Christian science controversy in Canada, 1888-1910," 7.
[203] *Ibid.* 11.

the copyright protection and sales of her book.[204] Critics of her system were quick to point out the massive wealth generation of Christian Science. One tirade pointed to the immense mansion and land owned by Eddy and the "enormous profits" earned annually on her book.[205]

A major driver of growth was the appeal that Christian Science held for women. In a sect that boasted a strong female leader, women found they could obtain high prestige positions, becoming readers, publishers, teachers, healers, and founders of new churches. Indeed, in the Christian Science church, healers were just below God.[206] Additionally, the turn of the twentieth century was a time when the female body and mind were under increasing medical scrutinization. Nervous diseases in women were of great concern, and female bodies were subjected to increased regulation, observation, and medical control.[207] Mitchinson's work on this area vividly demonstrates how the female body during this time was problematised as abnormal and defective, juxtaposed to the male body as the functional ideal.[208]

Attitudes of male doctors frequently invalidated female understandings of their own bodies or illness, a point made avidly clear by one Canadian physician in a speech to the Canadian Medical Association, who wryly declared that Eddy's claims to illness and suffering in her early years were easily diagnosed by any experienced physician as simply a hysteria "common amongst a certain class of females."[209] Another physician

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[204] *Ibid.* 13.
[205] "The World's Great Need of Christian Science," *The Canadian Journal of Medicine and Surgery* 7, no. 5 (May 1900), 358.
[206] Rennie Schoepflin, *Christian Science on Trial. Medicine, Science and Religion in Historical Context* (Johns Hopkins University Press, 2002), 34-36.
[207] Mitchinson, *Body Failure*.
[208] *Ibid.*, 9.
[209] J.H. Richardson, "Christian Science," *The Canadian Journal of Medicine and Surgery* 6, no. 4 (Oct. 1899): 236.

writing about the appeal of Christian Science to the "devout female sex" pointedly remarked to his fellow physicians that "it will perhaps occur to most of us that in the matter of taking medicine, the female sex has done its fair share."[210] The masculine medical gaze and the notion of the flawed female body was quickly negated in a system that argued that material reality did not exist.

Yet Christian Science was one of the most contentious forms of alternative healing systems. It received intense criticism from both the medical and the religious spheres, who lambasted it as a bastardised Christian doctrine and Eddy's healers as false prophets of health. Eddy and her followers were well aware that converts came into the fold of the Christian Science church not due to a desire for religious or philosophical enlightenment, but out of a desire for healing. As historian Jasen has noted, being healed was a necessary first step into the process.[211] The many professions and testimonials of successful healing kept Christian Scientists in business and attracted those who sought a cure for their own illnesses, especially those deemed incurable by other professions. For those facing uncertainty or desperation due to disease, the hope and promise of a sure remedy was certainly an alluring prospect.

For doctors in the mainstream, this was the hallmark of quackery: false promises of a cure which could be gained through a financial investment in a healer, the Christian Science text, and joining the church. While it was not actively harmful, it certainly encouraged followers to avoid mainstream medical treatments for care and this caused significant outrage in the medical profession. One angry doctor claimed that "Eddypathy" was the answer in numerous inquests across America every week, as children died of

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[210] J.J. C., "Christian Science vs Polypharmacy," *The Canadian Journal of Medicine and* Surgery 5, no. 5 (May 1899): 339.
[211] Jasen, "Mind, medicine, and the Christian science controversy in Canada, 1888-1910," 12.

diphtheria, croup, and other infectious illnesses.[212] The denial of physical causes for disease was also blamed for discouraging those who followed the faith from proper reporting or isolation of infectious illnesses.

A particular focus for criticism was its feminine structure. One religious critic warned that its text, which was written with "all the gentleness characteristic of a woman" was the true temptation of the faith, for "it was not the ugliness of the serpent that tempted Eve but its beauty and subtilty."[213] Another critic declared that "there have been other women beside Mrs. Eddy who have professed that they have had revelations from God, with as much authority, and have succeeded in deluding multitudes," before completing a systematic comparison of Eddy and the infamous English 'prophetess' Joanna Southcott.[214]

Interestingly, when it came to vaccination, Christian Scientists were not generally one of the main opponents, as was seen with other alternative medical systems. Christian Scientists certainly rejected the importance, need, and effectiveness of vaccination, which was a material intervention, but they did not generally fight vaccine regulations when they were put in place. In fact, Eddy instructed her followers to simply follow vaccination regulations and get their children vaccinated when the law demanded it.[215] In a system that rejected the physical, any ill effects of vaccination could be countered easily through 'state of mind.' For a sect that faced opposition from all sides, fighting in the battlefield

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[212] Richardson, "Christian Science," 236.
[213] National Library of Canada, CIHM/ICMH microfiche series. No. 97145. Gordon Baker, "Some fundamental errors of Christian Science: an address delivered in the Baptist Temple, Montreal," (Montreal: Financial Times Press, 1915), https://www.canadiana.ca/view/oocihm.97145.
[214] "More About Vaccination," *Ottawa Citizen* (04 Apr. 1919): 20.
"The World's Great Need of Christian Science," *The Canadian Journal of Medicine and Surgery* 7, no. 5 (May 1900), 360.
[215] Schoepflin, *Christian Science on Trial*, 179.

of vaccination was generally not a top priority, especially when ill effects or problems could be countered easily.

Instead, it was the spectre of Christian Science that appeared most often in the vaccination debates, serving as a foil for claims to logic and reasoning. It was not uncommon for members of the public to write into local newspapers in protest of vaccination, and deploy the increasingly prosaic phrase: "I am not a Christian Scientist, but…"[216] By consciously juxtaposing themselves with the tenets of Christian Science, vaccine opponents and critics were able to establish Christian Scientists as the far end of the spectrum in terms of rational thought, and by doing so, situate themselves in a middle ground of reasonability.

Although they usually avoided active lobbying against vaccination, Christian Scientists were nonetheless heavily involved in financing, organising, and maintaining the Medical Freedom movement. The massive wealth that went into the Church from its work and loyal followers was a helpful asset for sponsoring the Medical Freedom Leagues when they were established, funding lobbying efforts in Ottawa and provincially when new medical legislation was being debated.[217] It was ultimately the principle of choice that drove Christian Science opposition to vaccination. According to one writer in the *Christian Science Monitor*: “as far as Christian Scientists are concerned…. The only issue is one of individual liberty.”[218]

An uneasy alliance of alternative practitioners formed in the Medical Freedom Leagues, with each system of medicine technically and ideologically contradictory, yet

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[216] "More About Vaccination," *Ottawa Citizen* (04 Apr. 1919): 20.
[217] John Ferguson, “President’s Address Before the Toronto Academy of Medicine,” *The Dominion Medical Monthly and Ontario Medical Journal* 47, no. 5 (Nov. 1916), 80.
[218] “Anti-Compulsory Vaccination Bill,” *The Christian Science Monitor* 6, no. 120 (16 Apr. 1914): 1.

collectively opposed to the mainstream. The notion of medical choice and the need to uphold the right to choose one's medical system united the varying sects, who risked losing their niche in the medical landscape if they did not coalesce their efforts. Together, they avowed that all members of the community should be allowed "to choose for themselves the physician by whom they shall be treated, whether he be a medical doctor, an osteopathic doctor, homeopathic doctor or a Christian scientist."[219]

Medical Electricians

The relativity of scientific approaches to medicine and the dynamics of gender were similarly displayed in the movement for using electrotherapeutics and energy healing. This began quite early in Canada, with the opening of the Toronto Medical and Electro-therapeutic Institute (TMEI) in 1876, which introduced Canadians to a variety of new technologies which could be used in therapeutic practice.[220] The early efforts of Jennie Kidd Trout and Emily Tefft brought electricity into the healing art in Toronto. Trout was the first female physician in Canada, and the founder and proprietor of the TMEI, which Tefft was employed at.[221] But individual physicians also utilised electricity in healing, as seen by the advertisements of J. Adams, a homeopathic practitioner who would become a "medical electrician."[222] Adams was one of the founding members of the AVLC in 1900.[223] By 1880, Dr. A.M. Roseburgh, a surgeon at the Toronto Eye and Ear Dispensary, would become one of the more vocal advocates for electrotherapy. The

[219] "Restrictive Legislation," *The Calgary Albertan* (13 Feb. 1913): 3.
[220] Vivien Hamilton, "Medical Machines as Symbols of Science?," *Technology and Culture* 58, no. 4 (2017): 1017-1019, https://doi.org/10.1353/tech.2017.0112.
[221] *Ibid.*
[222] *Ibid.*
[223] Ontario Archives, File - F 5-1-0-1025. *Circular letter from a number of doctors opposing vaccination*, 01 Dec. 1900.

end of the century marked the height in public enthusiasm for electrotherapy across North America and Britain as a whole, with medical journals publishing on the topic, and take-home batteries for self-therapy becoming an increasingly popular commodity.[224] Wexler has described the tensions inherent in the adoption of electrotherapy within the mainstream, as at-home batteries and devices undermined the portrayal of electrotherapy as a specialist procedure, yet was frequently touted for its self-treatment functionality.[225]

Electrical healing maintained a footing in Canadian medical care by actively taking a stand against more conventional medical treatments. Both Trout and Tefft emphasised the gentleness of their approach as opposed to the "torturous" remedies used by the regular physicians.[226] Later electrical healers would directly place themselves in combat against medical drugs and the over-prescribing of pharmaceuticals by physicians - a real concern to both physicians and the public in the early twentieth century. Additionally, the prominence of patent medicines was a sore spot to both regular and irregular practitioners, who lambasted the continued advertisement and use of secret remedies and medical 'cure-alls'. While mainstream medical professionals aimed to warn the public against various secret nostrums that were heavily advertised,[227] those on the alternative spectrum shunned drugs and pharmaceuticals altogether.

Medical Electricians were part of this conversation, using warnings against drugs and pharmaceuticals as advertisements for electrical healing. In 1910, Dr. John M. Goode

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[224] *Ibid.*, 1026.
[225] Anna Wexler, "The Medical Battery in The United States (1870–1920): Electrotherapy at Home and in the Clinic," *Journal of the History of Medicine and Allied Sciences* 72, no. 2 (2017): 166-169, https://doi.org/10.1093/jhmas/jrx001.
[226] *Ibid.*, 1036.
[227] National Library of Canada, CIHM/ICMH microfiche series. No. 86412, British Medical Association, *Secret remedies, what they cost and what they contain: based on analyses made for the British Medical Association* (Toronto: Musson, 1910), https://www.canadiana.ca/view/oocihm.86412.

advertised his electrical belt with a full-page spread in the Ottawa Citizen, displaying a foreboding skeleton of death with the body a medicine bottle. The headline read "Drugs Have Killed More People Than War, Pestilence and Famine," and the text contained a mix of horror stories about wrongful prescriptions, and praises from clients of Dr. Goode who claimed to be fully cured through his electrical treatments. Women were particularly targeted through these advertisements.

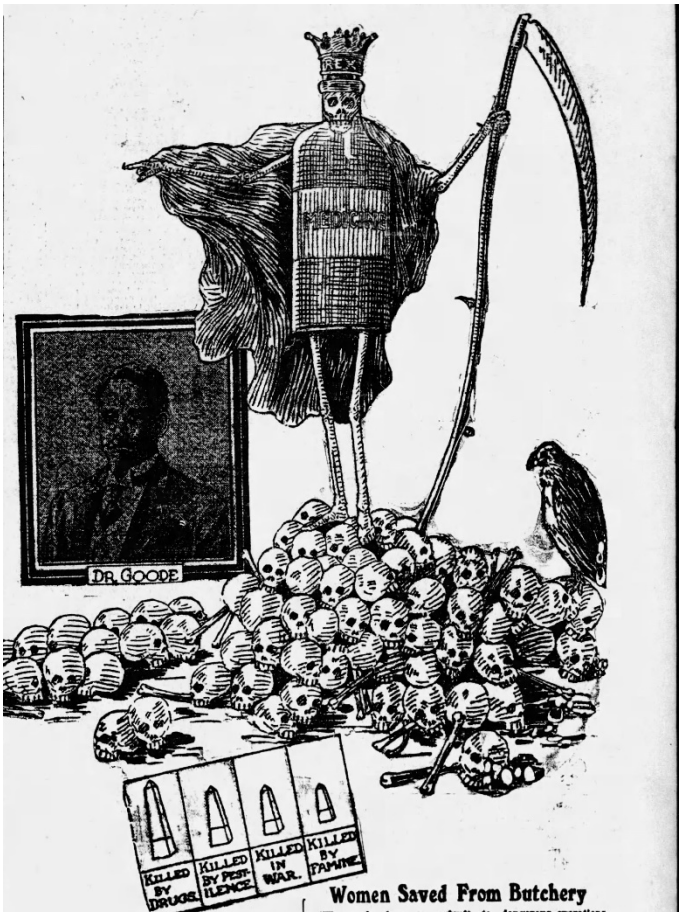


Figure 7: Dr. John M. Goode, "Drug Have Killed More People Than War, Pestilence and Famine," *The Ottawa Citizen* (10 December 1910): 17.

By setting themselves up in direct opposition to the mainstream, electrical healers gained the power of the alternative, attracting patients who were dissatisfied with conventional care systems, or who could not find success in conventional cures.

Dr. Alfred McKay Jordan

One commenter in 1883 declared the medical quack "a boastful pretender to an art he does not understand."[228] Yet as we have seen, the label of a quack doctor was a shifting and amorphous term that was used by all sides to assert their own legitimacy and rationality while belittling their competitors. Alternative medical practitioners would frequently argue that their approach was the truly 'scientific' one, contrary to what the mainstream professionals asserted. Much like the mainstream, their systems of healing were usually based on internally consistent worldviews that had systematic approaches to understanding and treating illness. Full schools and texts were developed to teach and train new healers in these systems, with osteopaths, chiropractors, homeopaths, and Christian Scientists all belonging to larger, highly organised, professional structures.

However, there were nonetheless those who stood outside any specific medical sect, promoting their own unique approaches to healing that relied primarily on their own individual talent, rather than the efficacy of a school of medical theory. One practitioner that serves as a quintessential example was Dr. Alfred McKay Jordan. Jordan rose to prominence in Vancouver in 1923: A wealthy businessman who made a fortune in mining in the early 1910s before establishing an optometry practice in downtown Vancouver.

Jordan worked hard to cultivate an image of himself as both a keeper of secret knowledge, and a man of common rationality. He initially practiced as an ophthalmologist, developing his own theory of disease by claiming that the cause of most

[228] National Library of Canada, CIHM/ICMH microfiche series. No. 45791, Francis Shepherd, "Medical quacks and quackeries," https://www.canadiana.ca/view/oocihm.45791.

ailments was due to eyestrain, not germs.[229] Jordan would often host public lectures where he boasted he could diagnose a person's whole history of illness simply by looking at their eyeglasses. In 1915, he summoned reporters to his laboratories to watch him perform this feat on a string of patients, who reportedly "gasped in wonder" at the accuracy of his conclusions.[230] Two years later, Jordan declared he had found proof that polio was caused by cross-eyed conditions, not by a pathogen.[231] He again rose to fame for his germ-denying theories during the Spanish Flu outbreak. At the height of the second wave in 1918, Jordan issued a challenge to all "believers in the germ theory" that he would prove germ theory was incorrect by swallowing a capsule containing the germs of the so-called Spanish influenza every day for a week.[232] This proclamation was made with the condition that "he do his own filling" of the capsules to be swallowed.[233] Not surprisingly, no doctor took up his challenge. Jordan gleefully posted a 'vindication' of his beliefs a month later, citing a study conducted by the United States Navy that found no infection in volunteer participants who had been fed or inoculated with influenza germs during a preventative study.[234]

By 1923, Jordan had turned to even more extreme theories. Drawing on the use of electricity in medical practice, he abandoned his former career in ophthalmology and styled himself as an 'Energician'. Comparing his discoveries to scientific titans like Copernicus, Watt, and Edison, he announced 'startling' discoveries into the origins of

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[229] Early optometry was considered a medical "cult" of its own, before legislation came in to ensure licensing and limitations on the type of medical prescribing which they could do. John Ferguson, "President's Address Before the Toronto Academy of Medicine," *The Dominion Medical Monthly and Ontario Medical Journal* 47, no. 5 (Nov. 1916), 80, https://www.canadiana.ca/view/oocihm.8_06539_257

[230] "Blamed Her Eyes for Her Indigestion," *The Province* (06 Oct. 1915): 18.

[231] "Just Another Proof," *Vancouver Sun* (09 Jul. 1917): 7.

[232] "Is Not Afraid of Influenza Germs" *Vancouver Sun* (03 Nov. 1918): 1.

[233] *Ibid.*

[234] "Volunteers Eat Influenzas Germs," *The Province* (30 Dec. 1918): 4.

disease. He began to hold regular demonstrations of new 'hydro-electric' principles that were meant to cure all sorts of ailments. Jordan frequently emphasised the scientific basis of his work and used showmanship to evoke awe at his methods. Over the next year, he also published several large full-length advertisements in the local Vancouver newspapers for his special 'Jordan method' of treatment, meant to help people discover the true causes of their underlying illnesses using an "ultra-modern conception of men's origin and the origin of man's diseases."[235]

He honed a particularly populist approach in his many publications, building up an image of himself as a man of the people, united with an imagined common community against the foolishness of a powerful medical establishment. In one early publication he espoused, "facts may be strangled for years but never killed. The general public has always been first to recognise science or invention. Government officials and professional men last."[236] Vaccination served as one of his main points of attack. He frequently blamed vaccination for the seeming preponderance of mental and physical disabilities in society. In one of his feature articles titled "Faith! The Enemy to Progress and the Friend to Imposture," Jordan likened public belief in vaccination to a frenzied religious zeal.[237]. Leaping into the discussion with a long tirade about the dangers of blind belief and acceptance of doctrine, he lamented the common tendency for many people to trust authority without questioning evidence. The evidence, he claimed, was in the money that physicians made from vaccination and from arising complications or secondary diseases. "All over the world," he warned, "those who assert that disease is the result of German

[235] Alfred McKay Jordan, "Condemned from Birth," *Vancouver Sun* (17 Jun. 1923): 15.
[236] "A Fact is a Fact," *The Vancouver Sun* (09 Jul. 1917): 7.
[237] "Faith: The Enemy to Progress and the Friend to Imposture," *Vancouver Sun* (06 May 1923): 31.

affection, and that it can be overcome only by inoculation and vaccination, are endeavouring to secure an ironclad monopoly in the treatment of human suffering."[238]

There was a stark irony in the words Jordan published. Although he lambasted those who accepted medical theory without question, he was also actively selling his own novel theory of disease that claimed illness was due to energy – or lack of energy – "drawn directly from the atmosphere."[239] Additionally, his public demonstrations were fabulous money-making endeavours, collecting donations from attendees and promoting himself as the sole keeper of "the secret of health" which could only be attained by "the Jordan System" of treatment.[240] He accused his critics of being shameless, money-grabbing self-promoters and managed to grow a large following on the tails of his hypocrisy. By pretending to warn the public about "the perpetuator of false doctrines," he camouflaged his own actions and claimed the coveted label of scientific practice. Anti-vaccination served as an ideal platform on which to stand, harnessing the strength of a movement which was already well established and strengthening his own message through an alliance with other practitioners who had similarly been pushed to the fringes of medical practice.

Jordan's transition from ophthalmology to the fringes of official professions speaks partly to the way regulation of practice occurred within Canada. As the century progressed, many specialisations would begin to professionalise, setting standards of practice and licensing that ensured survival for its members in an increasingly regulated medical landscape. Yet Adams has argued that regulation in the mid-century was much

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[238] *Ibid.*
[239] "Explains Source of Human Energy," *Vancouver Sun* (10 Dec. 1923): 3.
[240] "Life!," *The Province* (08 Nov. 1923): 3.

different from its earlier sweeping forms.[241] At least partly influenced by the vocal agitations of those who subscribed to unorthodox healing systems, regulation would become a negotiation of many voices, with practitioners, patients, businesses, state actors, and media professionals participating in the debates around the regulation of various medical professions.[242] Adams has argued that the many stakeholders that weighed in during these later debates strongly shaped regulatory change, leading to smaller regulatory privileges for later specialisations.[243] The case of chiropractic serves as a strong example of this. As chiropractic moved towards official regulation, establishing a college in 1945, and even coming under some medical insurance coverage by the 1970s, it shifted its image as an alternative healing 'art' and adjusted to the standardisations required for professional regulation.[244]

Periods of intensified regulation and medical professionalisation sharpened struggles over professional boundaries, provoking resistance from practitioners whose therapeutic authority and economic security were threatened by the expansion of licensing regimes and the standardisation of medical practice. Vaccination, as a controversial and much-debated topic with a long history of pitting a wide populace against mainstream medical doctrine, served as a flashpoint issue for alternative medical practitioners to raise wide support. It is not surprising then that moments of increased vaccination have historically sparked a flurry of anti-vaccination writings from unorthodox healers, for

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[241] Tracey Adams, "Health professional regulation in historical context: Canada, the USA and the UK (nineteenth century to present)," *Human Resources for Health,* 18, no.1(2020): 72, https://doi.org/10.1186/s12960-020-00501-y.
[242] *Ibid.*
[243] *Ibid.*
[244] David Coburn and C. Lesley Biggs, "Limits to Medical Dominance: The Case of Chiropractic," *Social Science & Medicine* 22, no. 10 (1986): 1035–46, https://doi.org/10.1016/0277-9536(86)90204-2.

whom opposition to both vaccination and compulsion served as a means of contesting medical authority and asserting claims to medical freedom.

Conclusion

The 1920s and 1930s marked a period of significant transformation in Canada's medical landscape. Medical authority became increasingly concentrated within hospitals and clinical institutions, where formal training and supervised practical experience were emphasised as the foundations of legitimate medical education. Medical laboratories and research programs additionally gained prominence as vehicles of scientific progress in healthcare. The alternative 'medical cults', as they were called by mainstream practitioners, found their influence increasingly marginalised, with diminishing institutional support and limited access to professional and public legitimacy. Although homeopaths were still represented on the Medical Council, the practice of homeopathy was disappearing across the country. Many of the schools of alternative medicine moved towards their own type of professional and official licensing systems during the 1920s and 1930s in Canada. In British Columbia, the Anti-Vaccination and Medical Freedom League gave birth to two professional organisations in 1920: the British Columbia Chiropractors' Association and the BC Association of United Drugless Therapists. The resultant lobbying efforts eventually won chiropractors an official recognition for the practicing of their trade but also led to a limitation of the activities they could perform as

healers, reducing them to specialists in back, neck, and nerve diseases which today form the hallmark of their practice.[245]

Yet the Canadian medical landscape looked much different at the start of the twentieth century. Homeopathy was still considered a serious healing profession, with representation on provincial medical boards in most provinces. Other irregular practices were not uncommon, though they were generally unlicensed, and the patient had a variety of options for medical systems they could approach when in need of healing. The rise to dominance of the medical mainstream was still a contested process, and alternative practitioners fought to maintain a spot in the medical market. Vaccination was a core battleground. The reliance on a biomedical understanding of immunity and the principles of germ theory meant that its practice was soundly rejected by non-orthodox practitioners, who viewed vaccination as both ineffective and actively harmful. Its compulsory application served to unite laymen and alternative practitioners alike, joining together to oppose the growing medical establishment and medical power. The call that went out in anti-vaccination print media was increasingly articulated through a libertarian appeal for medical freedom – bolstered by the wider cultural influence of America and the continued international connections with like-minded organisations in the United States and England.

This history demonstrates that there is an inseparable link between Canadian anti-vaccination movements and alternative medical practice during this time. The professionalisation of medicine was about more than defining who could practice

[245] There is not much new material on the history of Chiropractic in Canada, but this topic was under much discussion in the 1970s and 1980s. See: Russell W. Gibbons, *Chiropractic History: lost, strayed or stolen* (Palmer College Student Council, 1976); David Coburn and C. Lesley Biggs, "Limits to medical dominance: The case of chiropractic"; David Coburn et al., "Medical Dominance in Canada in Historical Perspective."

medicine in each province and across the country. Through legislation and state sponsorship, it set down boundaries of what was considered scientific, effective, and rational. It negated the pluralistic view of healing that had dominated the previous century. Nonetheless, these processes of professionalisation – and medicalisation – were by no means straightforward or inevitable, and were frequently disrupted by popular pushback, fuelled by the irregular sects and their proponents. Unorthodox healers used anti-vaccination as a tool of disruption whenever changes to medical regulation were proposed or debated. Their messaging proved attractive to newspapers in search of attention-grabbing stories that favoured conflict and sensationalism to ensure a wide circulation amongst the urban dailies and their readers. During episodic flashpoints of increased vaccine tensions, this coverage was especially effective at connecting with a wider public. Although protest cycles were triggered by increased compulsory vaccination policies, the sustained anti-vaccination activism of the alternative medical community served as the backbone of continued anti-vaccination agitation after the 1885 riots in Montreal and they would continue to weigh in on vaccination debates as the century progressed.

