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A study of practical and associate degree nursing education in Iowa from 1918 to 1978

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CHAPTER ONE: INTRODUCTION

The history of nursing education does not coincide with the history of nursing. Generally, nursing can be thought of as having four periods or phases of history. The first period was that of home nursing. It consisted of the function of women to provide comfort, care and assurance to the sick. Home nursing was an intuitive response to heal the sick, to bind up the broken of body or of spirit and to provide domestic care to children and the elderly. No formal attempt at education occurred. Home nursing has never really ended. It not only overlaps the succeeding phases of history, but it persists through them all and perhaps it will always persist.

The second phase of nursing occurred when the practical nurse, usually a good neighbor or compassionate woman, assumed the role of providing care for those in the community. In the course of time with the growing complexity of society, an increasing number of women made a business of community nursing. Some 'nurses' were much more effective than others in coping with people and their personal and family crises. Nursing was not a role expected of all women; it was assumed by those who had the desire and ability to truly nurture. There was a time when no other kind of nurse was available for hire. The first nurses were independent practitioners who relied upon their experience and creativity to care for the sick.

The third phase of nursing history coincides with nursing education and the beginning of the trained nurse. Florence Nightingale has always

been regarded as the prototype of the trained nurse group that had its evolution around 1854 (Cope, 1958, pp. 18-19). In the early 1900s, following the establishment of organized schools for the preparation of professional nurses, references were made in the literature with increasing frequence to trained and untrained nurses. The trained nurse became known as the graduate, then the registered, and subsequently the professional nurse, while the untrained person was referred to first as the attendant.

The fourth phase is that of the trained attendant or practical nurse. In written accounts of the establishment of the first schools of professional nursing there are statements such as "the practical nurse worked under the supervision of a registered nurse who gave on-the-job instruction in nursing care," or "practical nurses were assigned to cases of mild illness or chronic invalidism in the home," or "practical nurses were assigned in cases where the services of a graduate nurse was not required or could not be afforded" (Moore, 1954, p. 1).

Working in the patient's home, the practical nurse or attendant carried out household duties which included housecleaning, meal preparation and laundry. The nursing duties included bathing, bedmaking, hair combing, and assisting a mildly ill or chronically ill patient with other daily personal needs. The practical nurses of this period were half domestic servants and half nurses.

Only one school for the training of practical nurses was in existence in the United States before 1900. This was the Ballard School of New York established by the UWCA in 1897. The school or course for

"attendants of sick" consisted of forty lectures and some practice in caring for the chronic invalid in homes.

Although this investigation focuses on the history of the development of practical and associate degree nursing programs in Iowa, it is appropriate to include some discussion of selected forces within the framework of United States history which affected the course of nursing practice, general trends of nursing education, and the status of nursing practice and education in Iowa. Nursing history is founded in general history. It could not be otherwise; there exists the inextricable interweaving of nursing service with all other branches of human culture. Nursing must be seen on the panorama of all human history and any effort to research the history of nursing must in some measure attempt to frame that panorama. The intention of the author is not only to provide a background for the development of nursing education in America but to relate trends of each of these areas to the growth of practical and associate degree nursing programs in Iowa.

This research was directed at the historical review of practical and associate degree nursing education in Iowa spanning the period of 1818-1978.

Justification for the Study

In recent years, the health care delivery system in the United States has come under sharp attack for its inability to meet the health needs of society and for the soaring costs which deny health care to millions (Georgopolulos, 1972, p. 1). The cost of hospitalization had been

increasing at an unprecedented rate. The shortage of doctors and nurses has been discussed and substantiated (Cray, 1970, p. 110). Since 1930 there have been no fewer than 14 studies which unanimously find a shortage of physicians. In 1970, the doctor to population statistic stood at 153 physicians for every 100,000 people. However, that index fails to take into consideration the location of the physician and assumes that all physicians are equally productive in their treatment of patients (Cray, 1970, p. 111).

United States Senator Abraham Ribicoff describes the nursing shortage by saying "what the doctor shortage is to those outside the municipal hospital, the nursing shortage is to those inside it" (Ribicoff, 1972, p. 19). In a Sample Survey of Registered Nurses, the American Nurses' Association indicated that 70 percent of the 1,401,000 registered nurses in the United States currently are employed in nursing (American Nurses' Association. Nursing Information, 1978, p.8). The Washington Post of Sunday, March 2, 1980, reported the shortage of nurses as being critical in some areas of the United States. "Arizona cannot fill 21 percent of its budgeted nursing slots. In western Tennessee, it is 33 percent; in Texas, 14 percent; and in California, 17 percent." Colman McCarthy, writer for The Washington Post, elaborates on the reasons for the current shortage of nurses:

> Nursing is hard work, often wearying and usually poorly paid. The average national salary for full-time working nurses is $6.78 an hour, which in many areas is about the same wages as supermarket checkout clerks. Women dockworkers, unloading crates of bananas on the New York waterfront, earn $10.40 an hour.

> A generation ago . . . the career alternatives were few . . . nurse, teacher or secretary. But now it is changed . . . women can get preferential treatment for midmanagement positions in any number of industries that were once closed to them. And they start off with better salaries than a lot of nurses are making after 10 years at the hospital.
>
> At the same time that nurses are making only the faintest progress financially - while toiling next to physicians whose average income is $65,000- it appears also that they are working harder.

Rapid advances in medicine led to a gradual increase in the responsibilities for the nurse. The process has been a gradual one, but a comparison of current nursing practice with the nursing practice of the past demonstrates an increase in the variety of complex procedures which are now done by the nurse. The complexity of nursing service has led to a call for the improvement of nursing education programs. There have been approximately three "nursing shortages" since the beginning of nursing education. The first shortage occurred between 1914 and 1919 when World War I, the epidemic of influenza, and public health needs increased the demand for nurses by as much as 25 percent over the immediate preceding years (Brown, 1936, p. 75).

The second World War in 1941, an increase in medical technology, and a heightened demand for improved health care caused the second nursing shortage. Between the two wars there had been an improvement in the working conditions of nursing and the average hours of duty had been reduced to approximately 45 hours a week. Immediately following the war, many new occupational opportunities for women had emerged in American society. Some of these positions were better paying than nursing, where salaries remained relatively low. Many vocations

promised more freedom and a more secure future than those held out to the graduate nurse. As a result, many potential nurses simply entered other fields of employment.

The third shortage in nursing is currently occurring. Many individuals indict the professional nursing organizations because of the organizations' stand taken in regard to nursing education. In December, 1965, the American Journal of Nursing, the official publication of the American Nurses' Association, printed the association's stand on the educational standards for professional nursing ("ANAs' First Position on Ed.," 1966, p. 515). It was proposed that the minimum education for professional nursing be a baccalaureate degree, and the minimum standard for technical nursing be an associate arts degree. The idea was not new; this position was first asserted over thirty years earlier by Annie Goodrich and Isabel Stewart, two university nursing educators (Brown, 1936, p. 58).

In 1936, Esther Lucile Brown reported that "Many of the leading teachers and executives in nursing share with Annie W. Goodrich the optimistic belief that such schools of nursing as are required will ultimately find their place among the other professional units within the university" (Brown, 1936, p. 59). Again, in 1948, Ms. Brown stated:

> Almost without a dissenting voice, those who are conversant with the trend of professional education in the United States agree that preparation of the professional nurse belongs squarely within the institution of higher learning (Brown, 1948, p. 138).

In 1976,the American Nurses' Association stated that the entry level preparation for professional practice shall be at the baccalaureate level. In 1978,the Iowa Nurses' Association supported this position (ANA. Convention, 1978).

The effect of the 1965 position statement by the American Nurses' Association was the closing of a large number of hospital schools of nursing. It is too early to determine the result of the 1976 position statement. Many other socio-economic forces are again having an impact on nursing. The increased opportunities outside the nursing profession, better working conditions in fields other than nursing, and the lack of identity of nursing as a profession is creating a void of student interest in the profession. Nationally, nursing enrollments are declining.

The National League for Nursing, which conducts an annual survey of nursing schools, predicts that 1979 figures will show a two percent drop in nursing graduates, the first such drop since the mid-1960s. Admissions showed a five percent drop in 1978-79. As with other previous shortages of nursing staff, the solution seemed to be the education of a subsidiary worker (ANA. Nursing Information Bureau, Facts About Nursing, 1976, p.61).

In 1923,the findings of the Winslow-Goldmark Survey were published under the title of Nursing and Nursing Education in the United States by the Macmillan Company. The report made three especially significant recommendations. The first was that the public health nurse should be a teacher of personal hygiene. The second recommendation affirmed

that nursing students suffered from lack of well-prepared instructors and long hours of duty. Students were used by the hospitals where their services were needed in the care of patients rather than given a learning situation which would increase their experience and growth in skills and knowledge. The third recommendation was for the training of subsidiary workers. These subsidiary workers would be trained to work in homes on cases not requiring the skill of graduate nurses (Sellew & Nuesse, 1946, p. 319).

From 1920 to 1940, only one new program in practical nursing had been established. That program, located in Rochester, New York, was sponsored by the Rochester Public Schools. From 1940 until 1960, the story was quite different. Those years reveal an unparalleled and unprecedented growth in practical nursing (Brown, 1948, p. 59). By 1964, all states had enacted laws which licensed and regulated the practice of practical nursing (Johnson, 1966, p. 56). The growth of practical nursing programs continued into the early 1970s. The Licensed Practical Nurse is an integral part of the health care delivery system.

It took almost sixty years for the untrained "attendant of the sick" to become established as a practical nurse. Sixty years ago the field of practice was limited to home care, but today practical nurses work in a variety of institutions (Powers, 1961, p. 9). Currently some states have legislation pending which would regulate two levels of nursing practice as defined by the American Nurses' Association. The passage of such legislation would, in effect, eliminate practical

nursing as we know it. The elimination of one type of post-secondary program may give impetus to the rise of another level of nursing program, that of the technical nurse.

One side effect of World War II was the discovery by nursing educators that the curriculum in nursing could be shorter. The requirement by the Cadet Nurse Corps that the basic curriculum in nursing be completed in thirty months led to the disclosure that the curriculum could be adequately covered in a shorter period of time than formally thought. This discovery led to the rethinking of the entire curriculum. At approximately the same time, the concept of the junior college was developing. Many junior colleges began their nursing programs with contractual arrangements with hospitals for use of clinical facilities to provide experiences for students (Brown, 1948, p. 125).

The development of the associate degree nursing programs is one of the most significant events in nursing education in our time. The initiation in the United States of associate degree nursing programs (1945 to 1955) represented the first real break with the apprentice system. Moreover, it brought nursing within the framework of higher education, in a pattern consistent with the objectives of colleges and universities (Rogers, 1961, p. 3).

A significant portion of all nursing education in Iowa in the 70s was provided in the area school system at both the vocational and associate degree levels. The origin of the area schools in Iowa dates back to 1965 when the Sixty-first General Assembly enacted a law to provide for the establishment and operation of area vocational schools

and community colleges. The act provided for the establishment of not more than twenty (20) geopolitical divisions which included the total area of the state and could operate either vocational schools or community colleges (Iowa Official Register, 1966, p. 246). The establishment of post-secondary schools throughout the state enhanced the establishment of practical and associate degree nursing programs in all areas of Iowa.

Very little has been done to measure the impact that the area schools have had on nursing and health care in Iowa or to study the implications of vocational and technical nursing for the future. The rapid growth of practical and associate degree nursing programs in Iowa during the 1960s and 1970s has left a vast amount of nursing history unwritten.

History is an ever-evolving process which has as its foremost interest the afterglow it casts upon the present and the guidance it gives to the onward movement of tomorrow. The problems of the future are with us today. Nursing educators must come to grips with present and potential needs in nursing and with the kinds of education that will equip nurses to fill those needs. This involves a critical examination of several traditions in the nursing profession, traditions which may be standing in the way of progress. In answering questions concerning where the education of nurses should occur and what type of system is needed for support personnel prepared in other ways, the history of vocational and technical nursing needs to be examined.

In his book The Rise and Fall of Ancient Worlds, Wender states:

> First we need to write interpretive history; that is, not only should we record happenings but try to give meaning to the events of the past, which have economic, social and moral significance (1961, p. 50).

Nursing represents the largest part of the health care industry. Any action which alters the education of nurses will have a dynamic impact upon the entire health care delivery system. Therefore, it would seem appropriate that a study of the past educational practices would be of benefit in planning for the future.

Purpose of the Study

The purpose of this study was to focus on the development of associate degree and practical nursing programs in Iowa. The researcher explored, documented, and interpreted the past social, economic and political forces which led to the development of these programs.

The study examined the issue of what caused the advent of practical and associate degree nursing education programs in Iowa. Specifically, the study (1) examined the origins, (2) documented and (3) interpreted the forces which shaped the directions and development of these programs in order to facilitate the resolutions of the issues through 1979.

Assumptions of the Study

For the purpose of this study it was assumed that: (1) Those institutions recognized at the time of their existence as training programs for attendants (practical nurses) and graduating students as

trained attendants were, in fact, training programs for attendants. (2) Institutions recognized at the time of their existence as junior colleges and as educational programs for graduate nurses (registered nurses) and graduating students as graduate nurses were, in fact, educational programs for nurses. (3) No social institution exists by itself, but is responsive to the economic, political and social forces of its time.

Limitations of the Study

The limitations of the study were created by a limitation of records of many of the practical and associate degree nursing programs under study. Many of the older programs changed locations from their original sites and much of the material which might have served as relics or documents were lost. In some cases the director of the program is no longer available for an oral history.

This study was limited to the historical development of the practical and associate degree nursing programs in Iowa from 1918 to 1978.

Terminology

For the purpose of this study, the terms vocational nursing and practical nursing are interchangeable. The term technical nursing will be used synonymously with associate degree nursing.

For the purpose of clarification, several special terms are defined preceding the report of this study.

Nursing:

> One of the resources in a community for the care of the sick, the prevention of illness, and the promotion of health which is carried on under medical authority. Its distinctive function is the close and individualized service to the patient which may vary with his state of health from one of dependence, in which the nurse performs for him what he cannot do for himself, through supportive and rehabilitative care, physical and emotional, to self-direction of his own health. Nursing is primarily patient-centered. It gives service directly through treatment, general physical care, and health instruction to the patient and his family and through the coordination of nursing with other community services essential to the patient's health needs (Joint Curriculum Conference, 1961, p. 21).

Registered nurse:

> Graduate of an educational program in nursing who has been licensed to practice professional nursing.

