



INFLUENZA

“Everything Depends on Good Nursing”

THE CAPACITY OF NURSES TO DELIVER INDEPENDENT NURSING CARE, FIRST DEMONSTRATED DURING THE GREAT WAR, WAS CONFIRMED IN THE FACE OF THE SPANISH INFLUENZA EPIDEMIC OF 1918-19.



JEAN N. GROFT, RN, MN

JEAN GROFT IS A DOCTORAL STUDENT IN THE FACULTY OF NURSING, UNIVERSITY OF ALBERTA, EDMONTON, ALBERTA, AND A LECTURER AT THE SCHOOL OF HEALTH SCIENCES, UNIVERSITY OF LETHBRIDGE, LETHBRIDGE, ALBERTA.

The ever-present threat of impending influenza epidemics in Canada raises questions and concerns about strategies to prevent or minimize the impact of this group of viruses on the health of citizens. Recent experience with SARS provides a concrete reminder of the rapid global effects of a contagious agent, as well as motivation to anticipate and prepare for the immediate needs generated by the arrival of such an illness. Registered nurses historically have

played a vital role in the identification and care of individuals and communities stricken by deadly illnesses. The mobilization of nurses to attend to the health needs of Canadians in the early 20th century, in the presence of a crisis and the absence of a formal public health system, offers an example of the heroic efforts of our professional predecessors to contain the effects of Spanish influenza. An examination of the events and consequences of public health interventions at the time of the pandemic provides insight into the critical need for resources, knowledge and skills in preparation for the next onslaught of such an acute disease.

In the autumn of 1918, the attention of the world was focused wearily on events in Europe as the

ABSTRACT

Nurses have always played a vital role in the response to outbreaks of deadly illnesses. The story of Alberta nurses' heroic efforts in the face of the Spanish influenza epidemic of 1918-19, in the absence of public health infrastructure, reminds us of the importance of preparedness. The virus, which accompanied soldiers returning from Europe after the First World War, spread quickly along transportation routes from Eastern Canada to the West. Although many nurses had not yet returned from war service, or were assisting in Halifax following the explosion of 1917, those who were available in Alberta volunteered without hesitation to care for victims of the virus. In the absence of

cure, good nursing care was usually the only treatment for the illness. Recognition of the need for planned response to crises, availability of resources and excellent skills and knowledge prompted nursing leaders to lobby the government for a formal public health system and contributed to the organization of professional nursing associations. In the likely event of another global influenza pandemic, nurses may draw upon the lessons of the past as they once again face the complex challenges of a modern health crisis.

KEYWORDS: disease outbreaks, epidemic, influenza, history of nursing, public health

Great War continued to devour the human and material resources of exhausted countries. By the fifth year of the conflict, nearly 60,000 young Canadians had died (Pettigrew, 1983). However, prospects for peace were beginning to take shape, and Canadians experienced a sense of hope that the war would soon be over. As troops arrived home from the battle zones, few among the welcoming crowds noticed that, along with the physical wounds and shell shock, the soldiers brought a deadly virus that was to dramatically alter the human landscape of the country (Mansell, 1996). The influenza virus, which would not be isolated in the laboratory until 1933, was to cause a pandemic that would affect up to 100 million people worldwide and kill at least 22 million (Keen-Payne, 2000). This

earlier epidemics. Morbidity and mortality rates were unusually high, and most deaths occurred in young adults (Deming, 1957; Keen-Payne, 2000). Pneumonia often accompanied the influenza, which appeared suddenly and with a diversity of symptoms, making diagnosis difficult. With no medications, immunizations, suction equipment or curative treatments available, there was little that could be provided to the sick other than supportive care measures (Bristow, 2003). Typical epidemic control strategies were impeded by the fact that influenza was not a notifiable disease, and mild cases were often diagnosed as common colds rather than flu. Furthermore, the practice of quarantine, seen by some as an injustice, was often ignored (McGinnis, 1981).

