SPANISH FLU KILLED NEARLY AS MANY CANADIAN AS WORLD WAR ONE. WHAT ARE LESSONS FROM THE WORLDWIDE PANDEMIC?

"It killed nearly as many Canadians as the First World War did," said Janice Dickin, professor emeritus at the University of Calgary. "But when you start looking at histories of the country, they will go on and on and tell you about what happened in the war, but you get one line for the flu epidemic."

CBC News Calgary

"I had a little bird ... Its name was Enza ... I opened up the window ... And in-flu-enza!" Children's Rhyme During the Spanish Flu of 1918 to 1920

What were the symptoms?

"It starts with what appears to be an ordinary attack of la grippe. (the nick name given to the Spanish flu) When brought to the hospital, [patients] very rapidly develop the most vicious type of pneumonia that has ever been seen. Two hours after admission, they have mahogany spots over the cheek bones, and a few hours later you can begin to see the cyanosis [blueness due to lack of oxygen] extending from their ears and spreading all over the face. It is only a matter of a few hours then until death comes and it is simply a struggle for air until they suffocate. It is horrible."

Letter dated 29 September 1918 to the *British Medical Journal* from Professor Roy Grist of Glasgow.

What was the Spanish Flu (1918-1919)?

The 1918 influenza pandemic (January 1918 – December 1920; colloquially known as Spanish flu) was an unusually deadly influenza pandemic, the first of the two pandemics involving H1N1 influenza virus. It infected 500 million people around the world, including people on remote Pacific islands and in the Arctic, and resulted in the deaths of 50 to 100 million (three to five percent of the world's population), making it one of the deadliest natural disasters in human history.

Infectious disease already limited life expectancy in the early 20th century. But in the first year of the pandemic, life expectancy in the United States dropped by about 12 years. Most influenza outbreaks disproportionately kill juvenile, elderly, or already weakened patients; in contrast, the 1918 pandemic predominantly killed previously healthy young adults.

Scientists offer several possible explanations for the high mortality rate of the 1918 influenza pandemic. Some research suggests that the specific variant of the virus had an unusually aggressive nature. One group of researchers recovered the virus from the bodies of frozen victims and found that transfection in animals caused a rapidly progressive respiratory failure

and death through a cytokine storm (overreaction of the body's immune system). It was postulated that the strong immune reactions of young adults ravaged the body, whereas the weaker immune systems of children and middle-aged adults resulted in fewer deaths among those groups.

More recent investigations, based mainly on original medical reports from the period of the pandemic, found that the viral infection itself was not more aggressive than any previous influenza, but that the special circumstances of the epidemic (malnourishment, overcrowded medical camps and hospitals, poor hygiene) promoted bacterial super infection that killed most of the victims, typically after a somewhat prolonged death bed.

https://co-curate.ncl.ac.uk/spanish-flu-1918-1919/

Exhibit 1 - Chronology of The Spanish Flu In Canada -1918-1920

Date	Description of The Event
Mid-1917	Reports emerge of a flu-like illness circulating amongst the troops
	stationed in Europe. (two historical hypothesis—it came out of China
	with mobilization of labourers recruited to work behind the British
	and French lines vs. it had been circulating amongst the troops for
	months)
Early 1918	Canadian and other troops fighting in the First World War are
	ravaged by a new disease. Doctors are fronted by a lethal flu strain
	never known before that strikes and spreads quickly
March 1918	Canadian military and government representatives meet to plan
	facilities for expected soldier victims of what is now recognized as a
	pandemic
March 11, 1918	Flu sweeps through congested U.S. army camps, leaving many dead.
	There are heavy civilian victims in Boston and other cities
September	Infected returning soldiers land at Quebec City bringing flu to Canada.
1918	
September 23,	300 students contract the Spanish flu in Victoriaville. Within days,
1918	thousands are sick and dying in Montreal and other Quebec
	communities.
Late September	The disease spreads rapidly into the Maritime provinces, Ontario and
	the West
September 26	Victoria's medical health officer, Dr. Arthur G. Price publishes warning
	about the imminent approach of the Spanish flu
October 2	The Spanish flu reaches Victoria with the Siberian Expeditionary
	Force.
October 6	First death in Victoria reported. Victoria and Vancouver hospitals are
	swamped, the latter by many sick coming from nearby communities
	that have no medical facilities. Grave diggers are in short supply.
October 8	Order-in-Council (decision of BC Government) prohibiting public
	gatherings in BC, closes all places of public gatherings
October 18	Vancouver's medical health officer, Dr. Frederick Underhill, orders
	schools and entertainment centres closed, Victoria made the same orders earlier.
	In both cities commercial and industrial plants remain open.
	Civic leaders make urgent plans for volunteers to help nurse the sick
	and dying. Vancouver victims (sick and dead), now number in the
	several thousands.