Professional nurse:

> Mildred L. Montag defines the professional nurse as "the nurse prepared to carry out a range of functions which are highly complex and dependent upon expertness and skill acquired through long periods of training. Her functions include:
>
> 1. the identification or diagnosis of the nursing problem and the recognition of its many related aspects.
> 2. the decision upon a course of action to be followed for the solution of the problem.
> 3. with assistance of the other members of the nursing and health team, both interprofessional and intraprofessional, the development of a satisfactory plan of nursing care, including therapeutic treatments for which the physician has delegated responsibility to the nurse.
> 4. the continued direction of the program of nursing toward its optimum accomplishment, and the performance of those aspects which demand the skill and judgment which she is best prepared to use.

5. the evaluation of the process and the results of nursing for the continuous improvement of care of the patient and the practice of nursing (Montag, 1961, pp. 4-5).

Licensed practical nurse:

A person licensed as a practical nurse practitioner prepared for two roles:

1. Under the supervision of a registered professional nurse or physician, to give nursing care to patients in situations relatively free of scientific complexity.
2. In a close working relationship, to assist registered professional nurses in giving nursing care to patients in more complex situations (Nursing Education, 1962, pp. 9-10).

State Board of Nursing (or Board of Nurse Examiners):

The regulatory board of each state which is responsible for the educational standards of professional and practical nursing programs. It approves schools of nursing in the state and renews licenses for professional and practical nurses. In Iowa, this official board is known as the Iowa Board of Nursing.

State Division of Vocational Education:

The division of a state department of education which cooperates with public education institutions as they administer practical nursing programs partially funded by state and federal funds appropriated for this purpose.

State Board examination:

A written examination administered by the State Board of Nursing. Upon passing this examination graduates become eligible for licensure as practical nurses and may use the title "Licensed Practical Nurse." Or a written examination administered by the State Board of Nursing designed for the licensure of professional nurses. Upon passing the examination, the nurse may use the title "Registered Nurse."

Design of the Study

The preparation of this dissertation involved a historical investigation of existing sources and data relevant to the development of practical and associate degree nursing programs in Iowa.

Three essential steps in the production of written historical research are: the gathering of data; the criticism of the data; and the presentation of facts, interpretations and conclusions in a readable form. These three steps will be described as they pertain to this study.

The Gathering of Data

All sources such as letters, speeches, memos and other documents were subjected to the tests of validity and reliability in a process that is carefully prescribed and as delineated as for any other form of research.

The test for the validity of documents is that of external criticism, while the test for reliability of the information within the document is termed internal criticism. Both tests were carried out; however, the test of external criticism established the authenticity of the data. If the document failed the test of external criticism, there was no need to determine the reliability or internal criticism of the document.

Criticism of the Data--External criticism

The test of external criticism began with the investigation of the origin of the document. Many documents were easily traced to their origin.

The determination of the authorship of documents, especially in the case of typewritten drafts, was not always easy. The first step determined if the document was the original or a copy. The date of the document concided with the potential of possible authorship by the identified author. The researcher compared documents with the originals whenever and wherever possible.

In the application of the process of external criticism, the researcher utilized the original or primary source as much as possible. The researcher was able to obtain an oral history from several of individuals intimately involved with the introduction of vocational and technical nursing programs in Iowa. These individuals permitted the researcher to examine their files and gave permission to use personal letters and memos.

Criticism of the Data--Internal criticism

Following the completion of all of the steps for external criticism, all documents were subjected to the tests of internal criticism to determine the reliability of the data. Perhaps one of the greatest errors is to read into a statement a meaning other than what is intended by the author. Taking words out of context is a common way to introduce errors into historical research. The histographer must be very aware of personal biases so that personal theories or

hypotheses do not enter into interpretation of the true intent of the statement. This researcher is aware of the biases that may influence interpretations of statements.

An eyewitness account is often thought to be completely reliable because the report is primary in nature. However, it must be remembered that even the eyewitness has his own frame of reference in which to interpret what he has seen.

Statements were sorted into categories of facts, probabilities, or possibilities. Facts are established when two independent primary sources corroborate. Facts were also based on one primary and one secondary source with careful scrutiny and critical evaluation.

Probable statements occurred when the information came from one primary source and passed the tests of critical evaluation with no body providing substantial contrary evidence. Statements were considered probable when two primary sources disagreeded in various aspects.

Possibilities are the weakest position for the historian to assume when using statements for historical data. Possibilities occurred when there was a primary source, but the evidence could not be critically evaluated to stand out as a certainty.

Interpretations and Conclusions

The interpretation and conclusion of the historical research represent a synthesis of the material into a narrative which describes the historical development. Synthesis is the procedure of selection, organization and analysis of the collected data.

The search for historical facts in primary and secondary sources began in June 1979. The permanent special collection of M. Adelaide Nutting at Teachers College, Columbia University, New York, and the Mugar Nursing Archive at Boston University in Massachusetts were examined. The American Nurses' Association has endorsed Mugar as a national repository for materials important to nursing. The American Journal of Nursing Company has deposited at Mugar its Sophia Palmer Historical Collection, the Mary M. Roberts Collection, papers of the National Information Bureau, records of the National Council for War Service and the beginning records of the Journal Company's Publications.

In addition the archival materials available from the Iowa Nurses' Association, the Iowa Hospital Association, the Iowa Board of Nursing and the State Department of Public Instruction Health Occupations Division were searched in early winter 1979.

The library resources, including the storage facilities of Iowa State University, Ames, were used during the fall of 1979 and the summer of 1980.

Although common historical divisions served as a guide, the selection of the periods was based on the contribution of each period to a distinct phase in the development of the practical and associate degree nursing programs in Iowa. The periods were divided as follows: The Historical Foundation period from the Civil War to 1900; the Industrial and Scientific Age from 1900 to 1918; the Era of Vocational Education 1918 - 1941; Mid-Century America 1941 to 1968 and The Scientific, Technological & Social Change from 1968 to 1978. Research proceeded

on a period by period basis progressing within each period from the national scene to Iowa, with specific concentration on vocational and technical programs in nursing education.

A chronological approach was used throughout the study with single chapters covering a discreet period of time. The internal organization of each chapter followed a thematic approach. Although the study is limited to the time frame of 1918 to 1978, it was necessary to include background information previous to 1918 in an effort to assist the reader to understand the complex beginning of the profession of nursing. The introductory chapter discusses the value of setting the study within a historical framework which includes summary discussions of selected national patterns related to the four phases of nursing and the beginning of nursing education. It also includes the justification for the study, the statement of the problem, and the design of the study.

Chapter II, entitled "Historical Foundations," describes the system of general education in the nation and in Iowa. Particular attention is given to women's education because for the most part nursing is a woman's occupation. The Woman's Rights movement following the Civil War challenged the theory that a woman's sphere is in the home, church, philanthropic society or sewing circle. It was only through changing the concept of a woman's sphere that the profession of nursing could grow. The Crimean War and the achievements of Florence Nightingale's influence was felt in America during the Civil War as the public became aware of the need for hospitals, community health programs, and the necessity for better prepared persons to

accept the role of the nurse.

During the Civil War, socially, politically and intellectually endowed leaders emerged who struggled to upgrade health care. Following the war these persons desired to change the system of nurse education and developed schools of nursing.

Chapter III, "Nursing Education for the Industrial and Scientific Age, 1900-1918," delineates another period in American history. The growth of public education meant better prepared individuals to enter occupations. Women continued their struggle for admission into institutions of higher learning, for entry into the professions, and for the right to vote. Early hospitals saw an economic advantage in the establishment of schools of nursing. The inferior hospital schools were exposed for inadequate faculty, content and teaching strategies. Students performed many nonnursing duties and the service demands of the hospital superseded the learning needs of the students. America was not interested in considering nursing as an educational program except for a very few practical nurse programs that were developed within community organizations other than hospitals.

Chapter IV, entitled "The Era of Vocational Education, Economic Prosperity, Depression, and Recovery 1918-1941," describes the effects of limited federal funds for education. The Child Labor Law took children out of industry and placed them in schools. Because of a growing need for education beyond the high school level, junior colleges were developed throughout the nation. Teaching continued to be primarily a female occupation, so comparisons between the salaries

of male and female teachers were studied to determine if an inequity existed. There were so few men in nursing that a comparison of salary for male and female nurses was not possible.

Again, the upheaval of the European War brought many changes to the nation. Areas of specialization were opened, the public was awakened to the need for good nursing care, and nurses were in short demand. Many nurses volunteered to serve their country overseas. The civilian population received care from many persons who took Red Cross Home Nursing courses.

The national nursing organizations were aware of the discontent with nursing education and practice and attempted to initiate nation-wide studies of the problem. These studies were carried out, but for the most part the average citizen in the United States was completely unaware of the results of the study and the student nurses' situation. Hospitals preferred student labor to employing their own graduates and a large surplus of nurses developed. In addition to those who were educated to do nursing, many persons just simply declared themselves nurses and worked for hire.

Boards of Nursing began the long struggle to improve nursing education. The closing of many small hospital schools of nursing resulted. Without student labor to care for patients, hospital boards were forced to hire graduate nurses.

Nurses had been suffering from large numbers of unemployed by the time the entire nation was deep into the depression. Many smaller hospitals in Iowa closed their doors to students, and graduate nurses

worked for room and board. Some states were beginning to train and use attendants, but no program existed in Iowa before World War II.

Chapter V reports on "Nursing Education in Mid-Century America, 1941-1968." The explosion of knowledge during the war and immediately following altered the concept of the structure of nursing care. Nurses became technicians in many specialized fields. When the doctors left for the war, nurses took over the tasks that formerly were strictly in the physicians' domain.

Having just recovered from an oversupply of nurses, most nurse leaders were reluctant to again be faced with that problem following the war. However, it soon became apparent that more nurses were needed than could be produced following the traditional methods. Two occurrences altered the direction of nursing education. The first was the expenditure of Federal money for hospital schools of nursing for the education of nurses. The second was a shortening of the curriculum. The former awakened hospital boards to the costs of conducting a nursing program; the latter alerted some nurse educators to the concept of change.

World War II can be credited for bringing practical nursing out of voluntary agencies and into public school systems. Without that move the practical nurse programs may have been headed into the same mold of professional schools, that of being completely controlled by an agency which desired to exploit one group for the benefit of another.

The modality of nursing care was altered during the World War II. The system of fragmented care has been compared to the assembly line

of the defense factories. The system has been severely criticized, but remains.

Young people returned from the war and returned to school. The growth of junior colleges led to the introduction of vocational technical education within the two-year institutions. Mildred Montag, a nurse educator at Teachers College, Columbia University, New York, embarked on the first experiment in nursing education which was the result of preplanning, not an historical accident. The experiment was successful and a new type of health worker, the nurse technician, was born. This new nurse received her education at a community college, and for the first time in the history of nurse education the nurse moved into the mainstream of education. The growth of vocational and technical nursing education in Iowa is traced in this particular chapter.

Chapter VI illustrates the growth of "Nursing Education Amidst Scientific Technological and Social Changes." A severe nursing shortage exists although the number of employed registered nurses increased as the number of hospital employees needed to care for the average patient grew from 1.8 in 1950 to 3.4 in 1977. The role of the nurse is constantly expanding and the quality of nurses improves as more educational programs are opened to them. The career-ladder educational system has been well-established in Iowa, but not in the nation. The health care industry is the third largest industry in the nation and nurses are the largest and most inclusive health care providers. The problems of the nurse affects the health care of the nation.

Chapter VII is devoted to a brief summary of "A Study of the Development of Vocational and Associate Degree Nursing Programs in Iowa from 1918-1978."

CHAPTER TWO: HISTORICAL FOUNDATIONS

The National Scene

Before the Civil War, formal elementary education provided by the common school was supplementary to the education of the farm. Children began to attend school between the ages of four and six and remained for five to nine years depending upon local customs. The construction of the schools and the environment for the learner is described by Knight.

> The surroundings were bleak and desolate, loose, squat stone walls enclosed the fields close by, and briers and pokeweed flourished in the gravelly soil. The school house was of the rudest construction. The fireplace was six feet wide and four feet deep, and the chimney flue was 'so ample and so perpendicular that the rain, sleet, and snow fell directly to the hearth. In winter the battle for life with green fizzling fuel, which was brought in lengths and cut up by the scholars, was a stern one.' Often the fuel, 'gushing with sap as it was, chanced to let the fire go out, and as there was no living without the fire, the school was dismissed,' to the joy of the scholars. The children were all seated on benches made of slabs or 'outsides,' [initial boards cut from a log] which were supported by four straddling wooden legs set into augur holes (Knight, 1934, p. 416).

It was during the first half of the nineteenth century that the Lancasterian or monitorial instruction system began to be used. Under this system, the teacher taught the lesson to several older and/or brighter students who in turn taught the lesson to the younger students. The Lancasterian system allowed the student to teacher ratio to increase from a few dozen to over one hundred students.

Secondary Education

The typical Latin grammar school of the colonial period stressed Latin and liberal arts courses. However, this school for children of wealthy parents was challenged by the academies which were designed to "meet the need for newer commercial and scientific skills demanded by the changing American economy" (Thayer, 1965, p. 206). Private academies were established to serve as a transition between the Latin grammer school and the American high school. Because the academy offered admission to females, they became an agency for preparation of teachers for the common schools.

The first public high school was established in Boston in 1821 (Brubacher, 1966). The high school was established as an attempt to provide the same education as that provided by the academy, but at public rather than private expense.

The development of the public high school in the United States accelerated following the Civil War. It is difficult to obtain an exact number of high schools that were in existence because many high schools were elementary in character and others used the inception date of their forerunner institutions. It is known, however, that by 1870 there were at least 160 high schools (Woody, 1929a, p. 545). In 1880, there were nearly 800; in 1890 there were 2,526 and in 1900 there were 6,005 (American Educational Association, 1901, pp. 174-180).

Higher Education

Colleges were established to provide increased educational opportunities for young men. On May 25, 1785, the Continental Congress

passed an ordinance disposing of lands in the Northwestern Territory by which it was decreed that "There shall be reserved Lot No. 16 of each township for the maintenance of public schools within said township." On July 13, 1787, the Northwest Ordinance supported the 1785 legislation and the use of land became a stimulus for education (Meyer, 1891, p. 55; Eddy, 1956, p. 21).

The Morrill Act of 1862 is considered to be the second major action involving the federal government in education. The Morrill Act provided federal grants of land to public institutions of higher learning. The Morrill Act, sponsored by Justin Smith Morrill of Vermont, provided for public land or land scrip to each individual state in an amount equivalent to thirty thousand acres for each senator and representative to Congress in accordance with the census of 1860. Monies from the sale of such lands were to be invested in United States bonds, state bonds, or other safe bonds and the capital was to remain forever unimpaired. Section 4 of the act specified the interest from these monies was to be inviolably appropriated:

> . . . to the endowment, support and maintenance, of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the state may respectively prescribe, in order to promote the liberal and practical education of industrial classes in the several pursuits and professions of life (Brunner, 1962, p. 55).