CHAPTER 4 – Ignoble Sacrifice: Anti-Vaccination after WWI

> *"Autocracies and tyrannies, medical or other, are obnoxious to the conscience of the civilized world. The war was fought to dethrone all such."*
>
> - The Hamilton Spectator, 1919[1]

Concerns about smallpox and vaccination faded into the background of public discourse between 1914 and 1919, dwarfed by the events of the First World War and the 'Spanish Influenza' pandemic. However, just as the country believed it was finally leaving behind the turmoil of the decade, smallpox reappeared. A rush of cases broke out in Ottawa in the spring of 1919, followed by its slow spread to other Ontarian towns and cities over the summer. By autumn, it had reached Toronto, with 3,000 cases recorded by the end of October.[2]

Although the infection numbers were high, the cases were mild. Many were falsely diagnosed as chickenpox, and many more undoubtedly went unreported due to their mellow nature. However, the spectre of an epidemic raised anxieties on the Toronto city health board and Dr. Charles Hastings, the Toronto Medical Officer of Health, drafted a report to the Board of Control recommending immediate action to combat the epidemic. He warned: "More serious cases may develop at any time."[3] Hastings petitioned the city council for compulsory vaccination in the city, a measure that was eventually approved and enforced in early November.

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[1] "Medical Freedom League," *Ottawa Citizen* (19 May 1919): 18.
[2] City of Toronto Archives, fonds 200, series 365, file 22. Monthly Report, Department of Public Health of the City of Toronto, Oct. 1919.
[3] *Ibid.*

The order was controversial. After a harrowing half decade of increasingly intense government interventions, many citizens railed against compulsion. The Anti-Vaccination League quickly re-formed, protesting the edict with an active letter-writing campaign, public gatherings, and intense lobbying with the Toronto city council. Vaccine opponents began door-to-door canvassing in various neighbourhoods to collect signatures. Several petitions protesting vaccination were delivered to both Hastings and the Provincial Board of Health over the next month. Hastings roundly condemned the actions of the League, which he accused of misrepresenting facts to the public.[4] Compulsory vaccination divided both citizens and city council, politicising the issue just before a civic election. Council members would eventually take sides in the conflict, pointing fingers at Hastings and the Provincial Health Board as the masterminds of the decree, while attempting to wash their own hands of any political responsibility for the controversial measure.

This was not the only surge of anti-vaccinationism on the heels of the First World War, but it stood out as a tense moment in the reconstruction of public health after the turmoil of both a global conflict and a global pandemic. Historian Mark Humphries has argued that 1918 was a defining moment for public health in Canada, as Canadians sought the fulfilment of the wartime covenant to validate the tragedy of the war by ushering in a new age of idealistic reform and regeneration.[5] Yet the shape such a future took was up for debate, and the extent to which state power should be further extended and centralised was controversial, even outside alternative medical circles. The widespread anti-

[4] "Hastings Raps the Opponents of Vaccination," *Globe* (19 Dec. 1919): 8.
[5] Humphries, *The Last Plague*, 130-148.

establishment sentiment and social divisions ensured fertile connections between anti-vaccination and medical freedom activists and the wider community.

A vivid memory of the many costs and failures of federal, provincial, and civic policies over the previous five years fed public doubts about the motivations of politicians, policy makers, and health officials. By 1918, Canada was deeply divided, and anti-vaccination became a rallying call for many who were dissatisfied with both the government and the changes occurring within the medical profession. Between 1918 and 1920, popular vaccine resistance movements broke out in Victoria, Ottawa, Vancouver, Toronto, and Edmonton. In all cases, compulsory policy was the catalyst that funnelled disgruntled and frustrated communities into an active and coordinated anti-vaccination movement. These movements fed on a growing nationalism after the war, bolstered by a liberation call for medical freedom. Its appeal to the wider populace was enabled by its populist tactics, which connected well with other protest movements at the time. An analysis of the 1919 protests allows for insight into how social movements are often interconnected and frequently overlap, finding fuel and support across causes.

The Reshaping of Canadian Society During World War One

The First World War was a transformative moment in Canadian history. Its effects would touch the lives of every Canadian citizen, resulting in massive alterations to culture, technology, politics, industry, economics, and healthcare. It would shape collective narratives of identity, nation, and loss, and would instigate a reshuffling of institutions across the country, both during the war and after it. All these effects would impact vaccine uptake and anti-vaccination friction.

One major result of the conflict was an extraordinary rise in state control in Canada. The shift to a 'total war' meant that by the end of the conflict, state power structures – through the arm of the military – had an unprecedented level of oversight in the daily lives of Canadians. By 1918, the military had become the number one employer in the country and exercised some form of influence in every industry.[6] It controlled manufacturing, industry contracts, transportation networks, and hospital systems. As Humphries eloquently declared: "every sphere of Canadian life, both public and private, was tinged with Khaki."[7]

While the war effort organised Canadians into a collective purpose, the loss of Canadian lives led to a collective desire to rationalise the cost of the conflict. The First World War was the first moment in the country's history where mass violence had led to an immense loss of life – more than 60,000 dead and 140,000 wounded.[8] Jonathan Vance has written extensively on the personal loss suffered by citizens, and the national and individual narratives that developed to help families cope with tragedy. The loss of family, friends, and comrades wrought a deep emotional heartbreak for all. In response, Canadians built communal narratives that helped to rationalise the pain, erecting monuments inscribed with words of noble sacrifice and honourable duty, which served to console those left behind.[9] The belief that the death and injuries ensuing from the war had both a meaning and a purpose enabled Canadians to cope with their grief in the years following the conflict.

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[6] *Ibid.*
[7] *Ibid.*, 134
[8] Jonathan Vance, "Remembering Armageddon," in *Canada and The First World War: Essays in Honour of Robert Craig Brown,* 2nd ed., edited by David Mackenzie (University of Toronto Press 2005), 411.
[9] See, Jonathan Vance, *Death so Noble: Memory, Meaning, and the First World War* (UBC Press, 1997).

This had a profound effect on public consciousness, and Canadians constructed narratives that justified the fight as a noble cause. Loved ones who died were depicted as the protectors of Western civilisation and the defenders of freedom. Renowned author Lucy Maud Montgomery voiced this sentiment clearly in 1916 when she defended the cause of the war in a private letter to a friend, arguing that it was a "death-grapple between freedom and tyranny, between modern and medieval ideals ... between the principles of democracy and militarism."[10] The Canadian press frequently voiced similar sentiments over the course of the conflict, as more and more stories of men dying on the battlefield found their way into the papers. Soldiers became heroes in the epics of the time, men of honour who lived 'worthy lives' and died 'noble deaths' in a 'glorious sacrifice' to 'the cause of humanity'.[11] In the collective narrative, the enemy that they fought was distinctly German, militaristic, and tyrannical; a force that coerced the people, opposed liberty, and suppressed freedoms.

It proved difficult for those opposed to vaccination to advocate their cause during the war. All soldiers were required to be vaccinated against both smallpox and typhoid before shipping out to the various theatres of conflict. As the country adopted a narrative of patriotic service and brotherhood, the idea of refusing vaccination was harshly criticised as a selfish endangerment of all. Military historian Tim Cook found that physicians had little trouble enforcing 'the great bayonet', which was reinforced by official policy threatening dismissal.[12] Canadian Expeditionary Forces were generally given both smallpox vaccination and anti-typhoid inoculation, depending on where they

[10] Quoted in Owen Edwards and Jennifer Litster, 'The End of Canadian Innocence: L.M. Montgomery and the First World War,' in *L.M. Montgomery and Canadian Culture,* edited by Irene Gammel and Elizabeth Epperley (University of Toronto Press, 1999), 32.
[11] "Five Dead Heroes Honored," *Weekly British Whig* (02 Nov. 1916): 3.
[12] Tim Cook, *Life-Savers and Body Snatchers* (Allen Lane, Penguin Random House, 2022), 7.

were stationed.[13] By 1917, there was an official order for all service members to receive vaccination against smallpox, typhoid fever, dysentery, cholera and "other such infectious diseases."[14] Any soldier that refused faced a court martial and possible expulsion from the Canadian Expeditionary Forces. According to Lieutenant-Colonel George Adami, a soldier who opposed vaccination was a soldier who chose to "endanger the health of his comrades."[15]

World War One was also a moment of profound transformation in medical knowledge. The conflict stimulated an intense learning curve for those in the medical service. With a new type of mechanised warfare creating a relentless build-up of horrific wounds for treatment, medical personnel advanced new and innovative techniques for surgery, reconstruction, diagnostics, and therapeutics. The conflict spurred developments in X-ray technologies, blood transfusions, and prosthetics technologies, and brought forward new approaches to rehabilitation and mental health care. The war completely altered the landscape of medicine, deploying wartime experience and scientific knowledge in the active work of saving lives. Cook has found that despite the destruction wrought on the human body, nine out of ten soldiers survived their injuries if they had the chance to see a medical practitioner.[16]

Faith in the medical team served as a strong morale booster for the men on the front lines. While soldiers signed on with the knowledge of potential death and maiming, they came with an expectation of a reciprocal exchange with the physician as the healing

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[13] Although smallpox vaccination was universal, anti-typhoid inoculation was not always given to soldiers before they deployed, as news correspondents demonstrated. See: "Vaccination for Typhoid Proves Worth in Army," *Edmonton Journal* (13 Jan. 1915): 3; "Men of Thirty-First to be Vaccinated Now," *Calgary Herald* (25 Jan. 1915): 6.
[14] Library and Archives Canada, RG 2, Privy Council Office, Series A-1-a. For Order in Council see volume 1180, Access Code 90. Order in Council number: 1917-2830.
[15] *Ibid.*
[16] Cook, *Life-Savers and Body Snatchers*, 7.

arm of the military apparatus.[17] While men gave their all in battle, in exchange, they knew that the surgeon and nurse would give their all to save and care for them when injured. Such faith in the motives and investment of the medical team helped many a soldier muster up the courage to fight. It also gave comfort to those at home and reaffirmed the 'social contract' between the state, its citizens, its medical caregivers, and its soldiers.

While surgery was half the battle, physicians were also actively engaged in the fight against secondary infections and the spread of other diseases amongst soldiers in their care and at the front. As disease historically killed more people in conflict than weapons did, vaccines were quickly adopted as a vital technology of the war. Men from the various boards of health across the country were consulted on the efficacy and value of the new typhoid vaccine, which British sources had demonstrated to be of great value in combatting outbreaks in India the decade before.[18] Preserving the health of soldiers before they were deployed was of utmost importance for the military and the federal government, and World War One served as a major moment for the solidification of mainstream medicine in the country. The weight of military and government support gave priority to orthodox medicine, validated by overwhelming evidence from the front lines.

Lastly, Canada was to see the rise of a new nationalism after World War One, one born from the recognition of itself as a major player in world politics and European conflict. The participation of Canadian troops around the world under their own flag, as an ally of British imperial forces elsewhere and a contributor to the imperial mission, would give birth to a new imagined national identity.[19] This identity was forged in blood, battle, and sacrifice. It brought with it a promise of the new, reformed world after the war,

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[17] *Ibid.,* 5-6.
[18] "Protects Against Typhoid Fever," *Gazette* (28 Feb. 1914): 4.
[19] Philip Resnick, *The European Roots of Canadian Identity* (Toronto: University of Toronto Press, 2020), 15.

with on-going care and support provided to those who served for its cause. The armistice of 1918 brought more than peace: it brought about an age of expectation that war promises would be fulfilled, that healthcare would be provided, and that the new era promised by the Borden government would be a top priority of the post-war era.[20]

Thus, World War One was a transformative moment for medicine, society, and the understanding of the role of the state in the care for its citizens. It had particularly meaningful impacts on the state of medical knowledge, with the destructive force of modern warfare engendering a substantial advancement in the treatment of disease and the development of numerous new technologies and therapies. Public health was also impacted by advances in both sanitary science and hospital care which came about on the front. Ideologies of nationalism, social welfare, and noble sacrifice shaped collective rationalisation for the conflict. The mobilisation of the country around a total war approach required promises of a new social contract between the state and its people. This was cemented by the effects of a sudden and tragic loss of life across the country. Canadians built narratives of the heroic deeds of soldiers in the fight against tyranny that justified such loss. When the Spanish flu pandemic hit, it brought home the immense value of preserving health and the country once again mobilised to fight – but this time it fought a new enemy: influenza.

The Spanish Flu

The start of September 1918 was a hopeful moment for Canadians, as headlines proclaimed consistent wins along the western front. The entrance of America into the conflict the previous year had imbued the allied war effort with a stimulant of men,

[20] Humphries, *The Last Plague*, 130-148.

supplies, and morale, while Germany found itself in increasingly dire straits at home and in the field. Newspapers across Canada were reporting successful advances by the allied troops, proclaiming gains 'at all points' and 'sensational progress'.[21] Yet the excitement of frontline advances was soon replaced by ominous alerts of a new encroaching danger: Epidemic Influenza. Hitting Canada in three waves, the result was 50,000 deaths and an infection rate of one in every three individuals.[22]

Dr. A.G. Price, the City Health Officer of Victoria, went on record to sound the alarm, warning that no other infectious disease was known to spread over such vast territories and with such speed as influenza. He advised four main rules for dealing with the infection:

1. Do all you can to keep from getting the disease.
2. If you get it, go to bed.
3. Send for your doctor.
4. Do all you can to keep infection from others.[23]

Such ineffective advice revealed how little was known about the treatment of the disease at the time and would reflect the experience of both citizens and health caregivers over the course of the pandemic. Historians who study this period have found that for the most part, health professionals were powerless to stop the spread of influenza.[24] Though many new strategies of treatment were trialled and deployed, most were ineffective and many of those infected saw little more in the way of medical care than the occasional bedside attendance by a volunteer nursing sister.[25]

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[21] "Allies Gaining at All Points," *The Windsor Star* (07 Sept. 1918): 1; "Americans Make Sensational Progress," *Ottawa Citizen* (13 Sept. 1918): 1.
[22] Esyllt Jones, *Influenza 1918: Disease, Death, and Struggle in Winnipeg* (University of Toronto Press, 2007), 4.
[23] "Public Should Watch Epidemic Influenza," *Victoria Daily Times* (25 Sept. 1918): 9.
[24] Esyllt Jones and Magda Fahrni, *Epidemic Encounters: Influenza, Society, and Culture in Canada, 1918-20* (University of British Columbia Press, 2012), 2.
[25] *Ibid.*, 7.

The lessons learned from the pandemic would vary significantly between citizens and medical professionals. For citizens, the pandemic demonstrated that public health was far from the first priority of the government. Indeed, the unnecessary mobilisation of the Siberian Expeditionary Force (SEF) in the autumn of 1918 was argued to have been one of the driving forces of the early spread of the disease.[26] Despite heavy criticisms from several public sources, the SEF was shipped across the country during an active outbreak. Several soldiers showing signs of infection were taken off the trains throughout the journey, to be admitted into various hospitals and facilities across different cities. The incident was heavily criticised by the public and led to accusations of criminal negligence against the military authorities.[27] With Germany already suing for an armistice, the continued movement of troops seemed a needless neglect of health and welfare for both soldier and citizen.[28]

The pandemic also laid bare the inadequacies of healthcare in the country. While new innovations and technologies had been developed over the course of the war, these advances made little difference when faced with influenza.[29] Secondary opportunistic infections such as pneumonia were frequent and deadly, while the disease spread ruthlessly and proved especially lethal to the young and fit. Although many new and novel treatments were utilised, none were found to be universally effective at preventing infection or curing the flu. Pandemic influenza challenged the rise in medical certainty and demonstrated that doctors didn't always have the means or the answers.

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[26] Mark Humphries, 'The Horror at Home: The Canadian Military and the 'Great' Influenza Pandemic of 1918,' *Journal of the Canadian Historical Association* 16 (2005): 254, https://doi.org/10.7202/015733AR.
[27] "Union Government and the flu," *Edmonton Bulletin* (25 Oct. 1918): 7.
[28] Humphries, "The Horror at Home," 140-141.
[29] Jones, *Influenza 1918*, 15.

The first serious wave of the flu hit Canada in 1918. There was a scattered and disunified response by health officials in each province. Although medical narratives reinforced the importance of listening to trained physicians, opinions about the best control strategies varied significantly. While some municipalities closed schools, church gatherings, and public spaces to control the spread, this tactic was not promoted by all. Humphries has found that in contrast to the policies in Quebec and British Columbia, the Ontario Board of Health actively discouraged closing businesses and other gathering spaces, advocating for minimalistic interventions on the lives of citizens and limiting enforcements which would disrupt "the ordinary affairs of life."[30] Additionally, measures like mask wearing were only mandated and widely utilised in Alberta, while other provinces avoided similar mandates. Some physicians relied on the tried-and-true methods of bed rest, isolation, and quarantine. Yet others sought to harness new advances in medical understanding by turning to novel technologies. Vaccines were a symbol of this new approach in medicine. They utilised laboratory research, symbolising the application of modern science to the prevention and combat of disease.

Several different versions of influenza vaccination were developed and trialled during the pandemic. Humphries has described these vaccines as "a pot-pourri of dead bacteria" and has noted their limited overall usefulness.[31] At the time, microscopic technology was not yet advanced enough to identify viruses, and the flu virus that caused the pandemic would not be identified until 1933, when the influenza A strain was first discovered.[32] The vaccines were generally prepared from various micro-organisms found in the upper respiratory tract of infected patients, usually a mix of pneumococci and 'B.

[30] Quoted in Humphries, *The Last Plague*, 118.
[31] Humphries, "The Horror at Home," 118.
[32] Esyllt Jones, *Influenza 1918: disease, death, and struggle in Winnipeg* (University of Toronto Press, 2007), 15.

influenzae', also known as Pfeiffer's Bacillus or now as Haemophilus influenzae (Hib).[33] Many vaccines were produced by Connaught Laboratories in Toronto, while some provincial laboratories produced their own versions based on guidelines from American producers.[34] Local military medical physicians designed and produced their own vaccines in hopes of stopping the relentless spread of infection.[35] Although hundreds of thousands of vaccine doses were prepared and distributed across the country, there was limited public uptake and numerous differences of opinion amongst medical officials about their usefulness. Some studies published during the pandemic touted the success of vaccination, especially in the reports coming out of South Africa.[36] Yet others claimed that the only value of vaccination against influenza was its use as a placebo, combatting 'fluphobia' and panic amongst citizens.[37] Many physicians and health boards shied away from using flu vaccination, relying instead on the generalised treatment of symptoms through rest, feeding, and washing.

With bedside care a key treatment strategy across the country, there was a notable mobilisation of nursing volunteers. The spirit of public organisation exhibited in the pandemic demonstrated the prominence of citizens in demanding, organising, and fulfilling the healthcare needs of the country. Both Jones and Humphries have remarked on the important role that women's organisations played during the pandemic, mobilising a volunteer army of women to serve as caregivers in the various hospitals and temporary healthcare facilities that were set up for the infected. Yet these mobilisations were deeply

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[33] "Mixed Vaccines in Influenza," *The Canada Lancet* 52, no. 8 (Apr. 1919): 354.
[34] "Personal and News Items," *The Canada Lancet* 52, no. 3 (Nov. 1918): 118.
[35] Jones, *Influenza 1918*, 50.
[36] "Flu in South Africa," *The Canada Lancet* 52, no. 3 (Nov. 1918): 141; Major J. Pratt Johnson, "The Pnuemo-Catarrheal Diathesis. Prevention and Treatment of Pneumonia and other Respiratory Infections by Mixed Vaccines," *The Canada Lancet* 52, no. 6 (Feb. 1919): 246-267.
[37] J. W. Macmillan, "Lessons from Influenza," *The Journal of Commerce* 47, no. 2 (14 Jan. 1919): 3.

shaped by prevailing class structures, with middle-class Anglo-Canadian women serving as organisers of more traditional feminist philanthropic initiatives in hospitals and city centres, and female labour reformers often taking the "specially arduous task of ministry in the homes of the helpless [*sic*]."[38] Class divisions structured both care and the experience of infection. Influenza disproportionally affected the poorer classes, reminding working-class Canadians of their precarious social existence in a country without a mandatory minimum of social standards. In the post-war pandemic world, citizens demanded more accountability from the state when it failed on care.[39]

This reality served as a major instigator for the drive to establish a federal department of health in 1919.[40] The devastation of Spanish Influenza brought home to medical professionals and state officials alike the need for better communication, organisation, and control over infectious outbreaks. While provincial boards of health existed in most provinces, there was not yet a national department of health, and this proved a serious hindrance to effective coordination during the emergency. Vincent Massey, who would later become Canada's Governor General, sent a report to the War Committee of Cabinet critiquing the inherent flaws in the Canadian healthcare system during the second infectious wave in the autumn of 1918. Massey's report highlighted several key areas where a federal department of health could have helped: through issuing warnings and advice to provincial authorities, the development of a coordinated plan, the negation of 'quacks' and 'bad science' from treatment, the better enforcement of quarantine, the development of sera and vaccines in government laboratories, and the monitoring and sharing of statistics for better tracking across the country.[41] A federal

[38] Jones, *Influenza 1918*, 75.
[39] *Ibid.*, 3.
[40] See: Humphries, *The Last Plague*.
[41] *Ibid.*, 168.

department of health would be founded with the goal of filling these responsibilities the next year, with high hopes for more effective centralised responses to infection. It was believed that coordination and control would enable better prevention and advanced preparedness for disease when it hit in future.

Thus, while the First World War led to numerous shifts in government control in the country, it was the impact of the Spanish flu that established the impetus for coordinated, preventative public health measures on the home front after the war. The devastation wrought by both events reinforced the importance of preserving the health of a population already torn asunder by conflict and infection. At the same time, mainstream medicine was reframing the essential role of medical science and modern laboratory research in public health, and the need for tighter regulations on medical practice.

The 1918 – 1920 anti-vaccination protests demonstrate a confluence of factors that stoked negative public sentiment towards vaccination and enabled popular anger to be funnelled into anti-vaccination movements. Paternalistic and inconsistent medical policies angered the public with their suddenness and emphasis on obedience. A strong media presence for anti-vaccination activists was perpetuated by the personal beliefs and business rivalries of Canadian newspaper magnates. The establishment of the federal department of health helped solidify the power of mainstream medical physicians and further threatened the practice of irregular practitioners. Canada started to rebuild, with citizens demanding government deliverance on the promises of a new society after the sustained sacrifices made during the war. Labour movements and feminist movements reached a peak moment. All of these events drew together a variety of impassioned individuals who saw the power of anti-vaccination as a widespread anti-establishment force.

Anti-Vaccination during World War One

While anti-vaccination murmurings periodically surfaced in the editorial sections of various papers during World War One, there was little in the way of organised protest or coordinated resistance amongst the public. Canada and its allies put forward their "highest recognised authorities in medicine, bacteriology and scientific medical research" to make sure the soldiers would be efficiently protected.[42] The undisputed medical consensus was in favour of vaccination. All soldiers were required to be vaccinated against smallpox and typhoid before they travelled overseas, and the military took a hard line on any possible resisters.[43] Similarly, vaccination was promoted as a public duty for citizens, one that could not "be too eloquently applauded, nor to strenuously inculcated nor to rigidly enforced."[44] The creed of prevention was key to maintaining the war effort, while healthy citizens were needed to supplement employment in manufacturing industries as much as strong men were needed to reinforce troops at the front. When smallpox broke out in Saskatchewan in 1917, the Commissioner of Public Health wrote a public notice highlighting the 'moral duty' incumbent on the public to be vaccinated. "Responsible individuals," he wrote, were those who left "no stone unturned" in the fight against "the loathsome plague that once blighted and overshadowed the lives of our forefathers."[45] He implored the public to avoid being 'mentally blind' and instead to show an 'earnest devotion' to the country by getting vaccinated and revaccinated.

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[42] City of Toronto Archives, fonds 200, series 365, file 22. Monthly Report, Department of Public Health of the City of Toronto, Oct. 1919.
[43] Library and Archives Canada, RG2, Privy Council Office, Series A-1-a. Order in Council number: 1917-2830.
[44] Maurice M. Seymour, Commissioner of Public Health, "Importance of Vaccination," *Leader-Post* (05 Apr. 1917): 5.
[45] *Ibid.*

Nonetheless, a few ardent anti-vaccinationists spoke out publicly during this time. Several editorials appeared in 1914 in Canadian newspapers that were known for airing anti-vaccination letters, especially *the Ottawa Citizen* and *the Brantford Daily Expositor*. Recognising the lack of public support in the context of the war, the authors of these articles sought to describe their resistance as a type of patriotism, harnessing the narratives of unity and the fight for freedom to justify their contention. While calling on the "stirring spectacle" of an "uplifting national spirit for a great cause" they accused the medical men in charge of overseeing the vaccination of the troops of being 'parasites of patriotism', enforcing a 'medical despotism' similar to the Prussian enemy.[46] These cries of false facts and opportunistic doctors moved few in the wave of public sentiment that surrounded the war. As the first soldiers were shipped overseas, Canadians were far more inclined to hold a positive faith in the knowledge and competency of the medical professionals who served as the defenders and protectors of soldiers' health abroad.