October 27	Vancouver's worst day, 24 dead within 24 hours; flu ravaging coastal		
	and interior communities		
November 11	People forget worries about the flu and, against earlier public orders,		
	flock into the streets to celebrate the end of World War One.		
November 19	Dr. Underhill orders city reopened as flu begins to abate. Victoria		
	follows suit.		
Early 1919	BC Chief Medical Officer, Dr. Henry Young, says records are		
	incomplete and, at times inaccurate, but estimates the Spanish flu		
	pandemic of 1918 & early 1919 took the lives of some 4,400* British		
	Columbians. *Number appears to be a blend of indigenous and non-		
	indigenous,		
January, 1919	A second spike in cases in deaths		
January 20,	Legal requirement to report all influenza cases		
1919			
February 1920	A third spike of flu begins		

Source: A timeline for the Spanish Flu in British Columbia; from O'Keefe, Betty, and Ian Macdonald. **Dr. Fred and the Spanish Lady: Fighting the Killer Flu.** Surrey, BC: Heritage House, 200. pp21-22

Reading #1



Library and Archives Canada / PA-025025)

The Spanish Flu in Canada (1918-1920)

The virulent Spanish flu, a devastating and previously unknown form of influenza, struck Canada hard between 1918 and 1920. This international pandemic killed approximately 55,000 people in Canada, most of whom were young adults between the ages of 20 and 40. These deaths compounded the impact of the more than 60,000 Canadians killed in service during the First World War (1914-18). Inadequate quarantine measures, powerlessness against the illness, and a lack of coordinated efforts from health authorities led to insurmountable chaos. Countless nurses, volunteers, and members of charitable organizations risked their lives to ensure that a large number of the ill and their families survived. The Spanish flu was a significant event in the evolution of public health in Canada. It resulted in the creation of the federal Department of Health in 1919, which established a partnership between the various levels of government and made public health a joint responsibility in which the state played a prominent role.

With no vaccine or effective treatment, this devastating pandemic affected every inhabited region in the world, including Canada. It came in multiple waves. The first wave took place in the spring of 1918, then in the fall of 1918, a mutation of the influenza virus produced an extremely contagious, virulent, and deadly form of the disease. This second wave caused 90% of the deaths that occurred during the pandemic. Subsequent waves took place in the spring of 1919 and the spring of 1920. The deaths, estimated at between 50 and 100 million, claimed the lives of somewhere between 2.5 and 5% of the global population. Most of the victims were in the prime of their lives.

In Canada, the disease arrived at the port cities of Québec City, Montréal, and Halifax, then spread westward across the country. The intensification of the war effort in the final year of the war was instrumental in the transmission of the disease, as troops travelling from east to west by train, mobilized to participate in the war in Siberia, brought the virus westward with them. Maritime quarantines, which had stopped infectious diseases from entering Canada in the 19th century, did not prevent the spread of the virus as the infected were travelling within the country, where no quarantine measures had been developed. Municipal and provincial authorities tried to save lives by prohibiting public gatherings and by isolating the sick, but these provisions had little effect. As the rates of infection grew, the number of healthy workers declined. Before long, the Canadian economy was paralyzed. Health care professionals were perhaps the hardest hit. Ultimately, it was volunteers, nurses, paramedics, and members of religious communities who, risking their own lives, visited those who were ill and their families to deliver modest health care and the supplies needed to survive.