THE SPANISH INFLUENZA PANDEMIC ASSAULTED THE WORLD IN THREE WAVES....IN CANADA, THE SECOND WAVE OF THE PANDEMIC SURGED IN SEPTEMBER 1918, WHEN, IN THE SPACE OF A FEW DAYS, 400 COLLEGE STUDENTS IN QUEBEC BECAME ILL AND WERE SENT HOME

article examines the effect of that pandemic on the citizens of Alberta and Canada, as well as the role of the front-line nurses who toiled so desperately to care for the thousands who were stricken. The impact of the experience on the nursing profession and the health-care system and the progress that was made in the wake of this tragedy is addressed.



The Spanish influenza pandemic assaulted the world in three waves. Historians generally agree that it was first noticed in American servicemen in Kansas in March 1918 and arrived in France by mid-April (Crosby, 1989). By May, war strategies in Europe were being affected as thousands of servicemen on both sides of the conflict were too ill to go into battle (Keen-Payne, 2000; McGinnis, 1981). In July, civilian populations around the world were sick; tens of thousands were dead (Iezzoni, 1999).

In Canada, the second wave of the pandemic surged in September 1918, when, in the space of a few days, 400 college students in Quebec became ill and were sent home (Pettigrew, 1983). Influenza arrived in Alberta a month later with a group of sick soldiers who had travelled across the country by rail and who, upon disembarkation, were isolated at the Sarcee military base hospital in Calgary. The illness appeared in nurses and other soldiers shortly afterwards (McGinnis, 1976). By November, the disease had spread from the city into remote areas of the province.

Two striking characteristics differentiated this influenza from

NURSES STEP UP

Nurses were the first line of defence during the influenza pandemic; historian A.W. Crosby (1989, p. 6) asserted that they were "more important than doctors." In the absence of effective medical interventions, it was the soup, blankets, fresh air and "Tender Loving Care [that kept] the patient alive until the disease passed away: that was the miracle drug of 1918" (Crosby, p. 7). One nursing student, pressed into service at her training school in New York, remarked that doctors frequently were heard to say helplessly, "Now everything depends on good nursing" (Deming, 1957, p. 1309). The cure was said to involve a "partnership between patient and nurse" with the patient doing nothing except resting while the nurse ensured that other family members were fed and cared for (Cashman, 1966).

In Canada in 1918, no central source of advice or control existed that could respond to the evolving crisis. However, as a result of persistent and articulate lobbying by women's groups, the province of Alberta had implemented a fortuitous pre-emptive strategy in 1916, when three nurses were hired to work in the field of public health (Ross-Kerr, 1998). By 1918, a Public Health Nursing Service, comprising four staff nurses, had been established (Ross-Kerr, 1998). It had been recognized that nurses could provide not only symptomatic relief from the infectious diseases of the day, but also preventive measures and education that would be beneficial to improving the overall health of the Canadian population (Penney, 1996; Ross-Kerr, 1998). One of the first challenges for these public health nurses would be to find ways to cope with the arrival of influenza in Alberta, where one in 10 would become ill and as many as 4,000 would die (Pettigrew, 1983; Schartner, 1982). With many nurses still overseas, and others assisting with the aftermath of the Halifax disaster, there were few available to organize care efforts at home (McGinnis, 1976; McPherson, 1996). Nurses were urgently called upon, across the country, to offer services to their communities (Penney, 1996; Quiney,

2002). Schools, churches, businesses and other public gathering places were closed by order of the government; teachers and ministers were enlisted to care for the ill (Quiney). Emergency hospitals were quickly established in schools, church halls, hotels, tents and homes — anywhere sick and dying people could be accommodated (Cashman, 1966). Typically, a trained nurse coordinated and directed the care given by retired and practical nurses, Voluntary Aid Detachment nurses and other volunteers, often without the advice or direction of a physician (Poelman, n.d.; Smith, 1919).

While frantic efforts to save lives were underway in each community, nursing leaders did not remain silent. Editorials in nursing journals encouraged the urgent mobilization of Canadian nurses to attend to the emergency, extended sympathy to those who had died of the flu and called for reforms to the health-care system (Randal, 1918, 1919). Nurses and nursing leaders collaborated to bring to the attention of the country two glaring deficits in Canadian society, made painfully evident through the war and the epidemic: the poor level of physical health of individuals and the poor health of the community (Mansell, 1996; Ross-Kerr, 1998). Those events, combined with the lack of emergency response preparedness in Halifax in 1917, clearly demonstrated the need for “nurses to be equipped and ready at a moment’s call for mobilization” (Quiney, 2002, p. 360). Despite the heroic efforts of nurses, physicians and volunteers in these three crises, it was now obvious to all that the health-care system in Canada was inadequate (McGinnis, 1976, 1981).