Yet there is a stark contrast in such sentiments by the end of the war. The brutality of the conflict and the increased interference of state and military authorities at home had disillusioned many citizens about the intentions of the government towards both public and soldier welfare. State control and censorship increased dramatically over the course of the conflict, and 1917 saw a sharp increase in interventionist strategies, not least of which was the official registration of the workforce by the National Service Board, alongside national conscription.[47] Public dissatisfaction was increasingly evident. Numerous strikes began to break out in various labour industries which were overworked,

[46] "To the Editor: Is Opposed to Compulsory Vaccination," *The Brantford Daily Expositor* (08 Dec. 1914): 6.
[47] Craig Heron and Myer Siemiatycki, "The Great War, the State, and Working-Class Canada," in *The Workers' Revolt in Canada, 1917-1925*, edited by Craig Heron and Ian McKay (University of Toronto Press, 1998), 14.

underpaid, and short staffed. Munitions workers in Hamilton struck in June 1916, laundry workers and construction workers organised strikes in British Columbia during 1917 and 1918, while the Maritimes saw what has been dubbed a "great revolt."[48] In 1917 alone, there were two hundred and eighteen strikes across the country, involving over 50,000 workers.[49]

Encouraged by the changing rhetoric, anti-vaccinationists utilised the 1918-1920 post-war moment to assert their own discontent with the status quo. Like before the war, post-war anti-vaccination activism was generally led by alternative medical practitioners who had a stake in disrupting the increased power of mainstream medicine in the country. With mainstream practitioners gaining a monopoly on medical care and heavily backed by the influence of military and state power, those who practiced other forms of healing were progressively restricted in their practice. These anti-vaccination leaders found a sympathetic public that was willing to push back on the implementation of what seemed to be a needless and inconvenient procedure, especially when it was made compulsory by employers and civic authorities. In the wake of such monumental events as a global conflict and global pandemic, an outbreak of mild smallpox seemed to many members of the public to be a small affair. The perception of risk was minimal, while discontent with government overreach was high.

Yet the pressing need to preserve health led physicians and officials alike to seek every avenue of health preservation available. With continued evidence of vaccine

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[48] Allen Seager and David Roth, "British Columbia and the Mining West: A Ghost of a Chance," in *The Workers' Revolt in Canada, 1917-1925*, edited by Craig Heron and Ian McKay (University of Toronto Press, 1998), 245 and Suzanne Morton "The Maritimes: Expanding the Circle of Resistance," in *The Workers' Revolt in Canada, 1917-1925*, edited by Craig Heron and Ian McKay (University of Toronto Press, 1998), 43.

[49] Craig Heron, "The Workers' Revolt: 1917-1925," in *Labouring Canada: Class, Gender, and Race in Canadian Working-Class History*, edited by Bryan D. Palmer and Joan Sangster (Oxford University Press, 2008), 138.

effectiveness from the front lines, vaccination seemed an obvious, easy way to protect the general populace. However, methods of vaccine implementation frequently relied on the force of state power, often effected in such a manner as to place the moral imperative for action on the public. Compulsory measures emphasised compliance and obedience, painting parents with unvaccinated children as careless, ignorant, and blind to reason. In the October 1919 monthly report for the Department of Health in Toronto, the health officer wrote that the number of cases of smallpox in a community was "an accurate index to the intelligence of the people."[50] Similar sentiments were voiced by Hastings in a pamphlet he authored the following month.[51] Punishment and shame surrounded the rhetoric of vaccination, angering a public that had spent years sacrificing in the name of public service and duty. It raised the question: why had they worked and fought in the name of freedom, only to be subject to compulsion?

Ottawa, 1919

As the war ended and the country battled the devastating effects of the Spanish Influenza pandemic in late 1918, medical officials across the country set their sights on developing new systems of tracking, monitoring, and preserving health in the surviving populace. The war had demonstrated the country was in crisis. Not only would the many returning soldiers need adequate care for sustained injuries, but military recruitment drives had revealed just how poor the health of the average Canadian was. In his June 1919 speech at the annual conference of medical health officers in Toronto, Dr.

[50] City of Toronto Archives, fonds 200, series 365, file 22. Monthly Report, Department of Public Health of the City of Toronto, Oct. 1919.
[51] Hastings, Charles. Report endorsing vaccination as a prevention against smallpox (Toronto: 1919), https://www.canadiana.ca/view/oocihm.80000.

Cruickshank, health officer for Windsor, declared that a survey of enlisting servicemen during the war had demonstrated only 50% were "fit for the fighting line."[52] The country would need to do better if it was going to rebuild. 'Reconstruction, Repatriation, and Rehabilitation' became the mantra of public health as the country prepared for the return of its soldiers from the fighting lines.[53] The flu epidemic similarly revealed a glaring hole in healing strategies. The death toll had been extreme, and scientific investigation had yielded little advancement in precise treatment, with results "so varied that they leave one's mind in a state of chaos."[54] The solution, Cruickshank said, was more data, more research, and more professional power.

A federal department of health would be the first step to all of these, serving as a focus point for information collection, funding of provincial care programs – especially those focussed on tuberculosis and venereal disease – and the implementation of research-informed legislation for the prevention of disease. Of particular concern was the maintenance of health in mothers and children, as the next generation was recognised as a vital part of reconstruction for future citizenship and the workforce of the nation.[55]

Vaccines also came to the forefront of discussions in 1919. Their use in the war had vividly demonstrated their effectiveness as a preventative tool for certain infections. With new immunization technologies like typhoid inoculation, diphtheria anti-toxin, and anti-tetanus serum, the field of immunity research was looking promising. If these immunizations were so effective at preventing infection, many questioned why vaccine

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[52] "Windsor's Medical Chief Presents Addresses to Convention at Toronto," *Windsor Star* (07 Jun. 1919): 7.
[53] City of Toronto Archives. Fonds 200, series 365, file 22. Monthly Reports, Department of Public Health, Report no. 3 of the Local Board of Health, Jan. 1919.
[54] "Windsor's Medical Chief Presents Addresses to Convention at Toronto," *Windsor Star* (07 Jun. 1919): 7.
[55] Peter Bryce, "The Scope of a Federal Department of Health," *American Journal of Public Health* 9 (Sept. 1919): 650-653.

research was not treated as a top priority in the post-war world. One public commentator asked: “If we can do this for soldiers in war, why not for the public at home? Why are diseases like tuberculosis, scarlet fever, whooping cough, measles, and influenza not 'stamped out' as well?”[56] A federal department of health was seen as a possible consolidation for funding and research to allow biomedical researchers to do just that, and over the course of 1919, discussions in Ottawa circled around the establishment of such a department. In mid-March, Bill 27, *An Act Respecting the Department of Health*, was introduced into the House of Commons and by September the first federal health department was officially established.[57]

These developments caused alarm for medical practitioners who subscribed to alternative schools of healing, especially osteopaths, chiropractors, homeopaths, naturopaths, Christian Scientists, and other ‘bloodless’ or ‘drugless’ healers. It was (rightly) feared that a federal health department would give more power to the ‘allopathic’ school. As discussed in the previous chapter, the country had seen a trend of increased regulation of medical care over the first two decades of the century, while the power of so-called allopathy had increased heavily with the influence of the war. Gone were the days of a multifaceted medical marketplace, where patients could subscribe to different systems of healing as they liked. Government and military officials wanted practitioners who were educated with the best understandings of contemporary medical science and used treatments that were proven to save lives within the military hospitals. There was far less space for alternative healing after the war, and the establishment of a federal

[56] "Pay - Or go on Dying," The Daily Standard (02 Feb. 1919): 4.
[57] For a full discussion of this bill and its purpose, see Humphries, *The Last Plague*, 171-180.

department of health ensured the increased ostracization of medical practice by those considered 'quacks' by the medical mainstream.

Alternative practitioners asserted that their own schools were far from 'witchcraft' and 'quackery' and initially hoped that regulations would include professional licensing and accreditation across the variety of medical systems, rather than solely for mainstream practitioners. They viewed their medical theories and treatment strategies as equally valid and scientific to those that utilised biomedical models, and argued that if dentists, eye doctors, and pharmacy professionals could all have governing boards and standardized licensing, then osteopaths and chiropractors should too.[58]

However, it soon became clear that a federal department of public health would favour the restriction of medical practice to those who had 'proper training' in the medical profession.[59] This is an important distinction between how those within the profession viewed the discussion from those without. In one editorial about the Ontario Medical Association in the *Canada Lancet,* it was asserted that regulation was not a question about choice, but rather a question of "adequate training".[60] By restricting who could call themselves a doctor to those who could prove an acceptable educational pedigree from the medical mainstream, regular physicians focussed the conversation on professional qualifications and the knowledge base of the practitioner. This enabled them to assert claims to the exclusive use of labels such as physician, doctor, and healer. The same writer asserted: "The contention of the medical profession is that all who practice shall obtain

[58] "Give Osteopathy a Fair Show," *The Owen-Sound Sun Times* (25 Feb. 1919): 8.
[59] "Editorial," *The Canada Lancet 52*, no. 1 (Jun. 1919): 441-442. Early Canadiana Online, https://www.canadiana.ca/view/oocihm.8_05199_586
[60] *Ibid.*

the diploma of the College of Physicians and Surgeons. After this they may practise osteopathy or chiropraxy if they so desire."[61]

For those outside the medical mainstream, the concern was instead focussed on patient choice. As discussed in the previous chapter, many of those who rejected mainstream understandings of disease viewed healing systems as similar to belief systems. They asserted that patients should have the ability to choose whichever practitioner and healing system they liked, similar to the way the public could freely choose their religious denomination.[62] One writer in the *Hamilton Spectator* declared that "the disposition of our bodies should be no more subject to the will and caprice of others than the disposition of our consciences in the matter of religion."[63] Restrictions on practice were, they argued, "medical conspiracy to strangle these young, but proven sciences at their birth."[64]

Meanwhile, smallpox broke out in southern Italy, quickly spreading across the west through the mass demobilisation of troops after the war. In Ottawa, the first cases appeared in March amongst students in two public schools. Both schools were quickly closed for fumigation and all students were vaccinated as a precaution.[65] However, as cases began to rise in the city, the medical health officer issued a general vaccination recommendation, arranging for public vaccination stations to be set up for free access around the city and urging the public to be vaccinated.[66] Additionally, he reminded the public and separate school boards of the provincial vaccination regulations, which

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[61] *Ibid.*
[62] For a further discussion of this, see chapter five.
[63] "Federal Health Department: Extract from the Hamilton Spectator," *Ottawa Citizen* (28 Mar. 1919): 20.
[64] "Hamilton Spectator: Medical Freedom League," *Ottawa Journal* (19 May 1919): 18.
[65] Ottawa City Archives, C01-OTT1-BH 1911. Ottawa Board of Health Minutes: 1911-1920, "Smallpox Situation: Vaccination" (14 Mar. 1919): 314.
[66] "Smallpox Warning," *Ottawa Journal* (12 Mar. 1919): 2.

required all students to demonstrate a certificate of vaccination before attendance in school. As schools had generally been lax in enforcing the regulation over the preceding years, he ordered that all students be checked for their vaccination status and those who could not prove a previous vaccination should be excluded from school.[67]

The moment proved to be opportune for mobilising against vaccination. The mandate, as usual, was unpopular. Many angry parents wrote objections into local papers, while the debates of school board committees reflected strong divisions between members over enforcing the order. While the public board trustees eventually agreed to follow the mandate, perhaps, as an alternative schooling system often catering to various religious sects, it is not so surprising that the trustees on the separate school board absolutely refused.[68] One trustee stood up and deployed the common language of anti-vaccination when he declared he knew "many who have lost an arm through vaccination. It is a fad of the medical profession."[69] Another followed suit when he stated that "nine-tenths of the parents of children attending our schools are opposed to vaccination" and that these parents, himself included, "would rather run the risk of their children contracting smallpox, than chance the loss of an arm, or their deaths by poison."[70] They agreed to reject the order from the city, daring the health officer to force their teachers and parents into compliance.

The turmoil provided the opportunity for discontented parents and alternative medical practitioners to come together in the formation of an Ottawa anti-vaccination

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[67] Ottawa City Archives, C01-OTT1-BH 1911. Ottawa Board of Health Minutes: 1911-1920, "Smallpox Situation: Vaccination" (14 Mar. 1919), 314.
[68] 'Separate Schools' refers to denominational schools, usually Catholic, in *the province* of Ontario. These are not to be confused with independent schools (private, fee-paying schools) or auxiliary schools for children with disabilities.
[69] "Not Complying with Vaccination Order," *Ottawa Journal* (18 Mar. 1919): 11.
[70] *Ibid.*

society. After a month of back-and-forth reports in the local newspapers, an advertisement appeared for help with the formation of the "Medical Freedom or Anti-Vaccination Society."[71] The group eventually settled with the 'Medical Freedom League' at their first meeting, another sign of the importance of alternative practitioners to this movement – 'Freedom' was a term that resonated strongly in post-war discourse.

On April 24, 1919, the Medical Freedom League (MFL) was established in Ottawa. The league consisted of a closely knit group of individuals from the upper-middle classes, variously involved in government, business, and the Unitarian Church. Much of their rhetoric coincided with a laissez-faire and libertarian attitude to government intervention and state policy. Its committee included Herbert G. Barber and Charles Tulley, both government officials at the Department of the Interior, B.L. Cope, a treasurer at a posh local department store, as well as local journalist power couple, Margaret Graham Norton and Albert Norton.[72] The League's secretary was a Unitarian pastor, Reverend Henry J. Adlard, a man who frequently involved himself in local popular movements and believed strongly in the power of prayer for healing. Adlard was not a Christian Scientist, but he was often labelled as one for his speculations on health and spiritual healing. He structured many of his sermons around the concept of freedom and liberty, imploring his audience to ask questions and contradict the established norms, while simultaneously espousing a "sane religious optimism" by having faith when "the deeper intimations" of the soul seemed to contradict the proofs of the world.[73] He was an active lecturer in general, giving public talks and sermons on Christianity, democracy,

[71] "Advertisement; Medical Freedom League or Anti-Vaccination Society," *Ottawa Citizen* (19 Apr. 1919): 7.
[72] "Editorial: Medical Freedom League," *Ottawa Citizen* (02 May 1919): 20.
[73] "The True Basis of a Liberal Church," *Ottawa Citizen* (09 Sept. 1918): 13; "Rev. Adlard Speaks on Spiritualism," *Ottawa Journal* (27 Jan. 1919): 13.

nationalism, and eventually anti-vaccination, using his pulpit to preach about the dangers of both immorality and bad social policy to health.[74] The committee members knew each other through their own social circles. Barber and Tulley both worked in the same government department, while Adlard had stayed for a while in the Barber household when he first moved to the city in 1918, presumably through church connections.[75] He would soon be invited as a guest lecturer to the Great War Veterans and Peoples Forum, run by Tulley. All identified themselves as progressives and liberals, fighting for the cause of freedom in all things. The creation of the League was celebrated as a coming together of "responsible individuals" determined to fight for "liberty of choice in the matter of medical treatment."[76]

The League quickly went about establishing their presence in the city, helped in large part by the official support of the *Ottawa Citizen*. Ottawa had two major newspapers at this time, the *Ottawa Citizen* and the *Ottawa Journal*. The *Citizen* was owned and run by Wilson and Harry Southam, sons of publishing magnate William Southam. By this point in time, the Southams had established control over a large part of the news industry in the country, owning the *Calgary Herald*, *Edmonton Journal*, and *Lethbridge Herald* in the west, and the *Hamilton Spectator* and *Ottawa Citizen* in the east, alongside profitable printing companies in both Toronto and Montreal. While William Southam controlled the *Hamilton Spectator*, his sons held leading positions in the family businesses across Ontario and Quebec, developing Canada's first national chain of newspapers.[77]

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[74] Adlard's Sunday services were announced weekly in the local papers. See for example: "Church of Our Father," *Ottawa Citizen* (25 Jan. 1918): 7.
[75] "Takes up Ministry Unitarian Church," *Ottawa Journal* (04 Sept. 1918): 3.
[76] "Editorial: Medical Freedom League," *Ottawa Citizen* (02 May 1919): 20.
[77] Minko Sotiron, *From Politics to Profits: The Commercialization of Canadian Daily Newspapers, 1890-1920* (McGill-Queen's University Press, 1997), 89-91.

This occurred at a unique moment in Canadian media history when papers were transitioning away from their former status as voice pieces for various political parties, and growing into independent non-partisan publications that freely criticised all political parties.[78] While William Southam was a staunch conservative, Wilson and Harry took the *Citizen* in a very different direction over the course of their editorship. They became increasingly contrarian and libertarian, frequently finding themselves at odds with the ruling conservative party by criticising both wartime measures and failed health policies. They did not shy away from populist writing or sensationalism. Their editorial habits generated a scandal in the war when they published a leaked letter about the failure of the Ross Rifle on the Front, raising questions about their potential breach of censorship policies.[79]

The Southam brothers understood how to sell newspapers. Their critiques of the government were popular amongst an increasingly war-weary public, and they dedicated a large part of the *Citizen* to special interest columns, entertainment, and targeted advertisements. The result was a strong growth in readership between 1900 and 1920. This was not accomplished through their efforts alone, however. In his detailed analysis of the commercialisation of Canadian newspapers at the turn of the twentieth century, historian Minko Sotiron has found that the wider family business interests were exceptionally beneficial to the survival and growth of the Southam family newspaper chain, allowing them to undertake predatory collusion tactics by suppressing opposition papers and ousting smaller competitors.[80] At the time of the 1919 anti-vaccination controversy, the Southam brothers had successfully shut down the competing *Ottawa*

[78] *Ibid.* 116-123.
[79] Charles Bruce, *News and the Southams* (Macmillan of Canada, 1968), 90-95.
[80] Sotiron, *From Politics to Profits*, chapter five.

Free Press, leaving only the *Journal* to oppose its hegemony over news coverage in the city.[81]

The Southam brothers adhered to a mixture of alternative medical beliefs. They believed in the achievement of health through a clean body and mind, 'natural' food consumption, and the avoidance of alcohol.[82] They were strong proponents of drugless and bloodless practitioners, rejecting any cures that placed 'poisons' in the body and therefore harmed its 'natural' constitution. These beliefs shaped their business practices and the content of the *Citizen*. In 1919, their paper heading described the *Citizen* as 'an independent clean newspaper for home.' Wilson and Harry also maintained a personal policy against advertising patent medicines, even though such adverts were the largest sources of income for most papers at the time.[83] The brothers believed that advertisements for patent medicines caused serious harm to consumers and that they were designed to invoke fear in readers. They similarly refused to take any advertisements for alcohol, despite the loss of income this meant for their business – a choice only made possible due to the wider financial backing of their family enterprise.[84]

The *Ottawa Citizen* frequently featured editorials by a number of local osteopaths, chiropractors and others, and one of their leading journalists on staff was an 'irregular' physician, Dr. Peter B. Mellon.[85] While they turned down advertisements for patent medicines, they supplemented this income by giving a significant amount of space in the paper to the advertisements of various alternative practitioners, and ran long editorials that criticised 'allopathic' healing approaches using drugs or surgical procedures for

[81] Ibid, 89-92.
[82] Bruce, *News and the Southams,* 84-85.
[83] Sotiron, *From Politics to Profits,* 62.
[84] Bruce, *News and the Southams,* 84-85.
[85] *Ibid.*

treatment. A good example is seen in a full-page advert for electrical healing by Dr. John M. Goode (Figure 7) which argued that most modern diseases were caused by the use of drugs by allopathic physicians.[86] It is unclear whether the rest of the Southam family held similar beliefs, but William Southam's *Spectator* often re-published *Citizen* columns that argued against allopathic dominance in the medical landscape, implying similar views.

For bloodless and drugless healing proponents, vaccination was an abhorrent activity that violated their logic of healing and health. Most rejected the notion of germs or microbial agents as a cause of illness and instead argued that good health was earned through balance within the body. External applications and manipulations, alongside a healthy diet and exercise, were generally thought to be the best treatments for any disease. Vaccination, in contrast, involved the injection of a microbial agent with the goal of engendering future immunity to wild forms of the same microbe. It is no surprise that irregulars lambasted the practice – it was contradictory to the concept of maintaining a clean body for the maintenance of health. Additionally, vaccination was expanding at this time, including more than just smallpox vaccine. The global conflict brought about more widespread use of other vaccines and anti-toxins with official government and military support, cementing regular physicians at the top of the medical hierarchy in the country. Anti-vaccination was therefore an important crusade for irregulars and their alternative colleagues, and the *Citizen* went out of its way to platform anti-vaccination critics, publishing editorials against vaccination, allopathic medicine, and giving space for any local irate citizens to mail in their concerns for daily publishing in the Letters to the Editor section of the paper.

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[86] "Drugs Have Killed More People Than War, Pestilence, And Famine," *Ottawa Citizen* (10 Dec. 1910): 17.

The *Citizen* helped the MFL in other ways as well. It provided an office for correspondence, serving as an inbox for anyone who wanted to write in to the League. Adlard placed several advertisements in the *Citizen* pages requesting the public to mail in stories about bad experiences with vaccination, in an effort to compile 'valuable data' about vaccine injuries to further build the case of the League.[87] Not many local stories were forthcoming, much to his chagrin, and the MFL largely had to rely on vaccination horror stories from many years prior or sourced from the American news. Its publications frequently repeated the same select cases, indicating a lack of new material from the public. But the League was not deterred. They had a strong supporter in the *Citizen*, which soon went so far as to hire a member of the League to write their own column under the pseudonym 'Lux.'

Lux, Latin for 'light', was also the name of a popular soap brand at the time. The writer was likely Barber, based on the context of many of the articles.[88] By appealing to the dual ideals of cleanliness and illumination, he swore to write for the 'enlightenment of the public' and the forwarding of the Medical Freedom movement.[89] Lux would publish his Medical Freedom Column weekly as a Saturday feature over the course of the summer of 1919. The articles deployed humour and wit to provide commentary on the on-going discussions surrounding the establishment of a federal department of health, as well as vaccination and the dominance of allopathic medicine in Canada. He touted the virtues of the Medical Freedom League and promoted public enrolment in their cause. Interested joiners could subscribe for an annual membership in the League for $1.00, gaining admission to all meetings, lectures, and events the MFL hosted. Joining was

[87] "Medical Freedom League," *Ottawa Citizen* (02 May 1919): 15.
[88] The author was never actually revealed. This assumption is made based on the wording of the arguments and the engagement in public forums elsewhere by Barber.
[89] "Medical Freedom Column by "Lux"," *Ottawa Citizen* (10 May 1919): 15.

heralded by Lux as a civic duty, “you owe it to the community, and to the race,” he declared to his readers in his first publication.[90]

Such appeals to duty and citizenship fit well within the language of the age. The MFL shaped their arguments around the liberty narrative, drawing on the language of the war. They argued that vaccination must be stopped "in the spirit of democratic freedom."[91] The MFL, they contended, was created to “vindicate a great principle: the principle of liberty of choice and freedom of action. Autocracies and tyrannies, medical or other, are obnoxious to the conscience of the civilized world. The war was fought to dethrone all such."[92] Mainstream medical professionals who advocated for vaccination were labelled "germ-huns,"[93] and any hint at the possible enforcement of compulsion was proclaimed “Kaiserism.”[94] Harrison has found similar language used in his analysis of anti-typhoid rhetoric in the United Kingdom during this time, reflecting the continued international circulation of arguments through anti-vaccination networks.[95] Lux’s opinions additionally pulled on popular eugenic ideas, labelling vaccination as "the cause of untold disease, suffering, and death, and a probable large factor in the dissemination of syphilis, cancer, tuberculosis, leprosy, and the degeneration of the human race."[96]

The MFL was not without its critics. Although the local board of health remained fairly disengaged from the public discussions, the *Ottawa Journal* – the local news rival of the *Citizen* – readily provided a platform to those who wished to weigh in on the other

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[90] *Ibid.*
[91] "Federal Health Department: Extract from the Hamilton Spectator," *Ottawa Citizen* (28 Mar. 1919): 20.
[92] "Hamilton Spectator: Medical Freedom League," *Ottawa Citizen* (19 May 1919): 18.
[93] "Protests Vaccination," *Ottawa Citizen* (22 Mar. 1919): 24.
[94] “Why Compulsion in Vaccination Shouldn’t Exist,” *Ottawa Citizen* (29 Dec. 1919): 3.
[95] Mark Harrison, *The Medical War: British Military Medicine in the First World War* (Oxford University Press, 2010), 148-149.
[96] "Protests Vaccination," *Ottawa Citizen* (22 Mar. 1919): 24.

side of the debate. It published several long letters from former soldiers who defended mainstream medical practice, highlighting the service of the medical profession in the war and arguing that bloodless and drugless techniques were silly considering the mass destruction soldiers had faced on the front lines and the miracles that anaesthesia had performed. How could so many soldiers have survived, they asked, without the "marvels of surgery and restoration shown in the war"?[97] Other critics denounced the hypocrisy of teetotaller stances that called for freedom, while suppressing and condemning choice in alcohol consumption. One writer dryly commented, "'Freedom' and prohibition are verily strange bedfellows."[98] The *Journal* made a point of running articles about vaccination successes in both history and from the war, needling its rival in a bid to appeal to the mainstream, vaccine-accepting public.

The *Citizen* and the *Journal* also found themselves on different sides of the labour strike debates that occurred in 1919. Labour workers across Canada came together that year to demand shorter work hours, higher wages, and fairer treatment in post-war reconstruction. Inspired by the successful Russian revolution and in fraternity with rising labour movements across Europe, Canadian workers organised to strike in numerous cities. The largest movements occurred in the prairie provinces, culminating in the infamous Winnipeg General Strike between May and June 1919. This strike ended with the bloody suppression of demonstrators during a silent parade on June 21 and the mass arrest and trial of labour leaders.[99]

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[97] Letter to the Editor: "Medical Freedom," *Ottawa Journal* (12 May 1919): 6.
[98] "Medical Freedom League," *Ottawa Journal* (16 May 1919): 6.
[99] Penner provides a brilliant oral history account of the General Strike from the perspective of the workers. See: Norman Penner, *Winnipeg 1919: The Strikers' Own History of the Winnipeg General Strike* (J. Lewis & Samuel, 1973). To learn more about how the business elite orchestrated a coordinated effort to suppress the workers, see: Reinhold Kramer and Tom Mitchell, *When the State Trembled: How A.J. Andrews and the Citizens' Committee Broke the*

While the *Citizen* frequently supported the labour strikes in the country, blaming employer greed and highlighting the peacefulness and respectfulness of strikers, the *Journal* was more conservative in its approach. It accused labourers of holding the public 'hostage' to their demands and promoting industrial lawlessness and dishonesty. When the *Citizen* argued that the governing party should reflect the everyday 'wage-earners' of the country, the *Journal* responded with a scathing editorial that labelled its rival 'Soviet' criminals and 'asinine egoists'.[100] Their senselessness was demonstrated, according to the *Journal*, by their anti-vaccination stance, described as illogical 'thunderings' against the national and public interest. The rejection of vaccination was construed as sedition.