Criticized for failing to provide resources and coordination to public health authorities across the country, the federal government responded to the crisis by founding the Department of Health in 1919. From then on, public health was a responsibility shared by all levels of government.

https://cpha.ca/sites/default/files/assets/history/book/history-book-print all e.pdf



Vancouver Sun, 17 October 1918, 3.

Reading #2

Adams, Simon. "War and The Spanish Flu". <u>Legion, Canada's Military Magazine</u> September 28, 2018.

Excerpt --

The second wave of the Spanish flu spread across the country while the bulk of Canada's military was fighting in the Hundred Days Offensive. The first contingent of the Siberian Expeditionary Force (SEF) took it with them when they left Camp Sussex in New Brunswick on Sept. 27, heading to help oppose the Bolshevik revolution in Russia.

Since the flu is contagious before symptoms appear, some men aboard the train were already ill. The first sick men were offloaded for hospitals in Montreal, where new recruits and military

medical personnel who had been treating flu victims came aboard. In Winnipeg, more sick soldiers were quarantined and transferred to a local military hospital. Healthy troops boarded in Regina on Sept. 29, but when the train reached Calgary, a dozen sick soldiers were sent to hospital. The SEF—and the flu—arrived in Vancouver on Oct. 2.

By October, the disease was spreading across the country as if carried by the wind. It struck swiftly and it struck hard. About 1,000 Canadians a day were dying. It ravaged communities, killed entire families. Some people died within hours of the first symptoms. Children in isolated farms and remote communities died because no adult survived to care for them. The outbreak seemed to be everywhere all at once, and it moved so rapidly that local health officials had no time to prepare. There was no co-ordinated national approach.

In pre-antibiotic times, quarantine limited spread of the disease. Provinces and municipalities ordered isolation of the sick, closure of schools, businesses and churches, and banned large public gatherings. Even the sixth game of the 1919 Stanley Cup playoff final series was cancelled. In Alberta, residents and visitors were prohibited from entering or leaving quarantined towns. Large public gatherings were banned in many cities, and people were ordered to wear face masks in public.

But those public health measures were undermined by lack of enforcement, particularly for the military.

Public health played second fiddle to the war effort. Recruitment and enlistment continued, as did troop transport, continually re-introducing the virus to camps and hospitals. Convalescing troops were sent on day trips, entertainment brought in to boost morale, visitors allowed into quarantined barracks and hospitals. The military successfully argued that provincial governments did not have the authority to suspend transportation of conscripts. In Montreal, an honour guard was provided for a funeral, although the men had been exposed to infected barracks.

But individual military personnel recognized their role in spreading the disease. When Siberia-bound troops were transported across Canada from Toronto in mid-October, 75 were sent to hospital. "That was in the middle of that awful influenza epidemic, which we brought with us from the East," said Captain Eric Elkington, a doctor.

Some soldiers blamed themselves. "I got the Spanish influenza," recruit Jesse Brinson of Western Arm, N.L., said in a Heroes Remember video, one of a series produced by Veterans Affairs Canada. "I wrote a letter, had no better sense... [and sent] the disease right in the family to take the whole lot of them out the one day, never give it a thought. I wrote father and told him I was in a military hospital... [where] there was...a soldier buried every day for eight days."

The public soon noted the connection between spread of the flu and troop movements and chafed against wartime censorship that prevented full reporting of the epidemic. Despite this criticism, conscription and the hunt for draft dodgers continued in the fall.

"Public indignation reached a high point when it appeared that the health of individual soldiers and the civilian population was being sacrificed without any apparent military necessity," writes Humphries. Frank Oliver of the Edmonton Bulletin blamed "criminal negligence of the military authorities" for spreading the disease. "Every facility for the spread of the infection is present, and as well every cause by which its virulence can be increased. No wonder the military authorities refuse to allow information to be given out as to the number of deaths which have taken place.

"The military authorities seem to take the view that the way to deal with a virulent epidemic is to ignore its existence, and if they can keep the facts from getting into the papers, all is well. The deaths of a few common soldiers—draftees—is neither here nor there."

