CHAPTER

Nursing in the United States From 1900 to the Early 1920s

1901

- Clara Maass dies
 after participating in
 research on yellow
 fever
- Theodore Roosevelt elected president
- Army Nurse Corps founded

1905

1905

American Journal of
Nursing published for
the first time

1907 Navy Nurse Corps developed

1907

1909

1909

- First nursing school program associated with a university founded
- National Association for the Advancement of Colored People (NAACP) founded

1900 1901

1900

1902

1903

1904

 Walter Reed proves yellow fever is caused by mosquito bites
 Lillian Wald forms New York public school nursing program

Mary Adelaide
 Nutting introduces
 science and theory
 prior to clinical
 practice

1906 **1906**

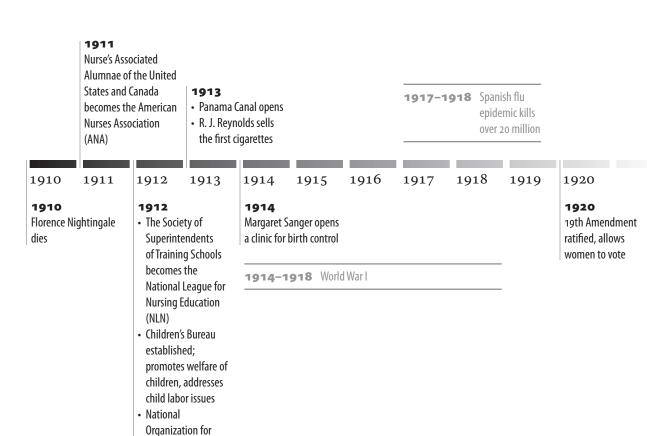
San Francisco
earthquake rescue
efforts involve national
public health services

1908 **1908**

National Association of Colored Graduate Nurses is formed

A NEW CENTURY BRINGS NOVEL IDEAS AND SOCIAL CONCERNS

Deborah M. Judd



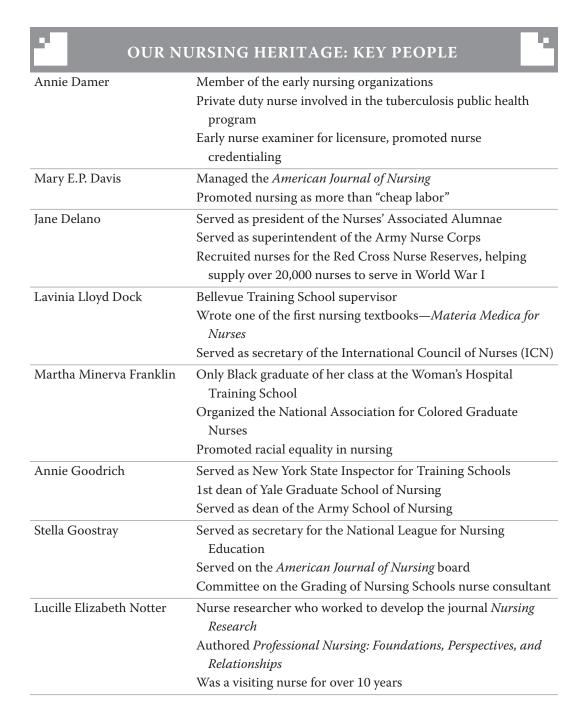
1910–1912 Isabel Hampton

Robb promotes educational reform

Public Health Nursing

is formed

© Jones and Bartlett Publishers, LLC. NOT FOR SALE OR DISTRIBUTION.



Clara Noyes	Director of the American Red Cross Bureau of Nursing,
	prepared nurses for World War I
	Promoted child welfare work
	Post-war recommendations had an international impact on
	hospitals, public health, and education
Mary Adelaide Nutting	Advocate for educational reform and university education for nurses
	Author of several nursing texts and guides
	First professor of nursing
Mary D. Osborne	Promoted maternal and child health and prenatal care
	Regulated "granny" midwives, instituted midwife training
Sophia Palmer	First editor of the American Journal of Nursing
	Promoted state registration of nurses
	Charter member of the American Nurses Association and The
	American Society of Superintendents of Training Schools for Nurses
Mabel Keaton Staupers	Promoted racial equality in both nursing and healthcare
	provision
	Wrote No Time for Prejudice
	Served on the Harlem Tuberculosis Committee
Julia Catherine Stimson	First female major in the Army; superintendent of the Army
	Nurse Corps; dean of the Army School of Nursing
	Chief nurse of the American Red Cross during World War I
	Served as president of the American Nurses Association
Adah Belle Thoms	Encouraged equality for Black nurses and student nurses
	Served as superintendent of the Lincoln School for Nurses
	Promoted Black nurse participation in the Red Cross

Sociopolitical Climate

By the close of the 19th century, millions of immigrants had entered the United States through Ellis Island. From the 1880s until 1910, the demographic of immigrant populations changed such that there were more individuals from eastern Europe and the Mediterranean gathering along the eastern shores of the United States than there were from England, Scandinavia, or western Europe (Kalisch & Kalisch, 2004). On the Pacific Coast, the harbor of San Francisco welcomed immigrants from the Orient, primarily from Japan and China, although some European immigrants traveled around the cape to find their fortunes. Those wishing for a better life and many opportunities for success came to the United States with limited resources, inadequate preparation, and unrealistic expectations for what they would find once they arrived in the land of promise. These great shifts in population resulted in major health issues, economic dilemmas, and a general lack of support for the newly arrived citizens.

"Cities, ill prepared to cope with rapid growth, were governed inadequately and often dishonestly by politicians whose base of support lay in wards populated by immigrants inexperienced with American politics and grateful for services provided by the 'machine" (Kerber & De Hart, 1995, p. 228). Populations in major cities on the East Coast grew at phenomenal rates; housing shortages, sanitation issues, increased disease morbidity, significant mortality, new social problems, and labor concerns related to children and women caused distress for many. Tenement housing became the standard in the cities, and with continued immigration into the United States, issues arose related to changes in ethnicity, substantial poverty, mediocre management of frontier borders, and inability to deal with the significant influx of individuals into a system not adequately prepared to receive them. Worry about the welfare of women and children created an environment for social, economic, and political reform. The Industrial Revolution continued to promote economic growth for the nation while ultimately undermining certain aspects of society. The government was not prepared to adequately deal with rapid immigration, modernization, and the problems or changes in society associated with progressivism. Some felt that because there were no responses to the social issues, that leaders were inefficient and perhaps submissive to those who could wield power because of their status in business or society. Even though the need for social reform was obvious, some professed that elected officials and others who could initiate change did not deal with the most important issues (Brinkley, 2003).

Distinctions in class became more obvious. A limited number of individuals and families who achieved great profit and benefit created monopolies and economic empires, while concerns for the lower- and middle-class members of society expanded. The Department of Commerce and Labor was created in 1903, and many antitrust issues were addressed as the government intervened in national economics. In 1907 a recession arose, and public financial concerns escalated until 1914, when the Federal Trade Commission was formed to resolve further antitrust issues. Political and social reforms were initiated by the rise of Theodore Roosevelt to the presidency of the United States in 1901 after the assassination of President William McKinley (Brinkley, 2003).