Indeed, the arguments for medical freedom found widespread support from the labouring classes, forming an imagined unity of people against the powers of the medical (and 'elite') mainstream. Most labour unions were also against compulsory vaccination, seeing it as a restriction of workers' rights to employment.[101] During an address to the Ontario Medical Association in May, one Labor Party advocate stressed that the Labor organisation supported osteopaths and chiropractors in their push for recognition as legal practitioners in the country. Working-class labourers, he argued, believed they "should have the right to say by what system [of medicine] they wished to be treated."[102] His pronouncement was met with general derision by the physicians in attendance who commented that such a statement was a 'confusion' between the "right to choose" and

Winnipeg General Strike (University of Toronto Press, 2022). To learn about the general labour movement across the country, see: Heron, *The Workers' Revolt in Canada, 1917-1925*.

[100] "Worse than Asinine," *Ottawa Journal* (29 May 1919): 6.

[101] A few unions made the effort to issue official statements against compulsion when vaccination policies were implemented, but these seldom led to much public debate or discussion. "Telegraph Ticks," *Expositor* (27 Feb. 1919): 6; "Will not Challenge Vaccination Issue," *Victoria Daily Times* (24 Jan. 1918): 4.

[102] "Editorial," *The Canada Lancet* 52, no. 1 (Jun. 1919): 441, https://www.canadiana.ca/view/oocihm.8_05199_586

"the fundamental question of adequate training before giving such advice… knowledge must come first, and liberty of choice after."[103]

To belong to the mainstream medical profession at this time meant inclusion within the middle- and upper-classes of citizenship. A general disdain for the strikes was expressed in an editorial of the *Canada Lancet*, which dryly commented on the 'amusement' felt by Toronto physicians over being told to remain at their 'post' by the committee in charge of the Toronto Strike.[104] This was followed with a sarcastic response that the medical community held a "high code of honor" and would never undertake such "self-seeking ends such as controlling fees, salaries, or remuneration, nor for going on strike as a body, as the means of forcing other to accede to its demands."[105] Labour strikes, it asserted, were morally opposed to the code of conduct of medical professionals.

The labour strikes revealed the tensions between those fighting against a capitalist industrial labour system, and those fighting for medical freedoms. Many of the vocal anti-vaccinationists in Ontario were also middle class, and found their anti-establishment fervour quickly checked when it applied to their own spheres of influence. When the Ottawa separate school board trustees first decided to reject the vaccination order, one trustee remarked: "if the city fires any teachers over non-compliance with the order, I hope they pick those who talk of going on strike. It will settle a difficulty for us."[106]

Indeed, the friction between classes caused by the labour strikes ensured that the goals of the MFL were limited to the benefit of their own interests, despite their perpetual cries for freedom. Allyship with the on-going labour strikes proved to be a useful way to bolster support for alternative medical practitioners, but the MFL did little in the way of

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[103] *Ibid.*
[104] *Ibid.*
[105] *Ibid.*
[106] "The Vaccination Order Cause of Board's Protest," *Ottawa Citizen* (13 Mar. 1919): 7.

active campaigning or advocating for labour rights. The MFL set a class restriction through its membership activities, which required both leisure time for attendance and a membership fee. Although the fee was not impossibly high, it did cost approximately a third of a day's work for the average labourer at the time.[107]

Although the MFL maintained a sustained effort and high profile during the summer of 1919, it was ultimately unsuccessful at achieving its main goals. It never succeeded in repealing the provincial vaccination mandates. A federal department of health was eventually instituted with prominent positions filled by mainstream medical professionals. Additionally, the restrictions on alternative medical practitioners would become increasingly stringent over the next decade. Initial public enthusiasm for anti-vaccination waned as people lost interest in the debate. Attendance at the organised meetings of the League soon dwindled to its core agitators, much to their annoyance. Subscriptions had dropped so much that the League begrudgingly cut its joining fee by 75 percent to encourage more members.[108] In his column in the *Citizen*, Lux bemoaned the poor attendance, musing that it was "a historical truth that the freedom of the people is so often won for them by the few."[109] He warned that while disinterest reigned then, the public would be back after the next smallpox scare, when indignant parents would once again rise up to take action against vaccination.

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[107] The average Ontario labourer at this time earned between $2.50-3.00/day. See: Statistics Canada, *The Canada Yearbook 1947* (Ottawa: Census and Statistics Office, 1947) and Mary MacKinnon, "New Evidence on Canadian Wage Rates, 1900-1930," *The Canadian Journal of Economics* XXIX, no. 1 (1996): 114–31. There has been substantial work on the history of wages in Canada and another good source is Alan Green and David Green, "Canada's Wage Structure in the First Half of the Twentieth Century (with comparisons to the United States and Great Britain)," *Vancouver School of Economics* (February 2008), https://economics.ubc.ca/wp-content/uploads/sites/38/2013/05/pdf_paper_david-green-canada-wage-structure.pdf.
[108] "Medical Freedom Column by "Lux"," *Ottawa Citizen* (21 Jun. 1919): 2.
[109] *Ibid.*

Toronto, 1919

Lux's prophecy came true within the year. While the smallpox scare passed in Ottawa over the summer, the outbreak soon spread to other towns and cities in Ontario. A pattern arose of sudden vaccine enforcement within schools, followed by public opposition. Sometimes this came in the form of angry parents speaking up in school board meetings or through letters written to the editors of local newspapers. At other times, the resistance to vaccination was more organised. While the Medical Freedom League was being formed in Ottawa, school trustees in Guelph voted to abolish the compulsory mandate in its schools due to an organised letter writing campaign from parents.[110] A similar movement by parents in St. Catharines led to school boards lifting the vaccination requirements the following year, while fifteen hundred Windsor residents reportedly signed a petition requesting that compulsory vaccination be overturned within their schools as well.[111]

Nonetheless, it would be Toronto that saw the largest organised demonstrations against vaccination immediately after the war. Led by local practitioners of alternative medicine, including some familiar faces from the previous protests at the turn of the century,[112] the Toronto vaccine opposers managed to secure a large public support due to two factors. They organised their campaign around objections to compulsion, drawing support from the local labour protests, and capitalised on the politicisation of the issue during the civic elections that winter.

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[110] "Need Not be Vaccinated," *Toronto Daily Star* (16 Apr. 1919): 12.
[111] Ogbogu, *Vaccination and the Law*, 96, 131.
[112] Dr. Henry Becker reappeared as a leader of these protests.

Smallpox cases began to spread across Toronto in the autumn, with over three thousand infections reported in the city by the end of October 1919.[113] At a city council meeting on 3 November, Dr. Charles Hastings, the city Health Officer, requested mandatory vaccination for any residents who hadn't undergone vaccination during the previous seven years. Although the cases were all mild, Hastings had worked as a public health officer for an extended time and held vivid memories of past smallpox epidemics with higher death tolls.[114] Compulsory measures, to his mind, were the only solution. Although he asked the city council for approval, he also made sure to point out that his authority to enact such measures came from the provincial board of health and the Ontario *Public Health Act*, not from them.[115]

The proposal was not popular amongst the city aldermen, and many were hesitant. City council debates demonstrated that the main concerns were not about the practice of vaccination itself, but with the predictable pushback that could be expected from compulsory orders. The city was due for an election at the end of the year, and candidates were wary of enacting any policies that would impact the outcome. Mayor Church's run for re-election would be opposed by Controller McBride, who was known for his popularity amongst working-class voters. With the on-going threat of labour unrest in the city, Church was especially cautious to do anything that would alienate citizens.

The motion was nonetheless signed by the council after pressure from Hastings. It was then sent on to the city Board of Health for further deliberation and approval. Pleased with his first success, Hastings quickly notified all local schools and colleges of

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[113] City of Toronto Archives, fonds 200, series 365, file 22. Monthly Report, Department of Public Health of the City of Toronto, Oct. 1919.
[114] Hastings, Charles. Report endorsing vaccination as a prevention against smallpox (Toronto: 1919), https://www.canadiana.ca/view/oocihm.80000.
[115] "Request of MOH Arouses Aldermen," *Toronto Daily Star* (04 Nov. 1919): 4.

the need to check the vaccination status of pupils, instructing them to exclude any students who couldn't demonstrate adequate protection. This hasty step did not please the Board of Health, which had not yet been given a proper chance to deliberate on the measure and ultimately favoured a lighter approach. With no deaths and only mild cases, it was questioned whether the situation even warranted universal vaccination. "We want to be reasonable with the citizens," commented one alderman.[116] Despite their uneasiness, the members of the Board could do little but approve Hastings' request, tied by provincial policy and by Hastings' swift action. A special appropriation was also authorized to help cover the expenses of isolation and wage compensation for those who would be confined.

The movement from local opposers was quick. A group of vaccine opponents turned up in force to the meeting of the Board of Control the next week to protest the mandate. The group was led by Dr. Henry Becker, a local homeopathic practitioner.[117] Becker had been one of the primary organisers of the previous anti-vaccination movement in the city over a decade before.[118] During the meeting, he and his agitators shouted down city officials, declaring that vaccine matter was unsafe and sourced from "the heels of horses, from swine pox, and even from corpses."[119]

Such blatantly false claims frustrated Hastings, especially when Controller McBride made a show of performing incredulous outrage. McBride likely saw an opening for gaining support amongst a selection of the Toronto middle-class contingent in the upcoming election. He quickly became the most vocal opponent of vaccination measures on the city council. According to the paper coverage of the incident, his ensuing

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[116] "Board of Health Endorse M.O.H. No Drastic Order," *Toronto Daily Star* (08 Nov. 1919): 1.
[117] City of Toronto Archives, fonds 200, series 783, file 22. Toronto Board of Control, communications, calendar, November 06, 1919.
[118] Bator, "The health reformers versus the common Canadian," 348-373.
[119] "Vaccination Called 'Crime' by the Antis," *Toronto Daily Star* (06 Nov. 1919): 2.

comments were met with hearty applause and cheers from the anti-vaccination deputation. He quipped that they should have fought the Germans "with vaccine points instead of bayonets" and that the city needed "a little more horse-sense and a little less horse blood."[120] Dr. Hastings eventually left the meeting in disgust.

Over the next few days, Hastings turned his efforts to the organisation of public vaccination at City Hall. The juvenile courts at City Hall were appropriated for this purpose, open from noon until 21:00 every day as the city vaccinators attempted to get through the long line of waiting children.[121] Thousands of students turned up to receive their vaccinations, waiting for hours in the November cold for their turn with the lancet.

All in all, the vaccination campaign was fairly successful, with a majority of students admitted back into schools within the first two weeks of the issued order. Unfortunately, the city health reports do not record the exact number of vaccinations performed in November 1919, but the long lines suggest a strong uptake by citizens and a generally widespread adherence to the health order. Vaccination was even endorsed within one high school by the students who voted in majority support for it during a 'hot debate' of the "merits and demerits of vaccination."[122]

While both the *Toronto Star* and Toronto *Globe and Mail* published images of smiling, playful children, waiting dutifully in line to do their part for the common health, not everyone was happy about the situation. Several letters to the editor were published in local papers demonstrating an underlying public anger. Although both papers tended to take a supportive stance on vaccination and public health measures, they also made a point of publishing the letters that came into the paper from the public. Giving citizens a

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[120] *Ibid.*
[121] "No vaccinations after 6pm," *Toronto Daily Star* (18 Nov. 1919): 8.
[122] "Vaccinationists Won," *Toronto Star* (04 Dec. 1919): 7.

platform for personal opinions was good business, and the local controversy around the vaccination order generated a high amount of content. In practice, the same page of a paper would frequently present a long article quoting Hastings on the importance of vaccination, side by side with two or three letters from the public expressing anger over the measures in the neighbouring column.

Not all detractors took issue with vaccination itself. Many were simply frustrated with the compulsory nature of the measures, which placed undue pressures on parents and family. One grandmother said she had taken her grandson to be vaccinated as "she was afraid because she thought they would fine her if the vaccination was not done."[123] Some expressed annoyance at the long wait in the cold and dismay at the poor organisation of the vaccination system.[124] One man pointed out that "the present method is certainly affording the "anti's" with some very plausible arguments."[125] Other complaints utilised the common language of anti-vaccination, decrying it as a 'filthy practice' that caused more illness than prevented it.[126]

The anti-vaccination camp persisted with its lobbying efforts. Becker and his supporters persisted in attending city council meetings and shouting their demands, while the Anti-Vaccination League, which had been dormant in the city for over a decade, was officially re-formed. Stepping up their activities, the AVL organised canvassing campaigns through their neighbourhoods, going door-to-door to obtain signatures from anyone who opposed compulsory vaccination. They targeted communities in the most

[123] In this case, the boy who was vaccinated died shortly after vaccination. Medical investigation by several different physicians found that the boy had 'septic teeth' and the bacteria had spread to his brain, causing death. It was unclear whether the vaccination aggravated an underlying condition or contributed to his death, but the family believed it was a direct cause. "Boy Died Two Weeks After "Vaccination"," *Ottawa Citizen* (02 Dec. 1919): 1.
[124] "Waiting to be Vaccinated," *Globe* (13 Nov. 1919): 13.
[125] John Belle: Letter to the Editor, "Voice of the People," *Toronto Star* (13 Nov. 1919): 23.
[126] V.A.G.: Letter to the Editor, "Voice of the People," *Toronto Star* (13 Nov. 1919): 23.

vocally dissenting areas of the city, particularly Ward 5 and Earlscourt. According to one canvasser, the men going door to door didn't bother with presenting arguments about vaccine safety or the purity of vaccine lymph, they simply had one question to ask when the door was opened: "We have a protest against compulsory vaccination, do you want to sign it?"[127] Such bluntness succeeded in obtaining quite a few signatures from residents and demonstrated the strong public aversion to compulsion.

While the leaders of the anti-vaccination movement had their own reasons for opposing vaccination, there was a general underlying resentment in the city that influenced public reaction to compulsory vaccination measures. The cases of smallpox were mild, and when compared to the trauma of the flu and the war, the risk was not deemed high. Additionally, there was a strong pride in the perception of cleanliness and respectability that came with the rise of the middle class. Over the past decade, the city health officials had increased their surveillance and control of the most impoverished parts of the city, cleaning up plumbing, rotten wood, unsafe polluting lavatories, and pushing for better food storage and ventilation.[128] Families were watched closer by public health officers, especially when they broke quarantine procedures, with threats of fines or a summons to the courts for contravening the public health policies.[129] These health measures were applauded for their emphasis on cleaning up the 'problematic' parts of the city. For the middle classes – the so-called "backbone of the Dominion" – compulsory vaccination questioned their status as clean, hygienic citizens. It placed the weight of paternalistic state medical power on the middle and working classes alike. This rankled

[127] "Anti-Vaccination Petitions," *Globe* (23 Dec. 1919): 6.
[128] City of Toronto Archives, fonds 200, series 783, file 22. Toronto Board of Control, communications, calendar, 06 Nov. 1919.
[129] City of Toronto Archives. Fonds 200, Series 518 - File 5. Letter Medical Health Officer to Mrs. Blackhall, 11 Oct. 1904.

particularly with the British-born citizens who felt the imperial connection between Canada and Britain should necessitate the adoption of a conscientious objector clause, as there was in their colonial parent.[130]

It is perhaps not surprising then that compulsory vaccination was viewed as an unjust interference in the lives of citizens. The Great War Veterans' Association voiced the opposition to compulsion in their monthly meeting, passing a resolution that drew clear lines between the war and the protection of liberty. They declared:

> The members of this Association are men who volunteered, and did their duty in the suppression of autocracy and Prussianism, and whereas it has come to our attention that the provincial Board of Health are trying to compel the City Council of Toronto to force the citizens, regardless of their wishes in the matter, to be vaccinated, we desire to go on record that in our opinion, the action of the Provincial Board of Health is directly opposed to the principles for which we fought, and that we petition the provincial government to resend the vaccination act in so far as compulsory vaccination is concerned.[131]

This sentiment was reinforced at a protest organised in front of City Hall on 14 November, with a crowd of parents and even schoolteachers joining the action. Compulsory measures were labelled German and totalitarian, and Hastings was even given the nickname 'Kaiser Bill.'[132]

[130] "Many not Vaccinated During Xmas Vacation," *Toronto Star* (05 Jan. 1920): 2.
[131] "G.W.V.A. Will Take Part in the Election Fight," *Toronto Star* (11 Dec. 1919): 22.
[132] "Say Doctors Ignore Protests of Parents," *The Toronto Daily Star* (19 Nov. 1919): 1



Figure 8: Anti-Vaccination Rally at City Hall, Toronto, November 1919. Source: City of Toronto Archives, Fonds 1244, Item 2517.

Hastings, for his part, made an effort to address the public concerns about the order. He agreed to give several public lectures on the subject to various local societies and associations, and he published an official report endorsing vaccination which he made available to the public. It was distributed in the papers and throughout the city to help combat the propaganda of his anti-vaccination opponents. In it, he outlined recent evidence from the war of the success of vaccination, as well as supporting statistics from London, Germany, the Philippines, Cuba, and Puerto Rico.[133] He addressed the argument that cleanliness prevented smallpox, by pointing to the low rates of smallpox amongst those in poor living conditions – frequently immigrants who were required to be

[133] Hastings, Charles. Report endorsing vaccination as a prevention against smallpox (Toronto: 1919), https://www.canadiana.ca/view/oocihm.80000

vaccinated before arrival on North American soil. He quoted the Chicago Commissioner of Health, who stated that "vaccinated foreigners... living in slum conditions, in all our cities, are much freer from smallpox than are our native born in the best residential districts."[134]

Yet Hastings' arguments frequently demonstrated his expectation of widespread acceptance of medical authority. In his various lectures to clubs and societies he highlighted the elite nature of medical knowledge and used this as a justification for the support of vaccination, asserting, "every medical society, every surgical society and every association in the field of preventative medicine... endorses the principle of vaccination."[135] To his mind, rejecting the authority and expertise of the leaders in the scientific community was a showing of ignorance and wilful blindness by the community. He went on to proclaim that "the number of cases of smallpox in any community is… accepted as an accurate index to the intelligence of the people."[136] Ultimately, the outright rejection of public concerns gave more weight to his opponents' position.

While public concerns centred on compulsion, the leaders of the anti-vaccination campaign held a vested interest in promoting and protecting alternative medical practices. The lobbying during City Council meetings was primarily by deputations of 'homeopaths, chiropractors and osteopaths,' with Becker backed by vocal advocates such as local chiropractor, Dr. Ebenezer Chattoe. Becker and his fellow homeopaths would soon meet to pass several resolutions denouncing vaccination and the actions of the provincial health board for passing legislation "without consulting all those interested in medical

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[134] *Ibid.*
[135] "M.O.H. State his Faith in Vaccine Treatment," *Toronto Star* (10 Dec. 1919): 23.
[136] City of Toronto Archives, fonds 200, series 365, file 22. Monthly report for Department of Health, Oct. 1919.

legislation."[137] These men harnessed the tensions around compulsory vaccination to combat the increased alienation of their own medical practice. One of their adverts by the Anti-Vaccination League proclaimed their fight as one against "entrenched privilege."[138]

The timing of the situation quickly led to politicisation. With public opinion inflamed and an upcoming election that December, the city councillors were mindful of pushing residents too far in the enactment of vaccination. Controller McBride jumped on the opportunity to use public anger to raise his own popularity, accusing the mayor of passing the compulsory order at the very end of the council meeting, so that it had 'slipped through' the City Council deliberations. With McBride swinging insults and warnings, Mayor Church, the controllers, and the city aldermen each tried to throw attention elsewhere to maintain their own reputations. They pleaded powerlessness, pointing out that Hastings was backed by the Provincial Health Department and provincial legislation. One alderman beseeched the AVL to take their arguments to "the real people" behind the verdict, "Premier Drury and the Provincial Government."[139] Other council members pointed to the Board of Education as the true culprits of enforcement, bowing quickly to the instructions from Hastings. McBride, for his part, kept up a constant commentary on the evils of the policy, musing that, "nothing like it was done in the darkest days of Russia," and lamenting that Toronto was being advertised as "the pest-hole of Canada."[140]

In a move to placate rising anger, the city council voted to extend the time limit for parents to get vaccinated well into December – much to the chagrin of Hastings and

[137] "Homeopathists Score Ont. Vaccination Laws," *Globe* (15 Dec. 1919): 9.
[138] Advertisement: "Oppose Compulsory Vaccination," *Globe* (19 Nov. 1919): 2.
[139] "Meeting Denounces Forced Vaccination," *Toronto Daily Star* (17 Nov. 1919): 17.
[140]"Extend Vaccination Order for Ten Days," *Toronto Star* (27 Nov. 1919): 13; "Local Board of Health Attacked in Council," *Toronto Star* (05 Dec. 1919): 5.

the provincial board of health. They also voted against enacting a general vaccination order, for fear of the damage such an order would do in an already tense debate.

Yet more concerning for many was the continued presence of smallpox in the city. As December wore on and cases continued to increase, the epidemic had adverse impacts on daily life. The first was an order by the United States government to restrict all border crossings from the province for any unvaccinated passengers.[141] This restriction placed tight controls on trade and commerce in the city and caused several disgruntled passengers to be suddenly removed from cross-border journeys. Quebec soon followed suit by placing similar restrictions on travel between the provinces. Hastings smugly commented that this restriction was the result of the city's poor management of the epidemic, and that 30,000 people who daily crossed the border were being held up due to the wishes of a small minority of agitators.[142] More worrying, however, was the impact on trade and tourism. With the holiday approaching, visitors were disinclined to travel to a city with an active smallpox epidemic. One newspaper column reported that the question "how is smallpox to-day?" was on the lips of "nearly every visitor" to Toronto, with the epidemic seriously affecting the usual Christmas railway accounts and city commerce.[143]

Yet the economic consequences of an epidemic took a back seat in political campaigns when the election took off in December, and compulsory vaccination was quickly denounced by almost every alderman and council member. None were keen to be associated with the unpopular measure and questions about vaccination policy were sidestepped by the council's determination to place the responsibility for the measure on

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[141] Library and Archives Canada, RG 30, Vol 2649, File B51082. Grand Trunk Railway Company of Canada - General Superintendent Notice of Vaccination to all Railroad Employees to Prevent Spread of Smallpox, Toronto, Ontario (1919-1920).
[142] "Extend Vaccination Order for Ten Days," *Toronto Star* (27 Nov. 1919): 13.
[143] "Big Decrease is Shown New Smallpox Cases," *Toronto Star* (13 Dec. 1919): 27.

the shoulders of the provincial authorities.[144] The seemingly unified council stance against compulsory vaccination eventually silenced Becker and his supporters. In one city council meeting Church was reported to have had a "whispered consultation" with Becker and the 'anti' delegation left quietly without causing further ruckus.[145] It seems likely that Mayor Church's subsequent refusal to apply general compulsory measures or to enforce the school vaccination order was a concession granted to Becker, in return for the promise that the Anti-Vaccination League would halt its vocal agitations during the elections.

