Nursing During A Pandemic
Influenza Pandemic 1918 - 1919

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“Early in September, 1918, the United States was invaded by a scourge of highly infectious and fatal disease, which spread with rapidity throughout the country. It was pandemic in its nature, and partook of many of the characteristics of influenza, grip and pneumonia. No one seemed to know much about the disease or its treatment, and medical science and public health agencies were alike unprepared to cope with it.

About all that could be done at the start was to adopt and attempt to enforce drastic regulations to minimize contagion; but even in view of these regulations, and when the plague had burst forth in all its widespread malignity, the country at large seemed slow to awaken to the enormity of the peril which it faced.

It certainly was a disconcerting fact that, at the very time when vast numbers of the people in widely-distributed localities had organized themselves, through the Red Cross and other well-known and efficient mediums, to fight disease and prevent suffering and death, we should be
smitten with a visitation which caused more casualties and deaths among the peaceful citizens in the homeland than the deadly missiles and poisonous gases of the enemy effected among the American Expeditionary Forces overseas in the great World War.\textsuperscript{1}Jewell\textsuperscript{1}

Today we think of influenza as affecting the very young and the elderly, in WWI influenza affected young, otherwise healthily men and women. Influenza jumped outside the camps and went raging through the civilian population. Because of the way the virus worked it was particularly frightening because it killed young men and women. Normally the flu killed the old and the very young. In 1918, the flu was killing young able-bodied soldiers as well as medical personnel caring for them.

The source of influenza was unknown; one source stated that influenza was from a crew of sailors who in August of 1918 had landed at a southern U.S. port - all suffering from the disease which then spread among the Army camps along the eastern sea board.\textsuperscript{ii} Another source blamed China as in 1917 about 200,000 coolies were sent to France as laborers, many who had been captured by the German army. The military kept the news of the pandemic from the affected countries. Spain had not entered WWI and when influenza became endemic there they broadcasted the news regarding influenza to the rest of the world.

\textsuperscript{iii} In the United States one source believed that the 1918 virus was thought to have started when Loring Miner a physician in Haskell County, Kansas found people in the sparsely populated county suffering from a violent strain of flu. The soldiers stationed at United States Army camp Funston, located nearby helped move it along to become a worldwide killer. Strong, healthy people died. Miner was so concerned that in March 1918 he let the U.S. Public Health Service know what he had seen and warned of a new type of flu. The disease burned itself out in March 2018. In the past, it might well have never gotten beyond Haskell County. But in 1918 America was at war and people were moving around the country more than ever.\textsuperscript{iv} Young men from Haskell County were training nearby at Camp Funston, what is now Fort Riley, Kansas. They reported to the camp for duty and went back and forth from home when on
leave. Camp Funston was where the influenza epidemic first made a major appearance. Troops from the camp carried the virus to other Army bases during World War I. 

The initial wave in the spring, of 1918 was mild and the mortality rate was not higher than normal for influenza. The second wave of influenza was more deadly; it spread from France to England and then on to Spain where it killed eight million people, and became known as Spanish flu, or the "Spanish Lady." By the time the third and final wave had run its course in the early summer of 1919, tens of millions were dead.

The exact death toll is unknown, but it may have been as high as 50 million worldwide” (Hamink). 

Since the disease defied the prevailing medicine, a great deal depended on nursing care and "nurses carried the ball selflessly, tirelessly and gallantly." Nurses, well aware of the contagious nature of the illness, continued to care for the sick and many became sick themselves.

According to Constance J. Moore, in the pre-antibiotic era, “nursing rather than medical therapeutics were the most important interventions for patients to recover from the influenza”. Since there were only palliative measures for the flu and the pneumonia, isolation practices, asepsis rules, and strict routines were the priority standards of care. A nurse reported, “Our chief duties were to give medicines to the patients, fix ice packs, feed them at [meal] time, rub their back or chest with evaporated sweet oil, [and] make egg-nogs.”

To Prevent Influenza!

Do not take any person's breath. Keep the mouth and teeth clean. Avoid those that cough and sneeze. Don't visit poorly ventilated places. Keep warm, get fresh air and sunshine. Don't use common drinking cups, towels, etc. Cover your mouth when you cough and sneeze. Avoid Worry, Fear and Fatigue. Stay at home if you have a cold. Walk to your work or office. In sick rooms wear a gauze mask like in illustration.
Visiting Nurse Experiences

Philadelphia's well-organized Society of Visiting Nurses, "had every thought and previous action blotted from their minds," by the great tragedy. Nurses were busy around the clock caring for the thousands of sick who could not reach a hospital. They described entering houses where all members of a family were dead. Some had both parents dead and the children starving. In some neighborhoods they were hailed as saviors. In others they were shunned due to the white gowns and gauze masks they wore. x

Lilliian Wald, in an editorial for the December, 1918 edition of Public Health Nurse described the work of the Nurses' Emergency Council:

“On October 10th, at 4 o'clock in the afternoon, the Atlantic Division of the Red Cross called together nurses of New York to consider ways and means for mobilizing the nursing power, actual and potential, to combat the epidemic then already gaining alarming headway throughout this section of the country. The records of the Department of Health were incomplete, because of the doctors' inability, due to the pressure upon them, to report all their cases. Miss Shatz, representing the Visiting Nurse Service of the Henry Street Settlement, reported that during the first four days of October, calls had come from 467 diagnosed cases of pneumonia and influenza, and that in addition there were a large number of patients for whom as yet the doctors had been unwilling to give a diagnosis. Also, that the nurses on the staff were wearing masks, and already 31 out of that day's staff of 170 had succumbed to influenza.”xi

Visiting nurses from the Henry Street Settlement went into homes where entire families were stricken with no one to care for them.xii

Control of Influenza in Washington, DC

Control of Influenza in Washington, DC was coordinated by the U.S. Public Health Service. The following is an excerpt outline the extent of control:
“When one thinks of the dearth of doctors and nurses, it is easy to conceive how tremendous was the undertaking to organize a force to nurse the 13,000 cases. The nursing institutions already in existence had to be brought together under one direction. Ways and means for obtaining additional nursing personnel had to be evolved and adequate quarters and clerical help arranged for—and not only was it necessary to find quarters, but arrangements had to be made to have light, telephone service and heat provided, and in this day of shortage of labor, this was no small task. The first night that the Relief Center was opened, the Directing Nurse with two of her assistants and three teachers conducted the work of the central office entirely by candle light, and the calls were so numerous that at one time fifty minutes elapsed before the telephone receiver could be replaced on its hook, so rapidly were the calls sent in. It was most interesting to watch the progress and development of the improvised headquarters. On the second night kerosene lanterns replaced the candles and a second telephone was installed. The third night found us with gas-light and our quickly collected force growing steadily more proficient to handle an unprecedented demand for help from the now completely stricken
city; and on the fourth night our efficiency had been brought up to full standard and we could boast of a switch board and electric lights.

The city was divided into four districts. School buildings, chosen primarily because of their central location, were used for headquarters and branch offices, and the main office was located as near the center of this group as possible. The work was conducted under the supervision of the United States Public Health Service.”

A Medical Officer in Charge and five assistants, all officers of the U. S. Public Health Service, conducted the work of medical relief. The Army and Navy lent valuable assistance by supplying many young physicians from the army and navy hospitals and medical schools. The nursing service was under the direction of the Director of Nursing of the U. S. Public Health Service. Assisting her were seven graduate nurses; four of them acting in the capacity of assistant directing nurses in the four branch offices,—and a nursing staff of thirty-eight graduate nurses and eighty-three nursing aides (for 23 days). In the central office were the Directing Nurse and three assistant nurses—one in charge of the registering of all nursing aides, the summarizing of daily and weekly reports, and the compiling and filling of requisitions for nurses and aides, nursing supplies, food, and the requests for transportation for nurses and aides, both day and night—the other two detailed to assign all calls to their respective districts, to take care of emergency calls too urgent to await their rotation in the already crowded district offices, to give the special attention needed for obtaining admission to hospitals for acute emergencies, and to handle all cases requiring a special report. The registration of cases and of all clerical and nursing help was taken care of by an up-to-date card system at the central office, under the direction of two efficient clerks, assisted by teachers and other volunteers, and it was in this office also that the special instruction of nursing aides, in the matter of protecting themselves and others from infection, was taken up. (Instructions written and issued for this purpose, together with diagram of organization and specimens of record cards, reports, etc., are shown later on.) Headquarters for the distribution of food and motor service were also located in this building.”
Masks were mandatory:

Seattle Police fully masked 1918

“Onset was equally swift, often accompanied by massive secondary infections like pneumonia. An infected patient might be fine in the morning and dead by nightfall. Symptoms included not only the familiar fever, aches and congestion, but also pulmonary hemorrhaging, hallucinations, delirium, dyspnea and cyanosis.

“The faces [of the sick] wear a bluish cast; a cough brings up the blood-stained sputum,” wrote pathologist William Henry Welch, M.D., then president of the Maryland State Board of Health. “In the morning, the dead bodies are stacked about the morgue like cordwood.” *(Hamink)*

“The death toll was highest in the ages 15 to 40, those in the peak of health. The victims would be fine one minute and the next incapacitated, fever-racked, and delirious. Temperatures rose to 104-106 degrees, skin turned blue, purple, or deep brown from lack of oxygen. Massive pneumonia attacked the lungs, filling them with fluid; blood gushed from the nose. Death was quick, savage, and terrifying.* *(Armstrong)*
Experience of Student Nurse

Dorothy Deming wrote of her experience as a student nurse assigned to 12 hour ‘duty’ in the women’s flu ward at Presbyterian Hospital in New York. For six weeks she and another student also named Dorothy lived in the thick of the epidemic. The ward normally cared for 24 patients - cots were added and they cared for 32 very sick women. A night without a death was the exception; one night there were eight deaths. Care was supportive. Doctors left orders and told the nurses that “Now everything depends on good nursing care.” There were no antibiotics or vaccines to provide immunity.

