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# The Horror at Home: The Canadian Military and the "Great" Influenza Pandemic of 1918

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#### Résumé de l'article

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## The Horror at Home: The Canadian Military and the "Great" Influenza Pandemic of 1918<sup>1</sup>

#### MARK OSBORNE HUMPHRIES

#### Abstract

Using a variety of archival sources and statistics compiled from military hospital records, the author examines the origin and dissemination of influenza in Canada during the "Spanish" influenza pandemic of 1918. He argues that pandemic influenza did not originate with soldiers returning from the First World War but instead traces the spread of the virus to American soldiers on their way overseas. The author posits that in Canada, the disease was then disseminated by the movement of Canadian soldiers as the war effort was widened to include a new commitment to mount an expeditionary force to Siberia. The author concludes that the physical path of the 1918 influenza pandemic in Canada is best understood as the result of a widening of the war effort at the expense of public health rather than as the inevitable consequence of the war's end.

#### Résumé

L'auteur examine ici les origines et la propagation de l'influenza au Canada pendant la pandémie de grippe espagnole de 1918. Pour cela, il a consulté diverses sources statistiques et archivistiques tirées de dossiers d'hôpitaux militaires. Il avance que les vecteurs de propagation du virus n'auraient pas été les soldats de retour de la Première Guerre mondiale, mais plutôt les soldats américains qui se rendaient outre-mer. L'auteur pose comme postulat que la maladie s'est par la suite propagée au Canada par l'entremise des soldats canadiens que l'on redéployait afin de constituer une force expéditionnaire en Sibérie. L'auteur conclut qu'en choisissant d'élargir l'effort de guerre au détriment de la protection de la santé publique, le Canada a favorisé la dissémination de la pandémie de l'influenza de 1918, qui n'aurait donc pas été une conséquence inévitable de la fin de la guerre.

<sup>1</sup> The author wishes to thank Terry Copp, Francine McKenzie, Robert Wardhaugh, Tim Cook, Andrew Horrall, Adrian Ciani and Lianne Leddy. He also wishes to acknowledge the funding and support of the Laurier Centre for Military Strategic and Disarmament Studies (LCMSDS) at Wilfrid Laurier University.

Influenza is a familiar disease. While usually the "flu" is little more than an annoyance to the majority of its victims, for both the oldest and youngest members of the population it can become a matter of life and death. However, several times each century, influenza becomes a more sinister disease. During the 20th century influenza has caused a global pandemic three times: in 1918, 1957, and 1968. Influenza becomes pandemic, rather than epidemic, when a significant percentage of the world's population becomes infected with the same strain of the virus at approximately the same time. Pandemic influenza also causes a significantly higher number of deaths, both within its usual demographic range, as well as among seemingly healthy people. During the 1918-19 Pandemic it has been suggested that as many as 100,000,000 people worldwide, and more than 50,000 in Canada alone, died from what became known as "Spanish Influenza" or "Spanish Flu". While the world death toll was likely closer to 40 or 50 million, the majority of deaths occurred among otherwise healthy males and females between the ages of 15 and 35.6

The 1918 virus was different from other pandemic viruses of the 20th century in several ways. First, it killed the very people who, in theory, should have had the best chance of overcoming the disease. As well, the virus had an astronomical mortality rate. Victims contracted influenza and sometimes, in only a matter of hours, began to turn a bluish-purple in the face (what doctors called a "peculiar heliotrope cyanosis") as they struggled to breathe. As the body's defensive systems were overwhelmed, these victims could develop a secondary and often fatal infection of the respiratory system, usually pneumonia, which would kill them in a matter of days. On rarer occasions, victims died of the initial influenza infection itself before a secondary disease could even begin to take hold. Why the 1918 influenza virus was so deadly remains a mystery.

<sup>2</sup> World Health Organization, "Fact Sheet N 211: Influenza" www.who.int/mediacentre/factsheets/fs211/en/print.html.

<sup>3</sup> For a good overview of the history and medical aspects of the three 20th Century influenza Pandemics see W. Graeme Laver, Norbert Bischofberger and Robert G. Webster, "The Origin and Control of Pandemic Influenza," *Perspectives in Biology and Medicine* 43, no. 2 (2000): 173-91.

<sup>4</sup> Distinct "strains" of influenza are defined by the number of hemagglutinin and neuraminidase proteins on the viral cell membrane.

<sup>5</sup> Estimates of mortality range from 20,000,000 to in excess of 100,000,000. The most recent, scientific estimate of mortality is 50,000,000 which are provided in the following article: Niall P.A.S. Johnson and Juergen Mueller, "Updating Accounts: Global Mortality of the 1918-1920 "Spanish" Influenza Pandemic," *Bulletin of the History of Medicine* 76 (2002): 105-15.

<sup>6</sup> The best summary of the demographic aspects of the pandemic can be found in Ann H Reid, Jeffery K Taubenberger and Thomas G Fanning, "The 1918 Spanish Influenza: Integrating History and Biology" *Microbes and Infection* 3 (2001): 81-7.

<sup>7</sup> Ibid.

<sup>8</sup> While it is true that the Ministry of Agriculture administered federal government policy dealing with health issues, the ministry was certainly ill-equipped to handle a minor healthcare crisis, not to mention a major pandemic. The profound inadequacy of federal provisions for health is

Every year influenza viruses mutate. These mutations are essentially random variations in the genetic make up of the virus which occur through the process of antigenetic *drift*. As influenza viruses reproduce and multiply, a certain number of natural variations occur within the DNA/RNA sequence of the virus that are passed on to future generations. If these genetic mutations result in a virus with characteristics that make it better adapted to survive and reproduce in a human host, these genetic traits will become more prevalent in future generations of the virus as that virus will be more successful in passing on its genetic material.<sup>9</sup>

Most often these mutations do not alter the actual strain of influenza virus. Therefore, although a virus will change its genetic makeup every flu season, it remains the same basic type of influenza virus, and the body's defensive mechanisms recognize it as such. This explains why influenza has a relatively low mortality rate among the healthy, yet a high rate of morbidity (infection). Once the immune system is able to sort through the small, seasonal variations in the influenza virus, it can recognize the strain of the "invader" and retrieve the right "defensive strategy." As indicated, however, several times a century a new strain of influenza virus emerges through antigenetic *shift*. The immune system is thus unable to recognize the strain of the influenza virus and it has no existing strategy to defeat the invader. Then, not only does the virus infect the host, but it also more frequently overwhelms the body's defences which results in an increased number of deaths. Whenever a new viral strain emerges that has the ability to transmit itself efficiently within the human population, an influenza pandemic becomes highly likely. While pandemics are natural occurrences, no recorded pandemic has been as deadly as 1918.10

Historians and scientists believe that a particularly virulent strain of influenza emerged during the spring of 1918.<sup>11</sup> The historiography suggests that the pandemic occurred in three waves throughout much of the world: the first in the spring of 1918, the second in the fall of 1918 and the third in the winter of 1918-1919.<sup>12</sup> The first wave is believed to have caused few deaths

commented on in the minutes of the first meeting of the Dominion Council of Health in 1919. Library and Archives Canada (LAC), Record Group (RG) 29, Microfilm Reel C-9814.

<sup>9</sup> Laver, 175-6.

<sup>10</sup> Laver, 176-8; Johnathan S Nguyen-Van-Tam, Alan W Hampson, "The Epidemiology and Clinical Impact of Pandemic Influenza", Vaccine 21 (2003): 1762-8.

<sup>11</sup> Jeffery K Taubenberger, Ann H Reid, et al, "Characterization of the 1918 Influenza Virus Hemagglutinin and Neuraminidase Genes" *International Congress Series* 1219 (2001): 545-9; Ann H Reid, Thomas G Fanning, Johan V Hultin and Jeffery K Taubenberger, "Origins and Evolution of the 1918 "Spanish" Influenza Virus Hemagglutinin Gene," *Proceedings of the National Academy of Science of the United States of America* 96 (1999): 1651-6; Ann H Reid, et al, "1918 Influenza Pandemic Caused by Highly Conserved Viruses with Two Receptor-Binding Variants," *Emerging Infectious Diseases* 9, no. 10 (2003): 1249-53.

<sup>12</sup> Nguyen-Van-Tam, 1763-4.

and would likely have gone unnoticed were it not for the second and extremely deadly autumn wave.<sup>13</sup> The third wave of the disease caused a significant number of deaths, but did not begin to approach the previous wave's astronomically high rate of mortality.<sup>14</sup> When and where the virus first emerged, however, is a matter of debate amongst both virologists and historians.