Stymied in their municipal lobbying efforts, the Anti-Vaccination League instead took their fight to the provincial government. They sent petitions with signatures to the Provincial Board of Health and the Premier's office, advocating for a repeal of the *Vaccination Act* in the province. They were quite optimistic about their chances and the outcomes of their efforts. When interviewed by the *Toronto Star*, the secretary of the League cheerfully speculated that their endeavours would lead to the eventual disbandment of the Provincial Board of Health over the issue.[146]

The Provincial Board of Health responded to the challenge with the full force of legislative power. The Provincial Health Officer, Dr. John W. S. McCullough, sent a direct order to the city council demanding compulsory vaccination across the whole city. They then sought legal counsel to enforce their decision, applying for a writ of mandamus that would compel the city to comply.[147] With over 1,600 cases of smallpox in quarantine by mid-December, McCullough was ready to consider a quarantine regulation for the

[144] "Local Board of Health Attacked in Council," *Toronto Star* (05 Dec. 1919): 5.
[145] "Aldermen Dodge Debate on Vaccination Questions," *Globe* (16 Dec. 1919): 9.
[146] "Up to Prov. Board, Council Refused to Act – Mayor," *Toronto Star* (10 Dec. 1919): 1.
[147] Unfortunately for the Provincial Board of Health, their request for a mandamus was refused by the courts, on the technicality that they were not a legal entity and thus could not issue such an order.

whole city of Toronto, restricting all movements in and out of the city for anyone unvaccinated. Although this order was never issued, anxious residents began to call his office enquiring about the exact regulations and if they would be able to return to the city if they went away for Christmas. "You can go anywhere if you are vaccinated," was the doctor's gruff reply.[148]

The municipal election brought about a new Board of Health in Toronto, which included four city council members. Although Hastings was still the city medical officer, he had to answer to an advising board which included the mayor and several other elected officials who had very recently declared themselves against vaccination enforcement.[149] Mayor Church survived the election despite stiff competition from McBride, and he was keen to usher in the new term on a high note in the public's good graces. A general vaccination order was not forthcoming, and further extensions were granted to parents who refused vaccination for their children.[150]

The smallpox epidemic passed over the next few months, and vaccine restrictions were eased. The U.S. government removed the regulation for border crossing from Ontario in late March, and Quebec followed suit that spring. Hastings soon found himself occupied with a diphtheria outbreak and another wave of influenza, while the city council turned to other items of concern.[151] As the pressure to vaccinate eased, public opposition evaporated with it. Neither the Anti-Vaccination League nor the Medical Officers succeeded in obtaining their goals. The *Vaccination Act* remained unchanged in the

[148] "Big Legal Battle on Vaccination Thursday," *Toronto Star* (16 Dec. 1919): 3.
[149] Toronto Archives. Fonds 200, Series 365, File 23, Monthly Reports, Department of Public Health Toronto, 1920.
[150] "Official Confirmation of Quarantine Lifting," *Globe* (18 Mar. 1919): 7.
[151] Toronto Archives. Fonds 200, Series 365, File 23, Monthly Reports, Department of Public Health Toronto, 1920.

province, while the city council successfully evaded provincial orders, despite increased pressure after two smallpox deaths in the first few days of 1920.[152]

By the end of the epidemic, there was one new convert to the vaccination cause in the person of Alderman Ryding. Ryding, who had been a vocal opponent of compulsion during the debates in November 1919 – often seconding McBride in his motions against it – contracted smallpox in late January. His stint with the disease left him a devout vaccinationist. He even proposed to raise a city budget of $2,000.00 for public education efforts on infectious disease prevention.[153]

The AVL remained active in Earlscourt over the next year but reshaped its aims to focus on the provincial government legislation and potential changes to the *Health Act*.[154] Similar to Ottawa, their overall numbers dwindled down to a select core few after the general controversy passed. Their main goals shifted back to the protection of alternative medical practice in the province and meetings were moved out of city school halls and theatres, to the residences of board members instead.[155]

Conclusion

The wave of anti-vaccination protest that engulfed Canada in 1919 demonstrated a confluence of different factors enabling widespread public pushback. Although the wartime climate had engulfed the nation for four years, the concerns of those who subscribed to alternative medical approaches were still alive and well, catalysed by the increased power that mainstream medicine gained during the First World War. The call

[152] "Plea of Ont. Health Board Turned Down," *Globe* (06 Jan. 1920): 8.
[153] The proposal was rejected by the city council. "Budget Stands Up Well Under the Council's Fire," *Toronto Star* (31 Mar. 1920): 1.
[154] "Earlscourt: "Anti-Vacs" Active," *Toronto Star* (28 Feb. 1920): 25.
[155] "Earlscourt: "Anti-Vacs" for Dominion Organisation," *Toronto Star* (17 Mar. 1920): 14.

for medical freedom and choice in health beliefs came back in force as local and provincial authorities implemented new vaccine mandates at a time of unprecedented government power.

Through the editorial sections of the city newspapers, alternative medical adherents found connection with a wider public frustrated with government overreach. The country saw a massive wave of labour strikes at this time as tired workers in the labouring classes enacted protests, marches, and union action in an attempt to destabilise established industrial power structures solidified by wartime policies. The war had brought about extraordinary government control and intervention into the daily lives of Canadian citizens, while promoting paradoxical national narratives of freedom and liberty. As Canada moved towards post-war reconstruction, anti-vaccination served as a form of anti-establishment liberation nationalism, bringing together various segments of the population in opposition to a common elite class of medical practitioners. Various citizens vocalised their discontent with paternalistic and authoritative medical policies that required sudden and rigid obedience. This anger fed the enthusiasm of those who took issue with the rising hegemony of so-called 'allopathic' medicine to mobilise against vaccination. Discrediting vaccination had the benefit of simultaneously discrediting the institutions that validated it – medical, military, and government officials.

The optics of vaccination policy influenced its implementation. In the post-war landscape, narratives of wartime noble sacrifice fit well with the constructed vaccine resistance arguments, especially the ones which pointed to liberty and freedom of belief systems. Authoritarian mandates like compulsory vaccination were viewed as a direct assault on the cherished principles of liberty and freedom for which countless lives were sacrificed during the conflict. Opponents likened vaccination policies to the 'tyranny' of

their German enemies, catalysing public outrage by labelling city health officials as tyrants of Kaiserism.

The public turmoil and dramatic appeal of these debates also ensured that anti-vaccination featured heavily in the local newspapers. Vaccination controversies were sensationalised through local publishing practices in Toronto and in Ottawa, where personal beliefs and professional rivalries among publishers shaped content. While papers were generally required to report local and provincial public health notices, they also selectively chose to platform controversial opinions to gain attention in the competitive commercial news landscape. Similarly, local politicians sought to capitalize on the divisive aspects of vaccination to raise their own platform – a phenomenon vividly seen during the 1919 Toronto civic elections.

Anti-vaccination activism after World War One served as both an outlet for frustration and a tool for unsettling the dominant political and social controls surrounding health and healing. Through the allegory of liberty, anti-vaccination brought together numerous individuals who sought to push back against the changes in both society and medicine that had defined the wartime experience, and to assert their calls for freedom. Anti-vaccination thus served as an anti-establishment meeting ground for these varied groups, disrupting the power of mainstream medical systems of power, authoritarian civic and provincial health structures, as well as restrictive legislation over medical practice in the country.

CHAPTER 5 – One Hand Washes the Other: The Intersections of 'Anti-' Activism, 1920 – 1960

> *"There is still that group of persons who object to everything - anti-vivisection, anti-meat eating, anti-breakfast, anti-hats, and of course also anti-vaccination... they generally also believe that the earth is flat."*
>
> - Anonymous, The Lancet, 1919[1]

The First World War was finally at a close in 1918, but this did not bring respite to the loss of life. The same year, Canadians faced a new enemy on domestic shores in the form of an influenza pandemic. As the second wave of the infection swept across the country that autumn, it further impacted national spirits in what should have been a moment of relief after the horrific conflict and the return home of those that had survived. It was in the wake of the pandemic that Dr. John B. Fraser, a Toronto-based physician, published a pamphlet titled "Flaying the Germ Theory."[2] Fraser, a graduate of Queen's University who practiced 'natural' medicine, had made a mission of taking down what he saw as the greatest fallacy of modern science: the notion that germs were the cause of disease. He described how he had undertaken 'careful experimentation' to investigate the issue during the preceding five years, where he systematically ingested various disease-causing germs and documented his continued lack of illness. He declared that he had infected himself 'hundreds of times' with "diphtheria, typhoid, meningitis, pneumonia, and tuberculosis germs," and never once developed any disease.[3] His two daughters had completed similar experiments with similar results.

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[1] Editorial, "Vaccination," *The Canada Lancet* 53, no. 3 (Nov. 1919): 101-105.
[2] Bator, "The health reformers versus the common Canadian," 351.
[3] "Toronto Doctor Defies Germs," *Sault Star* (19 Jul. 1919): 6.

His declarations were met with uninterest from the local medical community in Toronto, who viewed him as a discredited quack that deserved little professional attention and "was just out for publicity.'[4] However, Fraser's theories successfully mobilised the press and gained him international attention when his claims earned a response from an authoritative medical figure in the United States. A flurry of newspapers announced that a challenge had been made by the executive secretary of the Minnesota Public Health Association, to a 'duel with germs' which would put Fraser's theories (and possibly Fraser himself) to the grave. The challenge was issued by Dr. Hibbert Winslow Hill, who invited Fraser down to St. Paul, Minnesota to test out his 'natural' methods of healing against various infectious agents.[5] This medical duel would have each physician expose themselves to various disease-causing germs and each would in turn treat themselves in their own healing paradigms. Fraser accepted the challenge. Unfortunately – or perhaps fortunately for both physicians – the duel was called off after consultation with a local attorney led to a condemnation of the experiment as akin to murder, should one of the subjects die.

While the challenge failed, Fraser capitalized on the moment to stay in the press. He went on to publish several letters and pamphlets against the use of chlorination in the city water supplies, which he viewed as poisonous to human health and useless for killing germs (which, he argued, were harmless anyway).[6] He protested the pasteurization of milk for similar reasons, arguing it was damaging to a wholesome drink that was essential to health.[7] On the topic of vaccination, he drew on the common lexicon of anti-vaccination, avowing that the medical interventions used against infectious disease –

[4] "Colleagues Aghast," *Gazette* (16 Jul. 1919): 11.
[5] "Duel of Germs is Off," *Free Press Prairie Farmer* (24 Sept. 1919): 30.
[6] "Sault and Toronto Doctors Disagree on Chlorination," *Sault Star* (09 Dec. 1920): 8.
[7] Bator, "The health reformers versus the common Canadian," 351.

serums, anti-toxins, and vaccinations – were 'poisonous' matters that 'polluted' the clean bloodstream of children and spread illness, while doing nothing to prevent it.[8] In 1931, he would speak out against the use of children in medical trials for polio vaccines and preventatives, calling the trials 'evil experiments' perpetrated by profiteering doctors.[9]

Alongside his anti-vaccination, anti-chlorination, and anti-pasteurization activism, Fraser was instrumental in founding the Canadian Anti-Vivisection Society in 1921.[10] This society opposed the use of animals in scientific research, and made a mission of appealing to the public for support in changing legislation and policies that permitted the use of animals in experimentation.[11] He would remain an active member of the Anti-Vivisection Society for the rest of his life, organising public lectures and rallies to raise awareness. When he died in 1938 at the age of 84, the *Toronto Daily Star* reported that he was remembered as a man of "strong conviction and courage," despite a long life marred with controversy.

Fraser serves as a good example of the loose boundaries between 'anti-' activist groups in the twentieth century as well as the crossovers in concerns among various protest movements against health interventions. Fraser built a popular identity around his activism, making a sensational name for himself by opposing the foundation of biomedical knowledge and dedicating himself to a variety of causes which disrupted the professional power of mainstream medicine and the widespread reach of public health interventions. He found cause with the early feminist movements as well, advocating for women to have a place in the profession of healing and condemning widespread

[8] "The use of Vaccines," *Winnipeg Tribune* (01 May 1930): 5.
[9] "Ban Experiments on Sick Children," *Vancouver Sun* (11 Jul. 1931): 18.
[10] "Anti-vivisectionists," *Expositor* (05 Jul. 1921): 1.
[11] This society was separate from the Humane society, which was concerned more broadly with safeguarding animal welfare and had existed in Toronto since 1879.

interventionist health policies that he believed dangerously impacted public life and welfare. He was well-liked in his community and held a position of both scientific and moral authority amongst his supporters.[12]

Yet the time in which Fraser enjoyed the most notoriety was also a moment in which anti-vaccinationism was in a great decline. The First World War had solidified mainstream approaches to medical care, cementing the importance of vaccination, anti-toxins, and serums as preventative treatments. Canada's healthcare sector underwent massive changes in the post-war moment, building hospitals, improving clinical access, and training an extensive community of nursing staff.[13] Public Health departments expanded, bureaucratised, and gained influence, with vaccination serving as a core symbol of the new biomedical model of medicine that was built around laboratory and scientific research. Medicine was entering a so-called 'Golden Age' where physicians had increased respect and power, while advances in medical research promised to eradicate numerous diseases from the earth.[14]

The 'Golden Age' of medicine is traditionally seen as the period between the end of WWI and before the rise of the mid-1960s counter-culture movements.[15] This period

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[12] Fraser's work was often referenced in the 1920s when detractors wrote into the local newspapers to protest germ theory and vaccination. See: "Bacteria and Disease," *Saskatoon Daily Star* (30 Jun. 1928): 11; "The use of Vaccines," *Winnipeg Tribune* (01 May 1930): 5.

[13] For a discussion of the expansion of the hospital and clinic systems in the interwar period, see: Aleck Ostry, "The Foundations of National Public Hospital Insurance," in *Making Medicare: New Perspectives on the History of Medicare in Canada,* edited by Gregory Marchildon (University of Toronto Press, 2018), 22-26. Additionally, Sasha Mullally and David Wright have done an extensive investigation of how foreign doctors were an essential part of this process. See: Sasha Mullally and David Wright, *Foreign Practices: Immigrant Doctors and the History of Canadian Medicare* (McGill-Queen's University Press, 2020), especially chapters one and two.

[14] Seamus O'Mahony, "After the golden age: What is medicine for?" *Lancet* 393 (2019): 1798–1799, https://doi.org/10.1016/s0140-6736(19)30901-8.

[15] Alan Logan, et al., "Golden Age of Medicine 2.0: Lifestyle Medicine and Planetary Health Prioritized," *Journal of Lifestyle Medicine* 9, no. 2 (July 2019): 75-91, https://doi.org/10.15280/jlm.2019.9.2.75.

was characterised by significant advancements in technologies combatting infectious disease, with the creation and widespread deployment of vaccines for yellow fever, tuberculosis, pertussis, tetanus, measles, polio, and the use of the first combined vaccine technologies. It saw the discovery and early trials of antibiotics and arguably reached a zenith in 1955, with the announcement of the successful Salk Polio vaccine. Indeed, Colgrove identifies this moment as a pinnacle of medical power, when national surveillance for vaccination coverage in the USA became 'routinized.'[16] Similarly, Grossman argues that this time was a moment when the public "had extraordinary faith in organized medicine, science, and the government."[17] Colgrove's analysis demonstrates that this faith was partly due to a shift in approaches to medical interventions, with persuasion, advertising, and education replacing compulsory policies as more effective pragmatic approaches to increased adherence to public health recommendations.[18]

In the Canadian context, the work by Carstairs, Philpott, and Wilmshurst demonstrates a similar shift towards persuasion and educational literature in public health tactics as in the United States, particularly focussing on strong moralising messages about individual responsibility.[19] The analysis in *Be Wise! Be Healthy!* demonstrated that this was particularly true for the robust work of the Health League of Canada,[20] which put forth targeted educational campaigns on a variety of health issues in the middle of the century, including immunizations, venereal disease, fluoridation, and nutrition. However,

[16] Colgrove, *State of Immunity*, 13.
[17] Lewis Grossman, *Choose Your Medicine: Freedom of Therapeutic Choice in America* (Oxford University Press, 2021), 11.
[18] Colgrove, *State of Immunity*, 13.
[19] Catherine Carstairs, Bethany Philpott, and Sara Wilmshurst, *Be Wise! Be Healthy! Morality and Citizenship in Canadian Public Health Campaigns* (University of British Columbia Press, 2019).
[20] The Health League of Canada initially began as the Canadian National Council for Combatting Venereal Disease in 1919, followed by the Canadian Social Hygiene Council (1921). It became the Health League of Canada in 1935.

Carstairs's other work has illuminated that there are some qualifications to considering this moment a so-called 'golden age', demonstrating that public pushback against widespread health interventions, particularly fluoridation measures, occurred throughout this period, and that "there was more anxiety about medical and scientific progress than has often been acknowledged."[21]

Public pushback against public health measures reflects one of the major contentions in the approach to health taken at this time. By their very nature, public health activities are designed to impact a wide segment of society and frequently involve interventions on systemic levels in order to achieve this aim. Compulsory vaccination is a clear example, but chlorination and fluoridation of water supplies, pasteurization of milk, food quality control, educational campaigns, and health insurance coverage are all meant to impact health as widely and universally as possible. Despite continued messaging that emphasised an individual moral imperative – a type of 'health entrepreneurship' according to Carstairs, Philpott, and Wilmshurst – much of the work of public health was designed and implemented outside of any one person's control.[22] This was one of the core disconnects between messaging and practice that facilitated 'anti-' activism in the middle of the century, with an emphasis on individual responsibility yet an enactment of widespread public interventions which were contrary to individualistic approaches to health and medical choice.

The work done by these historians has demonstrated that conceptions of the 'medical community' and 'scientific authority' were loose and shifting categories, being constantly renegotiated in both medical practice and public perception. As we have seen

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[21] Catherine Carstairs and Rachel Elder, "Expertise, Health, and Popular Opinion: Debating Water Fluoridation, 1945–80," *The Canadian Historical Review* 89, no. 3 (2008): 345–371
[22] *Ibid.*

in previous chapters, the negotiation of perceived legitimacy was similarly intrinsic to debates over vaccination, and anti-vaccination movements were frequently instigated, directed, and fuelled by those who fell outside the definition of legitimate medical practice.[23] Yet this trend is not unique to vaccination debates, as the work of David Arnold has shown. Arnold found a similar negotiation of legitimacy in colonial-era India as Western medicine grew and sought monopolistic rights over treatment of health and the body.[24] Although local remedies were maintained as a norm amongst Indians, the increased professionalisation of medicine enabled the mainstream exclusion of so-called 'folk' practitioners, while exaggerating claims by medical science for the ability to prevent, control, and even eradicate human disease, leading to the development of a symbiotic relationship between medicine and the modern state.[25]

The growth of the power and prestige of mainstream medicine at this time and the seemingly unified ideological commitment to eradicating disease through the advances of biomedical science cloaked medical science with a sheen of invincibility and infallibility. Many assumed that the troubles of the past were at last laid to rest with the rise in public confidence in health experts and public health authority, so vividly demonstrated by the publicity and enthusiasm of the polio vaccine trials in the 1950s.[26] A similar gusto was seen in Canada. Research conducted at Connaught Laboratories had

[23] Although this shifted over time, those who practiced drugless and bloodless healing tended to have less official backing through professional and political institutions.
[24] See: David Arnold, Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India (Berkeley and Los Angeles: University of California Press, 1993).
[25] *Ibid.*, 9.
[26] Colgrove, *State of Immunity*, 12-13.

been an essential part of the vaccine development process and many Canadians eagerly awaited their own access to the new Salk vaccine against polio.[27]

It seemed like a golden age to scholars at the time as well. Writing in 1967, Kaufman triumphantly concluded his historical examination of anti-vaccination: "with the improvements in medical practice and the popular acceptance of the state and federal governments' role in public health, the anti-vaccinationists slowly faded from view, and the movement collapsed."[28] While the so-called golden age certainly saw a decline in the popular appeal of anti-vaccination, this chapter examines the way in which vaccine opposition was concomitant with numerous populist 'anti-' movements during this time. Similar to anti-vaccination, these movements were populist in nature, using moral categories of 'the people' and 'the establishment', embodied in images of medical men and public health officials as authoritative exploiters aligned with capitalist and state power. They were often movements led by those who disagreed with biomedical understandings of disease and had a vested interest in disrupting mainstream medical authority. Its long-lived lines of argument provided a starting base for associated popular ideological social movements that rallied against the increased union of biomedical science, state power, and interventionist medicine. Even while anti-vaccination was increasingly viewed as a fading echo in the canyon of reasonable thought, its advocates found new avenues of protest and solidarity that permitted continued dissent from the medical establishment.

This chapter will begin with a discussion of anti-pasteurization and anti-chlorination movements more generally, before directly connecting them to anti-

[27] Luis Barreto et al., "Polio Vaccine Development in Canada: Contributions to Global Polio Eradication," *Biologicals* 34, no. 2 (June 2006): 94, http://dx.doi.org/10.1016/j.biologicals.2006.03.008.
[28] Kaufman, "The American anti-vaccinationists and their arguments," 478.

vaccination through a discussion of rhetoric and the cross-over of individual activists. While compulsory measures were still locally in place across various cities and provinces in the country, similar to what Colgrove found in the United States, the Canadian approach to public health measures during this time shifted towards an emphasis on education and persuasion, more than compulsion.[29] While moments of compulsion certainly still occurred locally – and usually catalysed local resistance – anti-vaccination activists found stronger support for their protests in other medical arenas. This moment in anti-vaccination history marked an increased association with political movements, feminist and animals' rights movements, conspiracy theories, and various anti-establishment opposition groups which challenged mainstream politics, social norms, and medicine. Thus, looking at anti- medical movements during this period allows for an analysis of understanding how social movements are often interconnected and frequently overlap, finding fuel and support across causes.[30] Anti- arguments served as a way of asserting an identity of dissent, alternativeness, and non-conformity, in the age that idolised the extraordinary promise of medical progress.

In Defiance of Patriarchal Medicine

As a movement that questions a fundamental tenet of medical science, anti-vaccination serves as a destabilising force to the hegemony of the medical establishment, both in the present and in the past. One thing that significantly stands out in the history of anti-vaccination, especially after the turn of the twentieth century in Canada, is the role

[29] Carstairs, Philpott, Wilmshurst, *Be Wise! Be Healthy!* 6-7.
[30] This idea is further explored by: Dominique Clément, "Generations and the Transformation of Social Movements in Postwar Canada," *Histoire sociale* 42.84 (2009): 361–387, https://doi.org/10.1353/his.0.0077.

that women played in its advocacy. Women often served on the committees of anti-vaccination leagues and were vocal leaders in protests, gatherings, and meetings. They frequently wrote into local newspapers to voice their concerns about vaccination and participated actively in petitioning and lobbying efforts. An early example of this was the columnist and reformer Flora MacDonald Denison, who made a mission of criticising the vaccination policies throughout her career.[31]

Women were also key actors in the narratives of anti-vaccination literature, frequently appearing as the hapless 'victims' of vaccination, either suffering from ill effects themselves, or portrayed as the prey of medical con men who pressured them into vaccinating their children.[32] In the 1919 anti-vaccination resurgence, women were crucial agitators in both Ottawa and Toronto, with Margaret Graham Norton serving as both a founding member and vice president of the AVLC. Other women similarly found positions of power within the anti-vaccination movement. In Vancouver, Mrs. Ada Muir, leader of the Canadian Astrological Association, began her speaking career as secretary of the Vancouver Anti-Vaccination League. She travelled to Victoria in 1925 during an outburst of protest to give lectures on the dangers of vaccination, exemplified vividly with "illustrated lantern slides."[33] In 1934 she was still serving as the secretary-treasurer of the Anti-vaccination and Medical Freedom League of B.C.[34] In 1926, Miss Lily Loat, the secretary of the National Anti-Vaccination League of Great Britain, presented her views in Ottawa to a large audience at the Chateau Laurier. Although the Medical Freedom

[31] W. Roberts, "Six New Women: A Guide to the Mental Map of Women Reformers in Toronto," *Atlantis* 3 no. 1 (Feb. 1977): 151-157, https://atlantisjournal.ca/index.php/atlantis/article/view/5251.
[32] In 1900, Mayor MacDonald of Toronto told a story similar to this about a woman in his ward to oppose compulsory regulations in the city. "Canadian Dispatches," *Victoria Daily Times* (15 Feb. 1900): 8.
[33] "Anti-Vaccination Meeting Protests Exclusion Order," *Times Colonist* (04 Mar. 1925): 16.
[34] "Mrs Ada Muir to Attend Convention," *Vancouver News-Herald* (06 Sept. 1934): 5.

League had not been active since the 1919 protest, her speech encouraged a reformation of the League in the city and renewed the claims for legal reforms of the *Vaccination Act*.[35] Women were also prominently represented in alternative medical practices as both practitioners and consumers, enabling alternative medical approaches to grow in popularity, influence, and demand.

This section will attempt to answer two questions about women and their role in anti-vaccination movements by first exploring why so many women served as anti-vaccination advocates (and still do),[36] and how they shaped other 'anti-' movements during the so-called golden age of medicine between 1920-1960.

The work of Wendy Mitchinson is a key starting point for better understanding the influence medicine had on the lives of Canadian women in the early twentieth century.[37] In her work *Body Failure*, Mitchinson points to the increased pressure and influence the medical profession asserted over the lives of women during the first few decades of the century. Doctors, their opinions, and their advice seeped into the cultural fabric of society, moving beyond their previous role as consultants in time of need. Doctors became central authorities on all aspects of women's lives, proffering advice on a number of issues that went much beyond the medical, including education, clothing, cosmetics, lifestyle, exercise, work, marriage, and child-rearing.[38] They became increasingly central to the major experiences of women's lives, from birth, to puberty, to sex, to menopause.

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[35] "Will Reorganize Medical Freedom League in Ottawa," *Ottawa Citizen* (19 Nov. 1926): 2.
[36] Naomi Smith and Tim Graham, "Mapping the Anti-Vaccination Movement on Facebook," *Information, Communication & Society* 22, no. 9 (2019): 1319-20, https://doi.org/10.1080/1369118X.2017.1418406.
[37] See: Mitchinson, *The Nature of Their Bodies*, *Body Failure*; and *Giving Birth in Canada*.
[38] Mitchinson, *Body Failure*, 11-12.