The land grant schools combined traditional classroom educational experiences with technical knowledge and practical experience. The American democratic principles, growth of the capitalistic economy and

a rising middle class altered the educational opportunities for men. However, the educational opportunities for women were different from those offered to men.

Women's Education

The early education of girls was of meager quality. English tradition in the Northern colonies emphasized Puritan hard work and Christian theology with few opportunities for girls to pursue formal learning. The Central colonies with German, Holland and Quaker backgrounds allowed the girls to participate in the elementary school but a higher education was not open to them. Southern daughters of the wealthy were usually educated by private tutors, but girls of lower socioeconomic conditions seldom learned to do more than elementary reading and occasional writing. Educational opportunities for these girls came through apprenticeship and philanthropic agencies (Woody, 1929b, p. 469).

During the middle of the eighteenth century, many of the private schools which had been established in the cities developed into seminaries and academies.

> The academy and seminary movement grew at a phenomenal rate in the North, South and West, though there were fluctuations in the individual states, according to the policy adopted regarding their encouragement (Woody, 1929a, p. 363).

The female seminary was important for woman's education from 1775 to 1870. The seminary paved the way for women's colleges. Because of the lack of high schools and colleges, the seminary was

both an intermediate and higher school.

It was not until 1837 that Oberlin Collegiate Institute, Oberlin, Ohio, became the first institution to admit girls. At the outset it was not the intention of the institute to provide the same educational advantages to women as those "enjoyed by men" (Meyer, 1891, p. 67). The original plan of Oberlin was to include a female department which would emphasize the useful branches taught in the best female seminaries. It was the intention to keep the studies of men and women separate. In the 1840's two women forced their way into Oberlin's theological school and graduated with the class of 1850. However, it was years before their names appeared in the catalog of alumni (Boas, 1935, p. 11). The history and methods of coeducation at Oberlin reveal that coeducation there did not originate as any radically new idea of the sphere and work of women nor with any conscious purpose to do justice to women as individuals. Rather, Oberlin's system was molded slowly by poverty and resulting economy, by local needs, and partially through the progressive spirit of the times (Meyer, 1891, p. 69).

The conditions of pioneer life were favorable to coeducation. The women in a pioneer settlement share in the labors of men. On the other hand, men in pioneer homes assisted their wives in household labors, because domestic help could not be found. The colleges in the West, which were of more recent origin, were open to men and women. However, most early colleges offered a preparatory department which proved to be a stepping stone to coeducation.

> In their origin the Western colleges found it necessary to maintain preparatory schools in order to obtain any college classes. This is illustrated by the experience at Antioch [Yellow Springs, Ohio]. Out of 150 students who applied for admission to that college in 1853, but 8 were able to pass the examinations for admission to the freshman class, meager as were the requirements. These 8 included men and women married and single . . . . To have students, each college was compelled to prepare them. The preparatory department in a college town did the work of the present high school; it was very natural that the residents of those towns should desire to send both their sons and daughters to the 'preparatory', which was usually, perhaps always, the best school accessible to them (Meyer, 1891, p. 71, 72).

During the later decades of the nineteenth century, the extension of education on all levels occurred. Although private institutions continued to grow, the greatest expansion occurred in the state school systems.

Education in Iowa

Prior to 1846, Iowa had no definite free school system. Benjamin Gue, the historian, explains the lack of a common school system as "owing to the rigid economy necessary in the pioneer period, leaving no money for school taxes, rather than to indifference or willful neglect of the people" (Gue, 1903, p. 263). There were private schools in Iowa even before it was organized into a territory in 1830. Iowa's first territorial Governor, Robert Lucas, recommended legislation which called for the establishment of a system of common schools.

Berryman Jennings taught a school at Nashville in Lee County as early as 1830 (Christensen, 1928, p. 75). Since there was no organized government there were no taxes, hence the parents of the children to be taught had to provide schools and teachers.

Jennings himself wrote a description of the school house in which he held classes.

> . . . 'as all other buildings in that new country, a log cabin built of round logs on poles notched close, and mudded for comfort.' sections of the logs were cut out for doors and windows and for a fireplace. The 'jamb-back of the fireplace' was of 'packed dry dirt' and the chimney was 'topped out with sticks and mud'. The cabin was roofed with clapboards, weighted down with cross poles to economize time and nails . . . . The floor was puncheon (that is a floor laid of logs hewed flat on one side and laid closely together with the flatside uppermost). The windows . . . were made of greased paper-which admitted light but did not afford a view outside (Petersen, 1952, p. 847).

When Iowa became a Territory in 1838 there were between 30 and 40 such schools. The year 1846 marks the adoption of a constitution and the admission of Iowa into the Union. The constitution of 1846 contained a provision for the establishment of schools which should be in session for not less than three months each year. By 1857 there were 3,300 school districts, but several hundred of these had no school (Christensen, 1928, p. 76).

The Bill for Public Instruction in the State of Iowa, which became effective March 12, 1858, provided for a loan scholarship for both men and women to encourage advanced preparation for the purpose of teaching in the common schools of the county for a period equivalent to that for which they had received the scholarship (Aurner, 1920, p. 285). At about the same time, scholarships were established at the State University to provide teacher preparation for young men to become teachers in the high schools. These scholarships were assigned by the superintendent of public instruction (Aurner, 1920, p. 54).

In 1878, 1880, and 1882 Governor John H. Gear was distressed because a large percentage of the children enrolled in school were not attending. In his second Biennial Message of 1882, Governor Gear called for compulsory attendance legislation. He stated:

> Very many children through the negligence or unwillingess of parents, do not attend school at all, . . . and I, . . . earnestly suggest that you consider the expediency of enacting a compulsory education law, which should require attendance upon schools of some kind, either public or private (Schambaugh, 1903-1905, p. 107).

By 1890, there were 12,094 ungraded schools that were in session 7.8 months during the year. There were 5,460 male teachers employed for a monthly salary of $37.09, and 21,107 female teachers employed for a monthly salary of $30.21 (Iowa Official Register, 1892, p. 73). In the profession of teaching women did not receive equal pay for equal work.

Secondary Education

> When schools began to be graded, first at Muscatine about 1854, and quite rapidly in the early sixties, it was foreseen that there would be a demand for a 'higher class' or a 'high class' for as pupils advanced they would complete elementary school and they they must go to some academy, or have classes provided for them in the public schools. Thus there was at first only one class above the elementary or grammar school. Davenport began to follow that plan very early and gradually the four-year high school was formed. Dubuque laid out a course first in 1856, a course very difficult in some respects, and it was soon revised. Burlington and Des Moines opened high schools in 1864 (Aurner, 1921, p. 129).

Christensen (1928, p. 77) reports only three public high schools in Iowa in 1856. He stated these schools were located in Tipton, Dubuque, and Burlington.

During the 1870s, high schools were established in larger towns and cities. However, the files of the Department of Public Instruction containing exact information of the number of high schools in Iowa were lost or destroyed.

> In 1871 there were 40 graded schools in Iowa which had courses above the common branches but only 23 could be said to have real high school courses (Christensen, 1928, p. 150).

The courses taught in the high schools were English, Latin, German, French, mathematics, general history, geology and astronomy (May, 1956, pp. 30-33).

In 1897, the consolidation of rural areas led to the establishment of the Buffalo Center School, the first consolidated school district in Iowa. This consolidation movement meant that the young people living in rural Iowa could be offered secondary educational experiences (Iowa Department, 1900). Reports from the State Department of Public Instruction show an increase in number of high schools from 35 in 1865 to 169 in 1900.

There was a strong demand for high school education. This demand was responded to by various churches and private institutions. These private schools were called by various names such as academies, seminaries, institutes and lyceums. The Denmark Academy at Denmark, Lee County, and Howe's Academy at Mount Pleasant in Henry County had long and notable records (Christensen, 1928, p. 77).

Higher Education

The University of Iowa, Iowa City, was founded on February 25, 1847, just nine days after Iowa had become a state. Classes did not begin until 1855 with a student body of nineteen and a faculty of three.

> . . . 1858 the board of trustees decided that women could not attend the University [of Iowa at Iowa City]. It was finally agreed, however, to let them come into the normal department; they could not become college students. But when the State Board of Education took charge of law-making for schools in December, 1858, it at once changed the provision excluding women. It was a long time, however, before college women generally had the same rights as college men (Aurner, 1921, p. 131).

Iowa State University, Ames, was chartered on March 22, 1858, as an Agricultural College. Iowa was the first state to accept the terms of the Morrill Act and awarded its land grant to the new college at Ames. The college did not open until March 17, 1869.

> The movement [promotion of agriculture] in Iowa in this period was somewhat typical of the activities in other states of the midwest. It began two years after Iowa became a state when in 1848 the General Assembly "memorialized Congress for the donation of the site and buildings of Fort Atkinson in Winneshiek County, together with two sections of land, for the establishment of an agriculture college." The state as such, however, did not take action until 1858, when a law was passed appropriating $10,000 and creating a Board of Trustees for the Iowa State Agriculture College and Farm. A location was chosen, but again the actual opening awaited Federal assistance (Eddy, 1956, p. 20).

"Scarcely two months after President Lincoln had affixed his signature to the Morrill Act, Iowa became the first state to accept its conditions" (Eddy, 1956, p. 48).

The University of Northern Iowa had its origin in an act of the Sixteenth General Assembly creating the Iowa State Normal School. Classes began on September 6, 1876, in buildings formerly used as a state-supported orphanage for children of the Veterans of the Civil War (Iowa Official Register, 1968, pp. 270-290).

Women's Education

Catherine Beecher visited Dubuque, Iowa, in 1853 for the purpose of establishing a female seminary to be supported by the newly formed American Women's Education Association. A building was erected and instruction began in 1854. An endowment of $20,000 was pledged but was never fulfilled. The school was successful and popular for a few years but lack of successful funding forced the school to close. In 1857 and 1858, there were approximately eighty students attending classes. One of the first teachers was Mrs. L. A. Parsons, who had previously been associated with a school in Wisconsin which later became the Milwaukee Female College.

Other promising but short lived institutions were Mount Ida Female College (1855) at Davenport, Lyons (Iowa) Female College (1859), Mount Pleasant Female Seminary (1863) and St. Agatha's Seminary in Iowa City (1864) (Woody, 1929a, p. 379).

Education contributes only a portion to a person's socioeconomic status. The word status is defined as a position with regard to law, economics, and training. The history of nursing education is interwoven with the status of women with regard to the law. The woman's

rights movement demanded the right to higher education and access to the professions.

The National Woman's Rights Movement

When in 1840 Mrs. Elizabeth Cady Stanton and Mrs. Lucretia Mott discovered that the women of the American delegation to the World's Anti-Slavery Convention held in London were excluded from participation because of their sex, they decided it was time to fight for the right to work for abolition and for the other rights for women as well (Kraditor, 1965a, p. 2). The 1848 convention for women's rights at Seneca Falls, New York, was the first of many such conventions. The women fought for the rights of women as human beings -- for suffrage, an opportunity for higher education and an opportunity to practice the professions, including law and medicine. Each of the many conventions was greeted in the press with ridicule and with shocked denunciations from the pulpit (Kraditor, 1965b, p. 3).

Among the statements and resolutions of the Declaration of Sentiments adopted in July 1848 at Seneca Falls, New York, is a call for the right to obtain an education -- which would permit a woman to become self-supporting and independent.

> He has monopolized nearly all the profitable employments, and from those she is permitted to follow, she receives but a scanty remuneration. He closes against her all the avenues to wealth and distinction which he considers most honorable to himself. As a teacher of theology, medicine, or law, she is not known. He has denied her the facilities for obtaining a thorough education, all colleges being closed against her (Kraditor, 1968, p. 185).

Feminism is customarily based upon the theory that women should have political, economic, and social rights equal to those of men. During the history of the woman's rights movement, women have in one period demanded the right to higher education; in another the right of access to the professions; and in a third period, the vote (Kraditor, 1968, p. 4). What the feminists have really wanted can be designated by the word "autonomy." The feminists seem to realize that the "sphere" of a man and woman are the basis of the differences between equality of the sexes. It is in the definition of the "sphere" that the differences among individuals is lost. Men have never had their "sphere" defined since their sphere has been the world and all its activities. Women, on the other hand, have a clearly defined and more restricted sphere which includes the home, the church, the philanthropic society or a sewing circle. Regardless of the differences among individuals in tastes and talents, women have been thought of as females who happen to be human. Men's activities have always been varied and more open ended according to their potentials, but it has been assumed that women's activities should be defined and limited by their sex. Men have always been able to live for themselves, to develop their individual talents and to achieve self-fulfillment. Women have been destined to live for others, to achieve self-satisfaction by caring for their husbands and children. Church work, charity, and nursing were logical extensions of the role of woman outside the home (Kraditor, 1968, pp. 7-11).

With the beginning of the Civil War, the women who lead the suffrage cause suspended their annual conventions and worked with the war effort. They were abolitionists as well as fighters for women's rights. After the war's end, the women expected that out of gratitude for their war activities they would be granted equal rights and the vote. To their disillusionment the women were informed that this "is the Negro's hour," and they would have to wait for their rights (Kraditor, 1965, p. 3). Because of a disagreement as to how they should view the Fourteenth Amendment, which used the term male for the first time in the United States Constitution, and several other issues, two separate organizations came into being: the National Woman Suffrage Association (1869-1890) with Mrs. Stanton and Miss Susan B. Anthony as leaders, and the Woman Suffrage Association led by Henry Ward Beecher and Mrs. Stone. In 1890, the two groups merged into the National American Woman Suffrage Association (Kraditor, 1965, p. 4).

Women's Rights in Iowa

The first "Northern Woman Suffrage Association" was organized in Iowa at Dubuque on April 17, 1869, although other societies were being organized in Iowa at about the same time in different locations (Stanton, 1886, p. 614). Between 1869 and 1870, Societies were organized in Independence, and Monticello. Societies existed in Humboldt, Nevada, West Union, Corning, Osceola, Muscatine, Sigourney, Garden Grove, Decorah, Hamburg, and scores of other towns (Stanton, 1886, p. 617).