While the name "Spanish Flu" suggests that the disease first appeared on the Iberian Peninsula, this claim is universally dismissed. Historians argue that because Spain was not a combatant during the First World War, the uncensored Spanish press were simply the first to publish accounts of the disease and that the international media thereafter began to refer to it as "Influenza of the Spanish type." Speculation as to the origin of the disease has instead centred on two possible locations: the trenches of the First World War and the United States.

Virologist John Oxford suggests a European origin for the disease. Using accounts of epidemics of "purulent bronchitis" published in medical journals between 1915 and 1917, Oxford argues that the conditions of the First World War provided a unique environment from which pandemic influenza could emerge:

The unprecedented circumstances of 1916-1918 – in particular the war on the Western Front, a landscape that was contaminated with respiratory irritants such as chlorine and phosgene, and characterized by stress and overcrowding, the partial starvation of civilians, and the opportunity for rapid "passage" of influenza in young soldiers would have provided the opportunity for multiple but small mutational changes throughout the viral genome. Such factors could have been important factors in the evolution of the virus into a particularly virulent form, resulting in a pandemic.<sup>15</sup>

He posits that the disease first appeared in France and England before 1918 but was unable to transmit itself efficiently outside of the optimum conditions provided by hospitals, the trenches and training camps. According to Oxford, by the early spring of 1918 the disease became more virulent and began to spread across Europe, eventually reaching North America. <sup>16</sup>

Other virologists and historians, using public health reports, newspaper accounts and medical journals, claim that the virus actually originated in Kansas in the early spring of 1918. Rod Daniels suggests that "The first case [of Spanish Influenza] can be traced to Camp Funston, Kansas, USA on 8

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> J.S. Oxford, et al, "World War I May Have Allowed the Emergence of 'Spanish' Influenza," The Lancet: Infectious Diseases 2, February (2002): 113.

<sup>16</sup> J.S. Oxford, et al, "Early Herald Wave Outbreaks of Influenza in 1916 Prior to the Pandemic of 1918," *International Congress Series* 1219 (2001): 155-61.

March 1918. This heralded the start of the pandemic which spread around the world in three waves." Historian John Barry, author of *The Great Influenza*, suggests an even earlier American origin for the 1918 virus, arguing that the first cases appeared among civilians at Haskell, Kansas in February 1918. <sup>18</sup>

Canadian historians generally agree that the disease had a European origin and was brought to Canada by soldiers returning from the First World War. The first Canadian historian to write about the disease was Sir Andrew Macphail in the *Official History of the Canadian Forces in the Great War, 1914-1919: Medical Services.* While MacPhail was the first to argue that the disease arrived in Canada with soldiers returning from the war, his evidentiary basis was unclear. The most important account of how the Spanish Flu arrived in Canada is thus Janice P. Dickin McGinnis' "The Impact of Epidemic Influenza: Canada, 1918-19". <sup>20</sup>

Dickin McGinnis posits that the Spanish Flu resulted from the end of the Great War. She writes: "after the cessation of hostilities armies are sent home to spread unfamiliar, and perhaps even brand new, forms of sickness among a population likely suffering from some extent of privation due to war. In Europe during the nineteenth century and earlier the end result was usually typhus. After World War I, it was 'Spanish Influenza." Using archival records, Dickin McGinnis traces the arrival of the virus in Canada to four troop ships:

The *Araguyan* left England 26 June and developed 175 cases among 763 soldiers on board. The first incident in which civilian officials took part involved the steamship *Somali* which had been granted pratique when it stopped in at the quarantine headquarters on Grosse Isle in the St. Lawrence River. However, upon arriving at Quebec City, several of its crew proved to be suffering from the flu and, after unloading, the ship was ordered back to Grosse Isle for care of the sick and general fumigation on 9 July 1918. By 11 July, forty six crew members were in the Grosse Isle hospital. By the next morning, the number had risen to sixty-seven and by nightfall had reached seventy-two. At approximately the same date, the *Nagoya* arrived at Montreal and the *Med 1099* hospital ship at Halifax, likewise carrying the flu.<sup>22</sup>

<sup>17</sup> Rod Daniels, "In Search of an Enigma: the "Spanish" Lady, Medical Research Council: National Institute for Medical Research (United Kingdom, 1998), <www.nimr.mrc.ac.uk/mill-hillessays/1998/influenza1918.htm>.

<sup>18</sup> John M. Barry, *The Great Influenza: the Epic Story of the Deadliest Plague in History* (New York: Viking, 2004).

<sup>19</sup> Sir Andrew Macphail, Official History of the Canadian Forces in the Great War, 1914-1919: Medical Services (Ottawa: Queen's Printer, 1925).

<sup>20</sup> Janice P Dickin McGinnis, "The Impact of Epidemic Influenza: Canada, 1918-19" Historical Papers – Canadian Historical Association (1977): 121.

<sup>21</sup> Ibid, 121.

<sup>22</sup> Ibid, 449.

Dickin McGinnis' paper has remained the most important source on the origins of the pandemic in Canada and is cited by most subsequent historians.<sup>23</sup>

In the Canadian literature, the pandemic is thus seen as a consequence of the war's end where the evils of war were brought home to the civilian population by soldiers returning from the front. The innocent civilian population was therefore "contaminated" by the returning soldiers not only with disease but also with the horror of the trenches. However, this conception of the pandemic is inconsistent with the evidence.

In July 1918, when the disease was supposed to have arrived in Canada, the largest and most significant allied offensive of the war, known as the "Hundred Days Campaign," was still a month away. Indeed, throughout the summer of 1918 and until 11 November, the war was increasing in intensity, not coming to a slow end. Indeed, most of the Canadian soldiers who were overseas on 11 November 1918 would not return home until the late spring of 1919.<sup>24</sup> However, the disease and the military were intimately linked, just in a different way than thought.<sup>25</sup>

<sup>23</sup> Other important Canadian works on the pandemic include Jadranka Bacic, The Plague of the Spanish Flu: the Influenza Epidemic of 1918 in Ottawa (Ottawa: Historical Society of Ottawa, 1999); Robert C Belyk and Diane M Belyk, "No Armistice with Death: The Spanish Influenza, 1918-19," The Beaver (October-November 1988): 43-9; Roger Delaunais, Le Camp de la Grippe Espagnole: la Grippe Espagnole dans la Matapédia (Amqui: R. Delaunais, 1991); Janice Dickin McGinnis, "A City Faces and Epidemic," Alberta History 4, no. 24 (1976): 1-11; Ian Millier, "No Cause for Alarm," The Beaver 6, no. 80 (2002): 33-7; Esyllt Wynne Jones, "Searching for the Springs of Health: Women and Working Families in Winnipeg's 1918-1919 Influenza Epidemic" (Ph.D. Dissertation, University of Manitoba, 2003); Esyllt Wynne Jones, "Across a Diseased Boundary: Urban Space and Social Interaction During Winnipeg's Influenza Epidemic, 1918-1919," Journal of the Canadian Historical Association 13 (2002): 119-39; Margaret Jones, "Epidemic and Health: Influenza in Vancouver, 1918-19," BC Studies 34 (1977): 21-44; Maureen K Lux, "The Bitter Flats: The 1918 influenza Epidemic in Saskatchewan," Saskatchewan History (Spring 1997): 3-12; Yvette Paquin, "Les Soeurs Grises en Tenue de Service - L'Influenza de 1918," Cahiers Nicolétains 2, no. 8 (1986): 101-21; Eileen Pettigrew, The Silent Enemy: Canada and the Deadly Flu of 1918 (Saskatoon: Western Producer Prairie Books, 1983); Linda Quiney, "Filling the Gaps': Canadian Voluntary Nurses, the 1917 Halifax Explosion and the Influenza Epidemic of 1918," Canadian Bulletin of Medical History 2, no. 19 (2002): 351-373; Denise Rioux, La Grippe Espagnole à Sherbrooke et dans les Cantons de l'Est, (Sherbrooke: Universite de Sherbrooke, 1993).

<sup>24</sup> G.W.L. Nicholson, *The Canadian Expeditionary Force*, 1914-1919 (Ottawa: Queen's Printer, 1962), 497-508.

