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FLU PANDEMICS OF THE 20TH CENTURY: The B.C. Experience

There were three influenza pandemics during the twentieth century. All made their way to Canada and eventually into British Columbia. This paper highlights the B.C. experience.

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A pandemic is a worldwide epidemic of a disease. There were three influenza pandemics during the twentieth century. The Spanish influenza of 1918 is the most famous. It killed tens of millions and sickened many more. The other pandemics – the Asian flu of 1957 and the Hong Kong flu of 1968 – are lesser known generally, no doubt because far fewer died. All three spread to Canada and eventually into British Columbia. This paper highlights the B.C. experience.

SPANISH FLU 1918

The Spanish influenza pandemic of 1918 infected 500 million people worldwide and killed tens of millions.¹ Exactly where the flu originated is disputed, but the “Spanish” tag may have come from that country’s early uncensored reporting on the outbreak.² The situation was unique in that healthy adults became terribly ill. There was no effective vaccine to ward off the illness.

Soldiers returning from European battlefields brought the flu to Canada in the summer of 1918.³ The flu travelled the country along lines of communication, such as railways. One scholar described how soldiers in Quebec boarded a train bound for Vancouver. Sick men were taken off along the way and, by the time it reached Vancouver, the train was ordered quarantined.⁴ People living in Quebec were hardest hit, but it was conservatively estimated that one-sixth of the Canadian population got sick. As many as 50,000 died in Canada.⁵

There was no federal public health department at the time and the work was left mainly to provincial and local health officials.⁶ Janice P. Dickin McGinnis described how dedicated volunteers, police and firefighters all helped to care for the sick. She wrote: “One of the main reasons that such diverse types of people were involved in the flu fight was that nobody was quite sure whose responsibility it was and if people waited for some sort of superior organization to take hold, it would have been too late.”⁷ In June 1919, the federal government passed legislation creating a federal health department.⁸

Spanish flu reached B.C. in early October 1918. Vancouver health officials reported on October 5 the flu’s arrival in their city.⁹ On October 8, the provincial government created the “Spanish Influenza Regulations” under the *Health Act*, which

1918 SPANISH FLU VICTIMS

A Canadian soldier stationed in France described the sudden onset of the flu in his diary. He tried to climb the stairs, but “as I reach the top, my head swims with sudden nausea, everything around me whirls, I totter, then fainting, fall to the ground.”

*-From Janice P. Dickin McGinnis, in *Medicine in Canadian Society: Historical Perspectives*, ed. S.E.D. Shortt, (Montreal: McGill-Queen’s University Press, 1981) 448.*

Boats carrying the sick and dead from coastal B.C. communities docked in Vancouver. “There were many sad, sombre scenes along the waterfront as blanket-covered corpses were carried ashore. Some victims had travelled for days and suffered terribly in the hope of finding the medical help they needed.”

*-From Betty O’Keefe and Ian Macdonald, *Dr. Fred and the Spanish Lady*, (Surrey, B.C.: Heritage House, 2004), 100.*

made it possible for a community to ban meetings in schools, churches and theatres. Victoria was among the first of numerous communities to take this measure. But Vancouver's medical health officer resisted because he believed bans were ineffective. However, there was considerable pressure on Vancouver to "shut down" and public assemblies were eventually banned on October 18. The city did not "reopen" until November 18.¹⁰ Many B.C. schools were closed for upwards of two months.¹¹

Other provincial government measures included telling every government agent "to assist the local authorities in their districts and to assure them that financial assistance would be given."¹² On November 18, a newspaper reported the flu had cost the province \$50,000. This estimate apparently

took into account both public health expenditures, as well as revenue losses from an "Amusement Tax," since people were banned from attending theatres.¹³

Local officials oversaw a variety of measures to fight and treat the flu.

Emergency hospitals were set up in schools and hotels. Homes were placarded and patients quarantined. A 24-hour ambulance service was organized in Vancouver and the city's medical health officer issued common sense guidelines through the media, such as "Use hankies, and boil soiled ones." Calls went out for volunteers to tend the sick in hospital and at home. People were not required to wear face masks, as was the rule across the border in Alberta.¹⁴

It was estimated at the time that 30 percent of the B.C. population got sick from Spanish influenza. In Vancouver, health officials reported 4,890 cases and 618 dead by the end of December.¹⁵ Smaller communities, including First Nations villages, were also hard-hit by the flu.

There was a "great awakening amongst the public, with a consequent strengthening of the hands of those in charge of public health work," wrote the provincial health officer in his 1919 report. The most significant awakening led to the creation of the federal health department. All provinces had a representative on a new Dominion Council of Health created along with the federal health department. At its first meeting, the council discussed measures including "control of venereal diseases, conservation of child life, industrial hygiene, rural hygiene, habit drugs, and measures against influenza."¹⁶

**EARLY B.C.
PUBLIC HEALTH LAW**

B.C. public health law dates back to "An Ordinance for Promoting the Public Health in the Colony of British Columbia," passed in 1869. It became a provincial statute when B.C. joined Canada in 1871. The Public Health Act was passed in 1893.