In 1897, the Twenty-ninth annual meeting of the National American Suffrage Association was held in Des Moines, Iowa, January 26-29. The temperature dropped to twenty-four degrees below zero and a heavy blizzard prevailed throughout the West. Sixty-three delegates representing twenty states were present. Governor Francis M. Drake, and Mayor John McVicar extended the welcome of the state and city, but carefully avoided commitment to the question of woman suffrage (Harper, 1922, p. 270). A reception was given by Mr. and Mrs. F. M. Hubbell at their residence, Terrace Hill.

From 1870 until 1900, the Iowa State Suffrage Association had a bill before every Legislature asking for some form of suffrage for women. The bill usually passed one House but never both at the same session (Stanton, 1886, p. 633); Harper, 1922).

> In the early years petitions were sent, the number of signatures rising from 8,000 in 1884 to 100,000 in 1900, but after that time they were almost entirely given up, as they had no effect. The resolution was introduced according to custom in the Legislature of 1902. Also according to custom, not always so carefully observed, the Senate passed the resolution by 28 to 16, this being the Senate's year for this courtesy, and the House accepted the report recommending indefinite postponement.
>
> In 1904 the resolution was defeated in the House and did not emerge from the Senate committee. In 1906 this program was repeated. The meeting of the Legislature was now changed to odd years and in 1907 the above program was reversed. After this year the members omitted even the customary graciousness of an understanding that one body would pass it and the other kill it, thus keeping the women friendly and dividing the responsibility for the defeat, and both Houses in 1909 rejected it (Harper, 1922, p. 185).

The 19th amendment of the United States Constitution was ratified by Iowa in 1919 and all states on Aug. 26, 1920 (Norton, 1965, p. 256).

The women's rights movement began as a reaction against the narrowness of women's position. The political suffrage question was only one phase of the nineteenth century movement towards women's emancipation; it was closely interwoven with other changes, some of which were fundamental. Foremost among these were the change in woman's economic position and the advancement of her education. Jessie Taft said, "The woman movement viewed not as an isolated phenomenon but as an integral part of the vaster social evolution, is seen to be only the woman's side of what from the man's angle is called the labor movement" (Taft, 1915, p. 53).

The Emergence of Nursing in America

The organized system of training for nurses that now prevails in the United States dates from 1873 or 1874 (Stewart, 1943, p. 87). The War between the States brought into focus the need for nursing reforms in the United States. The Civil War also did much for the advancement of women, partly because women had profited by their opportunities during the war and partly because new privileges always result for all classes in a postwar era. On April 14, 1861, when President Lincoln summoned 75,000 volunteers for the Union Army, there was no army nurse corps, organized medical corps, or ambulance or field hospital service (Dolan, 1978, p. 175). Public demand led to the creation of the United States Sanitary Commission which was organized by the Rev. Henry W. Bellows, a prominent Unitarian minister, and Dr. Elisha Harris, a leading physician, both of New York. With the support of a group of

New York women, a public meeting was called at Cooper Union where the society was organized. It was known as the Women's Central Association of Relief, but indicative of the times, the officers of the organization were all men (Adams, 1961, p. 13). The organization, which eventually became a branch of the United States Sanitary Commission, began collecting articles which would be of value to the sick and wounded. By special arrangement with Bellevue Hospital, a number of selected women enrolled in a special nursing course.

On April 19, 1861, Dorothea Dix met with the Secretary of War and volunteered to recruit and equip a corps of army nurses. Her offer was accepted almost immediately. At first she was restricted to providing nurses for the hospitals in and near Washington, D.C., but on June 10, 1861, Dorothea Lynde Dix was appointed Superintendent of Female Nurses of the Union Army without territorial limits (Adams, 1961, p. 153). In August, 1861, Congress made the "female" nurses legal and provided for their pay. The act provided that women might substitute for men in "general or permanent hospitals when it seems desirable to the Surgeon General or to the Surgeon-in-charge." The salary was set at 40 cents a day and one ration (Adams, 1961, p. 154).

By 1861, thousands of American women were familiar with the outstanding achievements of Florence Nightingale. Many women were eager to follow in the footsteps of this pioneer army nurse. When the war came, hundreds immediately offered their services to the government. This unexpected development was significant not only because of the numbers involved but also because it represented a radical departure from American tradition.

> That summer so many would-be nurses poured into Washington that the government had to beg Miss Dix to try to stop them at the source. With "thousands" of applicants to choose from, the new Superintendent established rigid standards of fitness . . . . The candidates, each of whom was personally examined by Miss Dix, had to be past thirty, healthy, "plain almost to repulsion in dress, and devoid of personal attractions" (Adams, 1961, p. 155).

Military rank was not given to Miss Dix or to the members of her corps.

The wisdom and propriety of permitting women to nurse became a matter of public discussion and controversy. Many felt that the women would not be strong enough to give physical care. Some felt that the women would go to the hospitals in search of amorous adventure. The nurses were not greeted with enthusiasm by the surgeons.

> Sickness was looked upon as a visitation of Providence; mosquitoes, flies, and other pests were regarded with complacency; many diseases . . . took heavy tolls on life; and filth and vermin abounded. Provisions for baths were exceedingly rare even in the cities, and when a president of the United States [Willard Fillmore, 1855] placed a bathtub in the White House in the early fifties the innovation aroused a storm of protest. Legislators tried to pass laws against bathtubs. Governing authority in Philadelphia failed by a few votes to enact an ordinance prohibiting bathing between November 1 and March 15, Boston required on behalf of the public health that baths should be taken only when prescribed by a physician, and even the medical fraternity assailed the practice as a menace to health and predicted epidemics of rheumatic fevers and inflammation of the lungs (Knight, 1934, p. 413).

The friction between the "nurses" and the surgeons is not easily understood until it is remembered that there was not a single trained nurse, as we use the term, in all America. Some of the women had a short course in nursing which left them semi-trained.

> Trouble began when the first semi-trained women arrived at Washington in 1861, with the idea that they were to be "head nurses," supervising the work of men . . . . Miss Dix's injunctions to stand on their dignity and to assert their rank as "second only to the ward surgeon" led to clashes in which the women were threatened, snubbed, starved and, in a number of cases, sent to their indignant superintendent (Adams, 1961, p. 156).

The women nurses ignored prescriptions of diet and medication. Some of them substituted their own home remedies for the doctors' drugs.

In an effort to avoid a boycott of the women by the army surgeons, Surgeon General William A. Hammond ordered that at least one-third of all hospital nursing posts be given to them, whereupon some doctors requested permission to appoint Sisters of Charity to these places.

Since the days of the first settlements in America, religious nurses had given aid in epidemics of diseases and in disasters and established and maintained hospitals during normal times. At the outbreak of the Civil War, they were the only group of nurses prepared to provide care as army nurses (Sellew & Nuesse, 1946, p. 264).

> During the War between the States, the nuns seem . . . to have been used first in the West, where by the Fall of 1861 groups from convents in Indiana and Michigan had taken over the nursing in hospitals in Cairo and Paducah. They replaced regular women nurses in the large general hospitals at Mound City, Illinois, in 1862, and were soon installed at Memphis (Adams, 1961, p. 160).

Although the soldiers commonly referred to all the nuns as "Sisters of Charity" actually three other orders also participated: the Sisters of Mercy, the Sisters of St. Joseph and the Sisters of the Holy Cross (Adams, 1961, p. 160).

The opposition of physicians to women nurses and the lengths to which they resorted to rid themselves of the nurses are well-documented by many volunteer nurses including Georgeanna Woolsey. In 1864, she wrote:

> No one knows, who did not watch the thing from the beginning, how much opposition, how much ill-will, how much unfeeling want of thought these women nurses endured . . . . Government had decided that women should be employed, and the army surgeons . . . determined to make their lives so unbearable that they would be forced in self defense to leave . . . .
> Some of the bravest women I have ever known were among the first company of army nurses. They saw at once the position of affairs, the attitude assumed by the surgeons and the wall against which they were expected to break and scatter; and they set themselves to undermine the whole thing (Austin, 1971, p. 112).

Although men also volunteered as nurses and outnumbered women in the military wards by two to one, there is no evidence that they were selected with much care or received any more than on-the-spot instruction (Shryock, 1959, p. 219). The supervision of Miss Dix did bring some order and discipline into the base hospitals in the North. No such centralized system was used in the South.

The Confederate Government depended upon state and local groups and upon individuals to maintain hospitals. Sally Tompkins rented a house in Richmond and established a twenty-two bed infirmary. Jefferson Davis commissioned her a captain because of her early service. "Late in 1861 the government took over the hospital system but not until September 1862 did the Confederate Congress grant official status to women nurses. They were then classified as chief, assistant, or ward matrons with a monthly salary of forty, thirty-five and thirty

dollars respectively" (Massey, 1966, p. 48). An immediate side effect of the Civil War was an improvement in the educational status of women because they were deprived of husbands, fiancés, fathers and brothers to support them.

The prewar notion that a woman might not have to make her own way in the world was forced upon the United States:

> When feminist history is finally rewritten, the real heros of the movement may well turn out to be the Civil War dead. Without that upheaval and those appalling casualties there would have been few openings in the economy and no real impetus toward either education or the political autonomy that came after (Kendall, 1975, p. 103).

Some of the women who served in the war hospitals and on the Sanitary Commission made an effort to provide some type of educational preparation for the nurse (Brown, 1936, p. 13). The medical profession had similar ideas.

Physician Influence

One notable effort toward nursing education was made by Dr. Samuel D. Gross, Professor of Surgery at Jefferson Medical College in Philadelphia, and a leader in medical education. Shortly after the Civil War, Dr. Gross brought the need for better nursing before the American Medical Association. Under the chairmanship of Dr. Gross, a committee was formed to study the whole question of the training of nurses. His report reflects the general medical opinion of the time that nursing be placed under the control of the medical profession and that there should be a school for the training of nurses in every large hospital--not only to train nurses to supply demands of that hospital

but also to train nurses to care for families in their homes. The nurses were to be trained by the medical staff as medical students were. The living conditions of the women were to be controlled. The county medical societies were to take responsibility for the district schools.

Dr. Samuel Gross paid tribute to Florence Nightingale as the founder of modern nursing, but his recommendations left no doubt that he thought her plan for training nurses would be improved by placing it directly under the control of medicine. Specific recommendations are quoted as follows:

> To afford the proper facilities for carrying out this grand design, the Committee are of the opinion;
> 1st. That every large and well organized hospital should have a school for the training of nurses, not only for the supply of its own necessities, but for private families, the teaching to be furnished by its own medical staff, assisted by the resident physicians.
> 2dly. That while, it is not at all essential to combine religious exercises with nursing, it is believed that such a union would be eminently conducive to the welfare of the sick in all public institutions; and the committee therefore earnestly recommends the establishment of nurses' homes, to be placed under the immediate supervision and direction of deaconesses, or lady superintendents, an arrangement which works so well in the nurses' homes at London, Liverpool, Dublin, and other cities in Europe, and at the Bishop Memorial House in Philadelphia.
> 3dly. That, in order to give thorough scope and efficiency to this scheme, district schools should be formed, and placed under the guardianship of the county medical socieites in every State and Territory in the Union, the members of which should make it their business to impart, at such time and place as may be most convenient, instruction in the art and science of nursing, including the elements of hygiene, and every other species of information necessary to qualify the student for the important, onerous and responsible duties of the sickroom.

> The Committee would further suggest the importance of forming in every convenient place nurses' societies, the regular members of which should, in all cases, other things being equal, have the preference, as it respects the recommendation of the practitioner over the ordinary ignorant or uneducated nurse. In this manner an esprit de corps could be established which could not fail to be highly advantageous to the public as well as to the medical profession. In conclusion, it may not be amiss to offer a few remarks upon the qualifications of a nurse, or in other words, the duties which she may be required to perform in the wards of a hospital, and in the private sick chamber.
> 1st. To do justice to her vocation, or to perform her labor with alacrity and efficiency, a nurse must be of sound constitution, of good muscular strength, and of great powers of endurance, capable of bearing up manfully under fatigue and loss of sleep ("Report of the Committee on the Training of Nurses," 1869, pp. 172-174).

In addition to several other suggestions as to the age and common education of the nurse, the Committee offered the resolution that a copy of the report, authenticated by the signatures of the President and Secretary of the American Medical Association, be sent to the State Medical Societies of the States of the Union, inviting their cooperation in the establishment of the schools for the training of nurses for hospital and private families, "in accordance with the principles therein advocated" ("Report of the Committee on the Training of Nurses," 1869, pp. 172-174).

Because of the wide publication and the source of the report, some type of action could have been expected. However, there is no evidence that any state or local medical societies followed its recommendations.

The preparation of nurses was strongly influenced by the socio-economic conditions of women. The general education of the population of the United States and of women in particular has had a profound effect upon the development of nursing education.

Early Nursing Care in Iowa

Early medical and nursing care in Iowa occurred largely in the patient's home. Medical treatment centered upon treating disasterous epidemics of croup, diphtheria, scarlet fever, smallpox, erysipelas, dysentery, and typhoid.

With the establishing of the State Board of Health on March 26, 1880, an attempt to record the names and addresses of physicians and midwives was made by the Board. This early recording was mostly for the purpose of registration of births and deaths within the county. The first report of the Board of Health gave reference to a nurse in connection with rules and regulations about the restriction and prevention of contagious diseases (First Biennial Report, 1882).

> Perfect cleanliness of nurses and attendants should be enjoined and secured. As the hands of the nurses of necessity become frequently contaminated by the poison of the disease, a good supply of towels and two basins--one containing solution of chlorinated soap (Labaracque's solution), chloride of lime or other disinfecting solution, and another for plain soap and water, should always be at hand and freely used (p. 31).

Since there was no registration of nurses, and no program established for the training of nurses, the individuals referred to in this section of the Iowa State Board of Health report had to be those persons who gave care to others either for hire, or because of their generous nature. Iowa was in the second phase of nursing.

The early attempts of the State Board of Health to educate the population and safeguard the health of the residents by making rules and regulations for the reporting of illness and contagious diseases was not at first successful (First Biennial Report, 1882).

> For the year 1880 . . . reports were received from less than one-third of the state . . . . It was not expected that perfection would be reached by this first effort. The vast majority of the people have never given the matter a thought. The subject is entirely new, and many had no knowledge or conception of what was required. Instead of using the blanks prepared by this office for their report, seventy-five clerks write a special letter saying they have no report to make, because there had been no sickness and no contagious diseases. They do not appreciate the fact that it is equally important, in compiling a record of the State at large, to know where there has been little or no sickness as to know where there has been little or much, that the causes may be studied and made known (p. 56).

Samples of the letters received by the State Board of Health give an insight into the attitudes and knowledge of the population of Iowa about medical and nursing care.