Calgary newspaperman William Irvine blamed the federal government: "Where was the Order-in-Council prohibiting all travel until such time as the plague subsided?

The realization dawned that the country needed national co-ordination of policies and procedures, leading to the establishment of the federal Department of Health in 1919

How Many People Died?

Exhibit 2 - Death Rates From the Spanish Flu For Select Canadian Provinces and Select Sub-Populations 1918- 1920 (information collected by referenced studies as there was no comprehensive national data collection)

City Province	Mortality Rate (death per 1,000)	1921 Population (1)	Estimated Deaths Based on 1921 Population	Source
Alberta	11.5	588,582	6785	Jenkins 2007
British Columbia Non- Indigenous	6,2	524, 582	3255	Kelm, 1999
British Columbia- Indigenous*	46.0	26,000 (rough estimate needs to be confirmed)	1200	Kelm, 1999
Ontario	3.6	2,933,662	10562	Jenkins, 2007
New Brunswick	4.0	387,876	1552	Jenkins, 2007
Newfoundland	5.0	241,000	1205	Palmer et al, 2007
Quebec	7.0	2,361,000	16527	Jenkins, 2007
Canada	6.25	8,788,483	54931	Stats Can (1921) divided by PC number

^{*} Indigenous peoples experienced the highest influenza mortality rates in the country. They also had an ambivalent relationship to "modern" medicine and the Canadian state as a result of the spread of infectious diseases historically through processes of colonialism; and the inadequate provision and segregated medical care throughout much of the late 19th and 20th centuries. (modest cottage hospitals often affiliated with residential schools with the addition of "Indian schools added in the 20th century) Other contributing factors based on submissions to McKenna-McBride Commission 1912-15: 1. Reserves inadequate to their needs – in sufficient land to grow crops or raise cattle 2. Adequate sanitation systems 3. Forced to do summer work away from home in canneries and on farms, 4. Poor housing in canneries and on farms, 5. Residential schools—underfeeding, overwork, forms of abuse, weakened health, 6. Forced to abandon traditional medicine for departmental doctors, 7. Higher degree of secondary infection & pneumonia—resulted in death when Spanish flu struck.

Exhibit 3 - Comparison of Deaths From Spanish Flu vs Deaths As A Result of World War 1

Jurisdiction	Total	Mortality	Total	Mortality Rate	Difference
	Deaths	Rate (deaths	Deaths As	As A Result of	
	From	per 1,000)	A Result of	World War I	
	Spanish	Spanish Flu:	World War	(deaths per	
	Flu	Canada	I Canada	1,000) Canada	
	Canada			Deaths/1921	
		Deaths/1921		Рор	
		Рор			
Canada	55,000	6.25	60,000	6.82	5,000

(1) The census was conducted by the Dominion Bureau of Statistics formed in 1918 by the Statistics Act.

Mary-Ellen Kelm. "British Columbia First Nations & the Influenza Panic of 1918-19". BC Studies, no. 122, Summer 1999.

Several of the schools were overwhelmed by the influenza pandemic of 1918–19. All but two of the children and all of the staff were stricken with influenza at the Fort St. James, British Columbia, school and surrounding community in 1918. Seventy-eight people, including students, died. Initially, Father Joseph Allard, the school principal, conducted funeral services at the mission cemetery. But, as he wrote in his diary, the "others were brought in two or three at a time, but I could not go to the graveyard with all of them. In fact, several bodies were piled up in an empty cabin because there was no grave ready. A large common grave was dug for them."

<u>Canada's Residential Schools: Missing Children and Unmarked Burials, Final Report of the</u> Truth and Reconciliation Commission of Canada Volume 4, 119.

Reading #3

Who was hit the hardest?

It's thought that roughly 2.5 per cent of people who caught the flu died from it—a high rate. Deaths were worse among certain groups—pregnant women, indigenous peoples, and young, previously healthy adults.

In remote commuities in the Canadian north, the devastation reached apocalyptic levels.