Events during this 20-year period of time influenced society and nursing reformation in particular over the next several decades. The National Association for the Advancement of Colored People was founded in 1909. The Constitution was modified such that senators were elected by popular vote when the Seventeenth Amendment was ratified in 1913. The following year, the Panama Canal opened, providing opportunities for better worldwide trade options. Meanwhile, across the Atlantic, there was unrest in many countries. The Bolshevik Revolution occurred in Russia when Germany invaded France and Austria occupied Serbia. World War I began in 1914, and the Treaty of Versailles was not signed until 1919. There were many who were concerned about neutrality and involvement in war as the United States emerged as a world power and assumed greater responsibilities related to foreign policy and influence (Brinkley, 2003; Kalisch & Kalisch, 2004; Mosby, Inc., 2000). Reforms continued through the successive presidencies of William Taft and Woodrow Wilson. Eleanor Roosevelt, the first lady, was actively engaged in social improvements and encouraged many aspects of feminism. Prohibition was established when the Eighteenth Amendment was adopted in 1919, in part due to concerns of many citizens who felt that liquor had a negative influence on society and the family. Women's suffrage escalated and was no longer just a state concern. With the passage of the Nineteenth Amendment in 1920, women were granted certain rights, including the right to vote and the right to own property.

Finally, as women adopted roles that were not the traditional roles of wife and mother, many were concerned about the ultimate effect it would have on the individual, the community, and the nation. This reaction prompted many women and some men to crusade for change in a world that needed progressive thoughts and actions in order to solve social concerns pertaining to health, education, sanitation, violence, sexual responsibility, morals, and economics (Kerber & De Hart, 1995, p. 229). A number of societies and associations emerged, permitting women to influence policy in their communities and eventually the nation. According to Kerber and De Hart, these new organizations allowed women to gain access to politicians,

Nursing Services Club



influence society through marches and rallies, and finally influence men, who, at the time, controlled society (p. 229). Some of these organizations included the Women's Christian Temperance Union, the Young Women's Christian Association, the Settlement House Movement, the National Child Labor Committee, the General Federation of Women's Clubs, and the Pure Food Association. Each of these groups and similar social clubs eventually influenced society as they allowed issues of the day to be openly addressed. During the next several decades, social reforms and concerns expressed during this era contributed to many advances for women and children. Female leaders of the day had great foresight and determination to initiate changes that would positively affect women's vocations over the next 50 years.

The Image of Nursing

S NURSE RESPECTABILITY INCREASED, MANY still believed that the Inurses of the day should only be associated with the emerging hospital systems and their judicious control. Nurses' lives were influenced in essence by the hospital schools that accepted, trained, and eventually employed them; their duties and responsibilities were the direct result of the needs in these individual organizations at the turn of the century. Nursing supervisors and physicians of the day determined their attire, the scope of their activities, and their schedules. Nurses just prior to the war had a distinct appearance. In 1916 a standard public uniform was proposed for American Nurses Association (ANA) members appearing in public activities "in which nurses have been given a conspicuous place, as those for preparedness or equal suffrage" ("The Need of a Standard Uniform," 1916, p. 966). Nurses enjoyed a positive image during this time since they represented all things that were good and socially acceptable. Since the uniform represented who they were and their service to society, it was only to be worn while on duty and caring for the public in whatever setting they worked (Houweling, 2004). Because of this belief, which continued into the end of the 20th century, nurses were expected to continue to protect their image by wearing the uniform of their day only while working.

Nursing service was still considered by most to be a Christian characteristic, and thus images of the Victorian era remained associated with the

nursing vocation until about 1910 (Houweling, 2004). The attire of a nurse included a basic, clean, modest dress without obvious areas of wear and the traditional apron. Most wore a cap or hat that was unique to the hospital where the nurse had trained as a probie. Nurses were required to present themselves on time, with all details of their appearance determined by the hospital or school in order, and then were evaluated by patients, supervisors, and the attending physicians. Hospital nurses continued to train and work in their respective facilities, serving patients who often were admitted for extended periods of time.

Mosby, Inc. (2000) summarizes Minnie Goodnow's (1919) description of nurses:

Work was considered an opportunity, since the ordinary female could nurse and those that could be trained were deemed able to acquire the techniques and characteristics necessary for "the spirit of her art" ... All were to bear in mind that you should be ready and willing to do your best and even more than required without emotions that would betray your feelings ... One was not to appear hurried or without interest in the patient or the doctor, while maintaining appropriate but socially acceptable relationships with all; be considerate, do not contradict, please others, be honest, consider the patient's wellbeing, don't judge based on social status, and never forget that it is your "good breeding and teachableness" that allow you to serve others as a probationer and eventually a nurse. (p. 11)

The development of complex communities that were crowded and impoverished allowed nurses to offer expanded nursing services to those who needed them but were not eligible for hospital stays or physician care. As home and clinic health services expanded, the image of a visiting or home nurse was likely to include a modest and simple dress with a fitted bodice, long sleeves and a white smock; the collar was high, and all nurses wore a black or white hat. Eventually they adopted a blue uniform, which allowed others to recognize them as a public health nurse. Because these nurses did not work in the hospital setting, they carried a black bag that held their supplies to be used when administering to the sick or injured.

It was not uncommon for nurses who rendered care in such circumstances to go directly into the community and live and work with their patients and families. Their uniform not only identified who they were but

also offered them some protection in areas where they might otherwise feel unsafe. Services provided by these early school or home health nurses included checking on the status of children in or out of school, delivering babies, providing education and protection to those less fortunate, educating individuals unfamiliar with certain aspects of personal hygiene or disease, and monitoring patient progress. Most times the nurse not only cared for a specific patient but also the extended family unit.

Almost all nurses were female during this era; there were only four male nursing schools and very few others admitted males into the realms of their nurse training programs. Since nurses were female, the style of the uniform was in keeping with conservative societal trends for a single female. Depending on the location of service, a nurse might vary her uniform to fit the circumstances, such as horseback riding for the frontier or town and country nursing services. Nurses might also alter their uniforms to fit the climate and the socioeconomic status of the patients they cared for in order to fit into the community they serviced. Since nurses basically lived and worked in the same setting, their entire existence was an image that society knew and understood.

The Education of Nurses

IN THE EARLY 1900s, EDUCATION for nurses continued to change as a result of recommendations from the American Society of Superintendents of Training Schools for Nurses. Various committees worked together to ensure that nurses were prepared for leadership under the auspices of Isabel Hampton Robb. Teachers College and Columbia University became model schools for nursing education.