Mitchinson and other historians have demonstrated that this period was one of medicalisation, in which physicians and doctors increasingly linked social issues to potentially harmful physical and mental health outcomes.[39] For women, Mitchinson argues, medicine developed a concept of the female body and mind as problematic, difficult, and inherently flawed. Medical advice served as a disciplinary force that was meant to rectify these inherent fallacies through the shaping and changing of women's behaviour.[40]

One need look no further than debates over motherhood and childrearing to see this dynamic reflected in the medical literature. In his 1913 article on "The New Public Health," Dr. Hibbert Winslow Hill – at this time acting as the Director of the Institute of Public Health for Ontario – warned his colleagues about the dangers of overburdened mothers across society, in all economic situations. Childhood disease he placed squarely on the shoulders of women. He wrote: "Who keeps the infectious disease going?... women in general, but chiefly after all the mother… mothers propagate and keep alive and spread the infectious diseases of children more than any other one body of people."[41] The solution was to advise women on how to be good mothers and caregivers – and as

[39] *Ibid.* 9. For further research into how medicalisation impacted women, see: Katherine Arnup, *Education for Motherhood: Advice for Mothers in Twentieth-Century Canada* (University of Toronto Press, 1994); Cynthia Comacchio, *Nations Are Built of Babies: Saving Ontario's Mothers and Children, 1900-1940* (McGill-Queen's University Press, 1993); Denise Baillargeon, *Babies for the Nation: The Medicalization of Motherhood in Quebec, 1910-1970,* trans. W. Donald Wilson (Wilfrid Laurier University Press, 2009); Mona Gleason, *Small Matters: Canadian Children in Sickness and Health, 1900-1940* (McGill-Queen's University Press, 2013); Lara Campbell, Tamara Myers and Adele Perry, *Rethinking Canada: The Promise of Women's History* (Oxford University Press, 2016).
[40] Mitchinson, *Body Failure*, 9.
[41] Hibbert Winslow Hill, "The New Public Health," *Press of the Journal-Lancet* (1913), https://www.canadiana.ca/view/oocihm.65701.

Mitchinson has pointed out, this advice was directly reflective of "the middleclass, white Anglo-Celtic ideology of motherhood."[42]

Women were encouraged to accept a scientific model of motherhood, informed by the evolving discourse of hygiene, appropriate childcare, and effective household management. As Hill argued: women were "the "raisers" and "crop-handlers" of the largest, most valuable, most expensive and most difficult crop in the country. What happens to this crop between birth and sixteen years of age is, chiefly, what women do to it, or at least do not prevent."[43] Physicians thus weighed in on all aspects of child-rearing and female lifestyle in the name of public health protection. Authority in child-rearing was divorced from social conceptions of motherhood and replaced with female adherence to medical authority. Mitchinson eloquently asserts: "No longer were women to take their children to see a physician when they noticed that something was wrong; they were to take their children to the physician on a regular basis in order to see *if* anything was wrong."[44]

It is perhaps not surprising then that many women sought to disrupt the increasing encroachment of mainstream medicine on their lives and family role. Feminist movements were on the rise and women were gaining increased visibility in the public space. Anti-vaccination and other causes that opposed medical hegemony served as an effective foil for the ever-encroaching presence of the doctor in women's lives. An underlying anger and disdain for medical men who took a narrow view of the causes of 'undesirable' behaviour certainly motivated Mrs. Ethel Cuthbertson to write a number of scathing letters to the local *Calgary Herald* in 1918. A few days before Dr. William Ayer

[42] Mitchinson, *Body Failure*, 125.
[43] Hibbert Winslow Hill, "The New Public Health," *Press of the Journal-Lancet* (1913), https://www.canadiana.ca/view/oocihm.65701.
[44] Mitchinson, *Body Failure*, 125.

Lincoln, president of the Provincial Medical Association, had given a lecture before the People's Forum. Lincoln espoused a common view of the time: that mental defectiveness was at the root of "the every day brand of crime [sic]," and that this problem generally stemmed from the actions of "habitual criminals" and "fallen women."[45] After lamenting the ignorance of women who turned to sex work to make a living, he went on to blame infant mortality on the "lack of knowledge of the mother," and a general neglect of learning in 'scientific motherhood.' He argued that the reproduction of 'unfit persons' should be regulated for the good of society. The state, he asserted, already mandated vaccination as a form of public protection, and this served as a basis for justifying state intervention in reproduction and marriage.

Cuthbertson, who had attended the lecture, wrote a rebuttal letter in the Calgary Herald, initiating a back-and-forth exchange between her and Lincoln. She began with astonishment at his acceptance of "the vaccination fetish" which, she argued, had been absolutely disproved.[46] Drawing on the rhetoric of anti-vaccination, she labelled vaccination a 'poisonous pus' and the main reason for the spread of syphilis in society.[47] She then went on to defend the actions of women who had turned to prostitution, arguing that poverty was the ultimate factor that forced women into sex work. Cuthbertson signed off her last letter by calling Lincoln a coward for not signing his name in his written responses to her, whilst she had listed hers in full for readers to see.[48]

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[45] "Crime is hereditary Disease: Afflicted Should be Prevented from Marrying, Says Dr. Lincoln," *Calgary Albertan* (04 Feb. 1918): 10.
[46] "Some Questions for Dr. Lincoln," *Calgary Herald* (06 Feb. 1918): 6.
[47] This was not true by 1918, as technological advances in vaccine preparation and storage had advanced enough to eradicate syphilis from transmission, although this was a real concern at the end of the nineteenth century. See pages 32-38 for a full discussion of the advances in vaccine technology over this time.
[48] "Mrs. Cuthbertson on Vaccination Again," *Calgary Herald* (12 Feb. 1918): 6.

As Cuthbertson's letters demonstrate, arguing against the views and opinions of doctors and health officials in a public medium provided a potent mechanism of disruption for women who chafed at the patriarchal structures inherent in medical assertions of the time. By participating in various resistance movements against pasteurization, chlorination, eugenics, vivisection, and vaccination, women found a number of ways to both assert their own opinions and status within an increasingly medicalised society, while shaking the sexist foundations of medical practice.

Anti-Pasteurization, Anti-Chlorination, and Anti-Fluoridation

The debates surrounding vaccination were not the only public health controversies in the early twentieth century, and others arose when other public health measures were put in place that resembled compulsion. Intense protests arose across the country in response to attempts at ensuring safe and healthy drinking supplies of milk and water. While smallpox had ceased to be the infectious threat of the time, other diseases still reared their head periodically, causing illness and death, especially among children. Investigative surveys demonstrated that the deadliest diseases: typhoid fever, scarlet fever, diphtheria, and non-pulmonary tuberculosis, were generally transmitted through unclean milk and water, and Canada had higher rates of these infections than both Britain and Wales.[49] In 1927, there were over five thousand cases of typhoid fever in Montreal traced to contaminated milk.[50] Of particular concern to many health officials was tuberculosis. Non-pulmonary tuberculosis – tuberculosis infection of the bones, organs,

[49] "Canadian Water Supplies," *The British Medical Journal* 2, no. 2608 (24 Dec. 1910): 1989.
[50] James W.S. McCullough, "Pasteurization of Milk," *The Public Health Journal* 19, no. 3 (Mar. 1928): 119.

and joints – was generally transmitted through contaminated milk from an infected animal.

The solution from a public health point of view was to protect supplies of water and milk by eliminating harmful disease-causing agents. Water supplies were increasingly chlorinated across Canada in the early twentieth century, beginning in Ottawa.[51] Chlorination was favoured as an economical and reliable mode of ensuring clean water supplies for a city, and the United States standards for testing and certifying water safety were adopted as the standard to be held across Canada.[52] In terms of milk, pasteurization was recommended by health officials and doctors alike as the best way to ensure safe, clean milk for consumption. Pasteurization involved the heating of milk to a temperature between 142-145°F for 20-30 minutes.[53] This killed harmful bacteria, while minimally affecting the flavour and nutrition of the milk.

The adoption of milk pasteurization was slow compared to most public health interventions. It occurred between 1915-1991 in Canada, as different municipalities, cities, and eventually provinces passed legislation that required pasteurization and bottling of all milk sold within their district. The first city to pass such a regulation was Toronto in 1915, well ahead of other urban centres in the country. In 1923, the two cities of Saskatoon and Saint John passed similar legislation, closely followed in 1925 by Regina, and in 1928 by Hamilton.[54] Numerous small towns in Quebec passed similar

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[51] Joseph Race, "Chlorination of Municipal Water Supplies," *The Journal of State Medicine (1912-1937)* 30, no. 6 (1922): 263-266.
[52] Matthew Evenden, "Debating water purity and expertise: the chlorination controversy in Vancouver during the Second World War," *Journal of Historical Geography* 65 (2019): 88-89, https://doi.org/10.1016/j.jhg.2019.06.007.
[53] McCullough, "Pasteurization of Milk," 119.
[54] Jane Jenkins, "Politics, Pasteurization, and the Naturalising Myth of Pure Milk in 1920s Saint John, New Brunswick," *Acadiensis* 37, no. 2 (2008): 96-97, https://id.erudit.org/iderudit/acad37_2art05.

legislation throughout the 1940s.[55] By 1938, Ontario had passed pasteurization laws for the whole province, followed by British Columbia in 1956. However, concentrated opposition in the prairies prevented many cities from instituting similar laws, and it wasn't until 1991 that pasteurization of all milk sold in the country was made mandatory.[56]

Although it wasn't mandatory, the vast majority of milk sold and consumed in Canada over the course of the twentieth century was nonetheless pasteurized.[57] Dairy producers in Canada had been selling pasteurized milk since the early 1900s, with many seeing pasteurization as a fruitful marketing ploy to get their milk to concerned consumers worried about possible contamination. Sanitation, cleanliness, and safety were strong selling points. As such, many big dairy producers invested in pasteurization equipment early on to sell their brand. The names of producers who pasteurized their milk were good indicators of the image they tried to convey. Pasteurized milk was actively marketed by the Hygienic Dairy Co., the Saskatoon Pure Milk Co. Ltd., the Standard Milk Co Limited, Crystal Dairy Ltd., and the Sanitary Dairy. Their advertisements often included lengthy explanations about milk-borne diseases, warning the public about the dangers of

[55] Adelard Groulx, "Pasteurization in *The Province* of Quebec: With Special Reference to Montreal," *Canadian Journal of Public Health / Revue Canadienne de Santé Publique* 37, no. 1 (Jan. 1946): 17.
[56] Catherine Carstairs, et al., "Making the "Perfect Food" Safe: The Milk Pasteurization Debate," in *How Canadians Communicate VI: Food Promotion, Consumption and Controversy*, edited by Charlene Elliot (Athabasca University Press, 2016).
[57] *Ibid.,* 166-167.

purchasing raw milk from their competitors.[58] By the 1930s, over seventy per cent of the milk sold in Canada's largest cities was pasteurized.[59]

However, the expense involved in implementing pasteurization meant it was not appealing for all producers, especially the smaller dairy farmers who supplied their milk directly to consumers. If they didn't invest in expensive pasteurization equipment on their own, a producer would need to sell their milk to large pasteurization plants that handled the process, bottled the milk, then distributed it.[60] This added a middleman in the production-consumption cycle and increased the price of milk for the consumer, a fact that made many producers shy away from pasteurising. Small dairy farmers argued that pasteurization would put them out of business, and that it was a ploy by the big producers to eliminate competition. The protection of small dairy producers proved to be a sticky point in many political debates about pasteurization.[61] Additionally, the close alliance between big producers and public health messaging encouraging the consumption of pasteurized milk seemed to prove that pasteurization was an attempt to eliminate the competitiveness of small dairy farmers.[62]

The economic realities were not the only reasons behind the movement against pasteurization. In her investigation on the pasteurization debate in Saint John in the 1920s, historian Jenkins has found that the economic motivations which drove resistance to

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[58] Advertisement: "Precaution" *Expositor* (07 Jan. 1915): 9; Advertisement: "Pure Milk and Cream," *Saskatoon Daily Star* (11 Jan. 1915): 12; Advertisement: "Standard Milk Co. Limited," *The Province* (24 Feb. 1915): 8; Advertisement: "Hygienic Dairy Co.," *Expositor* (12 Jun. 1915): 16; Advertisement: "The Sanitary Dairy," *St. Catharines Standard* (17 Jul. 1915): 8; Advertisement: "Crystal Dairy Ltd.," *Lethbridge Telegram* (10 Feb. 1916): 6.
[59] Carstairs, et al., "Making the "Perfect Food" Safe," 166.
[60] Jenkins, "Politics, Pasteurization, and the Naturalising Myth of Pure Milk," 99-100.
[61] For instance, in the 1925 debates about pasteurization in Montreal, many aldermen expressed support for clean milk, but said they weren't prepared to pass a pasteurization bill if it would "squeeze the life out of the small dealer." See: "Montreal's Campaign Against Poisoned Milk," *Montreal Star* (30 Jan. 1925): 3.
[62] Carstairs, et al., "Making the "Perfect Food" Safe."

pasteurization were couched in a rhetoric of the 'naturalising myth' of pure milk.[63] This idea would continue to shape objections to pasteurization over the course of the twentieth century, with anti-pasteurization activists arguing that pasteurization was 'unnatural' and destructive of the 'vital' aspects of milk, so much so that it was deemed actively harmful.[64] In a letter that mirrored anti-vaccination rhetoric, one commentator affirmed: "there is no comparison between the sturdiness of a babe fed raw milk and one reared on sterilized milk."[65]

Pasteurization was a highly political issue throughout the first half of the twentieth century. With dairy producers part of the largest industry in the country – agriculture – there was a lot of trepidation in upsetting farmers or appearing to favour the large producers when pasteurization debates arose. Public health officials were well aware of this, even recommending that public hearings or meetings be avoided when legislation was being passed, as those with personal stakes in the debate frequently showed up to crowd out the general public and threaten politicians when elections were approaching.[66] Relying on "expert advice" rather than asking for public opinion was, according to medical men, the best approach. Yet ignoring public opinion on the 'milk question' arguably lost more than one politician their seat. Jenkins argued that the medical reformer William F. Roberts lost his 1925 election due to public discontent with pasteurization in Saint John, New Brunswick.[67] Similarly, pasteurization was a key issue in other political debates. That same year in Montreal, several city councillors came out in favour of

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[63] Jenkins, "Politics, Pasteurization, and the Naturalising Myth of Pure Milk."
[64] "What Eminent Authority Says About Pasteurized Milk for Food Purposes," *Calgary Herald* (16 Mar. 1935): 24.
[65] "Raw Milk Producers Organize," *Edmonton Journal* (10 Aug. 1929): 4.
[66] Murray, "The Public and Pasteurization," *Canadian Public Health Journal* 25, no. 1 (Jan. 1934), 28.
[67] Jenkins, "Politics, Pasteurization, and the Naturalising Myth of Pure Milk in 1920s Saint John, New Brunswick."

pasteurization during political debates, while the later dissenting voice of Alderman Mathieu in 1930 caused a stir in the city when it was later debated in council.[68] Protests brought together both farmers and workers to form a sociopolitical unity against the effects of the Great Depression in the 1930s, while arguments against pasteurization expressed a seething anger with capitalist industry and the displacement of small producers from the milk market. This matches well with the findings of Fuentes, who argued that this time period was one of a 'low' use of the word populism, but a 'high' influence of it as a social phenomenon, specifically reacting to the role of the state in the control of "big business," the 'nemesis' of the people.[69]

Pro-pasteurizers and anti-pasteurizers both agreed on the need for clean, uncontaminated milk. Where they disagreed was on the method of how to obtain such milk. Those who advocated raw milk asserted that clean milk could be obtained through careful regulations of production. They argued that pasteurization would make farmers lazy and would "perpetuate insanitary conditions of milk production… by leading dirty farmers to think they were protected by pasteurization."[70] They focused on the need for tubercular testing of all dairy herds, and the production of milk in the utmost sanitary conditions, with workers who were regularly inspected for illness. Milk was to be cooled immediately after milking and transported to the consumer within an allotted timeframe to ensure ultimate freshness. The legislation that controlled milk supplies was jointly administered by the provinces and municipalities across the country, with wide variation in the extent of provincial involvement.[71] In most cities, farmers that followed the

[68] See: "Montreal's Campaign Against Poisoned Milk," *The Montreal Star* (30 Jan. 1925): 3; "Pasteurized and Natural Milk was Debated by Council," *Gazette* (13 May 1930): 4.
[69] See Fuentes, "Populism: Timeline of a Concept," 58.
[70] "Pasteurization Villain or Hero?" *Vancouver Sun* (02 Apr. 1946): 7.
[71] A.E. Berry, "Milk-Control Legislation in Canada," *Canadian Public Health Journal* 29, no. 6 (Jun. 1938): 301-304.

regulations could obtain a certification that confirmed their milk was clean for public sale.[72] For much of the 1920s, raw certified milk was ranked as the highest grade, followed second by pasteurized milk. Yet as contamination incidents continued, public health experts argued this system was not enough – in practice, it was loosely followed, and there were abundant moments for possible contamination along the path from producer to consumer.[73] Pasteurization and immediate bottling were considered essential for ensuring a clean milk supply for the public.

Medical opinion generally fell in line with the certification system and believed that *both* sanitary and clean production on the farm, *and* pasteurization of all milk, were the most effective options for a guaranteed healthy milk supply.[74] This of course meant several added expenses for producers and was perhaps a driving force behind the naturalising milk myth. By the late 1920s, pasteurization opponents had begun to focus on a secondary argument: that pasteurization was actively harmful to consumers. In a 1928 letter to the local newspaper in Owen Sound, Swithin King, a well-known and respected local photographer, asserted, "there is no doubt that there will be a great increase of infants who are fed on cows' milk suffering from malnutrition, on account of the indigestibility of pasteurized milk."[75] In 1931, the Women's Labor League of Calgary

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[72] *Ibid.*

[73] Dr. John W.S. McCullough, Ontario's Chief Provincial Health Officer, published a detailed discussion on the value of pasteurization in 1928, lamenting the poor standards in Ontario at the time. Similar sentiments were expressed by R.H. Murray, the director of sanitation for the department of public health in Saskatchewan. See: John W. S. McCullough, "Pasteurization of Milk," *The Public Health Journal* 19, no. 3 (1928): 119–23; R.H. Murray, "Survey of Pasteurization in Canada with a Record of Epidemics Due to Raw Milk," *Canadian Public Health Journal*, 27, no. 11 (1936): 555–59.

[74] "Anti-Pasteurization Arguments Not Sound Says Health League," *Sylvan Lake News* (10 Apr. 1946): 4.

[75] "Protests Against Pasteurization Being Compulsory," *Owen-Sound Daily Sun-Times* (14 Feb. 1928): 5.

took a definite stance against pasteurization, similarly claiming that children were unable to digest pasteurized milk.[76]

Seemingly scientific support for the arguments against pasteurization soon came from England, through the work of Professor O.A. Newell. Newell was reported to be head of the 'research department' for the National Health League in London, England. Although the name implied a strong scientific authority, the National Health League sat at the fringe of the medical and scientific community. It was formed in the early 1930s as an organisation explicitly opposed to the official hegemony of the British Medical Association, which it called "the strongest trade union in the world."[77] While advocating for medical freedom, the League opposed orthodoxy in medicine and declared it would not be constrained in its search for a healthy nation by things like 'tradition, etiquette, or stringent regulations'. The organisation reported over two thousand doctors as 'secret' members, and it boasted a wealthy and powerful patron in the form of its president, Sir Augustus FitzGeorge, the son of the Duke of Cambridge.[78] It wasn't long before members of the League found themselves in trouble with British authorities for the sale of unregulated "wonderful pills and lotions."[79] Newell himself made the London papers in 1933 for his research into a "life and death ray" which he claimed caused malignant bacteria to thrive, but he hoped could be used for 'radiating health' as well.[80]

In Canada, Newell served as an important authority in the debates around pasteurization in Calgary during 1935. Based on his own theory of disease – that 'the conditions of disease are within us, not outside' – he argued that pasteurization destroyed

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[76] "Year's Work Reviewed," *Calgary Herald* (03 Jan. 1931): 8.
[77] "B.M.A. Target of Attack," *Weekly Dispatch (London)* (09 Jul. 1933): 1.
[78] *Ibid.*
[79] "Pills and Lotion," *Portsmouth Evening News* (25 Sept. 1935): 14.
[80] J.D. S. Alan, "Experiment with Weird New Ray," *Weekly Dispatch (London)* (24 Dec. 1933): 1, 11.

"the natural state of things," causing the healthy minerals in milk to break down and become unabsorbable by the consumer.[81] He outlined his own research into the subject, alleging it demonstrated that pasteurization led to parathyroid dysfunction, rickets, tuberculosis, joint and bone deformation, and other serious diseases. Babies and infants raised on pasteurized milk, he insisted, were unlikely to gain the necessary weight for healthy growth. In contrast, pure, raw 'natural' milk was a 'living fluid' that served as a natural preventative to tuberculosis and other infectious diseases.[82]

Newell wasn't the only proposed expert who came out in opposition to pasteurization. In 1938, Dr. W.E. Wessels sent an angry dispatch to the Health League of Canada – previously the Social Hygiene Council and the main official body which pushed for pasteurization across the country in the 1930s and '40s.[83] Wessels insisted that a large number of doctors believed that the increase in cancer rates in the country was directly connected to the intake of pasteurized milk.[84] Wessels had a personal stake in the debates, as a dairy farmer himself, and secretary of the Preferred Raw Milk Producers' Association. A resident in Windsor, W.E. Holder – who often referred to himself as Dr. W.E. Holder, despite not having a medical degree[85] – also came out vocally against pasteurization. Holder was a prolific publisher, circulating several pamphlets and booklets decrying both pasteurization and chlorination. He was described as a 'licensed electrologist' in his obituary[86] and he spent many years advocating against medical

[81] "What Eminent Authority Says About Pasteurized Milk for Food Purposes," *Calgary Herald* (16 Mar. 1935): 24.
[82] *Ibid.*
[83] Carstairs et al., *Be Wise! Be Healthy!,* 64 – 73.
[84] Carstairs et al., "Making the "Perfect Food" Safe," 176.
[85] Holder's credentials shifted several times in his publications, but he most often signed his name as W.E. Holder, M.E., signifying an engineering degree, though he described himself as a chemist in early publications. "Has Diabetes Cure," *The Sun Times* (26 May 1939): 7.
[86] "W.E. Holder passes at 83," *The Windsor Star* (17 Feb. 1950): 5.

interventions for diseases like diabetes, cancer, polio, and rheumatism. In his most circulated publication titled: "Truth Shall Prevail," Holder avowed that much of the ill health seen in Canada was due to pasteurization.[87] In two later publications on cancer and disease, he repeated these claims.[88] Dr. Herbert Nowell of Vancouver, a 'sanipractic' and naturopath who was at the forefront of the creation of the British Columbia Medical Liberty League, argued that tuberculosis was much more likely to occur in children fed on pasteurized milk than on raw milk."[89]

Holder and Nowell were both avid anti-chlorination advocates as well. Holder's many publications and writings linked rising cancer rates and cases of hepatitis with chlorinated water. His book *Cancer in Humanity* was advertised in the local papers under the heading: "The Windsor Water: Consensus of Opinion are Not Facts."[90] He would later claim to have discovered a cure for cancer through the application of electrical currents, though his efforts to have his cure investigated and accepted by the medical community were largely unsuccessful.[91] Nowell would serve as a leader and organiser of the anti-chlorination movement in Vancouver in 1942. Speaking at a mass meeting in protest of chlorination, he attacked the germ theory of disease and the tenets of bacteriology that prompted the need for chlorination of water supplies, declaring that the human body was full of microbes and that they were all harmless.[92]

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[87] This booklet's circulation caused a stir in the local papers and was reportedly sent to a number of high-profile reporters and officials. "Quebec Editor Warns of Propaganda," *Windsor Star* (11 May 1944): 29.
[88] W.E. Holder, *Cancer in Humanity: "Biologic War on Disease"* (Windsor: Redloh Publishing Company, 1946)
[89] Letter to the Editor: "Raw Milk and T.B." *Times Colonist* (27 Jan. 1938): 8. Nowell also appears in the work done by Carstairs et al., "Making the "Perfect Food" Safe," 176.
[90] "The Windsor Water," *Windsor Star* (19 Dec. 1946): 12.
[91] Library of Parliament / Bibliothèque du Parlement. House of Commons Debates, 20th Parliament, 3rd Session: vol. 5, "Supply – Health and Welfare," 4429.
[92] "Mass Meeting Backs Vancouver Water Board Stand Against Chlorination," *The Province* (13 Oct. 1942): 5.

The 1942 chlorination protests in Vancouver were the largest public dispute regarding the chlorination of water supplies in Canada. This upheaval has been analysed by historian Matthew Evenden, highlighting several factors which instigated intense public resistance to a seemingly reasonable health intervention, particularly highlighting the frictions with federal overreach.[93] The controversy began when the federal government attempted to force the local water management authority, the Greater Vancouver Water District (GVWD), to chlorinate water supplies. For a city built on a myth of abundant clean, pure, mountain water, it proved to be an attack on local identity, as well as a popular struggle against over-reaching federal powers during the context of the Second World War. Concerns with an 'overbearing federal wartime state' caused many locals to push back on the measure, and public sentiment encouraged city politicians and the GVWD to oppose it.[94] This controversy was partially instigated by the professional rivalries that underpinned definitions of expertise – the commissioner for the GVWD, Ernest Cleveland, a sanitation engineer, actively undermined the conclusions and testing methods undertaken by the provincial and federal bacteriologists in his attempts to resist the chlorination order.[95]

When the context of anti-establishmentism is added to the analysis, it is clear that this debate was also influenced by the need to defy both federal and biomedical power. Letters to the newspapers and the city during the controversy reveal a clear popular discontent with state over-reach. Prof. H.E. Meyers – an inventor and electric healer – wrote the city to announce that he would not allow the 'Doctors' to force "State medical

[93] Matthew Evenden, "Debating water purity and expertise."
[94] *Ibid.*, 92.
[95] *Ibid.*, 89.

control on the people in Canada."[96] Meyers harnessed populist sentiment by claiming that chlorination was just one more method of "fakery that the Doctors are using to fool the people," alongside blood-testing and laboratory analysis. Another writer decreed that the only recourse to chlorination was to "secede from the dominion."[97] In a chilling anonymous letter sent to the GVWD, the writer threatened to bomb the water supply if chlorination happened, avowing: "we just aint going let ottawa rats rule us any ole way. [*sic*]"[98]

A Vancouver Anti-Chlorination League was formed in 1943 as the federal regulations for chlorination were adopted. It would eventually join hands with the Citizens Committee Against Chlorination in Victoria.[99] Both initiatives were short-lived. The federal government asserted its wartime powers, couching the move to chlorinate in patriotic language and warnings about the possibility of a domestic attack from the Japanese. Anti-chlorinationists would resume their lobbying after the war, and the leader of the Anti-Chlorination League, Harry Langley, even attempted to run as an alderman on an anti-chlorination platform.[100]

The resistance movements to pasteurization and chlorination in many ways served as forerunners to the anti-fluoridation movements of the 1950s and 60s. Still a contentious issue today, fluoridation of water supplies has seen some of the most sustained opposition campaigns to a public health initiative in the latter half of the twentieth century. Despite the strong local opposition to chlorination, Vancouver was one of the first cities in Canada

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[96] City of Vancouver Archives, AM1257-S13, box: 064-F-05, folder 01. Health regulations - letters re chlorination, etc., Letter to the Greater Vancouver Water Board from Prof H. E. Myers V.S., 29 Sept. 1942.
[97] *Ibid.,* Letter to Dr. Cleveland from J.G. Margrave, 07 Oct. 1942.
[98] *Ibid.,* undated letter to E.A. Cleveland.
[99] "Chlorine Wends Way to Homes," *Vancouver Sun* (06 Oct. 1943): 19.
[100] "Death Claims Harry Langley in 73rd Year," *Times Colonist* (14 Sept. 1957): 15.

to investigate fluoridation of its water supplies in 1952. Fluoridation was becoming increasingly popular in municipalities across the United States after the Second World War and many Canadian health officials were taking an interest.