-From "Public health in British Columbia," in The Development of Public Health in Canada, ed. R.D. Defries, (Toronto: Canadian Public Health Association, 1940), 99-102.

ASIAN FLU 1957

The twentieth century's second flu pandemic began in 1957. Called the Asian flu, the illness is believed to have originated in China. Mortality estimates vary, but one recent World Health Organization document pegged the number of dead at between one and four million worldwide.¹⁷ Symptoms were generally mild. One scholar noted it was the first time the "rapid global spread of a modern influenza virus was available for laboratory investigation."¹⁸ A researcher at the time called it the "most publicized influenza epidemic of all time."¹⁹

Asian flu was clearly evident in Canada by early September 1957. It was thought to have first entered Ontario and Quebec, by way of international air traffic or from the United States, then developed on both coasts and possibly spread into the intervening areas.²⁰ The federal government's role included arranging the evaluation of a new vaccine and publishing a weekly summary on the flu's progress. The provinces distributed the vaccine and shared costs with Ottawa.²¹ Federal statisticians estimated at the time that about three million people in Canada (18 percent of the population) were affected by the flu.²² Temporary school closings were commonplace across the country.²³

In B.C., newspapers were warning by June of the flu's impending arrival in that province. In August, the provincial health minister assured readers that there was no great threat of a flu outbreak. Nonetheless, he said the B.C. Health Branch would distribute a flu vaccine to key health workers.²⁴ It was also reported in August that Victoria's two main hospitals were preparing a joint emergency plan. However it wasn't until September 20 that an article reported federal health officials were confirming Asian flu in British Columbia. The next day a provincial health official cautioned that concerns about the flu had mushroomed out of proportion and that complications from this particular flu were milder and fewer than ordinary influenza.²⁵ This was echoed by the B.C. Health Branch's annual report: "Asian influenza did not create the difficulties that had been feared by some people." The illness was mild, according to the report, and "no particular lasting effects of the outbreak [were] evident."²⁶

Still, the Asian flu impacted some British Columbians. School absenteeism rose to "its highest peak in many years, resulting in many schools having to close for lack of pupils and teachers," according to the 1957 report of the B.C. Department of Health and Welfare.²⁷ There were also reports of the flu being particularly widespread in certain communities. Half the population of Prince Rupert was supposedly sick with the flu, according to a newspaper article that quoted the director of the Skeena Health Unit. However, the unit's annual report later stated: "Asian influenza was made a subject of far too much publicity by official health agencies at a time when no practical control measures were available."²⁸

As noted above, the province distributed a flu vaccine to health and other essential workers. The process apparently did not run smoothly. "There were many administrative problems in connection with obtaining and administering the influenza vaccine," according to the Health Branch's annual report for 1957.²⁹

HONG KONG FLU 1968

The virus causing this pandemic was first identified in Hong Kong in July 1968.³⁰ Estimates vary, but a recent World Health Organization document suggested the number dead worldwide was between one and four million.³¹

Hong Kong flu was positively identified in British Columbia in late December 1968.³² That month, the Minister of Health told reporters the government was “somewhat alarmed” by the flu. He suggested people should avoid, “wherever possible, large public congregations where an interchange of air and so forth would result in an extension of this epidemic.”³³

In January, the provincial epidemiologist told a reporter about a special system set up to track influenza. Provincial health officers were required to report on a specified day of the week with all positive indications of flu. This was not the first time a system like this was used.³⁴ Later that month, the epidemiologist told the *Vancouver Sun* that school absenteeism was two-to-three times the normal amount in four areas of the province: the Cariboo, upper Vancouver Island, Prince George and Nelson. “The results of our first systematic survey indicate there is undoubtedly scattered influenza in the province and that in some areas it is of the Hong Kong variety,” said Dr. A.A. Larsen, the epidemiologist.³⁵ Absenteeism hit 25 percent in Williams Lake schools and the Cariboo Health Unit listed the “influenza epidemic” in January as a highlight in its 1969 annual report.³⁶

The vaccination issue was raised in September 1968, when a newspaper reported that mass immunizations were not planned for Vancouver.³⁷ A limited supply of the vaccine eventually made its way into British Columbia – one newspaper report said it was available through a Victoria drug store.³⁸ Public health officials said they didn’t encourage mass use of the vaccine except for the elderly and for people with chronic chest and heart conditions.³⁹