<sup>25</sup> Standard works on Canada and the First World War include Tim Cook, No place to Run: the Canadian Corps and Gas Warfare in the First World War (Vancouver: University of British Columbia Press, 1999); AF Duguid, Official History of the Canadian Forces in the Great War 1914-1919, Vol. 1, Aug.1914-Sept.1915 (Ottawa: Department of National Defence, 1938); Desmond Morton, When Your Number's Up: the Canadian Soldier in the First World War (Toronto: Random House, 1993); Desmond Morton, Winning the Second Battle: Canadian Veterans and the Return to Civilian Life, 1915-1930 (Toronto: University of Toronto Press, 1987); Desmond Morton and J.L. Granatstein, Marching to Armageddon: Canadians and the

The physical path taken by pandemic influenza in Canada was determined by the intensification of the war effort, not by its waning. Influenza did not spread from Europe to Canada with soldiers returning from the trenches during July 1918. Instead, the disease arrived in Canada from the United States in the second and third weeks of September with American soldiers on their way overseas to the battlefields of Europe. Once in Canada, the course taken by the disease was determined by the extension of the war effort and particularly by the mobilization of the Canadian Siberian Expeditionary Force. In fact, as pandemic influenza became endemic in Canada, the Canadian military placed the war effort above concerns for civilian public health. Canadian soldiers did not contaminate civilian society with "the horrors of war," instead the war effort on the home front determined the physical path taken by the disease.

The *Araguyan*, the only ship to arrive in Canada carrying soldiers ill with influenza during the summer of 1918, sailed into view of Halifax harbour during the second week of July. Before the ship could dock, however, Major General Jones of Military District 6 (Halifax) cabled Dr. F Montizambert, the Medical Superintendent of the Canadian Quarantine Service, to inform him that he was holding all soldiers onboard a recently-arrived troopship (despite the objection of local quarantine officials) as 23 percent of those on board were infected with the "new variety of influenza".<sup>26</sup> It read:

Ottawa July 8th 1918, Dr. Montizambert c/o Quarantine Officer Halifax NS

Med 1099 Hospital Ship arrived Halifax Sunday with epidemic of new variety of influenza twentythree [sic] percent affected [sic] stop have instructed troops to be held aboard ship stop Quarantine Authorities Halifax disclaim any responsibility respecting troop ships stop this is not according to my understanding of your regulations stop desired [sic] to meet you in every way consider that coordinated action should be taken urgent.<sup>27</sup>

It appears that some historians misread the military telegram number for the name of a hospital ship because no ship named *Med 1099* was used by the Canadian, British, or American navies to transport Canadian soldiers during the First World War.<sup>28</sup> The hospital ship to which this telegram refers was

Great War, 1914-1919 (Toronto: Lester & Orpen Dennys, Ltd., 1989); Nicholson, Canadian Expeditionary Force; Bill Rawling, Death Their Enemy: Canadian Medical Practitioners and War (Québec: AGMV Marquis, 2001); John Swettenham, To Seize the Victory: The Canadian Corps in World War I (Toronto: Ryerson Press, 1965); Jonathan Vance, Death So Noble: Memory, Meaning and the First World War (Vancouver: UBC Press, 1997).

<sup>26</sup> Cable (Med 1099): Major General Jones to Dr. Montizambert, July 8 1918, LAC, RG 29, V 300, File 416-2-12,

<sup>27</sup> Ibid

<sup>28</sup> See records of transports that carried soldiers from Europe to Canada in 1918 in: LAC, RG 150-6, V 345-371.

instead the *HS Araguyan* which arrived at Inspection Pier 2 in Halifax on Sunday 7 July 1918<sup>29</sup> and was the only ship to arrive at Halifax harbour carrying returning soldiers (sick or healthy) within a week of the date of the telegram.<sup>30</sup> In fact, it was the *only* ship to arrive in Canada after the middle of June and before the end of September which carried Canadian soldiers returning from overseas.

After the *Llandovery Castle* hospital ship was sunk on 27 June 1918 by a German U-Boat, killing all but 24 of the 258 passengers and crew,<sup>31</sup> the Canadian authorities cancelled all return sailings of both troop ships and hospital ships for an indefinite period of time because no escort craft could be spared. It should be noted that in the early summer of 1918 the German Army was at the end of its greatest advance since the onset of static warfare in the autumn of 1914.<sup>32</sup> For this reason every destroyer in service was required to escort Canadian and American boats conveying soldiers to Europe and could not be spared for soldiers returning to Canada. As a result, by 18 September 1918, the Adjutant General of the Canadian Expeditionary Force was able to report to the Deputy Minister of the Ministry of the Overseas Military Forces of Canada: "the last transport conveying other ranks to Canada sailed on 22 June 1918 [and] there has been no sailing of a Hospital ship since the sailing of the HS Araguyan on June 26th and consequently the number of [injured soldiers ready to return] to Canada in the various hospitals has accumulated [to] over three thousand."33 This also suggests that neither the Nagova nor the Somali could have returned soldiers to Canada.

Indeed, both ships were scheduled to sail *from* Montreal *for* Europe in the third week of July 1918 with a full complement of soldiers destined for the trenches. Most of these soldiers were American and were part of a program which was designed to prevent the loss of fresh troops to enemy u-boats lurking off the coast of the United States, the intent being to ship them along the shortest possible route from the Gulf of the St. Lawrence to England rather than from New York or Boston. Due to disease amongst the crews of these two ships, no soldiers were even allowed to board either transport.

On 9 July, a telegram was sent from the Senior Naval Officer at Montreal to the Secretary of the Department of the Naval Service in Ottawa explaining the situation of both boats:

<sup>29</sup> War Diary (WD) Assistant Director of Medical Services (ADMS), Military District 6 (Halifax), Month of July 1918. LAC, .RG 9, Volume (Vol) 5062, File 978, Part 2.

<sup>30</sup> Ibid.

<sup>31</sup> MacPhail, 241.

<sup>32</sup> See James Edmonds, *Military Operations: France and Belgium, 1918, Volumes I - III* (London: Macmillan, 1935).

<sup>33</sup> Letter: Adj Gen OMFC to Deputy Minister OMFC, 18 September 1918, LAC, RG 9, Series (S) III A 1, Vol 84, File 10-11-1 "Demobilization."

The *Nagoya* was scheduled to sail shortly, but was not passed by the American Embarkation Medical Officer, owing to sickness among the crew. A meeting was held this morning in reference to the matter, and it was found that out of a crew of 160 there were 100 cases of influenza. When this vessel passed the Quarantine Station she reported 6 cases, but was allowed to proceed. It is now hoped that this vessel will be disinfected and ready to embark her troops at a later date.

The master of the "Somali" reported at the meeting that 7 of his crew were down with influenza. The Canadian Medical Officer stated that troops could not be placed on board until this ship has been disinfected. It is now very doubtful if she can get the next convoy. The Medical Officers have taken the case up with the Principal Medical Officer in Ottawa.<sup>34</sup>

From this telegram it is quite clear that when the *Nagoya* and the *Somali* were detained at Grosse Isle, they were not returning soldiers to Canada. In fact, neither ship is listed as having carried soldiers from Europe to Canada at all in 1918.<sup>35</sup> Instead, their crews were waiting to transport soldiers to Europe: The *Nagoya* was waiting to embark American soldiers while the *Somali* was assigned to carry Canadians. Upon arriving in Quebec, these ships were empty (except for crew) and the disease was apparently quarantined by returning the two vessels to the Grosse Isle quarantine station.<sup>36</sup>

Quarantine efforts at least appeared successful as by the second week in August, the federal Director of Public Health was still discussing Spanish Flu in hypothetical terms, referring to the possibility that it might, in future, be missed at a quarantine station and could enter Canada.<sup>37</sup> This possibility was made all the more unlikely by Prime Minister Robert Borden who prevented *any* soldiers from returning home by any means during the summer of 1918. Because all sailings of Canadian transports and hospital ships were cancelled in the summer of 1918, the situation in England for soldiers who were slotted to go home was understandably troubling from a logistical point of view: as casualties began to mount at the front, fewer and fewer beds were available in England. In an effort to rectify the situation, the Governor General of Canada, the Duke of Devonshire, helped Sir Edward Kemp, the Minister of Militia and

<sup>34</sup> Memo: W.G. Holloway to Secretary, Department of the Naval Service, 9 July 1918, LAC, RG 29, Vol 300, File 416-2-12.

<sup>35</sup> LAC, RG 150-6, Vol 345-371 contains the sailing lists of ships that brought soldiers home from Canada between 1918 and 1920. Neither the *Nagoya* or *Somali* is listed among them.

<sup>36</sup> Memo: G.E. Martineau, MD, Office of the Medical Superintendent, Quarantine Service, Grosse Isle, Quebec to the Acting Deputy Minister of Immigration and Colonization, 12 July 1918, LAC, RG 29, Vol 300, File 416-2-12.