Nursing education should find its place in the university, which is another way of saying that it belongs where all educational expressions have been increasingly placed, and for the reason that universal knowledge is there ... [for] the needs of the students as future builders of the community. (Goodrich, 1932, p. 173)

As nurse leaders better understood the need for academic knowledge as well as clinical knowledge, a group of nurses at Teacher's College began to include an emphasis on nursing experiences, phases of nurse education,



Teacher's College, Columbia University

clinical training, socialization into the hospital program, supervision, teaching, and a focus on nurse specialties including public health and school nursing in their revised lectures. These leaders knew that hospital school programs of the past would never be able to promote scientific nursing knowledge without the assistance of an academic institution and faculty who were prepared with a scientific background. Prior to that point in time, educators were from the hospital organization or the medi-

cal community and taught from a personal perspective with emphasis on the notion that a nurse was to aid the doctor and care for all of the patients' needs while maintaining a sanitary environment suitable for adequate nourishment and healing (Donahue, 1996, pp. 288–289).

As more theory and alternative courses were introduced into the training experiences of nurses, physicians believed that nurses were being taught foolish knowledge, and that too much theory would lead to too little care (Kalisch & Kalisch, 2004). Debate ensued as physicians believed that understanding of unnecessary things would impede the nurses' ability to effectively care for their patients. Nurse leaders, however, felt that additional knowledge would enhance the care the nurses would provide. Educational modification based on theory and the acquisition of scientific knowledge ushered in an era of academic nursing education associated with either a college or a university education.

Within 10 years, Mary Adelaide Nutting, working at Johns Hopkins Hospital, became the first nursing professor and eventually the first nursing chairperson. Nurses of the day, such as Lillian Wald, Mary Brewster, Lina Rogers, Mary Sewell Gardner, Lavinia Lloyd Dock, and others encouraged the addition of specific skills and knowledge to augment the nurturing and housekeeping duties that were traditionally part of most hospital-based nursing practices. They wanted to demonstrate to society the nurse's intellectual

capacity and ability to accomplish great things as they "banded together to support educational standards, to set up legal controls to prevent the spread of poor schools, and to prevent unlimited expansion" (Stewart, 1943, p. 129). These nurse leaders, through collaborative efforts, promoted educational reforms that resulted in college- or university-affiliated programs for nurses. The suggested curriculum changes they encouraged continued to be implemented in ways that would impact educational opportunities for all nurses during the entire century as theory inclusion became an integral part of a nurse's training.

Since nursing services were becoming more diversified, there arose a need to educate nurses for a variety of settings. There were many suggestions to improve educational standards and ensure practice regulation. Some of these recommendations included preparation classes, practical courses, science lessons (such as those in anatomy), and specific theory relating to all aspects of patient care, from hygiene to the operating theater. Additionally, probationers were referred to as student nurses, and training superintendents were called nursing teachers or faculty. Mary Roberts Rinehart (1931) describes the obstacles that nurses encountered during their struggle to achieve professionalism in her reflection, *My Story*:

The simple, plain hell faced by the young nurse is a world so strange and at times so terrible, that even now it hurts to remember it ... By the time I graduated there was no phase of human life or human suffering which I had not touched ... I had no knowledge whatever of brutality, or cruelty, or starvation ... there was born in me something which has never died, a terrible and often devastating pity and compassion, for the weak, the sick and the humble ... these things happen and the world is powerless to prevent them ... I stood one night beside a man who had been [injured]. I wanted him to die quickly ... I can't stand it. Die and stop suffering ... I can't stand it. I can't! When I felt I had suffered, I set up a defensive mechanism; don't think, don't feel. It was automatic. (pp. 45–46 and 65–69)

Nurses today may still feel the same, but through unfathomable technology and discovery, they can and do now change things that were once unchangeable. They have acquired significant amounts of theory about how to care for their patients in the most challenging of conditions, and use their own cognition and power to heal them in ways that only a nurse can.

Advances in Practice

OMEN WHO WERE GAINING MORE autonomy came together and began to request political recognition and social reforms to alleviate suffering and disparity. Several manuscripts were written describing social conditions, economic injustice, racial concerns, and gender inconsistency. These works and the political progressivism of the time allowed for advancement of the nursing profession. A few notable women became active in political and healthcare reform, and changed conditions for those for whom they advocated when they formed the New York Public School Nursing program in 1902 and the Women's Trade Union in 1903. Through the efforts of Lillian Wald, Mary Brewster, and some of their peers, the Henry Street Settlement and Metropolitan Life Insurance Company established a collaborative relationship for visiting nurse services in Manhattan. Over the next few years, services were expanded into other major metropolitan areas in the Northeast where visiting nurses were active. In each of these areas a Visiting Nurses' Association was formed to establish services with companies for their employees (Kalisch & Kalisch, 2004; Mosby, Inc., 2000).

In 1899, Nutting, along with other notable women (including the wives of several legislators) petitioned for the establishment of a new Army Nurse



Henry Street Settlement, Manhattan, New York

Corps. It was believed that there would be significant advantage to working for the military since standards of care would be designed specifically for medical and nursing situations associated with war. This proposal was adopted in 1901, during the reorganization of the army, and it eventually led to the development of another military nurse corps known as the Navy Nurse Corps in 1907 (Kalisch & Kalisch, 2004). With the acceptance of these military nurse corps, females replaced male corpsmen as a more efficient use of resources and thus promoted nursing as a female vocation.

When nurses entered the community, they did extremely well treating the conditions of the day and connecting with individuals of all socioeconomic and cultural backgrounds. Community successes along with nurses' newfound independence caused concern among some who had had been the main providers of care—district and hospital physicians. Nurses who remained in the hospital under constant supervision of nurse superintendents began to wonder about their role, duties, and abilities to function more independently as their community peers were doing. One physician in the Northeast commented, "the nurse took the temperature, pulse, and respiration, opened the windows and put the pneumonia patient on a milk diet, and left nothing for the physician to do." Another surgeon reported, "they should be prepared for any emergency ... even to giving an intravenous or to re-ligating slipped abdominal sutures" (Foley, 1913, p. 451).

The discussion and debate concerning independent functioning of the individual nurse continued, and in 1912 the scope of visiting nurses was defined when the Chicago Visiting Nurses Association adopted recommendations for care, which became known as standing orders. These orders included descriptions on bathing, diets and nutrition, enemas, environmental conditions, skin and wound treatments, vital signs, relaxation strategies such as rubs, and equipment use, limiting their duties to care without medicine administration, including commonly used items such as castor oil (Kalisch & Kalisch, 2004, p. 169).

In 1895, Lillian Wald ensured life, liberty, and the pursuit of happiness for many as she endeavored to bring the promises of America to those who hoped for a better tomorrow.

Over broken asphalt, over dirty mattresses and heaps of refuse we went ... There were two rooms and a family of seven not only lived here but shared their quarters with boarders ... [I felt] ashamed of being a part of society that permitted such conditions to exist ... What I had seen had shown me where my path lay. (Jewish Women's Archive, 2008a)

Wald defined nursing care in new ways and made a bold statement along with her colleague, Mary Brewster. They promoted community nursing and tried to ensure that women and children, the poor and the needy, religious immigrants, and new ethnic settlers had an opportunity to receive care when they were sick. More importantly, they insisted that support and education were necessary to prevent disease that often accompanied poverty and crowding.

