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Article abstract

Responding to an appeal by city physicians and health reformers to destroy a prodigious disease carrier, the housefly, the *Montreal Daily Star* launched an island-wide contest in July 1912, offering prizes to children who collected the most dead flies. Nearly a thousand children, largely from working-class families, participated in a three-week-long "Swat the Fly" competition. Engaging Montreal children in this contest underscores a popular idea at the time that the best way to improve public health and combat the ignorance of a generation was to arm a new one with knowledge. While historians recognize that children's participation in campaigns to promote public health measures was pivotal to their success, youngsters are often rendered as passive recipients of reformers' efforts. We argue the contrary: children were active agents in public health crusades both as consumers and as advocates.

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Swatting Flies for Health: Children and Tuberculosis in Early Twentieth-Century Montreal

Valerie Minnett and Mary-Anne Poutanen

Responding to an appeal by city physicians and health reformers to destroy a prodigious disease carrier, the bousefly, the Montreal Daily Star launched an islandwide contest in July 1912, offering prizes to children who collected the most dead flies. Nearly a thousand children, largely from working-class families, participated in a three-week-long "Swat the Fly" competition. Engaging Montreal children in this contest underscores a popular idea at the time that the best way to improve public health and combat the ignorance of a generation was to arm a new one with knowledge. While historians recognize that children's participation in campaigns to promote public health measures was pivotal to their success, youngsters are often rendered as passive recipients of reformers' efforts. We argue the contrary: children were active agents in public health crusades both as consumers and as advocates.

En juillet 1912, le journal Montreal Daily Star répondait à l'appel lancé par des médecins de la ville et des réformateurs urbains et annonçait le concours « Swat the Fly » (Chasse à la mouche) dans toute la ville afin d'éliminer une terrible porteuse de maladie : la mouche. Les enfants qui rapportaient le plus de mouches mortes recevaient une récompense. Ainsi, presque mille enfants, principalement de familles de la classe ouvrière, s'inscrivirent à cette compétition qui dura trois semaines. Inciter des enfants montréalais à participer à ce concours faisait écho à une idée très répandue à cette époque, idée selon laquelle le meilleur moyen d'améliorer la santé publique et de combattre l'ignorance d'une génération était d'armer la suivante de connaissances. Tandis que la plupart des bistoriens/iennes reconnaissent que le succès des campagnes de promotion de mesures de santé publique reposait sur la participation des enfants, les jeunes restaient néanmoins souvent dépeints comme des bénéficiaires passifs des efforts menés par les réformateurs. Cet article démontre qu'au contraire, les enfants étaient des agents actifs dans les croisades de santé publique à la fois en tant que consommateurs et défenseurs.

Introduction

Responding to an appeal by city physicians and sanatoria to destroy a prodigious disease carrier, the housefly, the *Montreal Daily Star* launched an island-wide contest in July 1912, offering \$350 in prizes to children who collected the most dead flies. First prize was \$25, a princely sum for most households. Nearly a thousand children, largely from working-class families, participated in the three-weeklong "Swat the Fly" competition. As sponsor, the newspaper diligently covered the event, publishing participants' pho-

tographs, keeping running tabs of the amounts collected, reminding contestants that there were "Lots of Flies So Do Not Get Discouraged," and providing instructions on the most efficient method to hunt flies with traps and fly swatters. Altogether, Montreal children collected more than 25 million flies. The *Star* was self-congratulatory; not only had Montreal contestants "learned a valuable lesson in hygiene" but they handily trounced thirty other North American cities that offered similar contests. Children elsewhere, it would seem, did not have the same exuberance for fly swatting: in Toronto, they managed to kill fewer than 1.5 million flies; in Washington, 7 million. But then, no other city on the continent had been referred to as the "Calcutta of the West."

Montreal had an abysmal infant mortality rate as well as an extraordinary level of childhood morbidity and mortality owing to infectious diseases such as tuberculosis. Engaging children in anti-tuberculosis campaigns with contests such as "Swat the Fly" underscores a popular idea at the time that the best way to improve public health and combat the ignorance of a generation was to arm a new one with knowledge. "Children have no prejudices," a member of the Publication Committee of the Montreal League for the Prevention of Tuberculosis asserted, "and remember the hygienic training received in their youth all their life."4 While historians recognize that children's participation in campaigns to promote public health measures was pivotal to their success,⁵ youngsters are often rendered as passive recipients of reformers' travails. Historian Robert McIntosh reminds us that the history of children "is the account of action undertaken by others to improve their condition. Implicitly, children are impotent; their welfare is the object of others' efforts. They are mere victims of history."6 In Quebec, no study explores children's efforts in public health crusades. We argue that children were active agents in these campaigns both as consumers and as advocates. By deconstructing children's contests associated with the housefly and the environment that spawned them, we highlight their agency.

Even though scholars have been increasingly interested in the history of childhood over the past three decades, theoretical considerations of children's agency have been less rigorously pursued. Proponents of the New Sociology of Childhood, however, are especially engaged in the social construction of children. While there is no question that the study of the child should be divorced from class, ethnicity, and gender, sociologists argue that children should "be seen as active in the construction and determination of their own social lives, and the lives of those around them . . . Children are not just the passive subjects of social structures and processes." The basic tenets of this paradigm have broad implications for historical research on children; teasing out examples of their agency, however, is difficult, because

children's behaviour is often prescribed or interpreted by adults in historical documents. The methodologies of scholars such as Neil Sutherland, Mona Gleason, and Elizabeth Gagen, which seek to listen for the voices of children, inform our work.⁹

This study begins in the first decades of the twentieth century when public health reformers became increasingly convinced that the housefly was a conduit for spreading diseases such as typhoid fever, infant diarrhea, and tuberculosis. This preoccupation with the *Musca domestica* resulted in a flurry of literature warning the public of its dangers and contests that encouraged its destruction as well as the eradication of environmental factors that engendered the fly's proliferation. Notwithstanding the white plague's threat to the urban population, public health authorities constructed a link between the housefly and the dissemination of the tubercle bacillus, based on selective scientific evidence. The vilification of the housefly had, according to Naomi Rogers, occurred by the turn of the twentieth century and was an important part of the shift from the practice of sanitary science to the New Public Health. While the public readily associated the presence of filth and garbage with disease, it was more difficult for reformers to "show" people that microscopic germs were to blame for spreading infection. Rogers argues that scientists transformed the fly from a familiar plaything, an insect of beauty and grace, and at worst a pest, to "germs with legs," in order to perpetuate acceptance and understanding of the germ theory of disease. 10 The flight of the odious fly explained how invisible microbes travelled and spread infection (see fig. 1), but also alerted the public that personal action and vigilance, such as fly-swatting and screening windows, was necessary to stem the flow of disease. This fetish with the disease-spreading capacity of the housefly lasted nearly three decades.

To investigate the role that Montreal children played in public health campaigns, we consider the visual culture of contests in conjunction with textual historical sources. Information gleaned from photographs, maps, posters, and drawings complement data collected from the city's Catholic and Protestant school board archives, the municipal health board, annual reports of anti-tuberculosis groups and health care facilities, and public health journals. Equally important is the media coverage of Montreal contests. We consulted both French-language and English-language newspapers of the period.