According to Eileen Pettigrew, only 70 people of 220 survived in the Labrador town of Hebron, At Okak, also on the Labrador coast, 207 of 266 died. The surivivors, who later abandoned the site, fought to keep starving dogs from devouring corpses.

First Nations and Inuit Communities Ravaged

In northern British Columbia and the Western Arctic, First Nations and Inuit communities were ravaged.

"It struck with the same kind of ferociousness or ferocity in aboriginal communities as well as non-aboriginal communities, " says Mary-Ellen Kelm, a social historian who studied the Spanish flu's imparct on native communities in BC.

"But the death rates (in aboriginal communities) were ... I think about seven times the rates for non-aboriginal for British Columbia as a whole." (see Exhibit 2)

Kelm, a professor at Simon Fraser University in Burnaby, says high rates may have made aboriginal people more vulnerable to the viral assault. Ant there is evidence that some of the young children who died didn't succumb to flu, but to neglect. There were no adults to care for them (the adults had died).

Everywhere communities struggled to cope with the sick and the dead.

"The undertaking parlours couldn't handle the bodies as people died," says Louise Brooks, 99, of Vancouver, who battled the flu herself. "I have this vague memory that they were having to use school auditoriums and places like that to store bodies temporarily."

With hospitals overwhelmed, most people struggled through the illness at home. Most pulled through, even without the help of antiviral drugs or vaccine. (Vaccines were made, but against the wrong germ. Science hadn't yet discovered viruses and doctors thought the bacterium Bacillus influenzae was to blame.)

The lucky folks had neighbours or relatives who stepped in to help.

There were cases of heroism. Pettigrew's book noted the hamlet of Beaubier, in south-eastern Saskatchewan, was named after Eleanor Beaubier, a teacher who tirelessly nursed the sick before perishing herself.

Anna Shillinglaw, 97, remembers neighbours who helped her family pull through when both parents and all seven children were struck down with flu. A boy, Henry Kindopp, would come to tend to her father's animals on their homestead near Bitter Lake, Sask.

"And his mother cooked soup and they put it in a big lard pail and he brought it to the house for us so we had something to eat," recalls Shillinglaw, who lives in Langley, B.C.

As Kelm notes, in other places the lack of such aid contributed to the death toll. Ottawa's mayor, Harold Fisher, issued an appeal for the well to help the sick.

"I want to make it absolutely clear that people are dying in our midst because they are not provided with proper care," Pettigrew's book quotes Fisher as saying.

"They are not dying because we don't know about them. We know where they are, but we have nobody to send. Knitting socks for soldiers is very useful work but we are now asking the women of Ottawa to get in the trenches themselves."

Toronto Star, 19 Sept 2008

Exhibit 4 - Quotes From the *Colonist* Regarding the End of War and the Introduction of the Spanish Flu

First known death triggers ban on schools and public gatherings

On the morning of Sunday, October 6, Frank Steinfield, the 27-year-old manager of the Pantages Theatre on Government Street, died in St. Joseph's Hospital. "On the previous Sunday [September 29] he was taken with a severe cold," the *Colonist* reported. "His physician advised him to remain in bed, but so anxious was he to attend to the many duties devolving upon him as manager, especially in view of the fact that the opening day of the week's performance is a very busy one, he came out and attended to his business as usual. On Tuesday he was worse and on Wednesday pneumonia developed, necessitating his immediate removal to the hospital."

"Theatre Manager Dies after Short Illness. Mr. Frank Stanfield Succumbs to Pneumonia at St. Joseph's Hospital Sunday Morning," *Colonist*, October 8, 1918, p. 7.

City Will Act to Check Epidemic. All Churches, Theatres, Schools and Meeting Places to Be Affected by Closing Order—Saanich Already in Line." *Colonist*, October 8, 1918, p. 4

In November, the Anglican bishop led a revolt against the ban on open-air church services. For more on gatherings see <u>Armistice crowds ignore ban</u>.