During the first decade of the 1900s, the school nursing program was introduced, and school nurses became active in caring for children of the community in the schools they attended. Prior to initiation of this program, thousands of students were sent home regularly for any illness, even if it was minor. According to Wald and Lina Rogers, many children were kept from school when they did not need to be, and in other instances disease and contagion were not addressed and communities suffered epidemics (Kalisch & Kalisch, 2004). The school nurses became successful in caring for many diseases of childhood and, more importantly, infections and infestations of the skin such as scabies, ringworm, lice, and skin dermatitis, which were common in the tenements. They accomplished great things as they dealt with social problems and changed the outcomes of many communicable diseases including diarrheal infections, tuberculosis, trachoma, and typhoid fever. They became advocates for the children and their mothers and would often be the only ones who could do so. Florence Kelly (1913) recalls:

A nurse followed him to his lair and found four brothers and little girl five years old working with incredible rapidity turning out little paper bags ... as come from the grocer.... Not one of the children was tall enough to reach the window sill.... They lived there 18 months in a rear cellar bedroom ... Nobody had visited them but a series of doctors when the children had the diseases of childhood, not one of them had reported them to the truant officer. When the matter was reported to the factory inspector, he said he never knew of anyone occupying that room ... here was a perfectly dead waste, due to the negligence of the physicians who had left everything as it was before.... The two persons who have access everywhere are the nurse and the doctor. (American Academy of Medicine, 1913, pp. 6–7)

Despite the school nurses' achievements in controlling disease and the nuisances of mild illness, in 1906, "excited mothers stormed schools to demand their children [after hearing the rumor] that the children's throats were being cut" (Kalisch & Kalisch, 2004, pp. 167–168). The cause of the riot was in fact due to adenoid operations that had been performed on school premises. Once the mothers were informed of the circumstances their apprehension was alleviated, and over time school nurses became the friends of the community and were trusted to provide necessary services

for all (Kalisch & Kalisch, 2004). Even into the mid-1900s, tonsillectomies and adenoidectomies were performed in school settings as a way to control frequent outbreaks of tonsillitis prior to regular use of penicillin antibiotics.

In 1912, Wald prompted Congress to create the United States Children's Bureau after she aroused national attention over the years related to children's health and well-being. She made statements such as the following on many occasions:

... the Federal Government concerned itself with the conservation of material wealth, mines and forests, hogs and lobsters, and had long since established bureaus to supply information concerning them, citizens who desired instruction and guidance for the conservation and protection of the children of the nation had no responsible governmental body to which to appeal. (Jewish Women's Archives, 2008b)



Jane Adams (left) and Lillian Wald (right)

Under the direction of Julia Lathrop and Grace Abbott, chiefs of the bureau, recommendations and programs were developed related to child labor laws, illegitimate births, juvenile courts, individual state codes for minors, adoption rules and regulations, guardianships, child placements, and offenses against women and children (including sexual abuse). This program has continued to the present and is now part of the Division for Children and Family Services. The bureau not only addressed social issues, but promoted clinics for women and children where services such as prenatal care, postnatal care, and well-child visits/screenings became available (Kalisch & Kalisch, 2004). These programs promoted nurses as the caregiver, and over time their interventions and care decreased morbidity and mortality to these somewhat defenseless populations.

Another nurse reformer, Margaret Sanger, worked to transform women's health as she advocated for education of women regarding pregnancy, sexual activity, birth control, and safer abortion practices. Sanger felt that



Margaret Sanger

poverty and lack of understanding contributed to health concerns of women in tenements or rural communities or those of society. Many women had multiple births and either lost children or their own lives as a result of the many pregnancies or the practice of self-induced abortion. Sanger wrote a book about her convictions, entitled *The Pivot of Civilization*, which was originally published in 1922.

We have been criticized for our choice of the term "Birth Control" to express the idea of modern scientific contraception ... the verb "control" means to exercise a directing, guiding, or restraining influence ... Control is guidance, direction, foresight. It implies ... the application of intelligent guidance ... Our effort has been to raise our program from the plane of the emotional to the plane of the scientific ... We must temper our emotion and enthusiasm with the determination of science. (Sanger, 1922, pp. 55–56 and 65)

Sanger worked as a public health nurse in New York City, providing care in maternity cases in a tenement area of the community. She recalls caring for a woman who had attempted an abortion at home to end her pregnancy; this woman recovered after 3 weeks, but a short time later the woman died when she attempted a second abortion and bled to death. As a result of the following experience, Sanger spent the remainder of her life learning about contraception and advocating for medical care and social reforms for women and children.

When the physician made his last call, he admonished; "Any more such capers, young woman, and there'll be no need to send for me." The convalescent replied, "but what can I do to prevent it?" The physician laughed goodnaturedly, "You want to have your cake and eat it too, do you? Well it can't be done. Tell Jake to sleep on the roof." [The woman pleaded with Sanger]: "Tell me the secret and I will never breathe it to a soul." Three months later, the husband called and begged for me to come at once. When I arrived, the wife was in a coma and death followed within minutes. I walked the streets for hours, in years to come I would cite this experience as a turning point in my life. (Sanger, 1922, p. 92)

Technology and Practice

As nurses were perfecting many aspects of care in the hospital and in the community, others were exploring novel ideas and discovering scientific or technological innovations that would soon influence medical and nursing care in this and subsequent eras. From 1900 to 1920, there were several advances that affected care provided to patients well into the 20th century. For example, the source of yellow fever was discovered and verified by Major Walter Reed through the efforts of a nurse who worked with him. Clara Maass actually volunteered to be bitten by a mosquito and eventually gave her life to further knowledge about this disease, which caused more casualties during the Spanish-American War than did the actual combat. Walter Reed Army Hospital near Washington, District of Columbia, was named for him. Also, in 1915, a tuberculosis campaign was promoted by Metropolitan Life Insurance Company to study and eventually prevent its spread, utilizing the health demonstrations, many people were able to participate in this program.

From 1900 to 1920, the following medical advances and discoveries occurred:

- Bayliss and Starling introduced the term *hormone* following their discovery of secretin.
- The first electrocardiogram recording was performed.
- Novocaine (procaine) was used for dental care, and it was eventually tried during medical procedures.
- A test for syphilis was introduced by von Wasserman.
- · Blood types were identified by Landsteiner.
- Sir Frederick Hopkins discovered tryptophan and other amino acids, linking nutrition to health.
- Organoscopy (eventually laparoscopy) was developed at Johns Hopkins University Hospital.
- Collodion tubing was used to cleanse the blood, working like an artificial kidney to eliminate toxins (early dialysis). (Mosby, Inc., 2000, pp. 1 and 9)

The first year of the new century ended with an eruption of the bubonic plague in San Francisco, testing the capability of the newly formed United States Public Health Service. Since the organization and headquarters were in the East, there were issues associated with distance and communication. Initially, the presence of the infectious disease was denied and even ignored while rats in the city spread the infection readily in light of poor sanitation and crowding. The disease's spread was believed to be associated with the Chinese immigrant population of the city who were living in deplorable conditions. At one point it seemed that the infection was abating, but with the earthquake and fire of 1906, the disease spread more rapidly, resulting in an epidemic in the Western regions of the country. The Public Health Service became involved and scientists were able to identify the source of the infection and develop strategies to contain it. New knowledge related to vectors and inoculation became available. Programs were initiated to contain the infection, to prevent cargo transportation of rats, and finally to manage the flea population that transmitted the disease from rat to rat, and sometimes from rat to human (United States Public Health Service, 1939).