Tuberculosis in Montreal

By the turn of the twentieth century, Canada's largest urban centre was the most unhealthy city in North America. Montreal's tuberculosis rates were reportedly the highest on the continent and caused more deaths than all other contagious diseases combined and second only to infant diarrhea. 11 Class and ethnicity played a critical role in determining who would most likely become tubercular. Since the vast majority of francophone Montrealers, who represented

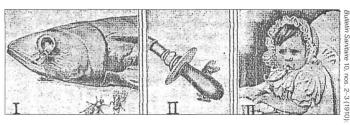


Figure 1: "Attention is called to the dangerous house-fly."

nearly two thirds of the city's population, were concentrated in the lowest-paid factory jobs and occupied the most unhealthy neighbourhoods, they were more susceptible to tuberculosis than their anglophone and Jewish counterparts who made up 25 per cent and 10 per cent of the population respectively. 12 Yearly statistics published by the municipal health department consistently recorded the highest rates of infection among French Canadians of all ages. For example, in 1911, 489 francophone Montrealers died of consumption, compared to 72 anglophones, and 12 from the city's Jewish community. 13 Two years earlier, childhood tuberculosis accounted for 135.1/1000 deaths of children between five and fourteen years of age, and for those above the age of fourteen, the number of deaths increased more than threefold (446.2/1000 deaths of ages fifteen to twenty-four). 14 These statistics were likely under-represented; many of the children dying from pneumonia, meningitis, peritonitis, or sequelae of childhood diseases such as measles and whooping cough may have had tuberculosis. Moreover, public health workers were unaware how widespread childhood consumption was, since the disease affected joints, bones, and glands more than lungs. Non-pulmonary tuberculosis was often transmitted to children in milk and meat that had been infected with bovine tuberculosis.

Living in Working-class Wards

The city's working-class environments were characterized by widespread filth, ineffective public infrastructure, inadequate green space, and wretched living conditions associated with rampant poverty. Industrial workers and their families lived in these insalubrious neighbourhoods to be within walking distance of their jobs. As early as 1897, Herbert Ames, 15 in his well-known sociological study of Montreal The City below the Hill, drew public attention to the fact that the working-class largely inhabited overcrowded and polluted wards located in the shadow of Mount Royal. By contrast, the Golden Square Mile, which lay upon the slopes, was home to some of Canada's richest industrialists and businessmen. Largely an Anglo-Protestant enclave, its inhabitants lived in mansions or grey stone townhouses with spacious gardens, on wide streets, far above the factories they owned and the homes of the working class who laboured in them.

Ames reported that the death rates in the wards below the hill were double the city's average and in certain areas equalled

the birth rate. 16 Infant mortality rates were especially high, owing to the prevalence of untreated water and unpasteurized milk, and tuberculosis was rampant, a result of widespread poverty and living in too close proximity. Municipal inspectors identified common defects in many residential buildings: dirty, damp, and smelly houses; filthy and inadequately drained backyards; and overflowing privies. 17 These homes of labouring families, characterized by poor ventilation and dark rooms, became a lightning rod for reformers such as Dr. Elzéar Pelletier, secretary of the Quebec Provincial Board of Health. His 1908 essay, "Our Unhealthy Dwellings," drew attention to the dismal household conditions that many of the city's residents were forced to inhabit. Pelletier noted that rooms "without any windows opening into the external air" were ubiquitous in these wards. 18 Inadequate airflow was understood to be a significant risk to good health. Without continual aeration, tuberculosis and other contagious diseases were thought to breed and multiply at will. A 1911 study published by the Royal Edward Institute echoed these concerns: 60 per cent of those who sought treatment for pulmonary tuberculosis came from homes with medium to bad ventilation. Reformers argued that tenants, ignorant of basic principles of hygiene, willingly occupied these buildings, and that landlords' greed surpassed any guilt aroused by letting tenants live in these unhealthy circumstances.¹⁹ In reality, such abysmal conditions reflected the narrow range of choices available to industrial workers who sought affordable rentals close to sites of employment. It also spoke to the need for and implementation of hygienic building codes, in addition to better enforcement of those measures that were already in place.

These popular wards, or "hives of sickness," 20 comprised both tenements and factories, in addition to dirty, dusty streets and laneways. The stench of sewage, manure boxes, overflowing garbage receptacles, offal, and decomposing dead animals mingled with the smoke and effluvium emanating from nearby factories. More than half of the households were not equipped with indoor plumbing and depended upon an outdoor privy as the sole means to dispose of human waste. Herbert Ames referred to the pits as "insanitary abominations" and "a danger to the public health and good morals."21 Flies fed and laid eggs at these insalubrious sites. Ames's dogged but successful eight-year campaign to rid the city of outdoor privies earned him the moniker "Water Closet Ames."22 By the end of 1916, most of the privies in workingclass wards situated "below the hill" had been eliminated. The majority of those still in existence—officially 1,315—were reported in areas that had been annexed by Montreal's municipal government.²³ As an example Rosemont had 250 reported privy pits.²⁴ Located in the east end of the city, bordering the northern-most limits of Hochelaga and Maisonneuve, Rosemont's sizeable territory had hardly been touched by urbanization, thus likely accounting for the high number of reported outhouses. Only Rosemont's southern section had been developed before the First World War for the workers who laboured in the Angus Yards, its largest employer.

Flies were also drawn to the piles of manure produced in the city's livery stables and in the much more numerous horse stables maintained by carters and milkmen at their places of residence. Before the interwar period, horse-drawn carts were a common feature of Montreal streets. The average city horse in the early twentieth century produced ten kilograms of manure a day; the horse dung left lying in city streets became another vector where flies bred and subsequently spread disease. Some scientists posited that an effective method to eradicate the disease-carrying housefly was to rid American cities of horses. ²⁵ While Montreal health officials did not advocate an end to horsepower, they sought improved street cleaning and more rigorous inspection of work sites, schools, milk, meat, and housing, to ensure a healthier urban environment.

Reformers and Public Health

Public education was thought to be an effective and inexpensive way to contain and prevent disease. William Osler's well-known maxim that [tuberculosis] is a social disease with a medical aspect embodied the attitude of social reformers in this period.²⁶ It also reflected a public health morality, which posited that the working class had to take responsibility to guard itself, families, and neighbours against infection.²⁷ By eradicating the unhealthy habits of an uneducated working class, middle-class reformers, influenced by both the social gospel and Catholic social action, believed that it would renew society through healthy living practices.²⁸ The 1910 report of the Royal Commission on Tuberculosis had much to say about childhood consumption, and suggested that school inspections, hygiene instruction in schools, open-air schools, legislation against child employment, and inspection of meat and milk would help to prevent tuberculosis. Campaigns for clean water, pasteurized milk, and compulsory immunization, the establishment of fresh-air camps for inner-city children, public health nurses to visit the homes of the working poor to promote children's health, and the construction of children's hospitals also occupied reformers. In the interwar period, urban reformers recognized that healthy children were a nation's asset, when substantial numbers of working-class men were rejected from combat during the First World War on the basis of chronic poor health. Montreal's health department responded by establishing a separate division of child hygiene in 1918. Public health crusaders and medical authorities demanded that the provincial government force municipalities to institute preventive measures to control disease, believing that it was the responsibility of the Quebec Board of Health to improve the city's dismal public health. Quebec City refused to finance public health, leaving it to municipalities—usually private charities and other organizations—to raise the necessary funds to enact programs.²⁹ This neglect was problematic, especially in the case of tuberculosis. Despite its high mortality rates, lack of a cure, and the recommendations of the 1909-1910 Royal Commission on Tuberculosis, the state remained impassive

about financing a network of badly needed clinics, preventoria, and sanatoria, ³⁰ or even ensuring that Montreal's milk supply was safe.