Rural public health nursing in Saanich

In Saanich, still largely rural, with dirt roads winding through old-growth forest, the home-visiting Victorian Order of Nurses (V.O.N.) were front-line caregivers in the battle with the flu. Saanich Police Chief James Dryden was part of the emergency team. He made a report to Saanich council on November 5, 1918. Chief Dryden's hand-written text and the *Colonist*'s extensive coverage distilled the challenges the Spanish Flu posed in the district:

... Chief of Police Dryden ... presented a report of the present outlook for control of the plague and the number of known cases ... in Saanich. He reported ... at present 196 known cases in the municipality, of these seven are serious. ... at least two deaths, Mrs. Swallow, of Falmouth Road, and Mr. Persetti, of Wilkinson Road, having succumbed within the past week. ...

The two V.O.N. Saanich nurses each were making an average twenty-five to thirty house calls a day:

The average number of cases seen each day for several days past has been between fifty and sixty ... the work done by the Victorian Order Nurses Forshaw and Headington was one of the main reasons why the epidemic had been kept within controllable limits.

Nurse Forshaw herself contracted the flu, along with the district medical health officer:

The work had been too much for those in charge of the campaign, and at the time Chief Dryden made his report to the Council Nurse Forshaw had been stricken with the disease and Medical Health Officer Dr. J. P. Vye was also a victim.

Chief Dryden speculated that many cases of Spanish Flu went unreported:

... The majority of cases were in Wards 2 and 7 ... many other unreported cases ... new cases averaging from seven to ten each day, and *if it were possible to get all the patients to report to the medical officer* the number of known cases would take sudden jump.

While commending the work of the Victorian Order of Nurses, the police chief pointed up a vital safeguard of public health that was missing in Saanich, an isolation hospital:

Chief Dryden expressed the conviction that the best procedure would have been for Saanich to have established an isolation hospital in the earlier days of the epidemic in order that the spread of the disease through families might have been stayed. Experience showed, he said, that the illness in nearly every case went completely through a household when the first person to get it was not isolated. ... In the past week the police automobile had travelled 1,100 miles in connection with influenza cases, and the car operated by the Victorian Order of Nurses had done even more. ...

"Ironically, it was not the flu that actually killed people but the way in which it weakened them in ways that allowed pneumonia or meningitis could set in."

Charles River Editors, **The 1918 Spanish Flu Pandemic: The History and Legacy of the World's**Deadliest Influenza Outbreak [Audiobook, 2012]

"Within one week, she'd contracted the illness. Within two weeks, she had pneumonia, and was buried a day after the war's end."

(CBC Calgary)

Reading #4: Stanley Cup Play-off Series Suspended

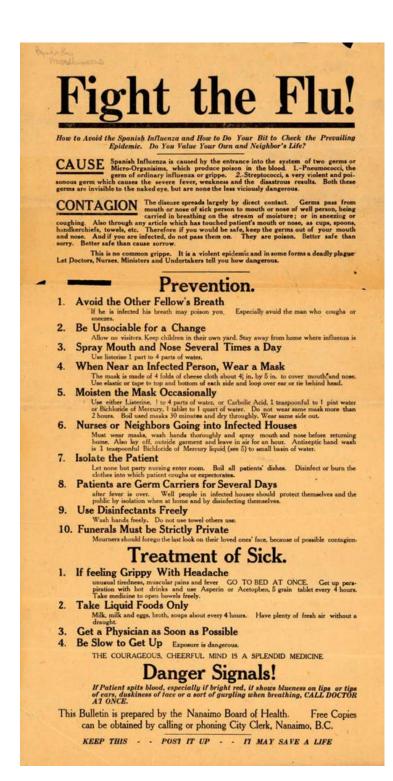
Exhibit 5 - 1919 Stanley Cup Series Suspended—Montreal player Joe Hall eventaully succumbed to pneumonia brought on by the Spanish flu. George Kennedy, the Montreal manager was weakened by the flu and he died a few years later.



The **1919 Stanley Cup Finals** was the ice hockey play-off series to determine the 1919 Stanley Cup champions that ended with no champion decided, being suspended after five games had been played due to an outbreak of influenza. It was the only time in the history of the Stanley Cup that it was not awarded due to a no-decision after playoffs were held.