> Richland Township, Cherokee County, November 15, 1880 . . . . The local board met but did nothing, as they thought there was nothing to do. There have been no contagious diseases in the township, and there is no physician therein. F. D. Bailey, Clerk (First Biennial Report, 1882, p. 57).

> Ellington, Hancock County, November 4, 1880 . . . . This is a very healthy county up here. There have been but three or four deaths and no dangerous diseases in this township during the past year. Charles A. Clark, Clerk (First Biennial Report, 1882, p. 57).

> Middlefield, Buchanan County, November 6, 1880 . . . . Our trustees have not organized. I am not posted on the duties suggested in your circular. Diphtheria has raged in this township; know of but one death. A. M. Lane, Clerk (First Biennial Report, 1882, p. 57).

> Windsor Township, Fayette County, November 12, 1880 . . . . The health of our township is good, with no epidemics to report. Most of the deaths have been children, from diphtheria, four in all. James Grohorn, Clerk (First Biennial Report, 1882, p. 58).

> Highland Township, Guthrie County, November 26, 1880 . . . . After receiving your blanks and circulars, I notified the township trustees, and requested them to take some action,

> but they ignored the whole matter, and said they would have nothing to do with it, that we have had no physician in the township, and did not need any. We have had no contagious diseases. D. G. Garns, Clerk (First Biennial Report, 1882, p. 58).

> Muscatine, August 7, 1880 . . . . In the latter part of May a mild epidemic of scarlet fever appeared at this place. The epidemic lasted until about June 15th, and resulted in twenty (20) cases and five deaths. At the above date the epidemic ceased. However, on August 1, one case was reported, and since that time the number has been increased to eight, with one death, making in all, since June 1, twenty-eight (28) cases and six (6) deaths. F. H. Little, Health Officer of Muscatine (First Biennial Report, 1882, p. 58).

> Waubeek, Linn County, July 22, 1880 . . . . I will give you some facts in regard to our recent epidemic of diphtheria. The disease has visited us in a very severe form, out of forty cases only three or four being anything like light. Several cases, after recovery from the severity of the disease, have resulted in death from exhaustion, owing to the profoundly altered state of the blood. There has been a total of forty cases, with twelve deaths. I have had management of them all. Some advanced rapidly to a fatal termination; others lingered three or four weeks. Some of them were of the most malignant type, bleeding from nose, eyes, ears and mouth, and at all points of the body where there was an abrasion of the skin. Three died from diphtheritic croup. At first people did not heed my warnings to be cautious about its spread, but finally they became almost panic striken, and are now ready for any suggestions, with the exception of a few, who still will not believe in the great contagiousness of the dread disease. The epidemic is now declining. I only have four cases, all in one family, and recovering. One of them is suffering from paralysis of the naso-palatine muscle, and a feeble and irregular heart. We desire information and suggestions from the State Board, and will endeavor to carry them out faithfully. This is the third time in two years the disease has visited this locality, but not in so severe a form. Ward Woodbridge, M.D., Health Physician (First Biennial Report, 1882, p. 59).

The health care practices of the citizens of Iowa were also discussed in the report to the State Board of Health.

> Speaking generally of diseases among the people . . . one cause is--and one of great importance--not attending to the laws of hygiene. I find that there are fully one half, if not more, who do not even bathe themselves once or two to four months. With this one simple duty neglected, how can people expect to be healthy? (First Biennial Report, 1882, p. 88).

> Great improvement could be made, at a moderate trouble and expense, in the care of privies and excreta, and of kitchen and chamber slops, which, accumulating near dwellings and wells, and thrown upon a soil now so fast becoming saturated with organic matter, are constantly becoming more and more prolific causing disease (First Biennial Report, 1882, p. 89).

Physician Influence

Some of the early citizens of Iowa recognized the need of having the practice of medicine and nursing regulated by the state. On May 10, 1881, L. C. Wailes, M.D., of Camden, Appanoose County, made the following suggestion to the State Board of Health:

> For the better protection of life and health within this state, I would suggest that we urge the passage of a law by our next General Assembly, that will prohibit persons from practicing medicine, surgery, or midwifery within this State unless they are graduates of some respectable medical college, or unless they have been in practice ten years within this State, or have a certificate of worthiness from a board to be created, or the State Board of Health. Some other states have had similar laws for several years, which has caused Iowa to be crowded with inferior practitioners. The evils of this I have witnessed myself. Let the people have protection (First Biennial Report, 1882, p. 122).

R. R. Hanley, M.D., of Sidney, Fremont County, on April 19, 1880, had a similar suggestion:

> I would commend to your favor the proper encouragement of training schools for nurses and the more extended and correct ideas of hygiene in the treatment of incipient disease (First Biennial Report, 1882, p. 138).

In the Report of the Secretary for 1881, there was mention of a person who was interested in obtaining the services of a nurse specialists. "He had sickened in Tama county after having been exposed to smallpox, had returned home and sought in Davenport for a colored man who was familiar with nursing smallpox cases in the hospital" (First Biennial Report, 1882, p. 169).

For the most part, the causes of diseases were unknown. Many persons paid dearly for their acts of kindness to others. The official publication of the Iowa State Board of Health warned "Do not attend the funeral, nor go to the homes of those dying with cholera. Let these works of mercy and charity be performed by those appointed and authorized to do so, from the fact that they will be done more carefully, scientifically, and successfully, and with the least danger to others" (Monthly Bulletin, 1892, p. 55). The same publication reports the sad results of having persons unfamilar with the causes of disease provide care.

> During the illness of Mr. B., the first case, a younger brother after nursing him a time was, after his return home, fatally stricken with the disease. Still another brother and his wife, also assisting during the long continuance of the fever, upon their arrival home at a distance, were both attacked and their lives for a time dispaired of (Monthly Bulletin, 1892, p. 147).

It seems somewhat fitting that two of the objectives of the newly formed Iowa State Nurses' Association were given as:

> To improve the conditions of its members, morally, socially, intellectually, and professionally, and to provide for and comfort the sick and distressed and bury the dead members of the association. And to establish a funeral fund (Monthly Bulletin, 1892, p. 28).

The first five years' activities of the State Board of Health centered around reporting outbreaks of contagious diseases and recording births and deaths. The first Medical Practice Act was enacted by the Twenty-first General Assembly and became effective July 1, 1886. The law authorized the Board to grant three forms of certificates: To those who were graduates of medical colleges recognized by the Board as in good standing; to those who had been, at the time of the passing of the act, not less than five years in continuous practice on one locality; and to those who, not having these qualifications, passed an examination given by the Board.

As a result of the new law of July 1, 1886, certificates based on a diploma were issued to 2,568 physicians; for terms of practice, 490; and for successful examination, 16. In addition, licenses were also issued to 16 midwives (Bierring, 1960, p. ii). In 1897, the Act was amended requiring that after January 1, 1899, all persons beginning the practice of medicine in Iowa must pass an examination by the Board.

In the pre-hospital days, the principal types of surgery were amputations, heriotomy, trepining, removal of vesical calculus and an occasional repair of hair lip and ovariotomy. Most often the surgery was done on the patient's kitchen table with chloroform as the anesthetic. Nursing care was provided by the patient's relatives, or by an unlicensed nurse or attendant (One Hundred Years of Iowa Medicine, 1950, p. 372).

The first record of an organized hospital in Iowa was in connection with the beginning of the College of Physicians and Surgeons, the Medical Department of the Iowa State University at Keokuk, in September

1850 (One Hundred Years of Iowa Medicine, 1950, p. 372).

The third phase of nursing, that of the trained nurse, began in the United States and in Iowa with the organization of hospitals. Although most of the hospitals in Iowa began through a need of the community to furnish a place to care for the ill, perhaps the letter of E. A. Ainsworth, M.D., City Health Officer of West Union, Iowa, to J. F. Kennedy, M.D., Secretary of the Iowa Board of Health in 1902, describes a somewhat typical situation and the attitude of the local citizenry.

> I herewithin submit to you a report of our recent "tussle" with smallpox.
>
> We have really had a shower of smallpox; in all five cases. The first case was reported on the 31st day of May, 1902 at 2 p.m. the second at 3 p.m.; the third at 8 p.m.; the fourth on the evening of June 5th; the fifth case on the morning of June 7th.
>
> The cases were quarantined in their homes, except one, namely the second case reported, this being the clerk at the Arlington hotel in this city, who was removed to a small building in the east part of town. On account of exposure the landlord and his family, together with 25 or 30 guests and employees, were quarantined in the Arlington hotel for the required sixteen days.
>
> . . . The infection which gave rise to this outbreak of smallpox was brought by a young man from Decorah, Iowa, who came here to visit his parents . . . . It is a source of no ordinary degree of satisfaction to be able to trace a single source of infection which has given rise to what threatened to be an alarming state of affairs in our midst . . . .
>
> We are now rapidly approaching completion, a building for use in such emergencies as we have just passed through, and felt a most pressing need of which we propose to designate "City Hospital," unless the law compels us to have a "Pest House."
>
> The building has been nicely painted, is 26 feet by 48 feet, 10 feet from floor to ceiling, a hall 6 feet wide running through the center, four rooms on either side of hall; transom windows over both inside and outside doors, a wide porch on each end of the building, which faces the

> east in a beautiful grove, isolated from any main thoroughfares, on ground purchased for the purpose and well calculated to supply comfort to the sick, pleasant surroundings to the convalescent as well as safety to the public. Our city hospital will have excellent drainage, city water of which we have the best, electric lights, furnace heat, bathrooms and closets, in fact all the necessities and modern conveniences to be supplied to such an institution (Iowa Health Bulletin, 1902b, p. 40).

With the establishment of hospitals came the need for nurses. In 1880, 15 training schools for nurses were established in the United States with a student body of 323 (Stewart, 1943, p. 48). Jennie Edmundson Memorial Hospital, Council Bluffs, opened a school of nursing fourteen years later. St. Luke's Hospital, Davenport, opened a school of nursing in August of 1895 and has the distinction of being the first school of nursing in Iowa because it graduated the first students. Matilda Hinricksen and Virginia Sullivan, both were given credit for previous nursing education and were the first graduates of St. Luke's School of Nursing and so far as is known the first nurses in Iowa to receive certificates of Graduate Nurse (Wilson, 1931, p. 71).

Religious Influence

The contributions to nursing of the Catholic Sisters cannot be overlooked. The Foundress of the Sisters of Mercy was Catherine McAuley who was born on the outskirts of Dublin, Ireland, about 1778. Catherine and two companions pronounced their vows of poverty, chastity, and obedience on December 12, 1831, and that date is the foundation day for the Sisters of Mercy.

Historians have questioned where Mother McAuley acquired her interest and experience in caring for the sick since there were no

nursing schools and the nurse as known today did not exist.

> Catherine had found herself frequently in the midst of persons who were ill and for whom she cared; her own mother, Mr. and Mrs. Callaghan, later her sister Mary, and during a final brief illness, her brother in law . . . . Catherine had the added advantage of being surrounded by a family of medical men and pharmacists (Bauman, 1958, p. 54).

The majority of the hospitals conducted by the Sisters of Mercy in various parts of the world are found in the United States. They are represented by 63 percent of the states. In the state of Iowa as early as 1958 the sisters had twenty institutions (Bauman, 1958, p. 120). The hospitals founded in Iowa by the Sisters of Mercy are:

Iowa Town	Name of Hospital	Year established
Algona	St. Ann Hospital	1949
Anamosa	Mercy Hospital	1893
Cedar Rapids	Mercy Hospital	1900
Centerville	St. Joseph's Mercy Hospital	1903
Clinton	St. Joseph's Mercy Hospital	1884
Council Bluffs	Mercy Hospital	1903
Council Bluffs	St. Bernard's Hospital	1887
Cresco	St. Joseph's Mercy Hospital	1911
Davenport	Mercy Hospital	1869
Des Moines	Mercy Hospital	1894
Des Moines	Bishop Drumm Home for Aged-Chronic	1939
Dubuque	St. Joseph's Mercy Hospital	1879
Dubuque	St. Joseph's Sanitarium	1887
Fort Dodge	St. Joseph's Mercy Hospital	1908
Iowa City	Mercy Hospital	1878
Marshalltown	Mercy Hospital	1902
Mason City	St. Joseph's Mercy Hospital	1916
Olewein	Mercy Hospital	1926
Sioux City	St. Joseph's Mercy Hospital	1890
Waverly	St. Joseph's Mercy Hospital	1904

In addition, the Sisters of Mercy established nursing programs in Nursing in Iowa. Some early programs were: Mercy School of Nursing, Council Bluffs, Iowa, 1896; Mercy School of Nursing Des Moines, 1899; St. Joseph Mercy School of Nursing Dubuque, 1900 (Bauman, 1958, p. 139).

At approximately the same time that the trained nurse was becoming established in the United States, the factory system was beginning to emerge, and girls and women were becoming a part of the labor market. The sewing machine and typewriter had been invented and the depression following the Civil War forced many women to support themselves and their dependents. In 1880, fourteen percent of the female population ten years of age and over was gainfully employed. In 1890, the number had increased to 17.4 percent and by 1910, 23.4 percent of the women had entered the labor force (Sellew & Nuesse, 1946, p. 358). Many of the women and girls had little education and were not prepared for employment.

The lack of preparation for employment stimulated the organization of classes in which women and girls were educated for various types of employment. Many cities conducted courses which trained women and girls for domestic work which included housekeeping, cooking and some basic instruction in the home care of the sick. Thus, the fourth phase of nursing history began--the phase of the trained attendent or practical nurse.

Early Practical Nursing in the United States

The chronology of Practical Nurse Programs in the United States is somewhat obscure because of the lack of record keeping in early voluntary organizations. However, it would appear that the Young Women's Christian Association (YWCA) of Brooklyn, New York, established the first course for training attendants for the sick in 1890, and a

practical nursing course was taught in Boston, Massachusetts, sometime after 1888 (Johnson, 1966, p. 161).

From 1897 to 1916, the course taught by the Young Women's Christian Association was called "Training of Attendants for the Sick" (Johnson, 1966, p. 19). The instructor for the entire period of time was Miss Henderson. It was not until 1914 that Miss Henderson included the initials R.N. after her name. However, it is assumed that she was a graduate nurse (Johnson, 1966, p. 19).

Practical Nursing in Iowa

Programs for the training of attendants (Practical Nurses) existed in some of the state institutions in Iowa. The curriculum of such a program was described in the Tenth Biennial Report for the period ending June 30, 1891, 1892, as follows:

> In general, six winter months are given to lecture and study, the six summer months to clinical instruction in nursing. (Clinical instruction by opportunity by physicians) Two years service in this hospital, and faithful attendance upon two courses of lectures and passing a credible exam in the content of three text-books, entitles an attendant to a diploma (p. 27).