In an effort to make the city more sanitary, clergy of all religious persuasions, physicians, and local industrialists and their wives took up anti-tuberculosis campaigns. Terry Copp has argued that while the city depended upon the efforts of volunteers representing private associations and hospitals to promote public health, these same organizations and medical institutions staked a claim to continued involvement in such public health activities.31 As an example, Jeffrey Hale Burland's fight against tuberculosis occupied much of his time and interest. A prominent businessman and philanthropist, Burland established the Royal Edward Institute in 1909 and sat on the 1910 provincial Royal Commission on Tuberculosis. When he died in 1914, his widow and sisters continued his anti-tuberculosis pursuits.³² Similarly, Charlotte Learmont, wife of businessman Joseph B. Learmont, was another committed anti-tuberculosis reformer, who sat on the board of the Victorian Order of Nurses and served on the organizing committees for both the 1908 Tuberculosis Exhibition and the 1912 Child Welfare Exhibition.³³ Franchophone reformers were equally active in local initiatives. The French-language daily La Presse sponsored a series of summer picnics for children. Each week thousands of children were taken out of the city to participate in contests and races while enjoying the fresh air of l'île Sainte-Hélène. Businessmen, clergy, and public officials all supported this endeavour and donated their time, energy, and money. The newspaper reported, "Ces pique-niques donnés par la ville, sous les auspices de la 'Presse' sont reconnus par tout le monde pour être un véritable bienfait pour l'enfance. La preuve, c'est que les dévouées organisateurs, M.M. J. E. R. Ducharme et J. E. Bernier recoivent chaque semaine tant de nos hommes publics de nos hommes d'affaires les mieux connus, toutes sortes d'encouragement, sous forme de prix magnifiques pour êtres distribués aux enfants."34

Neither the bacteriological approach to tuberculosis, which dominated the interwar years, nor surgical "collapse therapy" (pneumothorax and thoracoplasty) could prompt the provincial government to take action. This shifting perception of the disease had turned Osler's view on its head: tuberculosis had become a "medical disease with a social aspect." The city eventually responded to public pressure by instituting filtration of its water supply in 1914. That same year, a milk survey showed that 90 per cent of Montreal's supply was unfit for human consumption.³⁶ Yet it took another twelve years before the provincial government passed legislation to ensure the pasteurization of milk and much longer for the city to enforce these regulations. Indeed, even as late as 1943, a petition demanding mandatory pasteurization of all milk in Quebec was sent to the minister of Health and Social Welfare endorsed by clubs, societies, and organizations from around the province, including Montreal's two school boards.37 The city also

constructed public baths in working-class wards to promote cleanliness among the "great unwashed."

Children's sites of play in working-class neighbourhoods also came under reformers' scrutiny. The parks and playground movement, modelled on American efforts to create wholesome spaces within the city, found recruits in Montreal as the streets, back alleys, and courtyards where children played became more visible. The emphasis on appropriate sites of play coincided with a vigorous campaign to promote child welfare, culminating in the 1912 Child Welfare Exhibition. A chief concern among philanthropists and reformers involved in this endeavour was the housing conditions of the working class, as described above. Photographs played a critical role in promoting reformers' points of view and exemplified the social documentary style that pervaded reform efforts during the late nineteenth and early twentieth centuries.³⁸ Historian James Opp has argued that urban reformers and proponents of the social gospel used this mode of photography as a strategy to draw viewers' attention away from the bodies, often children, posing in the images to the urban environment. This strategy, to illustrate spatial dominance, was an effective means to both highlight middle-class anxieties and deliver persuasive messages about the moral and physical decay of urban life.³⁹ The photograph entitled "A Human Rookery" (fig. 2) was displayed in both the 1908 Montreal Tuberculosis Exhibition and the 1912 Child Welfare Exhibition. The image is an example of the social documentary method, complete with its own title, and reveals the squalid and filthy conditions under which many working-class Montreal families lived and children played. This site lacked adequate access to sunlight, fresh air, and green space. The eight small children are engulfed, even enslaved, by their surroundings; the photograph renders them victims of their environment. Those in the upper left-hand corner of the image are barely distinguishable from the structural entanglement that surrounds them. This photograph, and others like it, delivered a forceful message that rates of tuberculosis were substantially higher in these spaces and that affirmative action was needed to rectify the situation.

Children were encouraged to exert control over aspects of their environment by swatting flies to reduce the spread of disease and by cleaning up their homes, yards, courtyards, alleys, and neighbourhoods to instil a sense of responsibility and civic pride. Moreover, motivating youngsters to assume this kind of leadership situated them as active participants in the anti-tuberculosis public health strategies that urban reformers promulgated.

Flies and Public Health

When the *Montreal Daily Star* proposed a fly contest for children, it was responding to the widely held belief among entomologists, physicians, and educators that the *Musca domestica* played a significant role in transmitting diseases such as typhoid fever and even tuberculosis.⁴⁰ The *Montreal*



Figure 2: "A human rookery."

Daily Star's sister newspaper, the Toronto Daily Star, reported, "Tuberculosis . . . is carried by the pesky fly. The fly that alights on you everywhere you go may be carrying germs of this disease. The bulk of the germs of tuberculosis are carried directly from the sputum of tubercular people." Scientists postulated that the insect spread tuberculosis by ingesting the tubercle bacillus from infected sputum "with the greatest avidity" or from feces and then regurgitating or defecating the micro-organism onto food, milk containers, baby bottles, or pacifiers. Others asserted that the fly wreaked public health havoc when it landed on food with its bacteria-laden hairy legs, feet, and body. 43

If that was not enough to convince *Star* readers of the fly's threat to society and the expeditious need to go to war with the insect, New York physician Woods Hutchison equated the fly with moral as well as physical danger: "[A] fly in a house is as dangerous as a rattlesnake, as filthy as a louse, and as disgraceful as a bedbug."⁴⁴ And flies were everywhere. Professor Hodge, of Clarke University, Worcester, Massachusetts, calculated that a pair of flies that began to breed in May would produce 143,675 bushels of offspring in just four months.⁴⁵ In light of the growing alarm over the housefly's penchant for transmitting infectious diseases to an unsuspecting citizenry, the Montreal health department asked

that the medical health officer report on "the best method of exterminating flies."46 Citing the lessons learned at the Panama Canal—to reduce the incidents of malaria and yellow fever it was imperative to remove the sources where mosquitoes bred—he recommended that the city cover garbage cans and interest school children "in the work of destroying flies . . . and they should be encouraged by being supplied free with those special brushes invented for the purpose."47 Across Canada and the United States, children's anti-fly campaigns received kudos from urban reformers, municipal health authorities, and physicians. In Baltimore, prominent newspaperman and political satirist H. L. Mencken, who had on many occasions locked horns with urban reformers and city hall, endorsed the campaign against the housefly. 48 New York health authorities carried out education campaigns to control the fly population by ridding the city of its breeding sites; city merchants promoted anti-fly propaganda that included a book of illustrations that underscored the fly's capacity to transport deadly germs to humans and they sponsored a film that exaggerated the fly's size to reinforce its danger. 49 In Toronto, tuberculosis and typhoid specialist Dr. Hanley of the Toronto General Hospital wholeheartedly backed a "Swat the Fly" contest. Ridding the world of flies, he claimed, would make it easier to eliminate typhoid fever and tuberculosis: "In the case of tubercular sores or septic conditions, the possibility of flies lighting upon such spots is obvious. Imagine what it would be if we allowed flies free ingress to the hospitals. They would spread disease all over the city."50 And in Montreal, hygiene expert Dr. T. A. Starkey supported such an initiative: "I consider that there is plenty of room for an educational campaign among the children. So far as I know nothing definite has yet been done in the schools in this direction. If teachers made a point of impressing upon their pupils the danger of the fly to the community, and the best means of preventing and exterminating the pest, I am sure a vast amount of good would soon result."51

Given Montreal's high infant mortality rate, reformers understood that children needed to learn about the threat of the housefly not only to their own health but to the health of family members, especially baby sisters and brothers.⁵² The housefly appeared in public health campaigns, often playing a feature role in "moving pictures." University Settlement, for example, organized thirty public health instruction sessions in green spaces across the city during the summer of 1912. Children watched health films about milk, tuberculosis, and the dangers associated with the fly in Parc Lafontaine, Fletcher's Field, Dufferin Square, Haymarket Square, and Hibernia Road.⁵³ The head worker of University Settlement, Miss E. Helm, publicly supported the "Swat the Fly" contest. which ran concurrently with the film series. The housefly also made an appearance at the Child Welfare Exhibition, which opened just a few months after the Star contest. Pauline Witherspoon, an organizer of the event, described its appearance in one of the exhibition's films: "[It] shows a place from which the fly comes—a manure heap, a garbage heap, or a

heap of rotting fish—and afterwards its journey to a house and its subsequent attentions to the food are depicted in the most marvellous and instructive fashion."54 Similar disturbing images of the fly travelling from garbage pile or dung heap to supposedly hygienic sites was published in both the Montreal Daily Star and the provincial health journal, the Bulletin Sanitaire. The tryptic (fig. 1) pictured the pesky fly alighting on a pile of discarded fish heads, then stopping for a break atop an infant's pacifier. The last movement in this visual composition shows the baby sucking its soother, blissfully unaware of the disease and filth with which it had been contaminated.55 The face of the contented baby exemplified the hidden dangers of the fly, its role in cross-contamination, and revealed the unseen hygienic transgressions that just one insect could perpetrate. This image surely rallied support for war against the "loathsome" insect.