<sup>37</sup> Telegram: F. Montizambert to Dr. N.E. MacKay, 9 August 1918, LAC, RG 29, Vol 300, File 416-2-12; Telegram: NE MacKay to Dr. F. Montizambert, 9 August 1918, LAC, RG 29, Vol 300, File 416-2-12.

Defence, devise a scheme to send both officers and other ranks home on American transports destined for American ports and onto Canada by rail.<sup>38</sup> Plans were put in place to transport several thousand soldiers home in this way during the summer of 1918. Before their scheme had an impact on the backlog, however, Prime Minister Borden terminated it through an angry letter to Kemp. Borden's objections centred around the fact that it was "impossible to give any satisfactory explanation to the Canadian people of the failure to use Canadian ports and the facilities already provided at enormous expense." This meant that only about 300 soldiers sailed from Europe and Canada, via the United States, during the summer of 1918 on commercial and privately arranged transports. When this number is compared to the 6,255 men who would eventually leave England for Canada in the last week of September alone, when sailings returned to their pre-July levels, the contrast becomes apparent. <sup>41</sup>

Regardless, while actions were taken to prevent the spread of influenza, the disease was hardly a primary concern of the Borden government. Indeed, only when the disease threatened troop shipments did it become a salient issue, and even then only temporarily. Indirectly, the desire to protect troopships from German U-Boats may have actually prevented the disease from spreading to Canada, more out of a concern for the war effort than public health. While the number of soldiers returning to Canada in July, August, and September 1918 was not so low as to dismiss altogether the possibility that they brought the flu with them when they entered Canada, the numbers make it unlikely. It would appear that "Spanish flu" did not become endemic in Canada until the second week in September 1918. This is supported by military hospital records which suggest that influenza activity only began to spike only during late September and early October 1918, well after Borden ended the Devonshire-Kemp scheme and well before the first mass sailings of injured troops began to reach Canada.

Military hospital records are especially revealing because soldiers could avoid duty only if they were granted leave (an officially approved and scheduled absence) or if they were excused from duty during morning sick parade. If they were excused from duty while on sick parade, soldiers were usually required to report to the local camp hospital. It can thus be surmised that a soldier, infected with a virulent influenza virus such as that which prevented the

<sup>38</sup> It would appear that as Kemp, the Minister of Militia, did not use official channels to issue his instructions, he wanted to keep his scheme quiet. This theory is in part confirmed by Borden's angry reaction once he discovered the clandestine scheme. For the Governor General's telegram to the Secretary of State for the Colonies see LAC, RG 9, S III A 1, Vol 84, File 10-11-1 "Demobilization."

<sup>39</sup> Letter: Sir Robert Borden to Sir Edward Kemp, 15 August 1918, LAC, RG 9, S III A 1, Vol 84, File 10-11-1 "Demobilization."

<sup>40</sup> Report: "Quarterly Report: July, August, September 1918" – Quartermaster General's Branch, 1 October 1918, LAC, RG 9, S III A 1, Vol 54.

<sup>41</sup> Ibid.

sailing of the Nagoya or Somali, would have likely reported to the hospital either on his own accord or on the orders of his commanding officer as he could not simply "stay in his bunk." These military records also offer evidence not only of the diseases which circulated within the military, but also of the general state of civilian health during the war. Because the military in Canada was essentially an organization which turned civilians into soldiers for service overseas, during 1918 there was a significant level of interaction between the civilian and military worlds. Almost every day, civilians arrived at military camps, either as volunteers for the CEF or because they had been drafted under the Military Service Act. Once in the military there was ample opportunity for diseases to pass between civilians and soldiers. Military personnel went on leave, they visited local towns on evening passes, they attended civic celebrations and functions, and they were actively engaged in recruiting drives.<sup>42</sup> Furthermore, soldiers were routinely transported between various towns and military districts aboard normal civilian passenger trains.<sup>43</sup> Essentially, there were few physical or artificial barriers separating the civilian and military spheres of life in 1918.

Through an analysis of three hospitals from geographically distinct areas, St. John Military Hospital, St. Jean, Quebec, the Station Hospital in Kapuskasing, Ontario, and Victoria Military Hospital, Esquimalt, British Columbia, it becomes unlikely that an "influenza like" illness was endemic within the Canadian population during the spring and summer of 1918. 44 Because the viruses and bacteria that affect the human respiratory system are always in circulation, when examining hospital records for any period it would be expected that evidence of such disease activity would be present. During an influenza epidemic or pandemic, the number of cases admitted to hospital should be higher than what was the "normal" base disease activity. When looking for evidence of an especially virulent and infectious virus such as the 1918 flu, it is logical to suggest that large, sustained spikes in the number of admissions for respiratory complaints over several days or weeks would signify the presence of such a virus in that hospital's service area. In fact, however, the presence of such a disease is not evident until late September and early October in these three hospitals.

<sup>42</sup> Even a cursory examination of the war diaries from any military district in Canada kept by the Quartermaster General, the Assistant Director of Supply and Transport, the Base Depots or other supporting units bears this analysis out as the diaries record daily activities such as those described above.

<sup>43</sup> Ibid.

<sup>44</sup> The term "influenza-like" is used to refer to admissions with diagnoses recorded as influenza, grippe, cold, flu, bronchitis, catarrh, and sore throat, all conditions that are either euphemisms for influenza or have similar symptoms. Cases of pneumonia, broncho-pneumonia and lobular pneumonia were also included as these were the leading causes of death during the pandemic, and patients were often admitted with these secondary infections alone. Non-contagious conditions like gas inhalation or other respiratory diseases like tuberculosis are not included.

During the First World War, St. John Military Hospital serviced the Canadian Engineers Depot at St. John Barracks, St. Jean Quebec. A study of this hospital is revealing because recruits from all over Canada, as well as the United States, moved in and out of the barracks daily and thus the hospital could expect to see patients who had been exposed to microbes from a wide array of geographical sources. For this reason we might expect to see evidence of a highly infectious virus, such as influenza, if it did indeed exist in epidemic (or pandemic) form in the Canadian population during the spring of 1918. However, a review of hospital records suggests that this was not the case.

During the winter of 1918 (5 December 1917 to 4 March 1918) "influenzalike" disease activity remained insignificant. During this 90-day period, 63 patients were admitted to the hospital with influenza-like symptoms, an average of 0.7 patients per day (a tiny number compared to overall admissions). During the spring months (5 March to 4 June 1918), 92 people were admitted to hospital with influenza or influenza-like symptoms, an average of 1.02 per day. Throughout the summer (5 June 1918 to 4 September 1918), when the disease is supposed to have arrived at the port of Quebec with soldiers who would have been funnelled into the military system, the hospital had only 36 admissions for influenza-like diseases, an average of only 0.4 patients per day. When these numbers are compared to the fall of 1918 (5 September 1918 to 4 December 1918), the contrast becomes apparent (see figure 1). During this period 245 patients were admitted with influenza-like symptoms, an average of 2.7 patients per day. During this period, 32 people were admitted in one day, almost the same number as for the entire summer. The number of deaths are even more revealing: during the winter, spring and summer of 1917-1918, not one death was recorded for patients with influenza-like symptoms. In contrast, during the fall of 1918, 21 patients, or nine percent of those admitted, died of their illness or related complications.<sup>45</sup>

The Station hospital at Kapuskasing, Ontario, a small town in the vast, boreal expanse of Northern Ontario, looked after soldiers who were either passing through on their way across Canada on the railroad or from units which guarded and serviced the local prisoner of war camp. A study of this hospital is revealing because it was an important stop on a soldier's route west or east. As well, the prisoner of war camp, which housed hundreds of interned enemy aliens, constantly accepted prisoners from across the country. These factors combined to make the hospital a unique location where people from across Canada were placed in close proximity in an otherwise isolated environment.

<sup>45</sup> These statistics for St. John Military Hospital are compiled from the hospital admission-discharge books in LAC, RG 9, II L 1, Vol 9, books 291-7.

<sup>46</sup> See Bohdan Kordan, Enemy Aliens, Prisoners of War: Internment in Canada During the Great War (Montreal & Kingston: McGill-Queen's University Press, 2002).