An epidemic of the Spanish flu killed over 20 million individuals in Europe and Asia by the end of 1917. Even though it was termed the Spanish flu, it was really a very virulent strain of influenza A, which was first noted in Spain during World War I. Some sources say that the flu originated in Tibet, spread into Europe, and by the following year crossed the ocean and emerged on U.S. soil, where it killed over half a million Americans in 1918. This plague killed twice as many people worldwide than did the combat of World War I. The infection affected close to 30% of the population, and affected those who were aged 20–40 years more readily than the young or the elderly. More people died during the winter of 1917–1918 than during the bubonic plague of the 14th century (Billings, 2005).

The American Medical Association (December 28, 1918) released the following statement about the epidemic in the *Journal of the American Medical Association*:

1918 has gone: a year momentous as the termination of the most cruel war in the annals of the human race; a year which marked, the end at least for a time, of man's destruction of man; unfortunately a year in which developed a most fatal infectious disease causing the death of hundreds of thousands of human beings. Medical science for four and one-half years devoted itself

to putting men on the firing line and keeping them there. Now it must turn with its whole might to combating the greatest enemy of all—infectious disease ... (Billings, 2005)

"An infection is an act of violence; it is an invasion, a rape, and the body reacts violently" (Barry, 2005, p. 107). According to the physiologist John Hunter, the body's defense lies in its ability to resist putrefaction or infection (Barry, 2005). Hippocrates and Aristotle observed the nature of disease and infection and tried to explain it without actual exploration in about 500 B.C.; Galen wrote his thoughts on medical philosophy around 150 A.D. without invasive investigations. It was a millennium and a half later that Harvey and his peers discovered many new medical ideas. These ideas ushered in an era of new scientific knowledge resulting in novel developments in medicine. Louis Pasteur, Joseph Lister, Robert Koch, and others ascertained much new information about infection, bacteriology, and antisepsis. Their work ultimately affected how nurses and doctors intervened during the influenza epidemic that eventually became a pandemic.

In 1918 Dr. Loring Miner treated a patient who "presented with what seemed common symptoms, although with unusual intensity—violent headache and body aches, high fever, nonproductive cough" (Barry, 2005, p. 93). In a relatively short period of time he saw many others with similar symptoms and diagnosed them with an influenza of severe type, "violent, rapid in its progress through the body, and [often] lethal. [He] contacted the U.S. Public Health Service, but they could not offer assistance nor advice" (Barry, p. 93). Over the next year, many would be affected and eventually strategies for treatment would emerge.

Meanwhile, Paul Lewis, serving in the navy as a physician, had never cared for patients directly since he was a medical scientist.

Within 4 days of his arrival in Philadelphia, 19 sailors were treated for the same infectious disease ... 2 days later 600 were hospitalized with this strange disease; hundreds more sick sailors were sent to a civilian hospital. Lewis took charge and spent hours in his laboratory with all kinds of cultures and specimens, looking for the cause. The infection was so aggressive that doctors and communities could not deal with the sick, the dying, or the dead, and in many communities, people were buried in mass graves in an attempt to control the contagious disease. (Barry, pp. 200–201)

Many other scientists aided in the search for understanding of the infection, and as a result the Rockefeller Institute for Medical Research was founded. From its inception, researchers have added much to the body of knowledge related to infectious diseases. Much of what is now understood about disease processes, pathophysiology, biochemistry, and medical interventions came from their work (Barry, 2005). Through an extensive research process, scientists and doctors were able to develop an immunization to protect people from the flu. Today we still benefit from this knowledge, and annually a vaccine is developed in anticipation of the characteristics of the viral strain that causes it. Eventually medical researchers also developed immunizations and vaccines for other contagious diseases, which, in many cases, led to eradication of the disease in the following decades. At the beginning of the 21st century, many in the United States became negligent in adhering to immunization recommendations, and some diseases, such as pertussis, became problematic again.

In the late 1890s, many new ideas inspired medically-inclined individuals to perfect procedures and equipment, allowing for better patient care during this era. These advancements included the use of sterilizers for surgical equipment, new anesthetics, novel instruments to administer anesthesia, thermometers, X-ray machines, emergency care equipment, gynecological equipment, better blood transfusion techniques, blood pressure monitoring devices, and improved stethoscopes. The desire to enhance patient care with an emphasis on sepsis led to many new procedures and techniques related to surgery primarily, but there were many concepts that emerged, which ultimately affected care of patients who had episodic acute care needs or chronic illnesses. With more focus on patient procedures and ways to cure, nurses and hospitals became more readily available to the average citizen.

War and Its Effects on Nursing

ABOUT 23,000 GRADUATE NURSES WERE appointed to serve during World War I in both the Army and Navy Nurse Corps, with nearly 10,000 of them assigned to overseas duty. Some of these nurses were graduates of the newly established nursing military corps schools. Civilian-trained nurses, along with military-prepared nurses, provided wonderful care

despite many challenges. Of those 10,000 military nurses, several received distinguished honors for their courage, valor, and noncombat service; three of them received the second highest military honor, the Distinguished Service award. All of the nurses who received recognition were female despite the fact that there were a few male nurses involved in the conflict. It is reported that only 260 nurses lost their lives during this war, which is less than 1% of the total number of nurses involved in this military effort. The majority of these nurses' deaths were the result of the influenza epidemic in Europe (Mosby, Inc., 2000).

American Red Cross nurses also participated in the care of servicemen in the European theater. Females from society circles paid to be trained by the Red Cross so that they could go overseas to work as nursing aides. Clara Noyes (1917) wrote the following to Nutting:

There are moments when I wonder whether we can stem the tide and the hysterical desire on the part of thousands, literally thousands, to get into nursing or their hands upon it ... I talk until I am hoarse, dictating letters to doctors and women who want to be Red Cross nurses in a few minutes, not knowing the meaning of the word nurse and what a Red Cross nurse is. (Kalisch & Kalisch, 2004, p. 199)

These American Red Cross nurses eventually became the unauthorized Army Nurse Reserve Corps during World War I.