"Swat the Fly" Contest

Any child under seventeen years of age and living on the island of Montreal was eligible to participate in the fly competition; French-speaking children were disadvantaged because "Swat the Fly" was promoted by an English-language newspaper. With respect to gender, it was an equal opportunity contest. The sponsor put forward that boys and girls were every bit as skilled in fly-catching and would receive the same number of prizes of the same value. To sustain enthusiasm, additional prizes were awarded bi-weekly, and contestants were repeatedly reminded in newspaper accounts that waging war on houseflies was saving the lives of babies and young children—indeed brothers and sisters—and even a patriotic act. Local stores distributed fly swatters to contestants free of charge. The newspaper offered to pay the public transportation costs of any contestant who brought in 500 or more flies. Despite these compelling incentives, children decided not only to participate but how long they would do so. The obvious enjoyment of a contest, the prizes, and the public attention they received notwithstanding, such a three-week contest required discipline and sustained activity to win. One of the newspaper articles noted that some children were "too busy catching flies" to collect their prizes. Courtland Auburn's mother went to the Star offices on her son's behalf, telling reporters that "he's at it all day, and says he hasn't a moment to spare, even to fetch his prize."56 By contrast, the 1908 Tuberculosis Exhibition essay-writing contest, which also included monetary prizes, attracted approximately 325 children.

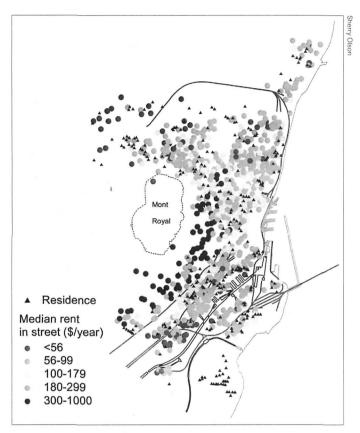
"Swat the Fly" participants transported their treasure trove of dead flies in pails, jars, boxes, and cans to the newspaper's office, where they were carefully weighed and tabulated by special *Star* staff. Figure 3 shows one day's catch brought into the newspaper offices for counting. Curiously, the *Star* encouraged children's increased contact with the housefly at the same time that it raised the dangers of the insect to the health of youngsters. The irony of the situation was not lost on public health officials of London, Ontario, who complained that fly contests put children's health at risk.⁵⁷ Local health



Figure 3: "The casualty list in first days' battle with the deadly foe."

authorities rejected these concerns. When M. H. McCrady of the Chemical Department of the Provincial Board of Health was asked to respond to the criticism he stated, "I don't think there is anything in it . . . I have never heard of any danger to the children engaged in the campaign being alleged by any authority on the subject." McCrady went on to say, "Children in hunting flies are very unlikely to go to the places where the flies are most dangerous—that is where there are faecal discharges . . . In Montreal there is no need for the children to go far afield to catch their flies."58 The abundance of these insects meant that even toddlers could join in the contest without leaving home. Two-year-old Augustina Parsons brought in over nine thousand flies to the Star office. Her comments to Star reporters confirm that children indeed were in close contact with the "pests." The tot complained that she "'tan't tatch' any more, as her 'fingles' are sore."59 Perhaps responding to the publicity, the prizes, or prompting from peers and family, but in the midst of the summer school break with no school authorities to encourage their participation, working-class children were abuzz about the contest.

Map 1⁶⁰ reveals that most of Montreal's juvenile fly swatters lived in inner-city wards such as Pointe-Ste-Charles, on or near Boulevard St-Laurent, also known as the Main, or in working-class suburbs such as Verdun. An analysis of the contestants' addresses (which the *Star* published) provides clues as to the demographic characteristics of participants. As the map shows, contestants came from predominately blue-collar families (determined by the medium grey denoting household rents of between \$61 and \$100 per annum) and that friends in the same neighbourhoods entered the contest



Map 1: Montreal's fly-catchers

together (symbolized by the clusters of black triangles). As an example, David Devine of Hermine Street had been appointed the president and director of a "fly trust" that he and friends had established. By contrast, children from households paying the lowest rents (represented by the dark grey indicating rents less than \$60 a year) usually did not participate in the contest. Extreme poverty and limited contact with local newspapers meant that they were disadvantaged. Similarly, middle-class children often passed the summer in the countryside and inhabited more wholesome neighbourhoods (indicated by the light grey).

Youngsters from working-class homes, on the other hand, could finally benefit from the mounds of horse manure, heaps of rotting garbage, decomposing dead animals, unfenced wastelands, and outdoor privies in their locality, which spawned flies by the thousands. The contest's winner, eight-year-old Eddie Kavanagh, took advantage of the proximity of his family's shed to one such site to trap flies. He enticed nearly 1.5 million of them into the shed by a window that opened onto the Boyer Street garbage dump. Others used traps, fly swatters, even their own hands to kill flies at local stables, abattoirs, fish shops, bakeries, and restaurants. Two young girls decided that neighbourhood restaurants furnished the best hunting grounds: "We go into the restaurants, one said, and they let us catch all their flies. We got just heaps of

them and the people are glad for us to help them. Flies are horrid, buzzing around on your food and we may always go in and catch all we want."62 Home was another. Neighbours allowed Ethel Reyes of Verdun to catch flies in their homes: "The kitchen is the best place and tea-time keeps us busy, for they all seem to love the butter and bread and jam."63 All agreed—contestants, sponsor, and supporters—that with fewer flies at home, it made eating and sleeping easier.

City Clean-Up Competitions

The relationship between Montreal's dirty environment—as a breeding ground for both germs and insects—and children's compromised health was not lost on reformers. Thus, the "Swat the Fly" contest was part of a larger local strategy aimed at not only killing houseflies but preventing their spawning by cleaning up the environment. The same year that the *Montreal Star* hosted the fly contest, the City Improvement League established a Clean-Up Day; the following year, it had been transformed into an annual Clean-Up Week, usually held the beginning of May when Montrealers traditionally moved households. The housefly once again played an important role; it topped a list of insects that necessitated extermination:

Science proved conclusively that the common, ordinary fly, in summer time, was even more dangerous, as it carried in its poisoned fangs the deadly germs of typhoid fever, consumption and other intestinal diseases. To destroy this deadly foe is the greatest civic duty one can accomplish. Of there were no more dirty breeding pools, no more pestilential garbage, no more flies, there would be no more epidemic to decimate our homes and the whole of mankind. 64

An ordinary but deadly flight of the housefly is depicted on the borders of "Exterminate the Fly and Other Parasites," a piece of promotional literature distributed by the City Improvement League. As in figure 1, the images show that the fly's travel itinerary begins at typical sites of contamination, then takes it through an open window into the home of unsuspecting victims, where it descends upon clean dishes left on the table in anticipation of dinner, and eventually alights on a sleeping baby's milk bottle and face. It ends a few days later when the same fly glides past the house where a ribbon has been hung on the door to denote a death in the family. 65 The city's health department welcomed the anti-fly campaign associated with Clean-Up Week and encouraged Montrealers to wage war all year round: "Swat the Fly, even in winter. The cold weather will not kill it but will simply numb it and it will awaken in the spring and continue to multiply itself by millions."66