The federal government, urged on by Jean Gunn, president of the Canadian National Association of Trained Nurses, as well as the Canadian Medical Association and the United Farm Women’s Association, moved swiftly to create a department of health on June 6, 1919, just as the third wave of the epidemic was waning (Gunn, 1919; Public Archives of Canada, n.d.). Alberta followed suit later that year with the establishment of a department of public health. A register for public health nurses was created in the province in 1919 with the enactment of the *Public Health Nurses’ Act* (Ross-Kerr, 1998). Funds were committed to the building of hospitals and a Calgary alderman ran on a ticket of rationalization of health services (McGinnis, 1976, 1981). Health-care reform was underway.

FAST FORWARD TO THE 21st CENTURY

Once again, the world is faced with the threat of a new influenza pandemic. Recently, the 1918 H1N1 virus was reconstructed in the laboratory and its similarity to the modern H5N1 (avian influenza) virus that is affecting poultry and migratory bird

populations has been noted (Tumpey et al., 2005). Many authorities predict that mutation of the H5N1 virus may result in sufficient virulence to affect the human population, and that another pandemic is imminent (World Health Organization [WHO], 2005a). In September 2004, the Canadian government launched the Public Health Agency of Canada (PHAC) and appointed a chief public health officer to lead the new agency in the promotion and protection of the health of Canadians. Surveillance activities are undertaken by the agency, which produces the weekly or biweekly *FluWatch* report on influenza activity across the country (www.phac-aspc.gc.ca/fluwatch/index.html). The PHAC continues to revise and update the *Canadian Pandemic*

DESPITE THE HEROIC EFFORTS OF NURSES, PHYSICIANS AND VOLUNTEERS IN THESE THREE CRISES, IT WAS NOW OBVIOUS TO ALL THAT THE HEALTH-CARE SYSTEM IN CANADA WAS INADEQUATE



Influenza Plan (www.phac-aspc.gc.ca/cpip-pclpi), a guide to the preparation for and response to the anticipated outbreak of influenza in this country. At an international meeting of health ministers hosted by Canada in October 2005, an agreement was reached that outlined a plan for cooperation among nations in surveillance and other activities associated with the anticipation of a pandemic (Health Canada, 2005). Many challenges will be faced by governments in their attempts to control a contemporary pandemic; for example, it is expected that air travel will hasten the spread of the illness, while reducing the time available to set into motion the response plan (WHO, 2005b). Nevertheless, significant resources are being committed to anticipating the problems and preparing a coordinated and relevant response.

Of particular interest to nurses is the focus on intersectoral planning and coordination, critical aspects of any strategy intended to minimize the effects of a global outbreak of influenza. Nurses have always made good use of their networks of colleagues and contacts throughout the community and the world. However, as the largest group of health-care workers, they will be challenged to meet the needs of those individuals who are struck by the illness, and may well suffer the consequences of repeated and frequent exposure to the virus. In view of the low uptake of influenza prophylaxis among health-care workers (National Advisory Committee on Immunization, 2005), there is much concern about the risk of transmission by nurses of the virus to clients or residents who depend on nursing care, as well as the impact of absenteeism on the quality of health service delivery and quality (Pierrynowski-Gallant & Vollman, 2004). Once again, everything will depend on good

nursing, and nurses must ensure that they have the capacity to provide the necessary services while protecting their own health and that of their families.

Although many important advances have been made in medical science and technology since the influenza pandemic of 1918-19, we must not relax our efforts to ensure that all possible defences against a similar event are in place. Nurses have

a significant role to play in the development and implementation of strategies at local, national and global levels to protect the health of society. By thoughtful attention to the lessons of the past, and by taking advantage of modern technologies, nurses will be able to demonstrate once again their abilities to contribute in a meaningful way to the health of all people. ♦

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