Additional evidence of some type of training school for attendants is given in the Hospital Press, a publication of the Iowa State Hospital.

> The Superintendent of this Hospital invited Dr. Powell, the Superintendent of the Institution for the Feeble Minded at Glenwood, to conduct the examination of candidates for graduation from the training school here and to address the school on the occasion of the graduating exercises (Hospital Press, 1899, p. 5).

The attendants trained in these state institutions were most likely planning on remaining in the employment of the institution. There are few records to indicate that these trained attendants worked in private homes.

Summary

Social restrictions in America confined most women to domestic roles that did not permit them to obtain an education or enter the professions. The Northwest Ordinance gave land in each township for a public school. The Morrill Act provided federal land for higher education. Although Iowa enacted a law providing funds for the education of school teachers, the bill permitted women admission to the academy but only men would be admitted to college. The women were to teach in the common schools and the men were to become high school teachers. The rural areas of Iowa were consolidated into school districts. Initially, the demand for high school education was met by church and private institutions rather than by public schools.

During the period of crisis caused by the Civil War, many influential leaders emerged. Dorothea Dix was appointed to head the drive for nurse recruits to serve the Union Army. The female nurse was given legal stagus by Congress and a salary was established for nurses. Thousands of women left their former domestic roles and volunteered to serve the government. This military upheaval placed many women in the position of having to make their own way in the world. These women recognized their limited education and political weakness. During the depression which followed the Civil War, there were few opportunities for women to support

themselves and their families.

The women in Iowa were working for political equality and the right to vote. From 1870 to 1900, the Iowa State Suffrage Association had some form of suffrage bill before the Legislature. However, suffrage was not granted during this period of time.

The Iowa Board of Health was established and attempted to develop rules and regulations for the people of Iowa. Hospitals were being established, but the nursing service was generally disorganized and often supplied by untrained attendants. Hospitals served by religious nursing orders provided a higher quality of nursing care.

Social reforms have followed most wars. During the Civil War, politically and intellectually endowed leaders emerged who struggled to upgrade health care by encouraging the establishment of schools of nursing. Many believe that the most important result of the Civil War was the increased public awareness of the need for hospitals and the necessity for better prepared persons to enter the career of nursing and to provide good care for patients.

The struggle for admission into institutions of higher learning, for entry into the professions and for the right to vote was continued by women into the early 1900s. However, the proper social and scientific seeds had been planted to nourish the growth of nursing education.

CHAPTER THREE: NURSING EDUCATION FOR THE INDUSTRIAL AND SCIENTIFIC AGE 1900-1918

The National Scene

With the turn of the century, industrialization, expansion of communication and transportation, population growth and urban development caused changes in American society. Social change is often reflected in educational curricular developments.

Prior to the early 1900s, efforts to determine national priorities for public instruction were aimed for youth less than 14 years of age. Five acts were passed between 1862 and 1907 providing funds for professional level education at land grant universities (Swanson, 1962, p. 21). This funding resulting from federal legislation did not provide assistance for the skilled worker such as the farmer, mechanical worker and homemaker. Three types of preparation for work existed prior to vocational education: (1) apprenticeship training (2) father/son and mother/daughter transmission of skills, and (3) the pick up method (Barlow, 1976). Nursing education was an apprenticeship during this early period.

The Smith-Lever Act of 1914 provided for state and federal support for vocational education (Roberts, 1971, p. 91). But it was not until the Smith-Hughes Act of 1917 that continuing appropriations for agriculture, trade and industry, and homemaking, as well as teacher education in these areas, were provided. The unique feature of the federal legislation was the "partnership" arrangement providing federal

funding without normal regulatory control. The requirement of a state plan was contained in the basic law (Swanson, 1962, p. 60).

Elementary Education

The common school continued to expand and by 1918 all states had enacted some form of compulsory education. After 1900, schools placed an emphasis on nature study, elementary agriculture, cooking, sewing and manual training (Mutchler & Craig, 1912, pp. 8-23).

Secondary Education

The number of public high schools multiplied during the early 1900s. "By the end of World War I the number of high schools had spiraled to 25,000 with an attendance of over 1,600,000 youngsters" (Butts & Cremin, 1953, p. 419).

The industrialization of the United States led to a demand for industrial, commercial and homemaking courses to be taught in the high schools.

> By 1918 the broad outlines of the secondary curriculum had expanded to include mathematics, English, science, social studies, foreign languages, physical education, commercial subjects and the fine and practical arts (Butts & Cremin, 1953, p. 440).

The secondary schools of the United States were classified as general and technical, the general having culture as their primary aim, while the technical schools prepared more or less directly and completely for certain occupations. The technical schools came into being during the second decade of the 1900s ("Report of the American Commissioners," 1912, p. 25).

Higher Education

The 1900s brought about the philosophic and scientific movements in education spearheaded by James, Dewey and Thorndike. The growth of specific collegiate departments within the colleges and universities reflected the sociological emphasis and interest of the people at the time. The ministry professions experienced a revival of religious zeal during the mid 1800s. With that interest came a rise in the number of students entering the study of ministry. At the close of the nineteenth century, the ministry was declining and teaching, commercial pursuits, law and medicine were rising (Burritt, 1912, p. 76).

Education in Iowa

The school year in 1876 was about six months long, but ten years later it increased to seven months. The first school years were divided into a summer term, a fall term, and a winter term. The younger children attended in the summer and fall while the older children and some adults attended in the winter. The summer and fall terms were taught by women whereas the winter school was usually taught by men (Christensen, 1928, p. 148). The teachers were trained for teaching in either the common schools or at academies, seminaries or colleges.

Elementary Education

The low academic standards in rural schools remained a concern to educators and some parents. Consolidation of school districts helped to raise standards. In 1902,compulsory attendance legislation was passed. The law required attendance of children between the ages of seven and fourteen (Hart, 1954, p. 166).

Secondary Education

By 1916, Iowa had a total of 187 consolidated school districts (May, 1956, pp. 30-33).

> The school district system established in 1849 eventually proved to be the basis upon which the high schools . . . were gradually developed in Iowa . . . . As late as 1905 only 40 percent of Iowa's children lived in districts providing free high schools in which 32,000 were registered. Some of the 60 percent outside these favored districts (about 7,000 in number) managed to attend a neighboring high school (or academy) by paying tuition. In 1911 a State law required that school districts not having high school pay the tuition of any student who wished to attend high school and was qualified to do so. This was a great arguement for towns to provide high schools. In 1910 there were 406 high schools in Iowa; by 1934 there were 953 (Petersen, 1952, p. 864).

The Junior College at Mason City was the first public community college organized in Iowa as a department of the public schools. The Junior College began operations in September, 1918, without legal sanction, as there was no law on the statute books at the time authorizing the organization of junior colleges as part of the public school system (Iowa Official Register, 1968, p. 257).

Higher Education

Many of the private and denominational colleges in Iowa had their beginning shortly after the Civil War. At first, some of the colleges developed departments such as "the School of Music, College of Law and College of Oratory founded at the Iowa Wesleyan College" (Petersen, 1952, p. 871). Later these schools found they could not operate a university so they dropped all of the colleges except that of Liberal Arts. The courses of study were altered throughout the years to meet the needs of the college students and the changing society.

> There was throughout this period of evolution of Iowa collegiate education considerable opposition to classical education. The classicists themselves were alarmed because so many students were deserting the classics. In particular, it was found regrettable that students for the ministry should take a B.S. rather than the B.A. which was considered most desirable for the minister . . . . In the words of the president of Simpson Centenary College, the aim was to produce "liberal scholarship and many-sided culture, rather than special development in any one direction" (Petersen, 1952, p. 899).

The State Teachers' Association adopted annual resolutions in 1901, 1902, and 1910 endorsing the introduction of manual training into the schools (Hart, 1954, p. 181). The teachers of Iowa recognized the need to meet the educational requirements of the people.

The three state institutions of higher education were established at about the same time and were competitive for programs. There were three separate boards of trustees who biennially approached the legislature for appropriations. The legislature in 1910 under the bill sponsored by Senator Whipple changed the governing authority to a single body.

> . . . the legislature finally, in what might be called sheer desperation, looked about for some method whereby these rivalries could be minimized and these institutions correlated. For this reason, and for this reason only, the Iowa State Board of Education was called into being (Board of Education, Minutes, 1909, p. 648).

The National Women's Rights Movement

"In 1910, 114 schools of law in the United States were reported, with 19,567 students of whom 205 were women. Of the 4,233 who graduated in 1910, forty-four were women. In 1919-1920, 107 law schools

reported 19,821 men and 1,171 women" (Woody, 1929a, p. 377).

> The struggle to gain for women educational advantages equal to those enjoyed by men has been a long and hard one. The dream of Matthew Vassar, who wished "to inaugurate to a new era in the history and life of women" and to give her "all the advantages long monopolized" by man, was slow to come true because of prejudice, conservatism, and the dismal predictions that damage would be the result if learning should be advanced to the weaker sex (Knight, 1934, p. 401).

Iowa Women's Rights

There was considerable opposition to coeducation at the higher level in Iowa. For example, "there was strong opposition to the admission of women when the State University of Iowa was established" (Petersen, 1952, p. 859). Historically, Catholics have always supported the separate education of the sexes above grammer school. Many of the Iowa pioneers from the East felt that the education of women should be on a different basis from that of men. However, it was not always economical to establish two schools, so girls and boys in Iowa attended the same grade schools. The name academy was often used for schools for women. The word female was added to be sure there could be no mistake about the mission of the school.

The University of Dubuque, located at Dubuque, Iowa, was established to serve students of "foreign heritage" in 1852. It was not until 1911 that women were first admitted (Petersen, 1952, p. 877).

Luther College, Decorah, was originally a men's school and did not admit women until 1936 (Peterson, 1952, p. 890).

The laws of Iowa deprived women of the right to vote. Section I of Article II of the Constitution of Iowa read as follows:

> Electors. Section 1. Every male citizen of the United States, of the age of twenty-one years, who shall have been a resident of this State six months next proceding the election, and of the County in which he claims his vote sixty days, shall be entitled to vote at all elections which are now or hereafter may be authorized by law.

The Iowa Senate humiliated the women of the State in 1911 by voting to strike out the enacting clause and then passing the resolution which would have given women the right to vote (Harper, 1922, p. 185). However, this was the last time the resolution was defeated.

The House joint resolution, which was passed by the Thirty-fifth General Assembly, proposed to repeal the whole section and adopt in lieu thereof the following:

> House Joint Resolution No. 6
> Section 1. Every citizen of the United States, of the age of twenty-one years, who shall have been a resident of this state six months next preceding the election, and of the county in which he or she claims his or her vote, sixty days, shall be entitled to vote at all elections which are now or hereafter may be authorized by law.

On March 15, 1913, Governor Clark signed the equal suffrage resolution. The proposed amendment had to pass the Thirty-sixth General Assembly and be submitted to the voters for ratification. The resolution finally passed two legislatures and the date for the referendum to the voters was set to coincide with the primary elections June 5, 1916. After forty-five years of work it seemed the time for enfranchisement had arrived.

In July, 1914, Miss Mabel Lodge of New York came to Iowa to work as a state organizer. It was the intent of the Iowa Equal Suffrage Association to ascertain the attitude of the voters and candidates in each county on the suffrage question (Schambaugh, 1914, pp. 302-305).

No issue is simple or single and in spite of the tremendous effort of the State Suffrage Association to educate the voters of Iowa, the issue became entangled with prohibition and the Republican party found it necessary to "sacrifice woman suffrage to its 'wet' candidate for Governor," as it felt sure that he could not be elected in November if the vote should be given to women in June. A prominent support said openly, "We had to do it in self defense." The final returns showed that the amendment was defeated--ayes, 162,683; noes, 173,024--lost by 10,341 votes (Harper, 1922, p. 189).

The election results contained several irregularities, and although the State Suffrage Association decided that it would not be practical to contest it, the Woman's Christian Temperance Union decided to have the returns canvassed to discover the cause. On October 15, 1916, the Des Moines Register published some of the findings of the election proceedings and official returns investigation in 44 counties. A portion of the report is given here because it is a fair illustration of the conditions under which women attempted to achieve suffrage amendments.

> The investigation revealed several strange conditions. The records in the Secretary of State's office disclosed that there were 29,341 more votes cast on the equal suffrage amendment than the total cast for all candidates for Governor by all parties . . . . The question the investigator raises is: "Did 600,000 men go to the polls and fail to vote a primary ballot, and did 30,000 of these

> fail to vote on the amendment? Did 30,000 go to the polls and fail to vote for anybody or anything?" The WCTU can draw but one conclusion from this condition, namely, that they were defrauded out of their right to the ballot (Harper, 1922, p. 190).

Thousands of unregistered voters were permitted to vote on the amendment despite the fact that registration was required by law.

In 1917, the half-century-old resolution was again presented to the General Assembly. Although there was much discussion about the resolution being presented to the public so quickly, the resolution passed both the House and Senate. A second vote was needed by the Legislature of 1919. However, when it convened it was noted that Secretary of State William S. Allen had not published the notice of the passage of the resolution as required by law so the resolution had to be voted on again as if for the first time (Harper, 1922, p. 191).

The Nineteenth Amendment passed the United States House of Representatives on May 21, 1919, and the Senate on June 4, 1919. "Following the Senate vote, Vice President Marshall, the presiding officer and an opponent of woman suffrage, gave the chair to ardent proponent Senator Albert Cummins of Iowa, so that he could make the victory announcement" (Schwieder, 1973, p. 320).

The Iowa Legislature met in special session on July 2, 1919, for the sole purpose of ratifying the 19th amendment. The session lasted one hour and forty minutes (Schwieder, 1973, p. 320).

Nursing in the Nation

Early in the days of the Spanish-American War, the nursing group consisted of volunteer trained, partly trained and untrained men and women. There was no system for supplying nurses during an emergency. The Nurses' Associated Alumnae of the United States discussed the conditions of nursing care for the troops at their annual meeting. Mrs. Isabel Hampton Robb, the president, visited Washington for the purpose of offering the society as the agent through which more skilled nurses might be obtained. However, the department of the army nursing was already placed under the direction of the Daughters of the American Revolution. The DAR had chosen Dr. Anita Newcomb McGee, a young physician, as director of this service. Dr. McGee was establishing her own standards for the selection of nurses to serve the Red Cross. It was fortunate that she included a certificate of graduation from a training school for nurses (Jamison, Sewall & Suhrie, 1966, p. 254).