In 1915, Clean-Up Week organizers distributed 50,000 pamphlets, "Health First," to city homes, developed an education program and pledge campaign, and designed a home-garden competition. The City Improvement Campaign Committee also coordinated a series of meetings with youngsters in mind. It promoted public and personal hygiene through lantern slides, lectures, and film: "In order to vary the

interest, moving pictures of a general character were shown together with those of educational value, and in this manner the minds of the children were improved in a way, calculated to have a permanent effect."67 To enlist the support of students, health authorities encouraged elementary and secondary school teachers to make Clean-Up Week the theme of short lectures and to emphasize the cooperative spirit of such an endeavour. Its message was that cleanliness not only "begets health" but "makes life worthwhile even with the poor."68 At the urging of both Protestant and Catholic school boards, 3,000 children entered the home-garden competition, making them eligible to win \$1,250 in prizes. Figure 4 is a promotional poster used by the committee in its campaign. Les écoliers or students are among the helping hands that grasp the handle of the great broom that was to sweep the city clean. 69 By including children on this public flyer or poster, members of the Civic Improvement League made a direct appeal to Montreal youngsters to take responsibility for their city's public health.⁷⁰

To compete in the contest, participants filled out pledge cards promising to clean up their neighbourhoods, plant flowers, keep gardens and maintain lawns, refrain from littering, vandalizing property, or spitting, encourage others to keep Montreal clean, protect animals and birds, and be a loyal citizen.71 The City Improvement League divided Montreal into five districts, each of which would distribute prizes amounting to \$250. The grand prize was \$25. The committee planned two contests: the first one ran from the beginning of May to the end of June; the second one focused on contestants who could keep up their efforts until the end of the summer. Participants were awarded points for tidy back and front yards, painted house exteriors, vegetable and flower gardens, and the overall appearance of buildings. Children who lived in houses without yards earned extra points if they placed flower boxes and hanging baskets in and around their dwellings.⁷²

During the First World War, the home-garden competition had much broader implications. By awarding prizes for the cultivation of vacant lots or backyards, the committee tied its cleanup campaign to the war effort being mobilized in Protestant schools and communities on the island and elsewhere. ⁷³ Montreal's children were transformed into soldiers of dust, dirt, and disease:

Some are called upon to fight with the usual arms of war, but others can only help by using other weapons: the plough, the hoe and the spade to cultivate every inch of soil for food for ourselves and our brave allies; the broom, the mop, the paint pot and the water pail and their good strong arms to wage the war against Dust, Dirt and Disease, the enemies which menace the Health of the Community and impair its strength.⁷⁴

The campaign tapped into the patriotic fervour of the city's English-speaking population by linking civic pride to citizenship and effectively contrasting its war effort with French-Canadian ambivalence about the war.

Since planting vegetables and flowers entailed some expense, the Health Committee of the Local Council of Women

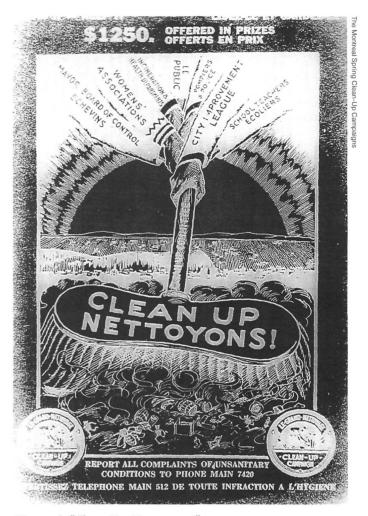


Figure 4: "Clean Up, Nettoyons!"

distributed seeds to impoverished children attending public schools. Nonetheless, the committee's obvious middle-class standard of environmental cleanliness must have made the task for working-class children daunting, given that their neighbourhoods were characterized by a lack of gardens and lawns and by dense and dilapidated housing. Moreover, these "city beautiful" contests had limited effect in most working-class wards. Health authorities, for example, reported that the 1914 Clean-Up Week provided a "clean city at least for some weeks."⁷⁵

Children's Contribution to Anti-Fly Campaigns

Children's involvement in public health campaigns were explicit, as members of the Junior Red Cross with its authoritative motto, "I Serve," and implicit, as role models in the fly contest. Referred to in the *Montreal Daily Star* as "a great awakening," the "Swat the Fly" contest provided an important example of what could be accomplished for only \$350 in prizes and donations from local businesses without disturbing the status quo. The fervour with which Montreal children

embraced the contest, their success in killing over 25 million flies, and their subsequent coronation as North American (even world) champions impressed the *Star*:

They can walk about with their heads in the air and their prizes in their pockets, and when they are grown up and have children of their own, they can tell them of the great anti-fly crusade and of all the ways in which they rid the city of the pests. It would be twice as interesting as the story of the Pied Piper of Hamelin and the rats!⁷⁶

It must have fascinated onlookers as well. Children's frenzied participation provided compelling role models for adult observers and is exemplified by contestants such as Harold Brookwell: "I caught nearly all of them in my daddy's abattoir, he said, and once I caught 47 flies with one swat. I counted them just for fun. I catch them in buckets with some molasses smeared inside, and heaps I've swatted in the house and of course in the abattoir, and some I got in cages of wire netting."77 Courtland Auburn of Liverpool Street was too busy hunting flies to pick up a special prize he had won, and Christopher Mair of Verdun was too ill. Having to undergo an emergency appendectomy, he gave his flies to his older brother Stephen, who recounted the dramatic events to a Star journalist: "And just as he was being taken along the passage to the operation, he said, tell Stephen that he can go on catching flies for me till I come out. He seemed to think more of the magic lantern he had won, and the fly competition than being cut with a knife."78 Contestants reminded adults that flies bred in proportion to the amount of filth and garbage deposited in city streets, back alleys, and in public buildings, and they conveyed disease from these sites to the food that Montrealers consumed. In a flurry of newspaper articles and letters to the Star editor during the fly contest, writers insisted that to prevent this contamination, shopkeepers screen food from flies and that the municipal government rigorously enforce regulations, institute a better system of garbage collection and drainage around local stables, and prohibit privy pits. In this way, youngsters served as active agents in anti-fly health campaigns.

Photographs taken by the Montreal Daily Star during the three-week contest provided another venue in which to showcase children's active participation. Images of the contestants who participated in "Swat the Fly" were a central feature of the Star's coverage of the event and reveal a direct link between the urban landscape, children's bodies, and their agency. The 1912 photographs reveal a different relationship between children's bodies and urban space to that of figure 2, "The Human Rookery." In Figure 5, three young contestants, including Eddie Kavanaugh (centre) the contest's winner, pose for a Star reporter. In contrast to the children in figure 2 who are dominated by their surroundings, the three children are the clear subjects of this image. They stand shoulder to shoulder, effectively overcoming the landscape. Their stances are strong and resolute, their expressions serious. This photograph portrays these youngsters as autonomous, active, and united; it identifies them as participants in the



Figure 5: "Over 25,000,000 flies, world's record."

campaign to stop the fly scourge. Their photograph appears under the headline "Over 25,000,000 Flies, World's Record." In this case, the children have not been rendered as passive victims of the urban environment, but are depicted as active agents in pursuit of improving public health and living conditions overall.