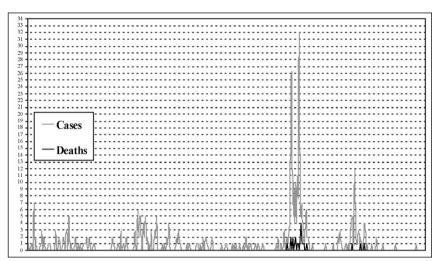


Figure 1: Respiratory Cases Admitted to St. Jean Military Hospital 5 December 1917 – 15 February 1919

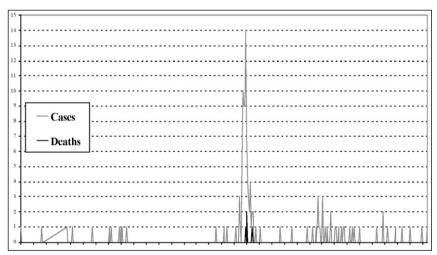


Figure 2: Respiratory Cases Admitted to Kapuskasing Station Hospital 5 December 1917 – 15 February 1919

During the winter there appears to have been a low rate of admission for respiratory illness. For the winter months, data is unfortunately available only for the period 5 February 1918 to 4 March 1918, during which time one soldier was admitted with influenza-like symptoms. During the spring, activity did increase: eight soldiers were admitted with similar complaints between 5 March 1918 and 4 June 1918. During the summer, when a number of prisoners were transferred from Halifax to Kapuskasing, admissions for influenza or similar conditions dropped off again to only one soldier during the period 5 June 1918 to 4 September 1918. When these numbers (a total of ten soldiers in seven months) are compared to the 92 soldiers who were admitted between 5 September 1918 and 4 December 1918, the contrast is evident (see figure 2). The rate of daily admissions essentially increased from nearly zero to more than one per day. As well, it is significant that none of the ten soldiers admitted in the winter, spring and summer died of their illness while four of the 92 succumbed to the disease, a mortality rate for the autumn of more than 4.3 percent.47

On the west coast of Canada, the course of disease activity was similar. Victoria Military Hospital, at Esquimalt, British Columbia, was set up to service both recruits and Home Service Canadian soldiers. As with Kapuskasing and St. Jean, little evidence can be found to support a spring or summer epidemic of influenza. Between 5 April 1918 and 4 June 1918 (there is no data available for the winter months), there were only 15 people admitted to the hospital with influenza-like symptoms (less than 0.3 patients per day). During the summer months (5 June 1918 to 4 September 1918), only 8 soldiers were admitted with influenza or a similar diagnosis (or approximately 0.09 patients per day). In comparison, between 5 September 1918 and 4 December 1918, 235 soldiers were admitted to hospital with influenza-like illnesses, of whom 11 died (an admission rate of more than 2.6 per day and a mortality rate of 4.6 percent). Again the contrast is significant (see figure 3).<sup>48</sup>

If a virulent strain of influenza had been circulating in the Canadian population during the spring and summer of 1918, there was little evidence of its presence in these three hospitals. Although this analysis is far from conclusive, it does suggest that pandemic influenza was not endemic in Canada in either the spring or summer of 1918 as each of these hospitals saw patients from a wide variety of geographical locations. If the disease was not endemic in Canada during the first nine months of 1918, and if there was little opportunity for the disease to enter Canada from Europe during the summer, it is possible, and indeed likely, that the disease spread north from the United States.

<sup>47</sup> These statistics for Kapuskasing Station Hospital are compiled from the hospital admission-discharge books in LAC, RG 9, S II-L-1, Vol 6, book 187.

<sup>48</sup> These statistics for Victoria Military Hospital are compiled from the hospital admission-discharge books in: LAC, RG 9, S II-L-1, Vol 18, book 567-8.

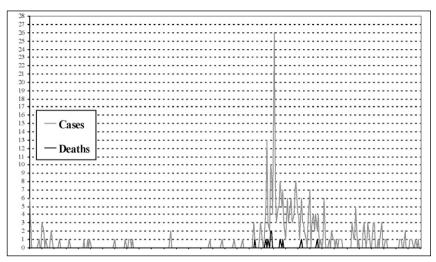


Figure 3: Respiratory Cases Admitted to Victoria Military Hospital 5 December 1917 – 15 February 1919

John Barry, an historian of the 1918 pandemic in the United States,<sup>49</sup> records that the disease made its first appearance in the United States in Boston during the last days of August 1918.<sup>50</sup> He suggests that by the second week in September, "Spanish flu" had already spread across Massachusetts and into New York State.<sup>51</sup> All across the north-eastern United States local newspapers reported that the disease was widespread in the region by the second week of September. *The Marion Daily Star* (Ohio), for example, reported on 14 September 1918 that the disease was prevalent in Newport News and Philadelphia;<sup>52</sup> by 15 September 1918, there were thousands of cases of flu among soldiers at Camp Devons in Massachusetts.<sup>53</sup> National borders provide little defence against disease, especially during wartime. It would appear likely that the disease spread across the border from the United States to Canada in four separate locations, only weeks after the most deadly wave began in August. The First World War Polish

<sup>49</sup> There are three monographs which chronicle the course of the pandemic in the United States. The oldest book is Richard Collier, *The Plague of the Spanish Lady: The Influenza Pandemic of 1918-1919* (New York: Atheneum, 1974). The most recent text is Barry (cited above). However the best and most scholarly account remains Alfred W. Crobsy, *America's Forgotten Pandemic: the influenza of 1918* (New York: Cambridge University Press, 1989).

<sup>50</sup> Barry, 192-3.

<sup>51</sup> Ibid, 197-9.

<sup>52 &</sup>quot;Influenza is Now Spreading," The Marion Daily Star (Ohio), 14 September 1918, 9.

<sup>53 &</sup>quot;2000 Cases of Influenza Found Among Soldiers", the *Syracuse Herald* (Syracuse, New York), 15 September 1918, 11.

infantry camp at Niagara-on-the-Lake, Ontario was one of the first two places in Canada to become infected with the influenza virus.<sup>54</sup>

In September of 1917, the Canadian government agreed to set up a separate training camp to house Polish citizens who were recruited for the French Army in the United States.<sup>55</sup> Although administered by Canadian soldiers and supplied by the Canadian army, the camp was essentially a semi-autonomous entity within the Canadian military. Between September 1917 and the end of the war, more than 22,000 Polish recruits (99% of whom were from the United States) were trained at Niagara-on-the-Lake and sent to France to serve in the French army.<sup>56</sup> Because the camp recruited almost exclusively in the United States, it is not surprising that the virus appears to have arrived in the camp with American recruits on 13 September 1918.<sup>57</sup> Over the next several months, hundreds of soldiers fell ill and, out of a total strength of 2,500 men, 24 soldiers died.

The disease also struck on the same day in Victoriaville, Quebec, a small town east of Montreal in the heart of the Eastern Townships. Again, it is most likely that the disease arrived in the town with visitors from the United States who were attending a Eucharistic Congress. *Le Devoir* reported on 13 September 1918 that "les grandes fêtes du Congrès Eucharistique sont commencés depuis hier soir et tout fait présager que ces fêtes seront belles à tous les points de vue." 58

Both the first cases and the first fatalities of Spanish Flu in the town were recorded among the priests and students at a Victoriaville boys' boarding

<sup>54</sup> It has been suggested elsewhere that the RAF training base at Hamilton Ontario was the first place to be infected with influenza in Canada. This is largely based on a memo written by the Officer Commanding Brant Military Hospital on 30 September 1918 (LAC, RG 24, Vol 4270, File 15-2-73, Volume 1) which in Part reads, "During the night of Thursday Aug. 26th, we received at the Hamilton Military Hospital seven cases of influenza that had suddenly developed in the RAF Armament School, Hamilton, where they have about 600 men on their strength." However, the letter is an urgent plea for help and it is clear from the subsequent paragraphs that "Aug. 26" is typographical error and that "Sept. 26" was the date intended by the officer. This is borne out by the War diary for Military District 2 which records the out break in the last week of September and makes no mention of the disease in August 1918 (LAC, RG 9, Vol 5059, Part 1). As well, the 26 August 1918 was a Monday and the 26 of September 1918 was a Thursday.

<sup>55</sup> Telegram: Department of Militia and Defence to General Officer Commanding Camp Borden Ontario (Military District 8), 22 September 1917. LAC, RG 24, Vol 4401, File 34-7-215. The only account in the historiography that examines the creation of a Polish Army in Canada is M.B. Biskupski, "Canada and the Creation of a Polish Army, 1914-1918," *The Polish Review XLIV* (3): 339-380.

<sup>56</sup> Report: Lt. Col. A.T. LePan, Commandant, Polish Army Camp, Niagara-on-the-Lake to the Chief of the General Staff, Department of Militia and Defence, 22 March 1919. LAC, RG 24, Vol 1883A, File: Polish Army Camp.