After the Spanish-American war ended, women who had been prominent in relief work and leaders in nursing began to seek legislation that would establish an Army Nurse Corps in order that efficient nursing services would be available in war and peace. Dr. Anita Newcomb McGee, Isabel Hampton Robb, Anna C. Maxwell, and Adelaide Nutting were actively involved in the passage of the bill in 1901 (Jamison et al., 1966, p. 255).

Civilian emergencies were still presenting difficulties as far as the provision of nursing service. Mrs. Robb presented the Red Cross with the idea of developing a nursing department within the Society.

At the time, the plan seemed too costly to establish. However, Jane Delano, Superintendent of the Army Nurse Corps, was able to coordinate the Army nursing and Red Cross interests in 1910 when she decided to work with the Red Cross. Jane Delano established a roster of those nurses who were ready to serve their country in time of war or other disaster. At the time these nurses were called to serve they did receive a salary. This method of maintaining a Reserve Nurse Corps was used until late in World War II. Finally the responsibility of recruitment and maintenance of a Reserved Nurse Corps was assumed by each of the federal nursing services.

As the European War began in June 1914, the United States issued a proclamation of neutrality. On May 7, 1915, when the Lusitania was sunk off the coast of Ireland with the loss of twelve hundred lives including one hundred and fourteen Americans, an exchange of notes between Washington and Berlin "resulted in the verbal stipulation that thereafter international law would be observed with respect to passenger ships" (Cole, 1921, p. 540). On April 6, 1917, America suddenly entered the war. The American Red Cross Nursing Service had enrolled great numbers of nurses who could now serve with the Army Nurse Corps. However, new recruits were actively sought.

> To aid in the supply of a long-term demand for nurses, the Army School of Nursing was organized in 1918 with Annie W. Goodrich as dean. The course she organized covered three years, with a special credit of nine months to college graduates. Army hospitals and affiliating civilian hospitals offered their facilities for instruction. Applications poured in from thousands of enthusiastic women who wanted to make use of this opportunity to give service (Jamison et al., 1966, p. 262).

The civilian population faced serious problems because of the lack of nurses. Miss Delano's experience led her to believe that the fundamentals of health protection and nursing care of the sick could be taught to wives and mothers. The plan was opposed because many believed that "a little knowledge is a dangerous thing." However, Miss Delano and Isabel McIsaac developed a course and printed a textbook now known as "American Red Cross Home Nursing Textbook." The textbook and class proved to be valuable to the civilian population (Jamison et al., 1966, p. 263).

In 1918, the great influenza pandemic, pneumonia, and typhus in Serbia and Poland claimed the lives of some doctors and nurses. There were 273 American Red Cross Nurses who died in World War I (Jamison et al., 1966, p. 264).

Hospital Growth and Nursing

The growth of hospitals during the early 1900's was probably due to the discoveries of Lister and Pasteur. Surgery became a way of restoring health rather than as a way to avert death. With knowledge about the spread of disease, hospitals became safe for patients and nurses. As hospitals developed, the need for nursing service within the hospitals grew. "As a result of the development of nursing schools in connection with hospitals, there was a general belief that all bedside care could be given to patients by student nurses (Sellew & Nuesse, 1946, p. 296).

> Inevitably, the complete story of the development of nursing schools would show deviations from the original plan to be colored by national or economic circumstances

> springing from conditions of growth in young lands. Two Nightingale principles were always kept in view. Women, as expert in nursing as the times allowed, were placed in charge of the schools. Courses stressed continued practice in nursing over a long period of time. In the beginning, one year of training was to be followed by one year of practice, supposedly supervised. As it turned out, America tried and failed to make a successful adaptation of that system of apprenticeship known to the manual arts. It was unfortunate that in these days of imitation the importance of clinical and bedside instruction as stressed by Miss Nightingale was apt to be overlooked. There was a tendency, too, to a let-down in the matter of care in selection of applicants. In the real apprenticeship system the apprentice learns under the personal direction and supervision of a master in an art. He is given time also to observe the master as he works in skilled fashion. In the face of an obvious lack of artists to teach nursing, this was difficult, and a crucial point in nurse education was soon lost. Student nurses in their second year often were given a major share of responsibility for instruction in nursing procedures of first-year students. Schools were organized as departments of hospitals and, naturally enough, became tools of the institution (Jamison et al., 1966, pp. 225-226).

Most hospital schools of nursing were established using the English type of discipline. This involved a hierarchy of ranks, formal deference to the physicians, and a generally authoritarian atmosphere. Original instruction was elementary and was crowded into a heavy ward schedule running from 60 to 70 hours a week. Instruction was given largely by the head nurses in charge of wards, but the medical staff usually agreed to give some lectures. Head nurses were paid salaries and the students were given small allowances. A home for the nurses was usually provided.

Graduates generally worked private duty, giving care in the homes of patients from upper or middle class families. Many families thought of a nurse as a semi-servant and expected her to work on a twenty-four

hour schedule. In return for this service, she received board and low wages. Voluntary charitable work was organized to provide nursing care for the poor. These early visiting nurses could not live in with the family as did a private duty nurse, so the need to teach the patient and family became apparent. The opportunity to emphasize health maintenance became a concern to the American nurse (Shryock, 1959, pp. 296-299).

M. Adelaide Nutting expressed concern about the number of nursing schools established for the purpose of providing low cost care of patients.

> The condition in training schools which is causing grave concern among those who have been struggling to improve the education of nurses is the persistently low standards for admission. The enormous multiplication of hospitals and sanitaria throughout the country, with the consequent unrestricted development of training schools as part of their working organization, has led to a very large demand for students for utilitarian purpose. No adequate supply could be secured through the usual sources with the maintenance of suitable standards, and such standards have therefore been lowered or sacrificed to meet the current needs of institutions (Nutting, 1912, p. 13).

Thirty-two percent of the nurses entering a training program in 1890 were high school graduates, but among all 18-year-old females in the United States at that time, only two percent were high school graduates. The educational standards of the nursing profession in 1890 were high above the general female population (Committee on the Grading of Nursing Schools, 1930, p. 31). In 1900, five percent of all of the 18-year-old females in the United States were high school graduates. At the same time, thirty-nine percent of the nurses entering a training program were graduates from high school (Committee on the

Grading of Nursing Schools, 1930, p. 32).

M. Adelaide Nutting described the beliefs of nursing educators about the standards of admission and education of the nurses:

> It is the belief of many of those who have long been identified with training-school and hospital work, and who have been largely instrumental in creating and upbuilding in both hospital and school such educational standards as now prevail, that the principle of absolute control by the hospital is unsound and that in practice it does react unfavorably upon the education and training of nurses. It is their belief that this system of control affects profoundly the essential matters of standards of admission, hours of work, length of course, conditions of student life, and, above all, the freedom of the school to develop the education of nurses in response, not only to the current needs of a particular institution, but to changing and growing social needs in the community in which the educated nurse plays an increasingly important part (Nutting, 1912, p. 15).

It is necessary to understand exactly how the student nurses received their educational experiences within the hospital. M. Adelaide Nutting gives an explanation of this relationship in the United States Education Bulletin, 1912, as follows:

> It should be explained that an actual nursing staff for the hospital is created by the establishment in it of a school of nursing and, through the organization of its student body into a corps of workers of various grades--probationer, junior, senior--adjusted to the varying needs of the hospital. The hospital itself becomes the school, and the actual daily and nightly routine of work in its wards and other departments stands for a system of education. The supervision which would ordinarily be required for the proper conduct of the work becomes a form of instruction; the supervisors or head nurses are, as a rule, the instructors; the superintendent of nurses is also the principal of the training school. The entire burden, in fact, of the actual care of the sick and of their immediate surroundings rests upon the students of the school; and in many hospitals, particularly those of moderate size, the students are also filling executive official positions as head nurses, assistants, night

> supervisors. In these capacities they are responsible for the supervision and direction of the work of younger students and for much of their practical instruction (Nutting, 1912, p. 16).

Students were exploited by hospitals. Students were utilized to directly supplement the income of the hospitals. M. Adelaide Nutting describes how this occurred in the United States Education Bulletin, 1912: (d)

> . . . in certain instances the students themselves became an actual source of direct and considerable profit to the institution. This happens when the student enters such a private hospital for two or three years and is placed at a very early stage of her work upon special duty with a single patient, a considerable fee being charged for her services. In some instances it is said that the pupils are kept at such special individual work during the greater portion of their course of their so-called training, the fees for their services going directly to the management (p. 21).

There could be some argument that this type of service from students was under the supervision of the hospital and therefore a legitimate learning experience, but Ms. Nutting continues:

> Out of the entire 692 hospitals from which statistics were recently received 248 were found sending out the pupils into families in the community for private nursing, for periods ranging from two to 26 weeks, the payment for this service in almost all instances going directly to the hospital. It was difficult to secure explicit information as to the amount of time which student nurses really are devoting to outside work of this nature. Fifty-nine hospitals stated that they sent out their students, but omitted any reply to the question asking about the average amount of time in which the student was so occupied, using merely the vague but suggestive phrases "time varies," "as needed," or "subject to call" (p. 21).

In 1912, young women were not entering the profession of nursing. A severe shortage of nurses existed. Evidence of the difficulty of

securing students can be found in the fact that in the State of New York, where one year of high school work was required for admission to the training schools, there was persistent effort to have the requirement removed by hospitals. "Their need for a large staff of workers is imperative, and it overshadows completely to them the need of the school that its standards shall be maintained" (Nutting, 1912, p. 24).

Although most announcements of training schools stated "Women of superior education preferred," there was no recognition or credit given for the person who had completed previous college courses. The students whose actual formal education had not gone beyond the common school entered a nurse training school on identical terms with a student who had a college degree (Nutting, 1912, p. 25).

In an effort to gain more students, the age requirement was generally ignored. The typical requirement for admission to training schools was 23 years. But in the effort to secure enough students to staff the hospital, the age requirement had been steadily lowered until in 1912 the majority of the schools (55.20 percent) were admitting students 20 years or under. In 13.15 percent of the schools, the students admitted were at 18 years of age (Nutting, 1912, p. 28).

The course of instruction in the hospital included ten or more hours a day of practical or ward work in addition to theoretical instruction. The practical or ward work "is in many of its aspects unusually exacting and fatiguing; much of it is done while standing, bending, or lifting; much of it is done under pressure of time and nervous tension, and to a considerable degree the physical effort which

the student must make is accompanied by mental anxiety and definite, often grave, responsibility (Nutting, 1912, p. 30).

Compared to other professional schools or colleges, the training-school is unprecedentedly long. It covers 50 weeks each year, in which there are no Christmas, Easter, or Thanksgiving holidays and rarely a whole free Sunday. "The annual vacation period is generally two weeks in length . . . contrast the 50 weeks with the 32 or 36 weeks of the academic year in the college or professional school . . . in actual time . . . the course of training in the majority of schools, which covers three years . . . is equivalent to four full academic years" (Nutting, 1912, p. 32).

The increased responsibilities that are assumed by nurses was noted in 1912 by Dr. Lewellys Barker, physician in chief to John Hopkins Hospital:

> On looking over the history of nursing, I have been very much struck with the rapid expansion of the work entrusted to nurses. It must be remembered that formerly physicians did, or tried to do, nearly everything which is now done by the nurse; even the care of the bed, of the linen, and of the bathing was formerly a part of the physician's work in the hospital wards. Nurses soon demonstrated that a large part of ward work could be better done by them than by physicians, and, more and more, routine measures have been placed in their hands. Anyone who works in a hospital realizes that this transfer of routine from the physician to the nurse is still going on and this may account for an occasional misunderstanding perhaps as to what is a nurse's duty and what a physician's . . . the time may not be far distant when nurses will not only count the pulse, take the temperature, record the blood pressure, sterilize instruments, prepare dressings, etc., but will do far more, including perhaps, sometimes many of the routine laboratory examinations now made by physicians (Nutting, 1912, p. 10).

The nurse was concerned with the protection of the health of the people. The idea of health maintenance is a comparatively new concept. In the light of the new activities of health maintenance, the education of the nurse became a matter of considerable significance.

Dr. C. E. Winslow, professor of biology, College of the City of New York, discussed the education of the nurse for a new role as follows:

> All this requires, obviously enough a highly trained and specialized expert. I have no knowledge of the requisite for "sick nursing," but it is quite clear that in public health work the visiting nurse must be no empirically trained upper bedside servant. She must understand thoroughly the general fundamental laws of hygiene and sanitation, which means a mastery of the principles of physiology and bacteriology, and she must have a minute grasp of their special application in the field of her own work, whether it be school nursing, tuberculosis nursing or infant hygiene. She must know these things not merely as a practitioner but as a teacher, which means not only a knowledge of details but a vision of their right relationship and a talent for effective presentation.
>
> Always there are educational weaknesses inherent in an undertaking which is not primarily educational in aim. The course is apt to be carelessly planned, the teachers those who chance to be available, the teaching what they happen to find it easiest to give, and the laboratory equipment hopelessly inadequate. Most fundamental of all is the problem of time. It is absurd to attempt to train the nurses we need for the public-health campaign by a course which involves 2 or 3 hours a week of theory and 50 to 60 hours in the wards, not hours of clinical instruction, but for the most part a routine of unenlightening and exhausting manual work. The relation between the hospital and the training school should be a symbiotic one; it more nearly resembles a case of simple parasitism (Winslow, 1911, pp. 917-918).

Levels of Nursing Practice

One of the earliest organizations for nurses was the alumnae association. The first alumnae association was formed by the Training

School of the Woman's Hospital in Philadelphia in 1888 (Jamison et al., 1966, p. 248). In 1889, in Chicago, The World's Fair was being planned. There was to be a Women's Building and among the exhibits in this building was one arranged by the nurses of Great Britain under the direction of Mrs. Bedford Fenwick. A meeting was arranged for nurses interested in hospitals and dispensaries. Eighteen superintendents of training schools met to discuss their problems. The group formed an organization and eventually established the American Society of Superintendents of Training Schools for Nurses of the United States and Canada in 1894. Graduates of the training schools were invited to join this organization. The organization eventually split to form two separate groups when the legal complications of the two countries interfered with the functioning of the society.

In the United States, the American Journal of Nursing Company was established on October 1, 1900, to interpret the activities of the Nurses' Association Alumnae to groups of nurses and the public (Jamison et al., 1966, p. 252). One major task of the nurses' alumnae organization was to protect itself and the public from uneducated and unqualified individuals giving nursing care. The nurses, mostly women, did not have the right to vote; yet they were working for legal statutes. The first state to enact a registration law was North Carolina in 1903 (Jamison et al., 1966, p. 253).