Hosting the series in Seattle was the Pacific Coast Hockey Association (PCHA) champion Seattle Metropolitans playing off against the National Hockey League (NHL) champion Montreal Canadiens. Both teams had won two games, lost two, and tied one before health officials were forced to cancel the deciding game of the series. Most of the Canadiens players and their manager George Kennedy fell ill with the flu and were hospitalized. The flu would claim the life of Canadiens' defenseman Joe Hall four days later. Kennedy was permanently weakened by his illness, and it led to his death a few years later. A few years later, "Influenza" was engraved into the Stanley Cup in place of the other competitors names.

Exhibit 6 - Nanaimo Board of Health Bulletin, BC Archives i-61504



Essential Questions

- 1. What major factor(s) contributed to the rapid spread of the Spanish flu (SF) virus, when Canadian health authorities had been so successful in dealing with infectious diseases in the past?
- 2. Take a position: the SF was highly disruptive and forced significant change in thinking about influenza and public health. Yes/No provide your reasons.
- 3. Describe the physical symptoms of the patient as the SF progressed. (page 1)
- 4. What was the Spanish Flu? Why was it called the Spanish Flu?
- 5. What is a pandemic? (Mentioned in the readings but not defined). Did the Spanish Flu meet the definition of a pandemic? Provide examples of other pandemics experienced in Canada.
- 6. What is a "cytokine storm"?
- 7. What medical explanations were provided for the high number of youth deaths?
- 8. Recent investigations have discovered that the infection was not more aggressive that previous influenza. If we accept this finding, what explanations are offered to explain the high number of deaths? (=
- 9. What two different views (hypothesis) are provided to explain the origin of the influenza?

What sources of information are used by historians/researchers to confirm the origin of the Spanish Flu?

- 10. How was the flu spread in 1918? What factors are different in the spread of the disease today?
- 11. On October 8, 1918 the BC government ordered that public gathering were prohibited. On October 18, Vancouver's medical health officer ordered that schools and entertainment centres be closed.

Develop a list of information that would be needed in order to make such a decision and be on solid grounds.

12. On November 11, 1918, the war was ended. Against earlier orders, people flocked into the street to celebrate. What led people to ignore previous orders? Why weren't people forced to go home?

- 13. When the author of Reading #1 says the flu was "virulent", what does he/she mean?
- 14. Today our health care system provides vaccinations for the flu. Why weren't Canadians vaccinated in 1918?
- 15. Both authors (Reading #1 and Reading #2) refer to the Spanish Flu having several waves. What is a wave? What problems does a new wave create medically? Does flu still have waves today?
- 16, in the 19th century (1880s), quarantines were successful in containing the flu. What is a quarantine? Why were quarantines successful in 1918?
- 17. How do we contain pandemics today? Are quarantines and vaccines successful today? Why or why not?
- 18. Reading #1 makes reference to the combined effect of the Spanish flu losses and the war losses. (see also Exhibit 3)
 - Approximately how many Canadians died in the First World War?
 - How many Canadians lost their lives to the Spanish Flu?
 - What was the total combined lives lost?
 - How many Canadians were injured in the First World War?
- 19. What impact did these losses have on:
 - Individual families
 - The economy
- 20. The author of Reading #1 says that "... as the races of infection grew, the number of healthy workers declined before long the Canadian economy was paralyzed." Explain why the economy was paralyzed.
- 21. Reading #2

Why did so many young children die, especially those on isolated farms and in remote communities?

22. Reading #2

Why did the military come under much criticism for its role in the pandemic?

23. Exhibit 2 (page 8), which area/group have the highest death rate?

What factors contributed to the death rate amongst indigenous British Columbians?

24. Describe the impact that the influenza had on the Stanley Cup finals (Exhibit 5)

Other resources:

Rutty, Christopher and Sullivan Sue C. **This Is Public Health: A Canadian History.** Ottawa: The Canadian Public Health Association, 2010.

Nicol, Janet Mary. <u>"Girl Strikers" and the 1918 Vancouver Steam Laundries Dispute"</u>. **BC Studies** No. 203, Autumn 2019. 53-81.

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