<sup>57</sup> Ibid

<sup>58</sup> Unnamed Correspondent, "Au Congres de Victoriaville," Le Devior, 13 September 1918, 1.

school, le Collège Sacré Coeur, only hours after the end of the Eucharistic Congress on 16 September 1918.<sup>59</sup> As *Le Devoir* reported, the school had played a key role in the Congress: "à huit heurs a eut lieu la messe d'exposition de Saint-Sacrement, et à 10 heurs eut lieu, à l'Académie, la messe pontificale, chantée par Sa Grandeur Mgr. Brunault." The seminary in neighbouring Nicolet was also hit hard by the pandemic after it participated in the Congress. By 25 September *L'Acadien* reported that the seminary students, as well as nuns at the neighbouring Catholic convent, were under quarantine. Given that the college, the convent, and seminary had all actively participated in the Eucharistic Congress, it would appear that the disease spread outward from this location. It would also seem most likely that the disease came north from the United States with American Catholic parishioners and clergy who visited the Congress.

The Congress, which began on 12 September and ended on 16 September, attracted more than 25,000 people to the small town.<sup>63</sup> While it is impossible to definitively trace where these visitors came from, newspaper articles offer some clues. *Le Devoir* reported "Tout les paroissiens de la ville et un grand nombre d'étrangers assistaient à cette messe."<sup>64</sup> While the exact meaning of "étrangers" is unclear (the word can be alternately defined as "foreigners" or "outsiders"), the phrase may indicate that visitors came from international destinations, which in this case, would likely have meant the United States. This would appear probable as in 1910 several dozen American priests and bishops attended the Eucharistic Congress held in Montreal, a number that does not include any lay attendees who might have been part of the American delegation.<sup>65</sup> Likewise, Quebec bishops and priests often travelled to the United States to attend important Catholic events, even during the 1918 influenza pandemic.<sup>66</sup>

On 20 September 1918, the first Canadian soldiers began to contract the disease. At the Station Hospital in St. Jean Quebec, soldiers from the local engi-

<sup>59</sup> L'Action Catholique, 24 Septembre 1918, 1.

<sup>60</sup> Unnamed Correspondent, "Au Congres de Victoriaville," Le Devior, 13 September 1918, 1. While the term "académie" is ambiguous in that it could refer to a variety of educational institutions, the familiar usage of the word implies that readers would be able to identify the institution. As le College Sacrée Coeur was the only sizable Catholic educational institution in the city it is logical to assume that this is the "académie" to which the article refers.

<sup>61 &</sup>quot;Les Fetes de Victoriaville," Le Devoir, 16 September 1918, 1.

<sup>62 &</sup>quot;La Grippe Espagnole," L'Acadien, 1 October 1918, 1.

<sup>63 &</sup>quot;Les Fetes de Victoriaville," Le Devoir, 16 September 1918, 1

<sup>64 &</sup>quot;Au Congres de Victoriaville," Le Devior, 13 September 1918, 1.

J. Castell Hopkins, The Canadian Annual Review of Public Affairs, 1910 (n.p.: Toronto, 1911), pp 351-358.

<sup>66</sup> Cardinal Bégin, the archbishop of Quebec, attended both the Eucharistic Congress at Victoriaville and, a few days later, the funeral of Cardinal Farley of New York state. "Final Honours Today to Cardinal Farely," *New York Times*, 24 September 1918, 13.

neers depot began reporting sick with the flu.<sup>67</sup> The Assistant Director of Medical Services (ADMS) for Military District 4 (Montreal), Lieutenant-Colonel F.S. Patch recorded in the district war diary that the "epidemic [was] probably brought to St. Johns [sic] by recruits from the United States, probably Boston, where the epidemic [was] raging."<sup>68</sup> By 25 September 1918 the disease also began to appear in Montreal.<sup>69</sup>

The last locus of infection was Sydney, Nova Scotia. On 20 September 1918 an American Transport, the *SS Nestor*, which sailed from New Jersey on 17 September 1918 carrying American soldiers to France, <sup>70</sup> arrived in Sydney and anchored around noon. While no cases of influenza were reported when the vessel weighed anchor at Hoboken, three days later over 150 men were severely ill with the disease and it was deemed necessary to put them ashore. <sup>71</sup> Due to rough seas, however, the disembarkation was delayed until 22 September 1918, <sup>72</sup> by which time the number of sick had grown to more than 500<sup>73</sup> necessitating that all 660 soldiers be removed from the ship. <sup>74</sup> These soldiers, who were admitted to the Moxham-Ross Military Hospital in Sydney, overwhelmed the small facility, forcing authorities in Halifax to begin intense efforts to ship supplies and supporting personnel to the small mining community. <sup>75</sup>

From this evidence, it appears that influenza spread to Canada from the United States during the last weeks of September 1918. While the disease and the military had a significant relationship, it was different than is often thought. At Niagara-on-the-Lake, St. Jean, and Sydney, influenza had arrived in Canada with American military recruits on their way to support the allied offensive in Europe. While the disease would have arrived in Canada at sometime in 1918, troop movements designed to further the war effort determined both the chronology and locations of infection. Once pandemic influenza entered the country, the war effort continued to determine the course taken by the disease. Indeed, the mobilization of the Siberian Expeditionary Force (SEF) was the greatest single factor in the diffusion of the disease.

<sup>67</sup> War Diary, Assistant Director of Medical Services, Military District 4 (Montreal), 20 September 1918. LAC, RG 9, Vol 5061, File 976, Part 1.

<sup>68</sup> Ibid, 21 September 1918.

<sup>69</sup> Ibid, 25-26 September 1918.

<sup>70</sup> Memo: From the port of E. Hoboken, New Jersey, United States of American to Chief of E.S. (?) "Cross Reference Record", 23 September 1918, National Archives and Records Administration (NARA), Washington, DC, RG 92, Entry 2023.

<sup>71</sup> Report: Lt. Col. Edward A Pitzka, Chief Surgeon SS Nestor, 2 October 1918. NARA, RG 92, Entry 2023.

<sup>72</sup> War Diary, Assistant Director of Medical Services Military District 6 (Halifax), 22 September 1918. LAC, RG 9, Vol 5062, File 978, Part 3.

<sup>73</sup> Ibid

<sup>74</sup> Report: Lt. Col. Edward A Pitzka

<sup>75</sup> Ibid.

When civil war had erupted in Russia in 1917, the Allied powers supported the "White" Russian forces (those forces loyal to Tsar Nicholas II) in the hope that an eastern front could again be established against Germany and to try to prevent Russian supplies from falling into the hands of Germany. While the United States and Britain supplied significant numbers of troops, Canada was also asked to furnish an expeditionary force of 2,700 men. Accordingly, on 12 August 1918, it was decided that two battalions of infantry, a field artillery brigade, a machine gun company, and ancillary troops would be sent to Siberia. These troops began assembling in various areas across the country in the last weeks of August and first weeks of September 1918. Ultimately, these troops were intended to converge at Vancouver, BC where they would be shipped across the Pacific, first to Japan and then on to Russia.

Soldiers for the SEF were drawn from all parts of the country, including areas already infected with "Spanish Flu." On the morning of 27 September 1918 recruits for the SEF at Sussex Camp, New Brunswick began their journey to Vancouver where they were to board the *Empress of Japan* for the voyage to Russia. On the very day they departed, the first cases of influenza were reported at Sussex Camp. Before the train reached Montreal the first cases of influenza developed on board forcing authorities to remove Pte. R.E. Hickie and Pte. F.E. Vincent, who were severely ill, to hospitals in Montreal. At the same time, elsewhere in the city, 42 soldiers (mostly medical personnel) boarded what was most likely the same train to join the SEF on their journey westwards despite the fact that they had been in contact with flu victims. This was the beginning of what would become a pattern.

As soldiers travelling west from points east of Vancouver became sick *en route*, they were removed from troop trains along the way and deposited in local hospitals. This same scenario was played out repeatedly across the west. In Winnipeg, sick soldiers coming from eastern Canada (quite likely from Sussex Camp in New Brunswick) were transferred from SEF troop trains to a local military hospital on 28 September 1918.<sup>82</sup> The next night "C" Company

<sup>76</sup> Nicholson, 490.

<sup>77</sup> Ibid.

<sup>78</sup> Telegram: GOC Military District 7 (St. John) to Quartermaster General, Ottawa, 26 September 1918. LAC, RG 24, Vol 4574, File 3-9-47, Volume 2.