The crusade against the housefly persisted until well into the 1920s. ⁷⁹ The Canadian Red Cross and Junior Red Cross presented the fly as an impediment to good health, and appealed directly to children to help stop its menace. A "Health Alphabet" published in the November 1927 issue of *The Canadian Red Cross Junior* reminded youngsters that

K means to Kill Every fly with a swat, For living, they're dangerous; Dead, they are not.⁸⁰

Members of the Junior Red Cross in Montreal also spread the message that the insect was most pestilent by staging a play, titled "The Land of the Lollypop." One of the main characters in



Figure 6: "Junior Red Cross groups at Montreal."

the drama was Jack, the Fly Killer. Brandishing a fly swatter, this palace guard's chief task was to keep flies (which he describes as a mortal enemy) away from the king. Figure 6 portrays the cast who performed the play for their peers in Greenfield Park, Montreal. The young girl who played the role of Jack is pictured second from the left in her full fly-swatting costume.

In the 1920s, the exploits of flies were depicted in the Canadian Red Cross magazine in very graphic detail:

After walking on filth, corruption and, as likely as not, infection; does he manicure? Not a bit of it. With feet clogged with foulness, he is seen on the spoons, on the forks, on the butter, the sugar, the rim of the drinking vessel, the meat, the edge of the milk pitcher. And be sure that as muddy boots will leave a track across a crimson Persian carpet so the fly will leave his tracks on everything he touches.⁸¹

Images like that shown in figure 7 usually accompanied articles about the housefly. This unseemly photograph of maggots writhing about a heap of manure was meant to draw children's attention to the thoroughly unhygienic environments that served as breeding grounds for mature flies. Instructions for exterminating flies were also included. Children were urged to take an active role in eliminating house flies by setting traps and then killing those they caught with boiling water or burning sulphur. Fly swatting was also advocated as an effective method of their destruction. The article, perhaps drawing on the success of earlier campaigns, claimed that "boys and girls can do a great deal to control the fly nuisance by swatting every fly they can find . . . 'Swat the Fly' is an excellent motto." In the 1930s, Walt Disney included the same "Swat the Fly" message in one of his animated shorts. The

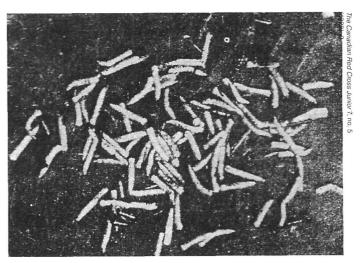


Figure 7: "The house fly."

1938 Disney rendition of the Grimm Brothers classic tale "The Brave Little Tailor" has Mickey Mouse going head to head with the pest, killing "Seven with one blow!" 83

Children played an important and essential function in spreading health propaganda among their peers, in their communities, and at home. Their role as ambassadors of public health was not without conflict. In light of widespread poverty and the lacklustre performance of city hall when it came to improving Montreal's infrastructure, tensions between children advocating anti-tuberculosis measures and their parents who could do little to ameliorate the family's living conditions must have risen. Thus, the process of imbuing children with health standards that could not be met at home gave messages that contradicted those of many parents, created stress, and left children, according to historian Mona Gleason, both empowered and frightened.⁸⁴

Conclusion

Reformers identified the fly as a serious impediment to the public's health at the same time it provided a convenient scapegoat and simple solution toa complex public health problems associated with widespread poverty and inadequate city services. The City Improvement League sought lofty, inexpensive, and largely ineffective solutions to complex public health problems that required costly interventions. Historian Terry Copp maintains that such a quixotic program diverted attention from building an infrastructure that would provide basic civic services such as clean running water, indoor toilets, and building inspection to all of its citizens. An investment of this type entailed costs that the municipal government was eager to avoid and regulatory measures that were anathema to economic liberalism.

Undoubtedly, "Swat the Fly" had little effect on tuberculosis rates. The contest, however, was an important opportunity for little Montrealers to assume individual responsibility for

public health. The legacy of "Swat the Fly" forever tainted the housefly as a harbinger of dirt and disease, yet the Star reported several positive outcomes as well. Following the contest, food inspectors more stringently enforced regulations on the screening of commercial food and charged store owners with exposing food to contaminants.86 The Star also claimed that the competition had alerted all Montrealers to the danger of the fly and the conditions that engendered its propagation and highlighted the fact that all citizens were responsible for keeping streets and lanes free of filth. The Star's most emphatic pleas, however, were directed at city health authorities. It resolved that the city must "do away with the open privy-pits that still exist, they must insist on the proper draining of the numerous stables whose filth is now allowed simply to ooze away into the ground, and they must inaugurate a much more cleanly and effective system of garbage collection than the crude methods now in force."87 Naomi Rogers argues that in New York, the anti-fly campaign served health authorities well: to reinforce the importance of popular education as a solution to ensuring public health; link science with everyday life; strengthen the idea that mothers had to keep their houses free of flies to maintain family health; and, at the very least, to give the impression that officials were acting aggressively against the spread of disease.88 One merely had to "Swat the Fly"; even children could go to battle against the Musca domestica and claim success 25 million times over. Notwithstanding a range of motivations that included empathy, an earnest desire to do good, and real health concerns, reformers did not recommend transformations in social relations that would have resulted in better housing, healthier neighbourhoods, or equal access to medical services. Rather, they urged public education to reduce rates of tuberculosis.

Targeting youngsters with contests such as "Swat the Fly" and city improvement, was understood to arm a new generation with knowledge that parents allegedly resisted. Thus, the prescription for improving the public's health stood in sharp contrast with the lives of most children and simply could not be met. Although Montreal's death rate from tuberculosis was higher than Toronto's, by the end of the Depression the numbers began to drop, as a consequence of a higher standard of living, the widespread use of tuberculin tests and chest X-rays to detect insipient disease, and the eradication of bovine tuberculosis. 89 Nonetheless, children were receptive to public health campaigns and acted as health ambassadors in the anti-tuberculosis crusades. They served as role models and joined the Junior Red Cross, spreading health propaganda to their peers, family, and community. Their decision to embrace and participate in these contests speaks to their autonomy. Locating children's agency in Montreal's antituberculosis campaigns—despite adult attempts to implement and regulate their activities, as well as the problematic nature of historical documents—is critical to writing a history of children and represents new theoretical considerations of childhood at work.