With an increased need for nurses to serve as military healthcare providers, many were concerned about overall nursing resources and the nation's ability to maintain adequately prepared nurses for both military and civilian hospitals. The Committee on Nursing was established under the direction of the General Medical Board of the U.S. Council for National Defense in order to address nursing supply, general aspects of providing



"The Weaker Sex? 'Woman's place is in the home.' —Anti-Suffragists." Red Cross nurse bandages a wounded soldier on the battlefield

health care, specific education related to military nursing, and to finally improve the care of soldiers related to lessons learned from the Civil War and the Spanish-American War. Requirements for applicants, personal qualifications, and educational recommendations were determined by this committee. As was still the norm for noncivilian nurses, military nurses had to be single, ages 25 to 35, and trained in a facility that had at least 100 beds (Kalisch & Kalisch, 2004).

Nurses serving in hospitals on U.S. soil cared for wounded or ill soldiers who had been stabilized by military nurses and doctors in overseas facilities, primarily in France or Britain. Transport of military healthcare providers and soldiers was by sea, via military ships departing or arriving through the ports of New York City. Nurses in Europe worked at small military hospitals and camps where they provided care in collaboration with their peer military medics and surgeons. Conditions were often unanticipated and difficult. The wounded soldiers were carried by other soldiers from the trenches to an area safe from enemy fire where they could be provided basic first aid-type care and then transported a few miles away for more extensive treatments. At these evacuation hospitals, wounds were cared for and surgery was performed if necessary. Eventually, all wounded soldiers were taken to base hospitals, and depending on their personal circumstances, they were cared for prior to return to the trenches or they were stabilized and sent to stateside hospitals for further care.

Trench warfare was perfected as face-to-face combat decreased and offensive tactics were developed to avoid contact with artillery fire. Wounds were deeper and more extensive and involved multiple organs, and significant infections occurred from contact with the soil in trenches or on the battlefield. Iron shrapnel and steel bullets caused considerable soft tissue damage. "The wounds which [nurses would] be called upon to handle and dress [were] such that [they had] never imagined it possible for a human being to be so fearfully hurt and yet to be alive" (Kalisch & Kalisch, 2004, p. 211). Asepsis was difficult, and prevented wounds from being treated effectively; the use of strong antiseptics was not without damage to the already traumatized wounds. An invaluable method of cleansing was discovered by Alexis Carrel and Henry Dakin. It was a chlorine solution that was effective for infection without tissue damage; it eventually became known as Dakin's solution and is still in use today (Kalisch & Kalisch, 2004, p. 211).

Recruitment of nurses became a priority from 1917 to 1918, and the Nursing Committee and various civilian nursing schools solicited new students in a wartime crusade that organized resources to permit expanded education options. Campaign posters were developed in association with the Red Cross. Middle-class women as well as high school and college students were targeted for their interest in the vocation of nursing. Surveys assessed many aspects of nursing, from the objections and difficulties of nursing to the image of a nurse and the reasons one might desire to be a nurse. These campaigns changed the approach to nursing education during the next 2 decades and before the end of the war, led to the development of the Army School of Nursing and a change in the age requirement of an applicant, decreasing it to 21 years of age (Kalisch & Kalisch, 2004).

Nursing Workforce Issues

T THE TURN OF THE CENTURY, females were granted the opportunity to participate in activities outside the home and family environment in ways never before available to them. Women were allowed admission into training schools, and eventually colleges, to train for a vocation other than that of motherhood and family or community service. With these newfound prospects for all women, there were some groups who were still excluded and discriminated against. Nursing was essentially a White female profession; Florence Nightingale (1867) believed "women, by nature, were more suited for organizing, performing, and supervising the nursing care ... to take all power over the nursing out of the hands of men and put it into the hands of one female trained head" (O'Lynn & Tranberger, 2007, p. 24). This sentiment excluded men from the profession since they were not admitted into hospital training schools and educational facilities where nurses were trained. From the mid-1800s until the early 1960s, males were somewhat invisible in nursing venues. Prior to the Nightingale era, men were commonly involved in care of the sick and injured as is evidenced from reports describing male nurses who were monks, knights, or medics in the military. There were many male nurses who served during the Civil and Spanish-American Wars, but when the battles ceased, society dictated that they return to the businesses and farms from whence they came. A small

number of these male nurses remained in nursing service caring for mentally ill patients or working on male wards. An even smaller percentage of male nurses were actually freed slaves who continued to function as nurses primarily in the South until the 20th century, when females replaced them (Sabin, 1997).

With an increased need for nurses in hospitals and on the battlefield, the demand for them eventually exceeded their availability. With the military patients coming home from World War I with battle wounds and mustard gas burns, hospital facilities and staff were taxed to the limit. This created a shortage of physicians and nurses, especially in the civilian sector. The shortages were further confounded by the loss of nurses during the flu epidemic, as they, too, became infected and were thus unable to work due to illness and death. In the United States, the Red Cross recruited more volunteers to contribute to the new cause at home of fighting the influenza epidemic while still managing military patients abroad and on American soil. To respond with the fullest utilization of nurses, volunteers, and medical supplies, the Red Cross created a national committee on influenza. During the war, this committee encouraged employers to allow staff to volunteer one night in the hospital to assist the nurses who were unable to do all that was required of them. If an employee was willing to do that, employers were strongly encouraged to give the employee a half day off, which allowed the employee time to rest from that service. This strategy provided nonskilled assistants who could do duties that did not require a registered nurse's time and it enabled the trained nurses time to perform duties that only they could (Crosby, 1989).

In 1908, the National Association of Colored Graduate Nurses (NACGN) was formed in New York City by Martha Franklin, who felt that discrimination, unregulated professional standards, and lack of educational or leadership opportunities existed. The graduate nurses came together to create a more sympathetic understanding of discrimination, to promote better administrative and educational standards, to elicit cooperation, and finally to secure contacts with other nursing leaders. Franklin, along with Mary Mahoney, the first trained Black nurse in the United States, organized a convention the following year to address the concerns of Black nurses and to support them professionally. The organization promoted their interests

into the late 1930s. In 1942, when the Army recruited 56 Black nurses into the Army Nurse Corps, the NACGN coordinated an increase in the number of Black nurses across the nation. A decade later, after affiliating with the National League for Nurses, the NACGN joined with the ANA to support integration and promote racial collaboration (Massey, 1933; New York Public Library, n.d.).

Dock, Sanger, Emma Goldman, and others were concerned about the effects that male dominance in the United States had on the nursing profession. They worried about paternalism in leadership and physician governance of nurses in a society that did not recognize women's equality or contributions.

Women's equality was an issue for nurses ... there were women's issues in the profession ... in terms of educational reform, the ability to control one's own labor, and in equal pay for equal work ... Until we possess the ballot, we may get up in the morning to find that all we had gained had been taken from us. (Dock, 1907, p. 901)

She further encouraged nurses to become involved in the suffrage movement so that they would not be

... an inert mass of indifference ... the modern nursing movement is emphatically an outcome of the original and general woman movement ... nurses are no longer a dull, uneducated class, but an intelligent army of workers, capable of continuous progress, and titled to comprehend the idea of social responsibility. (Dock, 1907, p. 896)

Other workforce issues for nurses were related to labor concerns and management of the emerging profession. These included environmental conditions, governance of the profession by nurses rather than physicians, standard educational requirements, registration and licensure, and state regulation by a board of nurses. Of great concern was the number of hours nurses worked, since most nurses still worked many more than 40 hours per week and often longer than 10- to 12-hour shifts per day. Others worked split shifts, which did not allow for adequate rest, nutrition, exercise, or socialization. Military nurses and those who worked during the epidemic were especially prone to shifts that were not conducive to a normal daily routine.