<sup>79</sup> War Diary, Assistant Director of Medical Services Military District 7 (St. John), 28 September 1918. LAC, RG 9, Vol 5063, File 978, Part 1.

<sup>80</sup> Memo: District Records Officer Military District 4 to District Records Officer MILITARY DISTRICT 7, 7 November 1918. LAC, RG 24, Vol 4574, File 3-9-47, Volume 1; Note: to Assistant Director of Medical Services Military District 7 from (District Records Officer), 27 November 1918. LAC, RG 9, Vol 4574, File 3-9-47, Volume 1.

<sup>81</sup> War Diary, Assistant Director of Medical Services Military District 4, 29 September 1918. LAC, RG 9, Vol 5061, File 976, Part 1.

<sup>82</sup> Letter: Acting Provost Marshall Military District 10 (Winnipeg) to the District Casualty Officer Military District 10, undated. LAC, RG 24, Vol 4607, File MD10-20-102, Volume 1.

of the 260th Battalion (Canadian Rifles, Siberia) entrained at Regina. When the train left at 11:45 pm both the District Quartermaster and the commander of the Saskatchewan SEF draft recorded that the soldiers entrained without incident and without any apparent illness. However, by 4:00 am the next morning, when the train reached Calgary, 12 soldiers were taken off and admitted to an "Isolation Hospital", dangerously sick with the flu. Accordingly, the ADMS of Military District 11 (Victoria) received a wire that influenza was prevalent on board the troop train that would soon arrive in his district. Home "C" Company arrived in Vancouver on 2 October 1918, it brought with it the first cases of influenza to the west coast. However, While influenza would have inevitably and unquestionably spread west, the Canadian Military exacerbated the problem so that the disease erupted in Vancouver before it hit many of the major population centres in eastern Canada.

This evidence points to a subtle but important distinction: the soldiers who spread the disease west were not injured soldiers returning home from the muddy battlefields of Europe but were new recruits bound for a new front in Asia. This is significant because soldiers only returned home when wars ended or when they could no longer be of service to the war effort. Instead, the physical path that the disease took in Canada was a direct consequence of the widening of Canada's commitment to the Great War. Like an invading army ravaging a foreign country, recruits from the SEF spread disease to the towns they passed through on their way west. Rather than bringing the horror of the trenches home from the war through a random dispersal of returning soldiers, the mobilization of the SEF defined the physical path taken by disease. Obviously, the disease was not deliberately spread by the Canadian military, but the movements of the soldiers were intentional, calculated movements designed

<sup>83</sup> War Diary, Assistant Adjutant General and Quartermaster General Military District 12 (Regina), 29 September 1918. LAC, RG 9, Vol 5065, File 988; War Diary, 1st Depot Battalion Saskatchewan Regiment, 29 September 1918. LAC, RG 9, Vol 5065, File 988. The Assistant Director of Medical Services, Military District 12 makes no mention of illness amongst the troops in his war diary either.

<sup>84</sup> Telegram 78: Assistant Director of Medical Services Military District 12 (Calgary) to Director General Medical Services, Ottawa, 2 October 1918. LAC, RG 24, Vol 1992, File HW 762-11-15.

<sup>85</sup> War Diary, Assistant Adjutant General in charge of administration Military District 11 (Victoria), 1 October 1918. LAC, RG 9, Vol 5065, File 990, Part 1.

<sup>86</sup> The Assistant Director of Medical Services for Military District 11 explicitly states: "First case of Spanish influenza appeared in district in advance company of Siberian Expeditionary Force. Hospital opened this date at Coquitlum for this type of case." War Dairy, Assistant Director of Medical Services Military District 11 (Victoria), 3 October 1918. LAC, RG 9, Vol 5065, File 990, Part 1.

<sup>87</sup> For example, influenza didn't strike Halifax until later in the first week of October 1918 or London until the day after it arrived in Vancouver. Even as the disease reached Vancouver, Toronto was still relatively free from infection.

to further the war effort. As the disease took its course, however, some military officials began to take actions that went against the directives of local public health officials and the conventional understanding of influenza at the time.

Conventional wisdom as to the nature of the illness was divided in 1918. Some doctors believed that the disease was caused by *Pfeiffer's Bacillus*, a bacterium that had been found during the 1891 pandemic of influenza.<sup>88</sup> On the other hand, some doubted that bacteria was responsible at all and that any bacterial infections that occurred with influenza were merely secondary to the actual influenza infection which they thought may have been caused by a yet undiscovered viral agent.<sup>89</sup> There was greater consensus among doctors, however, in so far as the treatment and prevention of influenza was concerned.

Schools and theatres in almost every community in Canada were closed for the duration of the pandemic. <sup>90</sup> In Montreal, churches were closed for several weeks in October. <sup>91</sup> In the rest of the province of Quebec, the number of hours a business could operate each day were reduced and all public gatherings were banned. <sup>92</sup> In Ottawa all sports and social gatherings, including the annual Ottawa-McGill football game, were cancelled. <sup>93</sup> In Toronto, hotels were expropriated for use as hospitals, which meant that carpets and beds were ripped out and burned to stop the spread of the disease, <sup>94</sup> and despite the cold autumn temperatures, the windows of all streetcars were locked open so as to air out the cars. In Winnipeg, the University was closed, and public gatherings of any kind were banned. A fifty dollar fine was levied against anyone caught spitting on the streets of Winnipeg, and at railway stations across the province, citizens were not allowed to approach passenger trains for fear that the disease would travel along the rail lines to other communities. <sup>95</sup> In Alberta, it was made a criminal offence to walk outdoors without wearing a gauze mask. <sup>96</sup>

The consensus among doctors was that quarantine, vaccination, and the use of gauze masks were the best ways to combat the spread of the disease and these methods were adopted during the epidemic in nearly every city. 97 Within

<sup>88 &</sup>quot;Bacteriology of the 'Spanish Influenza,' The Lancet 10 August 1918, 177.

<sup>89</sup> A Geoffrey Shera, "The influenza Epidemic of spring 1915: With special Reference to Anomalous Throat Signs" *The Lancet* 29 March 1917, 452.

<sup>90</sup> See *The Globe* (Toronto), 2 October 1918, 5; *The Globe* (Toronto), 14 October 1918, 3; *Montreal Star*, 26 September 1918, 1.

<sup>91</sup> Ibid

<sup>92</sup> See Pettigrew, 15-16.

<sup>93</sup> The Globe, 14 October 1918.

<sup>94</sup> Pettigrew, 15-16.

<sup>95</sup> Ibid.

<sup>96</sup> The best description of the methods used to combat the spread of the disease (some sound and some not so sound) can be found in Pettigrew, 15-18.

<sup>97</sup> See Manitoba Free Press, 25 September 1918, 1; Montreal Star, 27 September 1918, 1; the Perth Courier, 11 October 1918, p 7; Vancouver Daily Sun, 7 October 1918, 1; Edmonton Journal, 4 October 1918, 1.

the Canadian military similar measures were employed. Canadian doctors serving in England, began issuing policy directives relating to influenza that echoed those measures put in place by their civilian counterparts in Canada. A bulletin issued by the Assistant Director of Medical Services, England, suggested that spitting be prohibited, that smoking in huts be eliminated, that men be encouraged to report sick as soon as they felt slightly ill to avoid contact cases, that any hut in which influenza occurred be guarantined, and that daily temperature parades be used to detect any men with fevers who failed to report to camp hospitals.<sup>98</sup> In many parts of Canada local military officials began to take similar action soon after the epidemic began. In Niagara-on-the-Lake, the use of gauze masks by all patients who were even suspected of having influenza was impressed upon medical officers<sup>99</sup> and the importance of quarantine was emphasized. 100 The General Officer Commanding instructed that all suspect cases be isolated along with contacts. All leave was cancelled and all soldiers transferring into the district were required to undergo a period of quarantine. 101 The Globe even reported on 12 October 1918 that the "Academy of Medicine, Medical Officers of Health and Military [are] in Accord on Measures [to be] Taken" and that they had agreed to work together in combating the disease. 102 It is clear that many military and civilian officials agreed on the methods required to combat the disease. However, cooperation between the military and their civilian counterparts was far from standard practice and some officials treated public health and the war effort as oppositional concerns.