Inspired by the positive reports about improved dental health in various cities south of the border, Canadian officials began the first domestic research into fluoridation in 1945. The first experiment was conducted in Brantford, Ontario, under the supervision of its local medical health officer, Dr. W.L. Hutton. Hutton conducted annual surveys on the effect of artificial fluoridation of local water supplies on dental disease in Brantford children.[101] His first interim report was released after five years of study, demonstrating a significant reduction in adolescent tooth decay. The results caused a stir in the Canadian medical and dental community. Soon many municipalities, prompted by local health officers, began debating whether they should fluoridate in their regions as well. The biggest enthusiasm was shown in the smaller townships of Ontario, with Brantford, Brockville, Deep River, Fort Erie, Oshawa, Thorold, Sudbury, and Tisdale Township all fluoridating their water supplies by 1957.[102]

Vancouver began debating fluoridation as early as March 1951, after Dr. Stewart Murray, the senior medical health officer for the city, approached Cleveland with a recommendation for adding a small dose of fluorides to the water supply in the city.[103] Cleveland agreed to investigate the options for fluoridation, although little was done until a new commissioner, Theo Berry, took up the position. Berry showed a keen interest in evaluating the question of fluoridation. Meanwhile, the local dental and medical

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[101] "Fluoridation of Public Water Supplies," *Canadian Journal of Public Health / Revue Canadienne de Santé Publique* vol. 42, no. 3 (Mar. 1951), 108-109.
[102] "Report of the Ontario Committee on Fluoridation of Municipal Water Supplies," *Canadian Journal of Public Health / Revue Canadienne de Santé Publique* 52, no. 4 (Apr. 1961): 165.
[103] City of Vancouver Archives, AM1257-S13, box: 064-F-05, folder 01. Health regulations - fluoridation - section I, Letter Stewart Murray to E.A. Cleveland, 22 Mar. 1951.

community were quite active in the city giving lectures to various community groups promoting fluoridation. Representatives of the Central Burnaby Ratepayers & Citizens Association, the Douglas Road Parent Teacher Association, and the Valley View Kindergarten Association all sent letters into the local health office affirming their desire for fluoridation after listening to a presentation on the subject at one of their meetings.[104]

Despite these early supporters, the topic of fluoridation soon sparked a spirited debate in the local papers. Public commentator Harold Weir wrote a scathing critique of fluoridation in the *Vancouver Sun*, warning that it was "silly and extravagant" to enforce "regimented medication" on people and risk injuring their health and their teeth.[105] Other members of the public wrote various letters to the paper objecting to the addition of "poison" to the city water supply. Ralph Scruton, a local longshoreman, was particularly vocal. He wrote letters to both the *Vancouver Sun* and the GVWD in protest, demanding the city refrain from adding "a dangerous foreign poison material - Fluoride - to the naturally pure and healthful water supply of Greater Vancouver."[106] Fluoridation was only pushed, he argued, due to the agitation of 'profiteers' and 'hucksters', while both chlorination and fluoridation had a sustained "degenerating effect" on the 'human constitution.'[107] Dr. Frederick W. Loffler, a local naturopath, began advertising public lectures on "Fluoridation vs Nutrition" at the Vancouver Art Gallery, encouraging public rejection of the intervention.[108]

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[104] *Ibid.*, Letter H.F. Salisbury to Dr. Stewart Murray, 18 Apr. 1951; Letter from Miss Eunice Forster, 30 Apr. 1951; Letter Mrs. M Atlee to Dr. Stewart Murray, 9 May 1951.
[105] Harold Weir, "Chatting with Weir," *Vancouver Sun* (13 Oct. 1951): 5.
[106] R. Scruton, "Fluoridation Dangerous," *Vancouver Sun* (24 Oct. 1951): 4.
[107] City of Vancouver Archives, AM1257-S13, box: 064-F-05, folder 01. Health regulations - fluoridation - section I, Letter R. Scruton from The Chairman of GVWD, 4th Feb. 1952.
[108] Advertisement: "Fluoridation vs Nutrition" *Vancouver News-Herald* (08 Nov. 1951): 16.

The Links to Anti-Vaccination

There is a clear cross-over in the arguments put forth by anti-vaccinationists and those who spoke up against pasteurization, chlorination, and fluoridation. Anti-vaccinationists argued that vaccines didn't work, were actively harmful, violated intrinsic rights, contravened alternative belief systems, and were pushed for conspiratorial or financial motivations.[109] These same arguments helped shape discourse against other public health interventions meant to introduce widespread preventative measures against illness. During the fluoridation debates in the mid-century, many public health officials struggled to understand the opposition, asking, "if the people trust medical authority on vaccination, why should they not trust it on fluoridation?"[110] Such a question highlights one of the major contentions behind the 'anti' activist movements: a rejection of medical authority. These movements were also populist anti-establishment movements at their core. The accusations of increased medical and state power led many to the conclusion that any wide-ranging health measures were tools of control by the state.

The correlation of public policy with mainstream medicine raised red flags for those distrustful of authority. In his letter protesting chlorination, H.E. Meyers demonstrated his belief in the intrinsic connection between medical professionals and the state, claiming: "The Doctors started to black mail me and got all the secret organisations and the rest of the fools to join them."[111] One anti-fluoridation note sent to the city claimed that fluoridation was a form of communist warfare:

> To be used for outright poisoning of the population and/or reducing the mentality and will of the population so it will not resist Communist

[109] See chapter one, pages 24 and 30-32.
[110] "Dark Suspicion," *The Vancouver News-Herald* (26 Apr. 1955): 4.
[111] City of Vancouver Archives, AM1257-S13, box: 064-F-05, folder 01. Health regulations - letters re chlorination, etc., Letter to the Greater Vancouver Water Board from Prof H. E. Myers V.S., 29 Sept. 1942.

> domination... fluorides affect the brain and nerve cells to such an extent that initiative is reduced, and the personality becomes docile and cowlike.[112]

Another protestor in Vancouver proclaimed that fluorides had "proven effective in institutions for the insane for the purpose of destroying the will of the inmates."[113]

Like with vaccination, arguments put forth by the 'antis' claimed that pasteurization, chlorination, and fluoridation were both useless and harmful. Anti-pasteurization voices relied on the myth of natural milk to argue that pasteurization was destroying the perfect health food – and the health of the populace in the process. In a letter to the *Winnipeg Tribune*, local artist James G. MacGregor argued that "No disease germs are killed by pasteurization, and milk from sick cows cannot be made fit for food by any kind of sterilising method more than the content of a garbage can."[114] Chlorination protesters wrote to the GVWD claiming a whole host of adverse effects. One letter stated that ingestion of chlorine "creates a poisonous condition… adversely affecting digestion" and was "corrosive, involving organic changes and destruction," not to mention "producing cancer of the skin... and paralysis from inorganic matter in same class."[115] The same writer also determined that chlorination would affect a person's personality, making them "ill tempered, neuropathic with lowered health and morale." Another letter from a local couple wrote:

> For the last three weeks we have slowly become aware the something was affecting our health, and are now convinced that it must be the water. We have both suffered from complexion outbreaks, something hitherto unknown, and my own mouth has been sore and inflamed. This, coupled

[112] *Ibid.,* Health regulations - fluoridation - section I, Undated and untitled letter, end of file.
[113] "Bitter Charge Hurled at Fluoridation Meeting," *Province* (30 Sept. 1954): 22.
[114] "Pasteurising of Milk," *Winnipeg Tribune* (20 Mar. 1929): 11.
[115] City of Vancouver Archives, AM1257-S13, box: 064-F-05, folder 01. Health regulations - letters re chlorination, etc., letter to the Vancouver Water Board from A. Hougan, 27 Sept. 1943.

> with upset stomach and lack of appetite, certainly seems to indicate that the water is not agreeing with us.[116]

Controversies usually developed in direct reaction to moments when legislation sought to make an intervention compulsory. Freedom narratives shaped dissent, with one anti-pasteurization advocate in 1923 reminding their local politicians that "this was not Russia, and the people had a right to rule."[117] Another pasteurization opponent who spoke out during the 1938 pasteurization in Ontario declared, "the Dominion of Canada was built on raw milk."[118] The pasteurization bill in British Columbia was stalled in 1946 after opponents remarked they were: "opposed to giving authority to anyone to impose on any members of the public any food which such members think prejudicial to their well-being."[119]

Opponents found common cause and allies in the labour and anti-capitalist movements during the Depression. Proclamations asserted that pasteurization was pushed with economic motives, to benefit big dairy producers and create a "milk czar." Angry objectors to chlorination in Vancouver asserted they would not become "dominated by officialdom in Ottawa," and would "oppose anyone who takes advantage of present war conditions to defy our individual rights by the despotic method."[120] Frederick B. Exner, a radiologist and anti-fluoridation crusader from Seattle, wrote to the GVWD that

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[116] *Ibid.* Letter to Waterworks Department from Mr. & Mrs. Alan Keenlyside, 29 Oct. 1943.
[117] "Waxes Warm at Meeting on Milk Question," *Evening Times-Star* (Saint John) (7 Aug. 1923): 12.
[118] "Opposition to Pasteurising is Voted Down," *Sun Times* (16 Feb. 1938): 1.
[119] "Pasteurization Villain or Hero?" *Vancouver Sun* (02 Apr. 1946): 7.
[120] Health regulations - letters re chlorination, etc., letter to Mayor Cornett and Council, 22 Sept. 1942; Letter to Ian A. Mackenzie from A.G. Lothgren, 06 Oct. 1942.

"compulsory mass medication for non-contagious disease" was "anti-democratic and paternalistic."[121]

More directly, many of those who were vocal advocates against pasteurization, chlorination, and fluoridation were also against vaccination. Ernst Duval, a chiropractor and vocal anti-pasteurization advocate, also publicly attacked serums and immunizations. In a series of letters to the editor of the *Saskatoon Star-Phoenix*, he insisted that vaccination was responsible for 75% of all "congenital syphilitic taint" in the populace, and that cancer-causing ulcers were a direct result of vaccination.[122] He argued that mainstream doctors had orchestrated a "kind of conspiracy" to keep the 'common people' unaware of the truth. Doctors, he declared, were terrified of discussing "serumizations" for fear of losing "the only miserable crutch upon which practically the whole medical fabric stands today."[123] Immunizations and serums were "the goose that laid the golden egg" for the profession, while politicians were more concerned with "medical support at an election" than with the health of the people. He went on to suggest that any doctor who put "poison" into the arms of children "should be executed."[124]

Herbert Nowell was also at the forefront of the creation of the British Columbia Medical Liberty League. The League made a goal of throwing "its influence into municipal and provincial elections" to battle "any move to enforce vaccination."[125] In one interview about vaccination in schools, Nowell angrily stated: "The idea of these medical autocrats is evidently, no cowpox, no education. It is time that concerted action

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[121] It should be noted that Exner was for both vaccination and the chlorination of water supplies. *Ibid.*, Health regulations - fluoridation - section I, Letter to K.W. Hall from Frederick B. Exner, 04 Aug. 1952.
[122] "The Star-Phoenix Letter-Box," Star-Phoenix (26 Apr. 1930): 22.
[123] Ernst DuVal, "More About Serums," *Star-Phoenix* (31 May 1930): 25.
[124] *Ibid.*
[125] "Provincial Statutes to Be Attacked," *Windsor Star* (25 Nov. 1927): 25.

was taken to wipe out the system of doctor-craft that has fastened its tentacles on the public purse and the body politic."[126] In a later editorial he dramatically questioned:

> Shall healthy children who will most likely never have a chance to get smallpox be left to the onslaught of a crowd who shut their eyes to the infliction of death and suffering by vaccination that a medical superstition may continue to be glorified?[127]

In 1931, the Calgary Women's Labor League stood against both pasteurization of milk and compulsory vaccination.[128] E.R. Frykberg, a general store owner in Vancouver, wrote to the *Vancouver Sun*: "Between chlorination, pasteurization, vaccination, immunization and taxation, life is not worth having any more."[129]

Perhaps the most illustrative case of the crossovers between these movements was the vocal declarations of Mrs. Lydia Arsens, an MLA for Victoria with the British Columbia Social Credit Party in the 1950s. Arsens gained quick fame from her ascent into a male-dominated political world in 1953, when she was first elected as the only woman legislator. She soon caused waves, becoming well-known for her controversial views. She proposed new waste removal procedures, and plans for addressing the teacher shortage in the province which included incentive pay raises for rural teachers alongside increased power over pupil regulation.[130] She proposed a 'grading' system for the media, suggesting that newspapers should be graded based on accuracy and misinformation.[131] Pretty soon she weighed in on health matters, openly opposing vaccination, chlorination, pasteurization, antibiotics, and fluoridation – all of which she contended were

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[126] *Ibid.*
[127] H. Nowell, "Thinks Victoria Should Investigate Vancouver Mania of Medical Men," *Vancouver Sun* (26 Jan. 1929): 6.
[128] "Year's Work Reviewed," *Calgary Herald* (03 Jan. 1931): 8.
[129] "What is Your Opinion?" *Vancouver Sun* (03 Jan. 1946): 4.
[130] "Bonuses for Rural Teachers Proposed," *Vancouver Sun* (04 Mar. 1954): 9.
[131] "Point-Grading Plan Urged for Papers," *Vancouver Sun* (4 Mar. 1954): 9.

unscientific, unethical, and dangerous.[132] Arsens' time in office was frequently in the spotlight, as she regularly had vocal disputes with the medical doctors who spoke in front of the legislature. In 1956, an argument she had on the floor with a Nanaimo doctor, Dr. Giovando, was heavily publicised in the local papers.[133] After being told to 'sit down' multiple times by Giovando, Arsens challenged him to a public debate on vaccination, accusing him of being afraid of the truth.[134] She ominously posited that many 'serious and unexpected' reactions were coming from the "wonder drugs" that mainstream medicine was producing.[135] In her many statements on health, Arsens opined that cancer and a variety of other diseases could be easily cured instead through "proper diet, proper nutrition through healthy plants and animals."[136] Arsens' views did not help her re-election and in 1956, she lost her seat to a Liberal candidate. After her election she acknowledged that her views on health matters were a major contributor to her defeat, lamenting: "The people just don't understand. I'll keep trying."[137] Arsens disappeared from public life after her loss and only reappeared when she made news defending the Hoxsey Cancer treatment a few years later.[138]

It becomes clear when discussing the vocal opposers in 'anti-' movements that they became increasingly 'fringe' after the First World War. While alternative practitioners still led the vocal debates, these individuals were less and less from 'recognised' medical sects like osteopathy, chiropractic, and homeopathy, standing out for their individualised beliefs about disease and patented healing approaches. The rise in

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[132] "Here is Text of Debate on Fluoridation Issue," *Vancouver Sun* (07 May 1955): 10.
[133] "Dr. Giovando is Ready for Suggested Debate," *Nanaimo Daily News* (16 Feb. 1956): 13.
[134] *Ibid.*
[135] "Fluoridation Fight Aired Before 2,000," *Vancouver Sun* (07 May 1955): 2.
[136] "Cancer Can be Cured, Socred Says," *Vancouver Sun* (14 Feb. 1956): 38.
[137] "Health Views Defeated Her Says Mrs. Arsens," *Times Colonist* (20 Sep. 1956): 12.
[138] "Quackery flayer hit," *The Province* (13 May 1959): 25.

notoriety of Dr. Alfred McKay Jordan, discussed in chapter three, is a good example here.[139] Jordan faced legal prosecution for practicing as an eye doctor without a certificate after the passage of the Optometry Act in British Columbia, and though the charges were dropped, he moved towards his more eccentric 'Energician' persona soon afterwards.[140] There is room for further investigation into the way that medical professionalisation influenced anti- health movements at this time, as various medical sects began to solidify into professionally regulated mainstream practice. For example, the British Columbia Chiropractors' Association[141] was formed in 1920, while a separate association was organised by the BC Association of United Drugless Therapists. Both groups would lobby for expanded privileges under the Medical Act, resulting in more consistent qualifications for specifically chiropractic practice in the province after 1931 as the result of a Royal Commission.[142] Regulations on medical practice and the increased professionalisation of practice eventually caused most 'fringe' practitioners to either adapt their practice, move away (usually to the United States), or redefine their trade. As a result, those who benefited most from populist anti- activism were increasingly peripheral, like Jordan – often a 'one-man' show or 'lone wolf' voice that found renown and celebrity through their 'anti-' views.

Yet it was still compulsion that sparked the greatest support for 'anti-' activism, amplifying these lone voices when public health measures were inescapably applied to the public: through the chlorination or fluoridation of public water supplies, the pasteurization of milk, and the implementation of vaccination requirements. Although

[139] See pages 128-130 for more on Jordan.
[140] "Charge Against Dr. McKay Jordan Not Sustained in Court," *The Province* (10 May 1922): 21.
[141] Later the Chiropractors' Association of British Columbia (CABC).
[142] BC Archives, Series MS-2536 - Chiropractors' Association of British Columbia records. Minute book, Chiropractic Board of British Columbia.

motivations and personal beliefs for resisting specific public health initiatives were diverse, there were several unifying critiques that not only mirrored earlier anti-vaccination arguments but integrated those who opposed vaccination into leadership roles for other 'anti-' causes. Such individuals used moments of public frustration to politicize 'anti-' activism, in hopes of undermining the monolith of biomedical hegemony and its increasing fusion with state power, during the 'golden age' of medicine.

Anti-Vivisection

Another 'anti-' cause that helped sustain anti-vaccination was the anti-vivisection movement. Similar to their anti-vaccination counterparts, anti-vivisection protests originated in Britain, as early as the 1860s.[143] Although their primary motive was to stop animal experimentation in laboratory research, Hamilton has argued that anti-vivisection writers also served as popular science commentators at this time, providing a critique of science and its conclusions through their writings.[144] They actively sought to translate the results of physiologic inquisition to a public audience, and by doing so, drew a number of different conclusions about the consequences of scientific research – especially on topics of efficacy, necessity, morality and often theology. French has argued that anti-vivisection disputes brought forward intense debates about the "primacy of spiritual values and their importance as a basis for discussing the social and intellectual, as well as the explicitly religious, concerns of Victorian society."[145] Other scholars have pointed to

[143] Janette Vaught, "Materia Medica: Technology, Vaccination, and Antivivisection in Jazz Age Philadelphia," *American Quarterly* 65, no. 3 (2013): 575, https://www.jstor.org/stable/43822920.
[144] *Ibid.*
[145] Richard French, *Antivivisection and Medical Science in Victorian Society* (Princeton University Press, 1975), 349.

the gendered nature of anti-vivisection movements, which were heavily dominated by women. Richards, for instance, argues that anti-vivisection was appealing to women because it allowed for a subversion of the "conventional tools" of feminine "sentimentality and womanly concern for suffering."[146]

Like many Victorian pressure groups, anti-vivisection spread to North America through intellectual and social networks by the end of the century. An American component was born in New York in 1867.[147] The movement grew significantly in both Britain and the United States, with the founding of numerous organised social societies and the accumulation of an abundant assemblage of official print publications.[148] Anti-vivisection campaigns formed in Canada later than in the United States. Several local societies were founded across the country in the early 1920s.[149] A national society was initially founded in Victoria, closely followed by branches in Montreal, Ottawa, and Toronto. The Victoria branch maintained its own Women's Association, which rapidly expanded in numbers over the next decade. It would eventually merge with the Vancouver society into the Anti-Vivisection Society of B.C. Unfortunately, the size and scope of these organisations are difficult to determine, as the records are scanty with only a few dozen pages in the city archives. However, the Alberta Anti-Vivisection and Humane Education Society submitted various petitions to Parliament in the early 1930s, with over

[146] Evelleen Richards, "Redrawing the Boundaries: Darwinian Science and Victorian Women Intellectuals," *in Victorian Science in Context,* edited by Bernard Lightman (University of Chicago Press, 2019): 131.
[147] *Ibid.*, 141.
[148] "Pen Picture of the International "World League" Congress Held in London," *Springfield Reporter* (30 Dec. 1910): 7.
[149] There is a significant lack of literature on the Canadian Anti-Vivisection movements, and generally on Anti-Vivisection movements after 1920.