Licensure and Regulation

ICENSURE AND REGULATION OF NURSES became an issue in the early ⊿1900s. Nurses gained more respect and autonomy, yet they were not totally supported by their peers—medical doctors. The public did not clearly understand the role of the nurse, nor did they know what the nurses' credentials really meant. During the 1893 World's Fair activities in Chicago, nursing superintendents from Canada and the United States met to discuss nursing issues of the time. They were determined to standardize nursing education so that curriculums were similar in all training schools. Initially, they formed a nursing organization called the American Society of Superintendents of Training Schools for Nurses of the United States and Canada (Andrist, Nicholas, & Wolf, 2006). Dock and Nutting were two members of this organization who helped determine educational standards during the early 1900s. This group, which eventually became known as the Superintendents Society, was renamed the National League for Nursing Education in 1912. Today this organization is known as the National League for Nursing, and it is still the governing body for determining the goals of education related to nursing curriculum; it has attempted to standardize all nursing programs through a process of accreditation.

A second organization, the Nurses' Associated Alumnae of the United States and Canada, was created to address legal concerns and regulation of nurses. This association was to be a companion group to the Superintendents Society organized at the World's Fair (Andrist, et al., 2006). This nursing society became recognized as the ANA in 1911, and was responsible at that time for establishing criteria related to scope of practice, licensure, and legislation of the nursing profession. The ANA has worked to promote the nursing profession by protecting nurses' rights, describing aspects of nursing practice, establishing guidelines for practice, promoting a positive nursing image, and eventually lobbying for both women's rights and nursing rights, which, during that era, were not really separate issues. The national organization (ANA) and the state affiliates continue to be effective today as they influence legal aspects of nursing, regulate practice nationally, and define practice roles.

These early organizations were established to advance the science and profession of nursing; however, because they ultimately had different perspectives, there was some separation of power, which resulted in problems related to promoting the profession effectively. As Ashley described, these issues remained as late as 1976:

With the control of education in the hands of one organization and the control of practice in the hands of another, gaps in communication were inevitable. The lack of concerted action by both educators and practitioners created serious problems ... With this separation of functions, the foundation was laid for continuing lack of unity ... the conflicts and misunderstandings still exist today. (1976, p.96)

Nurses who received formal training along with their nurse supervisors soon began to concede the need for registration or certification indicating supervised training. One of the reasons for this was the rise of some training programs, including one published in the *New York Tribune*, which promised "You can become a trained nurse by study at home. Send ten cents for a handsome catalogue. Anyone, regardless of age or physical condition [can] become a trained nurse by a mere few months" (as cited in Kalisch & Kalisch, 2004, p. 178). The catalogue showed a nurse with the traditional uniform of a cap and an apron ready to take care of a patient. The nurse also wore her nurse's badge and was depicted with a spoon and medicine bottle indicting that she was trained and capable of appropriate patient care (Kalisch & Kalisch, 2004, p. 178). These training programs issued diplomas despite the fact that they lacked elements of training considered to be necessary for preparation.

Prior to 1900, nurses in New Zealand, Australia, and Great Britain initiated guidelines for practice and licensure. The first registered nurse was a female who served with the Maori people of New Zealand. In 1901, a group of nurses met in New York to discuss nursing issues, specifically those of educational preparation. These nurses were part of the newly created International Council of Nurses. A resolution was proposed during that meeting to initiate state nurse registrations by Bedford Fenwick, a nurse from Great Britain:

Whereas at the present time there is no generally accepted term or standard of training nor system of education nor examination for nurses in any country ... nurses should be carefully educated in the important duties allotted to them; there is no method, except in South Africa, of enabling the public

to discriminate easily between trained nurses and ignorant persons who assume that title ... it is the duty of every country to work for suitable legislative enactment regulating education of nurses and protecting the interests of the public ... by securing State examinations and public registration with the proper penalties for enforcing the same ... (Fenwick, 1901, p. 330)

New York became the first state to establish a board of examiners specifically for nurses. The New York State Federation of Women's Clubs aided nurses in their quest for recognition and accreditation standards along with other social and political concerns of the day, including women's suffrage. During the next several years, many other states attempted to initiate legislation regulating nurses. North Carolina proposed legislation in 1903 for mandatory educational requirements and regulation of nurses, but there was "strong opposition by the lobby of the state medical society" (Kalisch & Kalisch, 2004, p. 179) such that the bill was altered to include only certification by exam. If an applicant could pass the examination, education in a nurse training program did not need to be documented. The state board of examiners, according to the legislation, would include three physicians and two nurses (Kalisch & Kalisch, 2004). This allowed the medical community to be involved in regulating nursing practice, which has continued to be problematic into the 21st century.

Nursing Research

ONCERNS OVER EDUCATIONAL STANDARDS and funding prevailed during the early 1900s not only for nursing but for medicine in general. In 1910, Abraham Flexner prepared a report funded by the Carnegie Foundation discussing inadequacies in medical education. The following year, Nutting and some others decided at the convention of the American Society of Superintendents of Training Schools for Nurses that a similar study should be undertaken to assess educational standards, to document areas of concern, and to describe possible solutions. Much of what has been described in this chapter related to education, licensure, regulation, and practice were defined or reinforced as a result of this study. Even though nurse advocates did not conduct research in the same manner that we do today, they changed nursing for the better through their activities.

Many organizers of nursing groups, nurse superintendents, and nurses of that era contributed to research as they reported what they did and their results. They intervened in the community with services that changed mortality and morbidity. Frontier nurses and rural nurses decreased infant mortality, postpartum infections, and complications. All community and public health nurses helped to eliminate trachoma, tuberculosis, and common infectious diseases as they understood more about sanitation and contagious diseases. School nurses controlled skin infections, lice, and other common childhood ailments and increased opportunities for children to attend school. Other public health nurses dealt with women and children's health concerns and documented positive outcomes as they did. Even controversial ideas, such as Sanger's birth control and sex education programs, enabled nurses to serve the community in ways that decreased suffering while eliminating ignorance. Remember, public health nurses were instrumental in establishing criteria and standards of practice, including standing orders for which they were recognized and eventually sanctioned when the Metropolitan Life Insurance Company advocated for them by reimbursing for their services, which were of great worth to the community.