The two student nurses developed from necessity an assembly line technique and worked as a team on either side of the bed in giving treatments, changing linen or bathing patients. On many mornings they had ‘the grim task of trying to find a few words of comfort for dazed parents, husbands and children.

Deming was one of the few students who remained perfectly well throughout the epidemic. She was “‘fanatic about hand washing and did her best to get sleep during the day and ‘plentiful’ meals.”
Jewell describing the effect of the Spanish Flu in Wilkes-Barre, Pa, stated that

“The whole field force of the Associated Charities was called upon to help get people to and from hospitals, to make hasty arrangements for the care of children while fathers and mothers were taken to the hospitals or lay dead in their homes, to provide food and to render an endless and unusual variety of services called forth by this emergency.”

“The Red Cross, co-operating with other agencies, provided serving stations where wholesome food could be furnished to these stricken families.

In many instances neighbors and friends who did what neighbors and friends have always done. In one family the father and mother died almost at the same time. They left four little children, two of these were ill in the hospital, and the remaining two were taken by the woman's half brother. This man could speak but little English but he managed to tell us that "dem four kids can haf my roof till dey are tall like me."

Thus, while schools, churches, movies, clubs and other usual meeting places were closed, and while a great majority of the town was comfortable and undisturbed, the Health Commissioner and this force of trained and devoted people were battling
one of the deadliest enemies that ever attacked the city. The seriousness of it can be realized when it is stated that in the whole war abroad Cleveland has lost less than 300 men killed, and in a few short weeks it lost about 2,000 people here in its midst”.

As the epidemic began to improve, the County Medical Inspector, reported that deaths would likely continue to occur during the next three or four weeks and the Acting Commissioner of Health cautioned regarding the opening of schools:

"Where churches and schools have been closed during the epidemic of influenza, great care should be practiced at the time of removing restrictions. Many children have been kept completely out of danger during this dangerous period, and to open too soon and run the chance of bringing them into contact with persons who have recently recovered, and who may perhaps be carriers, may again bring fresh outbreaks of the disease, particularly among school children.”

The Oakland municipal Auditorium in California was converted to a temporary hospital with volunteer nurses from the American Red Cross in 1918.

Lessons From the Pandemic of 1918
“At the end of the first wave in 1918, In San Francisco, when the number of Spanish flu cases was almost down to zero, "the city fathers said, 'Let's open up the city. Let's have a great big parade downtown. We'll all take off our masks together,'" epidemiologist Dr. Larry Brilliant said. "Two months later, because of that event, the great influenza came back again roaring.”

xxi Armstrong (2001) states that “As soon as the dying stopped the forgetting began. The 1918 influenza pandemic is seldom mentioned, and most Americans have never heard of it. What is amazing is just how quickly the amnesia began”
Armstrong warns that—

“Virologists are only now slowly unlocking the secrets of the Spanish Flu from recently discovered lung tissue specimens from 1918. Apparently, the virus’ savageness was due to a flu strain that had undergone a mutation.”

The Centers for Disease Control and Prevention, epidemiologists believe the probability is high that another dangerous new strain of the influenza virus will emerge. Combined with the world’s increased population and jet-age travel, the stage could be set for another catastrophe. This pandemic could spread so fast that research laboratories could not isolate, prepare, and distribute an appropriate vaccine in time. Jeffery K. Taubenberger of the Armed Forces Institute of Pathology and the primary researcher of the 1918 virus points out that if the records are any indication, another pandemic is inevitable. The question is when.

Hamink provides the following legacy—and caution—regarding pandemics:xxii

While the influenza pandemic was an international disaster, it gave new resolve to nurses and nursing organizations by emphasizing the vast importance of skilled nursing in times of peace as well as war. ...

Above all, the epidemic spoke to the importance of public health planning. In an era where global trade and travel are commonplace, a previously obscure disease — or a mutated form of an illness that was previously just a harmless nuisance — can spread with breathtaking speed. We can’t know when another global epidemic may strike, so all we can do is be prepared.

And if the 1918 pandemic teaches us nothing else, it’s that the preparation for any potential public health crisis must include ensuring that nurses have the training, resources and support to help as only they can.

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Source: Jewell (op. cit.) CLEVELAND AND THE "FLU"BY SHERMAN C. KINGSLEY. Director, The Welfare Federation of Cleveland


Yan, Holly (CNN) April 16, 2020. The Spanish flu killed more than 50 million people. These lessons could help avoid a repeat with coronavirus

Armstrong, op. cit
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