25 thousand signatures from across the whole country, which indicates that there was a substantial public support for opposing vivisection on humane grounds.[150]

The early connections between anti-vivisection and anti-vaccination movements are well documented.[151] In their work on the Humane Movement in the United States, Lindsay and Shultz pointed to the link between anti-animal cruelty movements in the United States and anti-child cruelty movements.[152] Concerns about 'experimentation' on vulnerable groups – women, children, and animals – unified the goals of both anti-vivisection and anti-vaccination.[153] Additionally, mainstream medical doctors were the core opponents for both groups, as they were heavily invested in the acceptance of both vaccination and vivisection for the maintenance of their professional respectability and power, and for the furthering of biomedical research. There was a direct link between animal experiments and vaccine research, as the development and supply of vaccines, serums, and anti-toxins were heavily dependent on the use of animals. Anti-toxin for diphtheria was produced in horses, smallpox vaccine production required the keeping and use of heifers, the development of Bacillus Calmette-Guérin vaccine against tuberculosis involved testing on rabbits, guinea pigs, cattle and horses, while monkeys and other animals were used in research for the development of the first polio vaccines. Declaring that "vivisection is morally wrong, appallingly cruel, and of no benefit to mankind

[150] Library and Archives Canada. R.B. Bennett Fonds, MG26-K, Microfilm: M-1067, Pages: 234134 to 234145. Health - Alberta Anti-vivisection & Humane Education Society.
[151] See: S.R. Hausmann, "'We Must Perform Experiments on Some Living Body': Antivivisection and American Medicine, 1850–1915," *The Journal of the Gilded Age and Progressive Era* 16, no. 3 (2017), 265, https://doi.org/10.1017/S1537781417000196; Vaught, *Materia Medica*; Jim Connor, "Cruel Knives? Vivisection and biomedical research in Victorian English Canada," *CBMH* 14, no. 1 (1997): 37-64, https://doi.org/10.3138/cbmh.14.1.37.
[152] Samual Lindsay and William Shultz, *The Humane Movement in the United States, 1910—1922* (Columbia University Press, 1968): 11-14.
[153] Early anti-vaccination arguments in Canada often argued that compulsory vaccination in schools was harmful to children.

whatsoever," the anti-vivisectionists took a direct stance against vaccine research and vaccination policy.[154]

The anti-vivisection societies were constantly at odds with medical opinion columns and various institutes for medical research, arguing publicly and at length through notice boards, advertising campaigns, and in various newspaper editorial columns. In Canada, these arguments played out mostly in the local papers, often drawing in writers from both sides of the border. Alfred J. Franklin, secretary of the Ottawa Anti-Vivisection Society, and a clerk for the Department of Railways and Canals, had an angry back-and-forth argument with the famed American naturalist, Ernest Harold Baynes, in the pages of the *Ottawa Citizen*. The *Citizen* was well-known for platforming anti-vaccination writings[155] and took a similar stance towards anti-vivisection in its editorial letterbox, providing ample space for Franklin and his colleagues.[156]

It wasn't uncommon for anti-vaccination advocates to also be leaders in anti-vivisection societies. Franklin published numerous tirades against vaccination, which he believed to be a "positive menace to the community."[157] In Toronto, Dr. John B. Fraser served as the president of the anti-vivisection society at the same time he was publishing literature denying the germ theory of disease and decrying vaccine use.[158] Dora Kitto, a Victoria resident and secretary of the Canadian Anti-Vivisection Society, made a mission of writing into various Canadian papers to criticize the use of vaccines. In one commentary she drew an explicit connection between the two causes by asserting: "To inoculate very young children with the products of disease when results are admittedly

[154] "Dr. Alvarez Denied," *Vancouver Sun* (30 Jun. 1954): 4.
[155] See pages 120, 147 and 148 for further discussion on the role of the *Ottawa Citizen* in anti-vaccination debates.
[156] "On Torturing Dogs" and "Boosting Serum Business" *Ottawa Citizen* (30 Nov. 1923): 24.
[157] "On Vaccination," *Ottawa Citizen* (26 Sept. 1923): 16.
[158] Discussed in pages 126-127.

uncertain savors of human vivisection."[159] Herbert Nowell led the Vancouver Anti-Vaccination League in 1925, long before he made a name for himself as a lead resister to pasteurization and chlorination in the 1930s and 40s.[160] He would go on to be one of the main agitators for anti-vivisection in Vancouver alongside his close acquaintance Dr. A.S. Murphy, a medical doctor who had turned his back on mainstream medicine in favour of naturopathy.[161]

The 1920s saw a major slowdown in organised anti-vaccination fervour compared to the previous two decades. Many anti-vaccination leagues were refocused into campaigns for medical freedom, while others consciously merged their activities with local anti-vivisection societies. Unity boosted visibility, numbers, and resources while advocating for shared goals. In Victoria, the Anti-Vaccination Society and Anti-Vivisection Society began to co-host luncheons, meetings, and lectures.[162] Together, they petitioned the government to make it a "criminal offence to use, sell, or purchase dogs for the purpose of vivisection."[163]

Alongside the medical freedom societies, the anti-vivisection societies would soon become one of the most vocal opponents to vaccination and serums in the country. They arranged information exhibits in public windows, and handed out print literature about animal experimentation in research laboratories, simultaneously claiming disastrous results from vaccination.[164] They placed advertisements against vaccination in newspapers, outlining the 'cruelty' of both vivisection and vaccination.[165] In 1945, the

[159] "Calls Vaccination Mere 'Medical Vagary': Public Should be Warned," *Vancouver Sun* (22 Jul. 1929): 8.
[160] "Row Starts at Meeting," *Province* (07 Apr. 1925): 2.
[161] "Public has a Right to Pick its Own Cure," *Vancouver Sun* (21 Dec. 1931): 1.
[162] "To Speak at Two Gatherings," *Victoria Daily Times* (30 Sept. 1922): 13.
[163] "Anti-Vivisection Society Anxious to Protect Dogs," *Victoria Daily Times* (03 Apr. 1922): 7.
[164] "News in Brief: The Widow Arranged by the Local," *Times Colonist* (17 May 1926): 9.
[165] "Vivisection: Some of its By-Products," *Gazette* (08 Jan. 1927): 16.

collective petitioning of the Canadian anti-vivisection societies resulted in the shutting down of a project in Montreal to use the city horses in production of anti-tetanus serum.[166]

By the 1930s, the activities of anti-vivisection societies were almost synonymous with medical freedom and anti-vaccinationists. In fact, the Vancouver Anti-Vivisection Society was originally founded as the 'Medical Liberty and Anti-Vivisection League.'[167] At one meeting of the Canadian Anti-Vivisection Society in 1938, the first resolution passed was to make an appeal to the Radio Commission for a re-instatement of "talks by naturopaths" on the radio, "as they were greatly appreciated by the public."[168] The society then issued a condemnation of "the constant use of pharmaceutical and biological products put out by commercial houses," including insulin, anti-toxins, and other therapeutic drugs. Finally, members applauded a recent report made by the local medical officer to the city school board warning that only 5% of the children in schools were vaccinated. In the statements from the meeting, members announced that, "it is hoped that this number will be greatly reduced in the future."[169]

However, the strong alliance with the anti-vaccination cause served as an easy way for those in the medical mainstream to discredit the animal rights movement. While physicians and scientists found creative ways to justify the morality of using animals in research – pointing to the advances in medical science and arguing that most experiments were minimally invasive and used anaesthetics[170] – these arguments were not very palatable to the public. Criticising their anti-vaccination stance was an easier argument, and many medical men were able to point to the rejection of immunization and serums as

[166] "Anti-Vivisection Work," *Times Colonist* (30 Apr. 1945): 4.
[167] "Public has a Right to Pick its Own Cure," *Vancouver Sun* (21 Dec. 1931): 1.
[168] "Anti-Vivisection Society Meeting," *Times Colonist* (25 Jul. 1938): 11.
[169] *Ibid.*
[170] The truth of the latter claims is questionable, as the use of an anaesthetic in medical experiments was both an added expense and could potentially alter results of the experiment.

evidence of the illogicality and unreasonableness of anti-vivisection advocates. One critic labelled the claims of Calgarian anti-vivisectionist leader Georgina Robinson as "superstitious ballyhoo and sentimental gibberish."[171]

Other medical men sought to discredit anti-vivisectionists by referring to them as 'militant cultists', two critiques that are often used today to undermine the messages of animal rights activists.[172] They pointed out that anti-vivisectionists were separate from other humane societies that involved themselves in all aspects of animal welfare and protection, rather than solely focusing on the disruption of animal research.[173] In fact, the lines between anti-vivisection societies and humane societies were more complex, with overlap dependent on the location and time period being examined. For instance, Dora Kitto served as a board member of both the Canadian Anti-Vivisection Society and the Victoria branch of the Society for the Prevention of Cruelty to Animals (SPCA). The SPCA was involved in numerous initiatives to protect and safeguard animal welfare, including the adjustment of roads in the city for easier walking by horses, the reporting of incidents of animal cruelty, and education in proper animal care.[174]

Possibly due to the discrediting of anti-vivisection movements through their alignment with anti-vaccination, the anti-vivisection movements changed their approach significantly by mid-century. They moved away from a focus on the supposed dangers of serums and vaccines and instead centred their messaging on the cruelty and suffering

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[171] "Experiments Upon Animals Rarely of a Surgical Nature, Claims Carstairs Doctor," *Calgary Herald* (22 Feb. 1939): 10.
[172] John Sorenson argues that these accusations allow those who are heavily invested in industries reliant on animal exploitation to undermine efforts of animal activists to advocate for stricter anti-animal cruelty laws. See: John Sorenson, "'Some Strange Things Happening in Our Country': Opposing Proposed Changes in Anti-Cruelty Laws in Canada," *Social & Legal Studies* 12, no. 3 (2003): 378, https://doi.org/10.1177/09646639030123005.
[173] Joseph Harrison, "Anti-Vivisection Propaganda Handicaps Science," *Food, Drug, Cosmetic Law Quarterly* 2, no. 3 (Sept. 1947), 409.
[174] "Seek Safeguard for Stumbling Horses on Paving," *Victoria Daily Times* (17 Nov. 1920): 7.

inflicted by animal experimentation. Pamphlets emphasised problems with the illegal trade in animals and tugged at the emotional heartstrings of readers by highlighting the millions of animals across Britain, the United States, and Canada that were kept in experimental research labs. One 1955 pamphlet pronounced that these experiments included "cutting, mutilating, burning, freezing, starving, effect of radiation from atomic tests, inoculation with diseases, experiments for shock effects,"[175] on animals. All of this happened within "endowed medical centres, medical schools, drug manufacturing houses and hospital and public health laboratories."[176]

Their actions nonetheless still leaned towards the disruption of medical research where possible. In 1945, a dispute arose in Vancouver over a change in city policy that allowed all unclaimed dogs in the local pound to be sold to the medical school at the University of British Columbia for use in experiments. The local anti-vivisection society threatened a legal battle with the city, claiming that the sale of dogs to the University was a misuse of public services. The pound, it argued, was funded by public money as a public amenity, and "part of that service is the humane destruction of animals."[177] The pound in the city had a policy of euthanising animals within five days if they were unclaimed, and this, according to anti-vivisectionists, was far better than allowing the animals to be sold for 'torture' in the medical labs.[178]

The appeal to compassion and morality in the use of animals within medical research added weighty additions to the long-established criticisms put forth by anti-

[175] City of Vancouver Archives, AM1519, Box: 625-B-01. PAM Und. 552 - What is vivisection?, 1955.
[176] *Ibid.*
[177] City of Vancouver Archives, AM54-S17-MS15427, box: 867-B-05 fld 49, file MS15427 - Societies: Anti-Vivisection Society. Newspaper clipping, "Anti-Vivisectionists Criticize Council" 20 Nov. 1951.
[178] *Ibid.*

vaccinationists. Anti-vivisection served as a sustaining force for agitation against vaccination, allowing both anti-vaccination and medical freedom activists to tap into an emotional reservoir of expanded public support during a time when they were heavily characterized as 'ignorant', 'misinformed' and dangerous to the public.[179] This alliance was more complex than the direct cross-overs in arguments and tactics seen with the other 'anti-' health movements, and anti-vivisection societies would consciously shift their official messaging towards the fight against animal suffering by the 1950s. However, there was nonetheless continued alignment in their activities and actors – a fact seen in their wartime agitations. In 1942, the society argued that "cruelty to humanity and animals is the root cause of all wars,"[180] and worked with their international networks in the USA and Britain to organise against the immunization of soldiers.[181]

Conclusion

In the infamous 1974 publication *Medical Nemesis*, Ivan Illich identified three main ways in which the rise of medical power had brought harm to society.[182] The first was through clinical practice, when direct harm was done to a patient by the treatment they received. The second was social, where numerous aspects of life had become medicalised, especially the experiences of the most vulnerable members of society. The last was cultural, where traditional ways of healing were lost due to the rise and dominance of mainstream biomedicine. His critiques resonated in the 1970s when the

[179] "Education and Antis," *The Public Health Journal* 17, no. 11 (Nov. 1926), 569.
[180] Anti-Vivisection Advertisement, *The Calgary Albertan* (23 Apr. 1942): 9.
[181] Library and Archives Canada, RG25-A-3-b, vol. 8490, file 4373-40, part: 1. Vaccination and inoculation of Canadian Armed Forces - Protest of Canadian Anti-Vivisection Society. The society also reported on anti-diphtheria immunization protests happening in London, led by their British counterparts. "Anti-vivisection Activity," *Times Colonist* (27 Jul. 1942): 4.
[182] Ivan Illich, "Medical Nemesis," *Lancet* 1 (1974): 918–921.

once-supreme position of the medical establishment was sinking in a pool of ever-growing criticisms and the rise of the counter-culture movements.

Yet the ideas Illich expressed were seeded much earlier by numerous voices that pushed against the ascendancy of mainstream medicine and protested sweeping interventionist health policies during its so-called 'golden age'. Policies introducing pasteurization, chlorination, and fluoridation were hotly debated in political and public forums – with editorial press columns serving as the social media of their day for commentators on all sides. These issues attracted the same accusations previously hurled against vaccination and frequently featured the same actors. 'Anti-' campaigns were highly charged political battles that brought out deep emotions in members of the public during this time, despite the seeming disappearance of widespread anti-vaccination sentiment.

Medical expertise was solidifying and professionalizing, and the definitions of what constituted a 'mainstream' approach were in flux as formerly irregular medical sects re-shaped their own practices in each province around new forms of legitimacy and scope of treatment. It is not surprising then that the 'anti-' voices became increasingly fringe to mainstream medical practice, often using their appeal to print media for increasing celebrity and the promotion of individual healing systems. Yet there was common ground and camaraderie to be found in the crossovers with other protest movements at the time. The 'anti-' camps welcomed vocal female voices that unsettled male hegemony over science and healing and embraced anti-establishment populism as a means for undermining public confidence in sweeping public health measures. International intellectual networks provided systemic sustainment when public fervour declined, and

the newspapers served as a steady platform for sensationalist claims and medical controversies.

The blossoming 'golden age' of medicine did not last, and this chapter has raised the question of whether it was a reality at all. Nonetheless, a general erosion of trust in institutions and the cumulative effect of several controversies in medical research led to a resurgence in 'anti-' protests in the late 1960s which would last through the next three decades. Anti-vaccination movements were popularised once again in Canada through the efforts of Dr. Paul-Émile Chevrefils in Montreal,[183] coinciding with the events of the Quiet Revolution. This resurgence once again demonstrates the alignment of different anti-establishment movements during moments of profound political, cultural and institutional transformation.

[183] Read more about Dr Chevrefils on pages 32 and 41 of this thesis, as well as in Monnais, *Vaccinations: Le mythe du refus*, chapter four.

CONCLUSION

> *"Vaccines are pus and poison taken from diseased animals… Babies and children who have been immunized get chronic colds, glassy eyes, lifeless hair, nightmares, loss of appetite, and general poor health for months after their shots… Too much sugar causes polio and many other diseases. Doctors are taught "immunization junk" in medical schools."*
>
> Mrs. [Redacted], Osoyoos B.C.
>
> - Letter to the Deputy Minister of National Health, 18 August 1973[1]

In 1965, the Canadian Health Agency prepared a report for the Pan American Health Organization that outlined the vaccinations regularly given in Canada. The report noted that immunizations for smallpox, typhoid and paratyphoid fevers, poliomyelitis, diphtheria, pertussis, and tetanus had all become routine components of infant health programs in each province. The only compulsory vaccine on the list was smallpox, which was not universally required by every province but generally enforced through school attendance, particularly in Montreal and New Brunswick.[2] Polio and diphtheria, pertussis, and tetanus were all part of the recommended routine vaccinations in all provinces.[3] Provinces varied individually on schedules, but most recommended a combination of all immunizations by the age of 3 months. Boosters were repeated at ages

[1] Library and Archives Canada. RG 29 Volume 1148 File 308-3-1. Letter to the Deputy Minister of National Health, 18 Aug. 1973, signed Mrs. [name redacted]. Emphasis in original.
[2] *Ibid.* RG 29 Volume 1148 File 308-3-1. Canada, "Vaccinations," General Information for World Health Organization and Pan American Health Organization (July 9, 1965) and "La Ligue Pour Le Vaccin Libre: 'Nous lutterons jusqu'au bout,'" La Patrie: l'hebdo des Canadiens-français (March 02, 1972): 4. Routine vaccination for smallpox would eventually be removed in 1972.
[2] "Doctor Barred," *The Leader-Post* (20 May 1978): 58.
[3] *Ibid.* RG 29 Volume 1148 File 308-3-1. Canada., "Vaccinations," General Information for World Health Organization and Pan American Health Organization (09 Jul. 1965).

one, three, and five years. In Québec and Newfoundland, BCG vaccine was also included in the regular immunization schedule for children, and individuals who were considered 'at risk' were also given BCG and typhoid vaccines.[4]

The popular adoption of standardized immunization schedules represents a stark contrast to the situation half a century previous. There was high vaccine confidence in Canada after the Second World War. In 1955, the Gallup polling survey found that 85.7% of Canadians had either already had their children receive the new polio vaccination or planned to when it was available.[5] It is clear that the public health expansions which characterized the first half of the twentieth century had a positive impact on national health. In the course of half a century, Canada saw a one third reduction in overall mortality and an increased average life expectancy of 20 years.[6] Provincial health departments had established systems for tracking infectious illnesses, as well as building a significant number of hospitals, sanatoriums, and clinics, and had become proficient at case reporting for various diseases or ailments in collaboration with the different volunteer health organisations in the country. A weekly compilation of all polio cases in Canada had become the norm – instigated by a need to share infection statistics both domestically and internationally – while Canada had begun to export vaccines, medical advice, physicians, and information on public health to various countries and organizations worldwide.

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[4] *Ibid.* Usually Indigenous populations, but there were many debates at the time about opening the recommendations up to include immigrant families.
[5] Canadian Gallup Poll, Jul. 1955, #243. Gallup Canada Inc. CIPO (Canadian Institute of Public Opinion).
[6] RG 29 Volume 1165 File 310-16-1 pt 1: "Health Care in Canada -- The Years Ahead." An address by the Hon. Paul Martin, Minister of National Health and Welfare, to the Annual Meeting of the Canadian Medical Association (23 Jun. 1950).

The role that immunizations and anti-toxins played in this overall decrease in disease was significant. Statistics demonstrate that diphtheria incidents dropped from over 13 thousand cases in 1936, to only 71 cases in 1962. Similar reductions were seen in pertussis cases, from nearly 90,000 cases in 1936 to only 8,076 in 1962.[7] Only nine tetanus cases and one smallpox case were reported that same year. Polio numbers had dropped to less than one hundred annually.[8]

Yet Canada nonetheless saw another wave of anti-vaccination activism in the late 1960s and would return again in the 1970s and 1980s. A new anti-vaccination league would be formed in 1966 in Montreal by Dr. Paul-Émile Chevrefils. Chevrefils was a trained physician. He had received his medical degree from the University of Montreal before going on to study chiropractic care at the Palmer Institute in the United States.[9] He was also a major supporter of naturopathic medicine and drugless cures. After a number of publicised run-ins with both health and school authorities in Montreal, Chevrefils made space in the basement of his medical practice for the new anti-vaccination league to begin their activities, which were primarily limited to the printing of documentation about the 'harmful effects' of vaccines.[10] Titled *La Ligue pour le Vaccin Libre*, the league was short-lived and had little effect on overturning vaccination policies in the province.[11]

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[7] RG 29 Volume 1148 File 308-3-1. A Brief on Immunization Policy for the Canadian Public Health Organization (Oct. 1964) Table 1: Morbidity and Mortality.
[8] *Ibid.*
[9] "La guerre antivaccination du Dr. Chevrefils dure depuis 2 mois," *Le petit journal* (17 Jan. 1965).
[10] "Le Docteur Chevrefils: 'Les vaccins, ce sont des poisons!'" *Photo-journal: tout par l'image* (14 Mar. 1971): 7.
[11] Although smallpox vaccination stopped being given to most infants in 1972, it was still used among healthcare workers and in the military until the end of the decade. Government of Ontario, Ministry of Health and Long-Term Care, "Diseases: Smallpox," (2012): https://www.health.gov.on.ca/english/providers/pub/disease/smallpox.html

However, the movement was a demonstration of the resurgence of anti-vaccination and its entanglements with other on-going social and political changes in the province. Chevrefils drew direct connections between the rejection of vaccination and the rise of the Québec nationalist movement. He declared that vaccines were a mechanism meant "to limit the development of less developed and less informed peoples" and were "imposed by the conquerors on the conquered nations."[12] His publications and media interviews demonstrated a direct conflation between vaccination and establishment power – viewing vaccine rejection as a form of liberation. The 1960s-1980s was a rich period of change, with the growth of counter-culture movements across America and the Quiet Revolution in Quebec. Historian Laurence Monnais has similarly demonstrated the intricate connections between Chevrefils' anti-vaccination activism and his belief in the rise of a "new Québecer" – a healthy parent in control of their own choices, who rejected pharmaceutical drugs and structured their life around consuming fresh produce and exercising. These ideals were shared by similar movements, especially the Laurentian Hygienist Movement, which was openly affiliated to the *Ligue pour le Vaccin Libre*.[13]

There is still much to investigate regarding the anti-vaccination movements of these later decades, but this study marks its end point in 1967. This provides a full century of analysis yet stops just before the next wave of anti-vaccination activism that shook Canada in the latter quarter of the century. While there is still a lot to be said about the association of these movements with the anti-establishment fervour of future decades and the changes in media culture, the limits of time and space necessitate that this investigation be left for a later period or another scholar.

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[12] Translated from French. P.E. Chevrefils, ed. *Les Vaccins: Rackets et Poisons?* (Ottawa, 1965), preface.
[13] For more detail on Chevrefils and his role in the Quiet Revolution, see: Monnais, *Vaccinations: Le mythe du refus*, chapter 4.

This thesis has instead sought to illuminate the why and how of anti-vaccination activism over the course of Canada's first century of Confederation. It has looked at why anti-vaccination movements were so persistent throughout this period, how they were presented within various print media sources, and illuminated a number of arguments, language, actors, and tactics across time. It demonstrates how anti-vaccination advocates drew on an accumulated assemblage of anti-vaccination writings, taking authority from their historicity and support from wide international networks of shared language and arguments. It also demonstrated how the objectives and interests of news outlets shaped their presentation in popular understanding and how print media sources served as mediums for dissemination, especially within urban centres.

A key takeaway from this research is that compulsory vaccination policies frequently engendered the greatest moments of anti-vaccination fervour. Compulsion inflamed public sentiment and increased resentment with public health policies, ensuring greater support for push-back movements. These moments were similarly catalysed by prevailing social, economic, and political tensions which stimulated increased engagement with anti-vaccination as a form of anti-establishment protest. This was seen in the violent 1872 and 1885 protests in Montreal, where infection was culturally coded as a problem of the working-class Francophone population, and anti-vaccination provided a form of rebellion against the existing class and cultural hierarchy.

Such moments demonstrate the confluence of multiple factors that influence the effectiveness of anti-vaccination movements in reaching and engaging a broad audience. Vocal anti-vaccination advocates found common interest with news media to harness the populist appeal of anti-vaccination. It served as a drama that grabbed readers, while also working as a destabilising force for alternative medical practitioners seeking to oppose

hegemonic medical power. Arguments often pulled on a populist rhetoric, shaping the narrative in terms of an imagined 'elite' oppressor of the equally imagined 'people'. The 'us' versus 'them' rhetoric was a common feature of anti-vaccination movements, seen in the 1880s in the writings of Alexander Ross, the long commentaries in the Medical Freedom Column published in the *Ottawa Citizen* in 1919, and again in the anti-vaccination writings of Herbert Nowell in the 1920s, and Chevrefils in the 1960s.[14] The flexibility of this rhetoric allowed people across a wide spectrum of society to identify and find meaning with the cause of anti-vaccination, validating emotional suffering and stimulating revolt against an assortment of social and political norms that they found repressive. Yet as the analysis of the Montreal anti-vaccination riots also demonstrated, it is always unclear how much the vocal writers and anti-vaccination activists were actually leading public sentiment or were instead inspired by the wider anti-establishment zeal engendered by such moments.

While popular approval of the cause waxed and waned, a core set of anti-vaccination agitators nonetheless maintained the tone of the arguments used against vaccination, while producing and disseminating the majority of the written material that stemmed from anti-vaccination activity over the course of the century. Indeed, figures like Joseph Emery-Coderre, Alexander Ross, Henry Becker, Herbert Nowell, and Paul-Émile Chevrefils contributed significantly to the intellectual continuance and development of anti-vaccination through their participation in both international intellectual exchange networks with fellow thinkers in the United States, Britain, and Europe. These individuals also helped to create a social community with other causes that held similar principles and objectives, providing mutual support and invigoration. It was

[14] See chapter one, pages 38 and 52-55.

these individuals who maintained anti-vaccination activism through time, drawing authority from its historicity and deploying a consistent vocabulary and critique whenever the moment presented itself for popular pushback.

It is clear that anti-vaccination in Canada was heavily influenced by the way in which medical professionalisation occurred in the country and was particularly driven and maintained by the actions of those who opposed the hegemony of a growing biomedical medical mainstream.[15] While the medical landscape in the nineteenth century was still distinctly pluralistic, Canadian medical practice underwent a shift towards stricter regulation after the turn of the century, which put pressure on the practice of irregular forms of medical treatment. Drugless and bloodless practitioners found common ground in both anti-vaccination as a mode of disrupting the hegemony of the medical mainstream, and 'medical freedom' movements as a method of asserting patient right to choose medical treatments outside the conventional. The First World War brought about another shift in consolidation and regulation of medical expertise – with the emergence of a federal department of health after the war and the following pandemic – these different moments of transition catalysed protest by alternative medical practitioners and their advocates, gaining increased visibility in the print media when it served as an edge in the attention economy.

One of those advocates was the Southam family, who flexed the reach of their media empire to make sure that Canadian newspapers and printing presses gave a significant amount of space to anti-vaccination and alternative medical voices in the first three decades of the twentieth century.[16] The role of media interests cannot be overlooked

[15] See chapters three and four.
[16] The role of the Southam family is discussed further on pages 120-120, and 147-148.

in this discussion, nor the social forum that newspaper editorials provided for public discussions of contentious issues. Just as social media has shown itself to be the platform of modern anti-vaccination debates, historic resistance to vaccination was often platformed in the press and brought to public attention through news advertisements, letters to the editor, opinion columns, reports on civic debates and public gatherings, and interviews with its vocal advocates. The focus on controversy and sensationalism of populist anti-vaccination writings found a welcome place in Canada's print news media.

While the history of anti-vaccination does not reveal findings particularly different from the literature on Canadian social history and Canadian medical history, it does add to the wider historiography by illustrating the importance of shifting social conditions for creating and sustaining activist movements and repositions the study of anti-vaccination in the past as a populist anti-establishment movement. Anti-vaccination has shown itself to be a flexible social movement that appealed to a variety of individuals over time and shifted in parallel with changing social conditions. Its anti-establishment nature served the interests of many disparate and often opposing groups and has never been isolated to simple agitation with a specific medical procedure. It enabled the assertion of French-Canadian nationalism in Montreal, pushed against the exclusion of female voices from mainstream medical discourse, subverted federal overreach at times of war and economic crisis, empowered labour organisers to resist the growth of capitalist power, and asserted the patient right to choice in medical care. It also served to disparage the growth of mainstream medical power, and in turn, promote the practice and health expertise of those who practiced outside regular medicine.

Anti-vaccination came in waves throughout Canadian history. Popular vaccination resistance usually coincided with increased vaccination campaigns,

especially compulsory policies. It was in these moments that its core proponents would re-emerge in the public eye, attempting to harness the increased popular frustration with the state of health and governance at a given moment. While they did not always succeed in their efforts to influence widespread protest, they certainly always tried to inspire it. Far from an exceptional occurrence, this history has demonstrated that anti-vaccination has persisted across time as a popular anti-establishment force that benefited from – and added to – moments of social, political, and medical upheaval.

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