Summary

URSING DURING THE EARLIEST DECADES of the 20th century changed dramatically from the vocation that it had been during the later part of the 19th century. Many aspects of nursing today were influenced by events that promoted new opportunities and roles for women during this time, and by the observations and recommendations of nurses who worked relentlessly to promote nursing as an honest and worthy endeavor. Medical care changed dramatically across this era as a result of many medical advances, a world war, two epidemics, changes in nursing education, the creation of nursing organizations, the expansion of public health or community nursing, the promotion of women's rights nationally, the acknowledgement of women's health concerns, greater recognition of childhood issues, and promotion of hospitals as a better way to provide medical care. Many of the principal nurses of these decades influenced nursing while acting as political and social reformers as well. As the public's perception of nursing and

the importance of nurses' roles in the lives of the American people became evident, nurses gained a more positive image and nursing was perceived as a profession rather than a job.

IDEAS FOR FURTHER EXPLORATION

- 1. Investigate and discover more about World War I and the effects it had on nurses, who were predominantly women.
- 2. Assess how women's suffrage affected nursing opportunities and education. Who were some of the nurses in the United States who supported it and eventually promoted changes for the health of women and children in all areas of the country? What programs did they initiate and support?
- 3. During the first 20 years of the 20th century, what scientific advances and discoveries related to health care impacted nursing care? Research historical records to learn about discoveries not discussed in this text.
- 4. How did the influenza epidemic change health care and orientation to infectious diseases?

DISCUSSION QUESTIONS: APPLICATION TO CURRENT PRACTICE

- 1. Changes in licensure and education occurred in nursing during the early 1900s. How did/do those recommendations affect nurses today? Does the profession still have these same concerns? Why or why not?
- 2. Identify and describe nursing organizations that were instituted in the early 1900s. Are they still in existence today, and what, if any, influence do they have on the various aspects of nursing practice in the 21st century?
- 3. Industrialization and technology influenced healthcare options around 1900. Identify how community health changed the world of health care. What advances occurred and how did hospitals and insurance programs fit into the management of health? Give specific examples of then and now scenarios in the healthcare industry.

MeSH SEARCH TERMS

World War I

Other useful non-MesH terms:

Army Nurse Corps
Henry Street Settlement
Navy Nurse Corps
Adelaide Nutting
Spanish flu
Lillian Wald
National Association of Colored Graduate Nurses
National League for Nursing Education
Margaret Sanger

American Nurses Association

SUGGESTED READING

Budreau, L. M., & Prior, R. M. (2008). Answering the call: The U.S. Army Nurse Corps, 1917–1919: A commemorative tribute to military nursing in World War I. Washington, DC: Office of the Surgeon General, Borden Institute, Walter Reed Army Medical Center.

Marshall, H. E. (1972). *Mary Adelaide Nutting, pioneer of modern nursing*. Baltimore: Johns Hopkins University Press.

Nutting, M. A. & Dock, L. L. (1907–1912). A history of nursing: The evolution of nursing systems from the earliest times to the foundation of the first English and American training schools for nurses. New York: G.P. Putnam's Sons.

Wald, L. D. (1915). *The house on Henry Street*. New York: Henry Holt and Company.

REFERENCES

American Academy of Medicine. (1913). Medical problems of immigration, being the papers and their discussion presented at the XXXVII annual meeting of the American Academy of Medicine, held at Atlantic City, June 1, 1912. Easton, PA: American Academy of Medicine Press.

Andrist, L. C., Nicholas, P. K., & Wolf, K. A. (Eds.). (2006). *A history of nursing ideas*. Sudbury, MA: Jones and Bartlett.

- Ashley, J. A. (1976). *Hospitals, paternalism, and the role of the nurse.* New York: Teachers College Press.
- Barry, J. M. (2005). *The great influenza: The epic story of the deadliest plague in history*. New York: Penguin Books.
- Billings, M. (2005). *The influenza pandemic of 1918*. Retrieved August 2, 2008, from http://virus.stanford.edu/uda/
- Brinkley, A. (2003). *American history: A survey* (11th ed.). New York: McGraw-Hill.
- Crosby, A. W. (1989). *America's forgotten pandemic: The influenza of 1918*. Cambridge, MA: Cambridge University Press.
- Dock, L. L. (1907). Some urgent claims. *American Journal of Nursing*, 7(10), 895–901.
- Donahue, M. P. (1996). *Nursing: The finest art* (2nd ed.). St. Louis, MO: Mosby.
- Fenwick, B. (1901). International unity on state registration [Editorial]. *The Nursing Record and Hospital World*, 27(708), 329–330.
- Foley, E. L. (1913). Departments of visiting nursing and social welfare. *American Journal of Nursing.* 13(6), 451–455.
- Goodrich, A. W. (1932). The school of nursing and the future: Proceedings of the thirty-eighth annual convention of the National League of Nursing Education. New York: National League of Nursing Education, National Headquarters.
- Houweling, L. (2004). Image, function, and style: A history of the nursing uniform. *American Journal of Nursing*, 104(4), 40–48.
- Jewish Women's Archive. (2008a). *Exhibit: Women of Valor—Lillian Wald; Federal Children's Bureau*. Retrieved July 31, 2008, from http://jwa.org/exhibits/wov/wald/lw14.html
- Jewish Women's Archive. (2008b). *Exhibit: Women of Valor—Lillian Wald; Henry Street Settlement*. Retrieved July 31, 2008 from http://jwa.org/exhibits/wov/wald/lw4.html
- Kalisch, P. A., & Kalisch, B. J. (2004). *American nursing: A history* (4th ed.). Philadelphia: Lippincott, Williams, and Wilkins.
- Kerber, L. K. & De Hart, J. S. (1995). *Women's America: Refocusing the past* (4th ed.). New York: Oxford University Press.
- Massey, G. E. (1933). The National Association of Graduate Colored Nurses. *The American Journal of Nursing*, *33*(6), 534–536.

- Mosby, Inc. (2000). *Nursing reflections: A century of caring.* St. Louis, MO: Mosby.
- The need of a standard uniform. (1916). *American Journal of Nursing*, 16(10), 966–967.
- New York Public Library. (n.d.). *Inventory of the National Association of Colored Graduate Nurses Records 1908–1951: Sc Micro 7004 (Sc MG 16)*. Retrieved August 31, 2008, from: http://www.nypl.org/research/manuscripts/scm/scmnacgn.xml
- O'Lynn, C. E., & Tranbarger, R. E. (Eds.). (2007). *Men in nursing: History, challenges, and opportunities*. New York: Springer.
- Rinehart, M. R. (1931). My story. New York: Farrar & Rinehart.
- Sabin, L. E. (1997). Unheralded nurses; Male care givers in the nineteenth-century South. *Nursing History Review*, *5*, 131–148.
- Sanger, M. (1922). *The pivot of civilization*. New York: Brentano's Publishers.
- Stewart, I. M. (1943). *The education of nurses: Historical foundations and modern trends*. New York: The Macmillan Co.
- United States Public Health Service. (1939). Bubonic plague outbreak in San Francisco—Year 1900. *California and Western Medicine*, *50*(2), 121–123. Retrieved June 23, 2008, from http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1659815