Notes

- We wish to thank Sherry Olson for her helpful critique of an earlier version of the paper and for making the map of "Montreal's fly catchers," as well as Annmarie Adams and the anonymous readers for their astute comments. Our study forms part of a larger SSHRC-funded investigation, "'Design and Practice': Tuberculosis in Montreal, 1880-2002" at McGill University, and includes graduate students and scholars of architecture, geography, urban planning, history, and medicine. It also links the authors' separate research projects that address the history of children and youth in Montreal. Valerie Minnett's interest in children's health has resulted from her MArch thesis on the Montreal Tuberculosis Exhibition. (See Valerie Minnett, "Inside and Outside: Pathology, Architecture, and the Domestic Environment at the Montreal Tuberculosis Exhibition, 1908" [master's thesis, McGill University, 2004), and "Disease and Domesticity on Display: The Montreal Tuberculosis Exhibition, 1908," Canadian Bulletin of Medical History / Bulletin canadien d'histoire de la médecine [hereafter CBMH/BCHM] 32, no. 2 [2006]: 381-400). The material culture of health education is a focal point of her research. Mary Anne Poutanen's co-authored monograph on the history of Protestant education in Quebec contributes to the discussion about school boards and public health initiatives. (Rod MacLeod and Mary Anne Poutanen, A Meeting of the People: School Boards and Protestant Communities in Quebec, 1801–1998 [Montreal: McGill-Queen's University Press, 2004]). See also, Mary Anne Poutanen, "Containing and Preventing Contagious Disease: Montreal's Protestant School Board and Tuberculosis, 1900-1947," CBMH/BCHM 32, no. 2 (2006): 401-428.
- 2. "Swat the Fly, Then Do It Again," Montreal Daily Star, 25 July 1912.
- "Star's Fly Campaign Breaking All Records with 9,356,361 Flies," Montreal Daily Star, 1 August 1912.
- Publication Committee Meeting, 22 October 1903, Library of the Montreal Chest Institute.
- See, for example, Cynthia R. Commachio, Nations Are Built of Babies: Saving Ontario's Mothers and Children, 1900–1940 (Montreal and Kingston: McGill-Queen's University Press, 1993); Norah Lewis, "Physical Perfection for Spiritual Welfare: Health Care for the Urban Child, 1900–1939," in Studies in Childhood History: A Canadian Perspective, ed. Patricia T. Rooke and R. L. Schnell (Calgary: Detselig, 1982), 135–166; Neil Sutherland, Children in English-Canadian Society: Framing the Twentieth-Century Consensus (Toronto: University of Toronto Press, 1976); "'To Create a Strong and Healthy Race': School Children in the Public Health Movement, 1880–1914," in Medicine in Canadian Society: Historical Perspectives, ed. S. E. D. Shortt (Montreal and Kingston: McGill-Queen's University Press, 1981), 361–393; Growing Up: Childhood in English Canada from the Great War to the Age of Television (Toronto: University of Toronto Press, 1997).
- Robert G. McIntosh, Boys in the Pits: Child Labour in Coal Mining (Montreal and Kingston: McGill-Queen's University Press, 2000), 10.
- Compare Terry Copp's examination of urban poverty and the role of Montreal's Department of Health and reformers in reducing infant mortality and childhood disease through safe drinking water and pasteurized milk (The Anatomy of Poverty: The Condition of the Working Class in Montreal 1897-1929 [Toronto: McClelland and Stewart, 1974]). Patricia Thornton and Sherry Olson's work on infant mortality at mid-nineteenth century considers ethnicity (in their case, working-class Protestant, Irish, and French-Canadian) and rates of morbidity and mortality: "Infant Vulnerability in Three Cultural Settings in Montreal 1880," in Infant and Child Mortality in the Past, ed. A. Bideau, B. Desjardins, and H. Perez-Brignoli (Oxford: Clarendon,1997), 216-241; "A Deadly Discrimination among Montreal Infants 1860-1900," Continuity and Change 16, no. 1 (2001): 95-135; and "Family Contexts of Fertility and Infant Survival in Nineteenth-Century Montreal," Journal of Family History 16, no. 4 (1991), 401-417). Finally, the introduction of the Gouttes de lait and well-baby clinics in response to high infant mortality in twentieth-century Montreal is the focus of Denyse Baillargeon's prize-winning monograph, Un Québec

- en mal d'enfants : La médicalisation de la maternité 1910-1970 (Montreal: Les Éditions du remue-ménage, 2004).
- Alan Prout and Allison James, "A New Paradigm for the Sociology of Childhood? Provenance, Promise and Problems," in Constructing and Reconstructing Childhood: Contemporary Issues in the Sociological Study of Childhood, ed. Allison James and Alan Prout (London: Falmer, 1997), 8
- 9. Both Sutherland and Gleason seek out children's voices in interviews with adults about their childhood recollections and in textual sources such as diaries. (See Neil Sutherland, "Listening to the Winds of Childhood," in his book, *Growing Up*, 3–23; and Mona Gleason, "'Embodied Negotiations: Children's Bodies and Historical Change in Canada, 1930–1960," *Journal of Canadian Studies* 34, no. 1 [Spring 1999]: 112–138.) Elizabeth Gagen consulted manuals and annual reports of the Playground Association of America to understand how children shaped and experienced playgrounds. Boys' preferences were taken into consideration when deciding where playgrounds were located, as was girls' fondness for certain playground equipment such as slides and swings, even though authorities considered them too self-indulgent and preferred to have them removed. ("Too Good to Be True: Representing Children's Agency in the Archives of Playground Reform," *Historical Geography* 29 [2001]: 60).
- Naomi Rogers, "Germs with Legs: Flies, Disease, and the New Public Health," Bulletin of the History of Medicine 63 (1989): 599–604.
- 11. Copp, The Anatomy of Poverty, 100.
- 12. Paul-André Linteau, *Histoire de Montréal depuis la Confédération* (Montreal: Boréal, 2000), 318.
- 1911 Annual Report, 121, Bureau of Health, Archives de la Ville de Montréal (hereafter AVM).
- 14. Royal Commission on Tuberculosis. *Report, Province of Quebec,* 1909–10 (Quebec; s.n., 1909–10), 22.
- 15. Ames was born in Montreal in 1863 to American parents. His father established the highly successful Ames-Holden Company, a shoe and boot manufacturing plant that Ames inherited after his father's death. Ames was educated at Amherst College. After receiving his BA in 1885, he studied in France to improve his French, before returning to Montreal. Although he had been born into a life of comfort and security, Ames refrained from fully engaging in commercial pursuits in order to devote himself to public affairs. He was first and foremost a philanthropist who was generous with both his time and his money, a member of the Protestant committee of the Council of Public Instruction in 1895. president of the Montreal YMCA in 1896, and a politician. Elected to the municipal council in 1898, Ames maintained his position as alderman until 1906, when he ran in the constituency of Montreal-St-Antoine and won a seat in the House of Commons as a Conservative in 1904, serving in federal politics until 1920. In 1919, he was appointed financial director to the Secretariat of the League of Nations in Geneva. Despite this prolific career in politics, Ames is still best known for The City below the Hill. See Mélanie Méthot, "Herbert Brown Ames: Political Reformer and Enforcer," Urban History Review 31, no. 2 (2003): 18-31.
- Herbert Brown Ames, The City below the Hill: A Sociological Study of a Portion of the City of Montreal, Canada (Toronto: University of Toronto Press, 1972), 80–86.
- 17. 1901 Annual Report, 94–95, Bureau of Health, AVM.
- 18. "Our Unhealthy Dwellings," Bulletin Sanitaire 8, nos. 1-4 (1908): 15.
- 19. Ibid
- See David Rosner, "Introduction: 'Hives of Sickness and Vice,'" in Hives of Sickness: Public Health and Epidemics in New York City, ed. David Rosner (New Brunswick, NJ: Rutgers University Press, 1995), 1–21.
- 21. Ames, The City below the Hill, 45.
- 22. Copp, The Anatomy of Poverty, 15.