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- ¹ The estimated death toll varies, ranging from about 20 million to 40-50 million, to 100 million. J.K. Taubenberger, D.M. Morens, "1918 influenza: the mother of all pandemics," *Emerging Infectious Diseases* [serial on the Internet], January 2006. Available from <http://www.cdc.gov/ncidod/eid/vol12no01/05-0979.htm> See also John M. Barry, "The site of the original of the 1918 influenza pandemic and its public health implications," *Journal of Translational Medicine* 2: 3, (2004). "Ten things you need to know about pandemic influenza", *Weekly Epidemiological Record*, No. 49/50 (December 2005).
- ² Janice P. Dickin McGinnis, "The impact of epidemic influenza: Canada, 1918-1919," in *Medicine in Canadian Society: Historical Perspectives*, ed. S.E.D. Shortt, (Montreal: McGill-Queen's University Press, 1981), 447.
- ³ McGinnis, "Impact of Epidemic," 449.
- ⁴ Ibid., 451.
- ⁵ Ibid., 458. Public Health Agency of Canada, *The Chief Public Health Officer's Report on the State of Public Health in Canada*, (Ottawa: Chief Public Health Officer, 2008), 11.
- ⁶ Susan Goldenberg, "Killer Flu," *The Beaver* 86, Iss. 5 (Oct/Nov. 2006). Eileen Pettigrew, *The Silent Enemy: Canada and the Deadly Flu of 1918*, (Saskatoon: Western Producer Prairie Book, 1983) 13, 134.
- ⁷ McGinnis, "Impact of Epidemic," 460.
- ⁸ "An Act Respecting the Department of Health" was assented to on June 6, 1919. Betty O'Keefe and Ian MacDonald, *Dr. Fred and the Spanish Lady: Fighting the Killer Flu*, (Surrey, BC: Heritage House, 2004), 183. Pettigrew, *Silent Enemy*, 134.
- ⁹ O'Keefe, *Dr. Fred*, 159-60. Pettigrew, *Silent Enemy*, 71. [Medical Health Officer], "Report of the Medical Health Officer [1918]," in *Corporation of the City of Vancouver Annual Report 1918*, (Vancouver: The Corporation, 1919), 72.
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- ¹¹ British Columbia, Department of Education, "Annual Report 1919," in *Sessional Papers British Columbia Vol. 1 – 1920*, (Victoria: [n.p., 1920], A18.
- ¹² British Columbia, Provincial Board of Health, "Report of the Provincial Board of Health [1919]," in *Sessional Papers British Columbia Vol. 1 – 1920*, (Victoria: n.p., 1919) B6.
- ¹³ "Fifty thousand is cost of 'flu' for province to date," *Victoria Daily Times*, 18 November, 1918, 8.
- ¹⁴ O'Keefe, *Dr. Fred*, 85, 92, 96-97. [Medical Health Officer], "Report of the Medical Health Officer [1918]," 72. British Columbia, Provincial Board of Health, "Report of the Provincial Board of Health [1919]," B6. McGinnis, "Impact of Epidemic," 455.
- ¹⁵ British Columbia, Provincial Board of Health, "Report of the Provincial Board of Health [1919]," B6. [Medical Health Officer], "Report of the Medical Health Officer [1918]," 73.
- ¹⁶ British Columbia, Provincial Board of Health, "Report of the Provincial Board of Health [1919]," B5.
- ¹⁷ World Health Organization, *Pandemic Influenza Preparedness and Response: a WHO Guidance Document*, (France: WHO, 2009), 13. N.J. Cox, "Global Epidemiology of Influenza: Past and Present," *Annual Review of Medicine* 51, (2000), 413. Michael Tibayrenc, *Encyclopedia of Infectious Diseases*, ([n.p.]: Wiley-Liss, 2007), 206. "Ten things you need to know about pandemic influenza", *Weekly Epidemiological Record*, No. 49/50, (December 2005).
- ¹⁸ Edwin D. Kilbourne, "Influenza Pandemics of the 20th Century," *Emerging Infectious Diseases*, Vol. 12, No.1, January 2006, 10.
- ¹⁹ The basis for this statement was unclear. The statement was made in the "R.E. Dyer Lecture" published in *Public Health Reports* in 1958. The author was Dr. Richard E. Shope, a professor and member of the Rockefeller Institute for Medical Research. Richard E. Shope, "The R.E. Dyer Lecture: Influenza: History, Epidemiology and Speculation" *Public Health Reports* 73, no. 2, (February 1958), 165.
- ²⁰ Canada, Dominion Bureau of Statistics, *Influenza in Canada: Some Statistics on its Characteristics and Trends*, (Ottawa: The Bureau, 1958), 6.
- ²¹ Canada, Department of National Health and Welfare, *Annual Report 1958*, (Ottawa: The Department, 1959), 59. "Asiatic flu vaccine here Oct. 1," *Times*, 15 August 1957, p. 1. "No flu threat in BC-Martin," *Times*, 17 August 1957, p.1.

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- ²³ Ibid.
- ²⁴ “One in 75 to get flu vaccine in BC,” *Vancouver Sun*, 17 August 1957, p. 25.
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- ³¹ World Health Organization, *Pandemic Influenza Preparedness and Response*, 13.
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