The war effort included more than the accumulation and movement of troops. During the First World War, Canadian industry, agriculture and society were almost entirely geared towards winning the war. Citizen-run patriotic organizations assisted in recruiting and fund raising while the government continued to fund the conflict through the sale of war bonds. In the autumn of 1918,

<sup>98</sup> Circular Letter 15: Assistant Director of Medical Services Canadian Headquarters, Bramshott to All Medical Officers and Medical Units, 4 October 1918. LAC, RG 9, Vol 1776, File D-7-14, Volume 1 2. This circular is typical of instructions issued to medical officers serving in Europe. For other such statements of policy see Memo: "Influenza", Witly Camp, 22 June 1918. LAC, RG 9, Vol 1776, File D-6-14, Volume 1; Memo: "Epidemic of Influenza 15th Reserve Battalion" Assistant Director of Medical Services Bramshott, 1 October 1918. LAC, RG 9, Vol 1776, File D-7-14, Volume 2. Especially Circular Letter 26: "Details to Canada and Influenza Precautions", Director General Medical Services, England, 13 November 1918. LAC, RG 9, Vol 1776, File D-7-14, Volume 2.

<sup>99</sup> Memo: Assistant Director of Medical Services Military District 2 to OC Polish Camp Hospital, 6 October 1918. LAC, RG 24, C 4270, File 15-2-73, Volume 1.

<sup>100</sup> Memo: AAG to Assistant Director of Medical Services Military District 2, 7 October 1918. LAC, RG 24, Vol 4270, File 15-2-73, Volume 1.

<sup>101</sup> Ibid

<sup>102</sup> The Globe 12 October 1918, 8.

however, the activities that sustained the war effort came into sharp conflict with the interests of public health.  $^{103}$ 

On the night of 1 October 1918 in the city of Winnipeg, the doctor in charge of the Manitoba Military Hospital furnished patients with free tickets for a public lecture titled "the Fighting Sixth Battalion in France" in a public auditorium in the heart of the city. Streetcar transportation was arranged for the event. 104 This step was undertaken despite warnings from public health officials to avoid public gatherings and despite the likelihood that these patients had been in contact with some of the flu victims taken off the SEF troop trains several days before. Such lectures were, however, important "morale boosters" for the home front and the presence of wounded veterans who had served in France would surely have added to the patriotic lure of the event. Likewise, on 5 October, again in Winnipeg, one hundred patients of the Manitoba Military Hospital were taken on an "outing" to the town of Selkirk where they "were met by the Mayor and other prominent citizens." 105 By this time the disease was beginning to become endemic in the city and would, in all probability, have already made serious in-roads at the military hospital. But again, the hospital authorities seemed to believe that the benefits of an outing to a public, patriotic event outweighed the potential risks. Even if "day trips" were deemed an indispensable part of hospital treatment, these trips did not have to include participation in public events. Indeed, the director of the military hospital was aware that such gatherings could be dangerous. The director of the military hospital recorded on 13 October:

Complying with the proclamation of the city and Provincial Health Department, and on Command of the General Officer Commanding, MD 10, that no gatherings of a public nature be held, as a preventative of the spreading of influenza, known as Spanish influenza throughout the City, no church service was held at Tuxedo [military hospital] today. 106

Only four days later, however, a public, patriotic concert was given by the "Winnipeg Entertainers" in the hospital. <sup>107</sup> Again, the war effort, or activities that were seen to foster support for it, went on regardless of official or unofficial concerns about public health. This was, in many ways, typical of the actions of the Canadian military during the pandemic.

<sup>103</sup> See Desmond Morton, Fight or Pay: Soldier's Families in the Great War (Vancouver: UBC Press, 2004).

<sup>104</sup> War Diary, Manitoba Military Hospital, Military District 10, 1 October 1918. LAC, RG 9, Vol 5065, File 988.

<sup>105</sup> Ibid, 5 October 1918.

<sup>106</sup> Ibid, 13 October 1918.

<sup>107</sup> Ibid. 17 October 1918.

In Montreal, with the epidemic in full swing, one hundred and two enlisted men and four officers were dispatched from barracks to the city of Montreal proper in order to assist the local officials responsible for administering the Military Service Act (conscription) in searching door to door for "slackers" who had failed to report for duty when drafted under the Military Services Act (Conscription Act). 108 This highly visible action was taken after health authorities banned public religious services and closed schools in the city in an effort to contain the outbreak of the disease. In a similar display, 33 soldiers from the engineers depot at St. Jean, Quebec were transferred to the city of Montreal in the middle of October to act as an honour guard in the funeral of the Lieutenant Governor of Quebec. 109 This transfer occurred despite the fact that many of these soldiers would have likely been exposed to influenza at St. Jean, a barracks which, by order of the Assistant Director of Medical Services for the district, was under quarantine. 110 While there is no explanation in the documents to suggest why it was deemed necessary to use soldiers from an infected barracks for the ceremony, it would again appear that the military put its own concerns ahead of public health. 111 Indeed, it was in Quebec that the conflict between local officials and the Canadian military came to a head.

On 31 October 1918 the Government of Quebec passed a resolution which read:

Whereas the transport of conscripts is the cause of the dissemination of influenza and is also dangerous to the conscripts themselves as well as to the localities to which why are taken. The Central Board of Health demands that no transport of conscripts shall be made during the prevalent epidemic. This to include absentees without leave. 112

While the political motivations of the anti-conscription Quebec government might have been obvious, they forced the Canadian military to confront the issue of public health jurisdiction head on. The General Officers Commanding both Military Districts 4 and 5 (Montreal and Quebec City) refused to comply with the government's orders and suggested that the provincial government did not have the authority to make such a resolution enforceable under Canadian

<sup>108</sup> War Diary, 4th Battalion Canadian Garrison Regiment, Military District 4, 9 October 1918. LAC, RG 9, Vol 5061, File 976, Part 1.

<sup>109</sup> War Diary, Assistant Adjutant General, Military District 4, 21 October 1918. LAC, RG 9, Vol 5061, File 976, Part 1.

<sup>110</sup> Ibid.

<sup>111</sup> Indeed, the military in Montreal continued to provide "firing Parties" for funerals throughout the pandemic despite bans on public gatherings and the possibility of spreading infection to civilians and visa versa.

<sup>112</sup> Letter: Deputy Minister of Militia and Defence to Deputy Minister of Department of Justice, 31 October 1918. LAC, RG 13, Vol 1939, File 2362-1918.

law. Consequently, the matter was forwarded to the office of the Deputy Minister of Militia and Defence who promptly turned to the Ministry of Justice for advice. The Deputy Minister of Justice confirmed on 5 November 1918 that the provincial government did not have the authority to enforce such a resolution. Even if this decision was made to thwart a policy of the Quebec Government that was designed to circumvent the Military Service Act, the Deputy Minister placed the interests of the military ahead of concerns for public health.

The fact that the war effort would take precedence over public health is perhaps not surprising. After all, the objective of the Canadian military was to win the war, not regulate the spread of infectious disease. However the conflict between the war effort and public health is significant. It not only highlighted the absence of a federal department of health, but it also illustrated the degree to which Canadian society was militarized in 1918. In many ways, the Canadians who died as a result of the pandemic were just as much victims of the war as of infectious disease. While influenza would have inevitably ravaged Canada just as it did other countries that were not even involved in the war, both the chronology and physical path of the pandemic were largely determined by decisions made by the Canadian military that were designed to further the war effort.

During the summer of 1918, the need to maximize the transfer of new men to Europe helped to ensure that, if pandemic influenza was endemic in Europe, that it was not transferred back to Canada. In the autumn, however, the shipment of soldiers overseas brought the disease into Canada from the United States. As Canada widened the war effort to include an expeditionary force to Siberia, the disease was spread across Canada. When the disease became endemic, again military concerns took precedence over those of local and regional officials.

The tendency of historians to write about the pandemic as a disease that was the manifestation of all that was horrible, painful, and disturbing about the trenches of the First World War has obscured the conflict between public health and the war effort. In the traditional interpretation, the soldiers are seen to have brought the war home with them when they returned from the battlefields of Europe. However, the disease was not spread to Canada in the summer of 1918 by soldiers returning from the trenches who had no choice but to go home once the conflict was over. Instead, it was spread by the military policy itself as Canada tried to extend the war effort by mobilizing a new force to fight in Russia. In this way the physical path traced by the disease was determined by the widening of the war effort, not by its waning. The pandemic thus was less

<sup>113</sup> Letter: Deputy Minister of Justice to Deputy Minister of Militia and Defence, 5 November 1918. LAC, RG 13, Vol 1939, File 2362-1918.

a symbol of the horror of the trenches than it was a reminder of the degree to which the Great War was a total war where the casualties of deliberate military action could mount even on the home front.

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