- 23. Between 1905 and 1914, Montreal annexed twenty-six territories, sixteen of which were municipalities. (Linteau, *Histoire de Montréal*, 202).
- 24. 1916 Annual Report, 128, Bureau of Health, AVM.
- 25. Joel A. Tarr, *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective* (Akron: University of Akron Press, 1996), 323–331.
- Katherine McCuaig, The Weariness, the Fever, and the Fret: The Campaign against Tuberculosis in Canada, 1900–1950 (Montreal and Kingston: McGill-Queen's University Press, 1999), xvii.
- 27. Nancy Tomes, "Moralizing the Microbe," in *Morality and Health*, ed. Allan M. Brandt and Paul Rozin (New York: Routledge, 1997), 272.
- 28. Minnett, "Inside and Outside," 4.
- 29. Copp, The Anatomy of Poverty, 88-93.
- 30. Ibid., 102-103.
- 31. Ibid., 91-92.
- 32. Burland was also founder of a number of provincial organizations that included the Boy Scouts and the Red Cross, active on hospital and charity boards such as the Montreal General Hospital and the House of Industry and Refuge, and organized the first milk dispensary in Montreal. (C. W. Parker, Who's Who and Why: A Biographical Dictionary of Men and Women of Canada and Newfoundland, Compiled for Newspaper and Library Reference [Toronto: International, 1914], 5:153–154).
- 33. William H. Atherton, "Mrs. Joseph B. Learmont," in his *Montreal from 1535 to 1914*, vol. 3, *Biographical* (Montreal: SJ Clarke, 1914).
- 34. "Les enfants, petits et grands, s'amusent ferme," La Presse, 24 July 1912.
- 35. McCuaig, The Weariness, the Fever, and the Fret, 58.
- 36. Copp, The Anatomy of Poverty, 96.
- 37. "74 Organizations Urge Milk Purity," Montreal Gazette, 7 April 1943.
- 38. American studies scholar Maren Stange has proposed that "the documentary mode [of photography] testified both to the existence of painful social facts and to reformers' special expertise in ameliorating them, thus reassuring a liberal middle class that social oversight was both its duty and its right." She is careful to point out that social documentary photography is not constituted by the photograph itself; this genre relies on the photograph being placed in a specific context through the use of captions, titles, and promotion by a sponsoring agency. (Maren Stange, Symbols of Ideal Life: Social Documentary Photography in America 1890–1950 [Cambridge: Cambridge University Press, 1989], xiii–xiv).
- James Opp, "Re-Imaging the Moral Order of Urban Space: Religion and Photography in Winnipeg, 1900–1914," *Journal of the Canadian Historical Association* 13 (2002): 83–84.
- 40. The correlation between the presence of the fly and the spread of contagious disease was relatively new at the time. In 1905, for instance, British entomologist Frederick V. Theobald claimed that though the common housefly was exposed to wide-spread disease, it appeared to be "relatively harmless" to humans. See Theobald, *Insect Life: A Short Account of the Classification and Habits of Insects* (London: Methuen, 1905), 166.
- 41. "Swat the Fly and Sell Them to Us for Cash!" Toronto Star, 6 July 1912.
- 42. Rogers, "Germs with Legs," 614.
- 43. See, for example, the publications of Canadian civil servant and entomologist C. G. Hewitt, *House-Flies and How They Spread Disease* (Cambridge: Cambridge University Press, 1912), and *The House-Fly Musca Domestica Linn: Its Structure, Habits, Development, Relation to Disease and Control* (Cambridge: Cambridge University Press, 1914).
- 44. "One Fly Can Carry over Six Million Microbes at a Time," *Montreal Daily Star*, 16 July 1912.
- 45. "'Swat the Fly,' and So Help Humanity: Specialist Endorses the New Crusade," *Toronto Daily Star*, 11 July 1912.

- Minutes of the Meetings, vol. 23 (11 May 1911–2 February 1920) 11 May 1911, Board of Health, Health Committee (City Council of Montreal), VM21, AVM.
- Minutes of the Meetings, vol. 23 (11 May 1911–2 February 1920), 22
 May 1911, Board of Health, Health Committee (City Council of Montreal), VM21, AVM.
- 48. Sherry H. Olson, *Baltimore: The Building of an American City* (Baltimore: Johns Hopkins University Press, 1980), 268.
- 49. Rogers, "Germs with Legs," 608-611.
- "'Swat the Fly,' and So Help Humanity: Specialist Endorses the New Crusade," Toronto Daily Star, 11 July 1912.
- "Kill the Flies, Yes, But Remove the Cause Too, Say Physicians," Montreal Daily Star, 15 July 1912.
- 52. Nancy Tomes has argued that reformers criticized people's routine and everyday activities, profoundly affecting what she calls "public health morality": the responsibilities that ordinary people assumed to guard themselves, their families, and their neighbours from infection. See Tomes, "Moralizing the Microbe," 272.
- "Moving Pictures in Parks to Be Repeated Next Year," Montreal Witness,
 November 1911; and "What Authorities on Health Think of the Anti-Fly Campaign," Montreal Daily Star, 24 July 1912.
- 54. "One Fly Can Carry over Six Million Microbes at a Time," *Montreal Daily Star*, 16 July 1912.
- 55. "Attention Is Called to the Dangerous House-Fly," *Bulletin Sanitaire* 10, nos. 2–3 (February–March 1910): 19.
- 56. "Too Busy Catching Flies," Montreal Daily Star, 30 July 1912.
- 57. "Star's Fly-Swatting Campaign Is Defended by Board of Health," *Montreal Daily Star*, 29 July 1912.
- 58. Ibid.
- 59. "Scores by Little Tots," Montreal Daily Star, 7 August 1912.
- 60. For information about the spatial dimensions of contestants to the city as well as the social and economic characteristics of the families of children who participated in the "Swat the Fly" contest we made use of the databases assembled by Montreal Avenir Passé or MAP located at McGill University's Department of Geography.
- "The Little Contestants Tell Some of Their Experiences," Montreal Daily Star, 22 July 1912.
- 62. "Ten Prize Winners in First Day's Count Show Large Figures," *Montreal Daily Star*, 23 July 1912.
- 63. "Flies by Hundred Thousand Swatted by Boys and Girls," *Montreal Daily Star*, 26 July 1912.
- 64. "Exterminate the Fly and Other Parasites," Montreal Spring Clean-Up Campaigns (Montreal: City Improvement Campaign Committee, 1917).
- 65. Ibid.
- 66. Ibid.
- 67. The City Improvement Campaign Committee, *The Montreal Spring Clean-Up Campaigns: A Record of Certain Phases of Civic Improvements*, 1912–1916 (Montreal: The City Improvement Campaign Committee, 1916), 14.

- Sanitary Bulletin of the Department of Hygiene and Statistic City of Montreal / Bulletin Sanitaire du Bureau Municipal d'Hygiène et de Statistique Cité de Montréal 1, no. 7 (May 1915): 1.
- 69. Note that several dead flies are among the debris caught by this broom.
- 70. The City Improvement League, Clean Up, Nettoyons!
- 71. The City Improvement Campaign Committee, *The Montreal Spring Clean-Up Campaigns* (Montreal: The City Improvement Campaign Committee, n.d.), 17.
- 72. The City Improvement League, *Record of Civic Pride* (Montreal: The City Improvement Campaign Committee, n.d.).
- For more on this, see MacLeod and Poutanen, "Daughters of the Empire, Soldiers of the Soil: Protestant School Boards, Patriotism, and War," in their book, A Meeting of the People, 223–243.
- 74. Clean Up Committee of the City Improvement League, Clean Up Week May 19th to May 25th 1918: A Pamphlet Issued by the Clean Up Committee of the City Improvement League on Life, Health, Sanitation and Conservation Containing Also Other Useful Information for the Home and the Citizens of Montreal (Montreal: Clean Up Committee of the City Improvement League, 1918).
- 75. 1914 Annual Report, 47, Bureau of Health, AVM.
- 76. "Swat The Fly, Then Do It Again," Montreal Daily Star, 25 July 1912.
- "Last Count in Fly-Killing Competition Breaks All Previous World's Records," Montreal Daily Star, 7 August 1812.
- "Competitors Coming in with Fly Catches Receive Their Prizes," Montreal Daily Star, 30 July 1912.
- 79. Issues of both the *Canadian Red Cross* and the *Canadian Red Cross Junior* present articles relating to flies and their affect on health and the transmission of disease until at least 1928. See, for example, A. E. Berry, "The House Fly," *Canadian Red Cross Junior* 7, no. 5 (1928): 8–9, and "Following the Fly," *Canadian Red Cross* 4, no. 5 (1925): 9.
- 80. "Health Alphabet," Canadian Red Cross Junior 6, no. 9 (1927): 19.
- 81. "Following the Fly," Canadian Red Cross 4, no. 5 (1925): 9.
- 82. Berry, "The House Fly," 9.
- 83. Walt Disney, *The Brave Little Tailor* (Toronto: Random House, 1974), 3. *The Brave Little Tailor* was originally released as a Walt Disney animated short on 29 September 1938.
- 84. Mona Gleason, ""Don't Feel Today Like Speaking": Children, Experts, and Conceptions of Health in English Canada, 1900 to 1950" (paper presented at the conference, Comparative and Interdisciplinary Approaches to Child Health in the 20th Century, 29–30 October 2004, Montreal, Quebec.
- 85. Copp, The Anatomy of Poverty, 85-86.
- 86. "Health Officials Aroused," Montreal Daily Star, 5 August 1912.
- 87. Ibid.
- 88. Rogers, "Germs with Legs," 600-601.
- 89. McCuaig, The Weariness, the Fever, and the Fret, 148.