One of the first problems faced by the nurses was the large number of individuals, untrained or trained, who were active in practice. The public had no method to discern among those individuals who served as

"nurses." Nursing groups, therefore, appealed to state legislatures for registration of graduate nurses.

In a paper read at a meeting of the section on Medicine of the New York Academy of Medicine, December 19, 1912, Ms. Annie Goodrich, R.N., Inspector of the Nurse Training Schools in the State of New York, gave the following information:

> It has been stated that the occupational statistics of the United States show that one hundred thousand women are practicing nursing, one out of ten, only being hospital trained. We believe that the number practicing is greatly underestimated. The American Nurses' Association reports over twenty thousand, all of whom have received preparation in hospitals. There is little reason to doubt the accuracy of the statement concerning the proportion of hospital trained to untrained. One correspondence school--and there are a number of these schools in New York alone--reported three thousand in its last graduating class, while the total number of pupils reported in 123 registered schools in New York State in 1912 was 3,623, the number graduating being only 1,184 . . . . Ninety per cent, therefore, of the women now practicing nursing have either had no preparation whatsoever, or have been prepared through correspondence courses or in the so-called short course schools . . . . There is no confusion today between the doctor and the nurse. When the family has engaged the nurse it knows that it has not engaged a doctor; it does not know, however, that it has not engaged an untrained attendant. From the statistics . . . it is not unreasonable to imagine that, in nine out of ten cases, this is what it has, and probably unwittingly, procured (Goodrich, 1913, p. 342).

Forty states adopted a nurse practice act from 1903 to 1914 (Shryock, 1959, p. 1870).

It is most remarkable that the nurses were able to persuade men legislators to vote for registration and regulation of the practice of nursing. The nurses, mostly women, were not able to vote for the legislation themselves, because women were not extended suffrage on

the same terms as men until 1924.

Rapid expansion of hospitals and hospital schools of nursing occurred between 1900 and 1920. An example of the proliferation of hospitals is demonstrated by the fact that in 1873 there had been only 178 institutions, but in 1909 the number had increased to over 4,000 (Shryock, 1959, p. 301). The expansion of hospitals called for an increase in the number of training programs. Hospital boards realized the value of student services, schools were founded chiefly or solely to provide inexpensive nursing service for patients. The preparation of nurses to meet community needs was forgotten.

> Among Catholic schools alone, 203 were opened between 1893 and 1913 in order to meet apparent needs. The educational purposes of the institutions seemed almost to be lost (Sellew & Nuesse, 1946, p. 287).

There was a deterioration in the apprenticeship aspect of training. Many hospitals sent students out on private duty in order to collect the fee. Some institutions set up "short courses" which still lowered the educational elements in their programs. The training programs of these hospitals varied in length from one to three years.

The American Hospital Association called attention to the need for a subsidiary nurse or attendant when in 1907 the committee to study nursing problems recommended three grades of nurses. The committee recommended that all three classifications should have special training and be examined and registered by the state. The first group was the executive or teaching nurse, the second a bedside nurse. Both of these groups were to be recognized as registered nurses. The third group was

to be known as a subsidiary nurse or attendant and was to be differentiated by some other title (Sellew & Nuesse, 1946, p. 318).

Battleboro: Thompson School. The Thompson School for Practical Nurse Attendants in Battleboro, Vermont, opened its program in 1907 with one student enrolled. The school was established through the generosity of Mr. and Mrs. Thomas Thompson. Following graduation from the program, the first student received seven dollars a week for her services (Johnson, 1966, p. 24).

Boston: Household Nursing Association. The Household Nursing Association was organized in 1912 by the Woman's Municipal League of Boston. The Association followed a plan which Mr. R. Bradley had worked out in Brattleboro, Vermont, whereby nursing care was provided in cases where the services of a trained graduate nurse were not required or could not be afforded. Women with less training were sent out by the registry under the supervision of a trained graduate nurse who visited each case once a week or oftener to give necessary advice or instructions (Shepard, 1922, p. 81). The registry always attempted to match the case with the attendant, but because the training was varied, the decision was made to offer a course for attendants and the school was opened in April 1918. The tuition fee was established at $50.00 for seven months of instruction followed by six months of supervised field work (Shepard, 1922, p. 82).

Detroit: Home Nursing Association. In 1913, the Home Nursing Association of Detroit, Michigan, arranged for a branch called the "Bureau for Organizing Care of the Sick in Homes." The length of the

course offered is not known, but it was directed by a trained graduate nurse and taught by a trained graduate nurse who accompanied the students to homes where they were assigned to practice. By 1927, the course was 180 hours of classroom lecture and demonstration with subsequent home practice under the supervision of a registered nurse (Frank & Heidgerken, 1963, p. 64).

The Detroit Board of Education and the State Board for Vocational Education allocated Federal Funds for the program in 1937. The course was increased to twelve weeks of classroom instruction and six months of clinical practice (Frank & Heidgerken, 1963, p. 64).

Minneapolis: Girls Vocational High School. The first school for practical nursing to be financed from public education funds was organized in Minneapolis, Minnesota, in 1919 by Miss Elizabeth Fish, Principal of the Girls Vocational High School. The clinical affiliation was with the Franklin Hospital for chronically ill patients (Frank & Heidgerken, 1963, p. 65).

There were only four schools of practical nursing established from 1900 to 1920. The background of these early schools indicates that they were organized and financed by interested individuals and organizations, not by the nursing profession. They were an outgrowth of community efforts to supply some education to women who wished to work as practical nurses in homes.

Nursing in Iowa

On May 16, 17, 18, and 19, 1900, the Iowa Medical Society held its fiftieth annual session in Des Moines with Dr. T. J. Maxwell of Keokuk presiding. The address by the president centered on the changes in medical education and its effect on the practice of medicine and surgery. His concern was upon "the restriction placed on the licensing of physicians as they moved from one state to another" (One Hundred Years of Iowa Medicine, 1950, p. 57).

Early in 1900, Iowa was in the third stage of nursing history, that of the beginning of nursing education to provide a trained nurse. Although licensure as a registered nurse would not occur for several more years, many hospitals were developing training schools for the preparation of nurses.

The Iowa Nurses Association (first known as the Iowa State Graduate Nurses Association) was not organized until January 4, 1904. There is no accurate record as to the number of nurses in Iowa prior to 1904 because there were only local alumni and county organizations. There was no mechanism or law to control the practice of nursing. Any person who desired to care for the sick could use the title of nurse.

In 1902, nurses were mentioned by the Attorney General of Iowa in regard to a problem of who pays the bill when an individual is quarantined and unable or unwilling to bear the cost. ". . . and to provide nurses, needful assistance and supplies, which shall be charged to the person or those liable for his support, if able. If unable, it shall be done at the expense of the county" (Iowa Health Bulletin,

1902b, p. 42).

Conditions of living for the rural Iowan were less than ideal. The electric horseless carriage, the gasoline and steam engine automobiles were becoming increasingly common. The dirt roads in Iowa were a series of deep ruts in the early spring and following rain storms. Irate farmers wanted laws to forbid the use of horseless carriages on roads that had been made for horses. They were less concerned with laws regulating health practices.

Contagious diseases such as diphtheria, scarlet fever and smallpox took their toll of Iowans each year. Outbreaks of contagious diseases were reported as having occurred during the month of November, 1902, at the following locations:

> Diphtheria: Kniest Twp., Carroll county; Des Moines; Randalia; Davenport; Sabula.
> Measles: Wayland; Elkhorn; Terril; Davenport; Dubuque.
> Scarlet Fever: Beacon; Garfield Twp., Mahaska county; Commerce; Des Moines; Osceola; Gilmore City; Jackson Twp., Boone county; Atkins; Iowa City; Davenport; Newton Twp., Jasper county; Dubuque; Sabula.
> Smallpox: Macedonia Twp., Pottawattamie county; Emmetsburg; Portsmouth; North Liberty; Turin; Jefferson Twp., Warren county; Bonapart; McGregor; Melvin; Farmington (near); Wapello (near); Bevington; Harrison Twp., Osceola county; Marshall Twp., Pocahontas county; Superior; Richland Twp., Delaware county; Des Moines; Grinnell; Iowa City; Davenport; Newton Twp., Jasper county; Dubuque; Concord Twp., Louisa county.
> Typhoid Fever: Davenport; Dubuque; Des Moines.
> Whooping Cough: Lake Twp., Cerro Gordo county; Morrison.
> (Iowa Health Bulletin, 1902c, p. 111).

An encounter with the physician did not always help the patient. A series of news releases in the Iowa Health Bulletin illustrates the

point. In August, 1902, the Iowa Health Bulletin carried a headline "The Same Old Story" in which the editor laments the common error of diagnosing smallpox as chickenpox.

> . . . July 20--from Fort Dodge . . . one case of smallpox reported here today. Said to be quite severe. Three families quarantined. Same old excuse for not being reported sooner. Called chickenpox at first; is very sick now (Iowa Health Bulletin, 1902b, p. 76).

The same page carries a story which admonished, "Membranous croup should be reported as diphtheria." The story contains information which states a physician from Oelwein, Iowa, diagnosed diphtheria as croup. In November of the same year (1902) a physician from Oelwein published an open letter in which he stated he made the correct diagnosis of membranous croup of the family members involved in the August story. However, the same issue also contains a letter from a Clarion physician who stated he also had treated a person from Oelwein for diphtheria who had been diagnosed as having tonsilitis by an Oelwein physician. An editor's note instructed the reader to draw his own conclusion (Iowa Health Bulletin, 1902c, p. 93).

With the turn of the century, a new era in hospital development was initiated in Iowa. Many small hospitals established by physicians came into being. New State hospitals were developed, and added facilities enlarged the existing general hospitals. In 1909,the County Hospital Act was adopted. The complexity of medical practice with newer diagnostic aids and special equipment required the use of hospitals.

The small private hospitals were usually established in rural counties and were often the beginning of either county or other general hospitals. An example of a typical, small, private hospital is that of the hospital in Ida Grove, Ida County, Iowa:

> In 1906, Drs. J. Emmett Conn and C. E. Conn established a 20 bed hospital at Ida Grove, which was successfully operated until the death of Dr. J. E. Conn in 1918.
>
> From 1916 to 1922 Drs. Heilman and Houlehan operated a 12 bed hospital in Ida Grove. In 1919 the Ida Grove Hospital was founded by Drs. E. S. Parker and R. B. Armstrong, and the property was sold to two graduate nurses, who operated the hospital until 1945, when it was taken over by the City of Ida Grove and since operated as a municipal hospital. It is located in a fireproof building on three acres of landscaped ground and is well equipped for general medical and surgical service with a service of 20 beds and 9 bassinets.
>
> In 1911 Dr. Carl E. Conn founded the Battle Creek Hospital, which was transferred to Dr. G. H. Hartley in 1916 and operated by him until his death in 1939. Since then it has been administered by Dr. G. S. Millice. It has a capacity of 20 beds and 8 bassinets. (One Hundred Years of Iowa Medicine, 1950, p. 410).

In 1908 and 1912, the Conn Brothers Hospital of Ida Grove was declared in good standing with the Iowa Board of Nursing, and the graduates of the school were eligible to write the State Board Examination for Registered Nurses.

The development of hospitals by the Catholic Sisters is very nearly identical to the development of public hospitals during the early 1900s.

> The beginning of hospital interest in [Waverly] . . . was the preparation of a private residence . . . in 1899 by Miss Nana Colby for hospital purposes . . . Miss Colby left Waverly in 1901, and her hospital was discontinued, and this community was without hospital

> facilities until 1904 when the Sisters of Mercy of Dubuque were prevailed upon to establish a hospital in Waverly . . . Mr. Abraham Slimmer gave his fine residence in which to start the hospital, and so Mercy Hospital of Waverly was opened August 28, 1904 (One Hundred Years of Iowa Medicine, 1950, p. 393).

St. Joseph's Mercy Hospital, Waverly, conducted a school of nursing from 1909 to 1931 (One Hundred Years of Iowa Medicine, 1950, p. 465).

Other Catholic Sisters active in establishing hospitals and nursing schools in Iowa were: The Benedictine Sisters in Sioux City, who founded St. Vincent's Hospital and School of Nursing in 1907 and 1914, respectively. The Franciscan Sisters of Perpetual Adoration, LaCrosse, Wisconsin, who founded St. Anthony Hospital in Carroll in 1905. The School of Nursing at St. Anthony Hospital began under a two-year plan, but later added the third year to the nurse training program. The Sisters of St. Francis founded the Sacred Heart Hospital in LeMars in 1917 and a School of Nursing in 1923.

The Franciscan Order of Sisters of Peoria, Illinois, established St. Joseph's Mercy Hospital in Keokuk in 1887 and the School of Nursing in 1901. The Sisters of St. Francis of Clinton took over Mercy Hospital in Burlington in 1922. The School of Nursing at Burlington had been established by Mother Mary Domonica of Pittsburgh, Pennsylvania, in 1904.

The Sisters of Mercy of Council Bluffs took over St. Joseph's Mercy Hospital and School for Nursing in 1910. Mercy Hospital in Dubuque was established by the Sisters of Mercy in Dubuque. The Hospital

was established in 1881 and the School of Nursing in 1900. St. Thomas Hospital School for Nurses in Marshalltown was opened in 1902.

Other organizations active in establishing hospitals and schools of nursing were:

The Methodist Hospital and School of Nursing of Sioux City which was an outgrowth of two hospitals--the Samaritan established in 1882 and the Methodist established in 1920. The Lutheran Hospital and School of Nursing of Sioux City, which were established in 1901, were organized and funded by Lutheran groups. Two other hospitals, which were organized by sectarian groups and conducted schools of nursing, were the Presbyterian Hospital in Waterloo and the Evangelical Deaconness Hospital in Marshalltown (Wilson, 1931, pp. 115-120).

Nurse Practice Act

Regulatory measures which affected the profession of nursing in Iowa were relatively late in being passed. The practice of law, pharmacy, denistry, medicine, veterinary medicine, osteopathy and embalming were all regulated before the profession of nursing. On March 12, 1907, the Thirty-Second General Assembly of Iowa passed the first law to regulate the practice of nursing (Iowa State Association, 1935, p. 2).

These Iowans, Drs. B. L. Eiker of Leon, J. H. Sames of Clarion, Miss Clara M. Craine of Davenport, and Sister Mechtildes of Des Moines, and the secretary of the Iowa Board of Health were named members of the first Nurses Examining Committee. The secretary was Dr. Louis A. Thomas, Des Moines (Iowa Health Bulletin, 1908b, p. 19).

The Nurse Practice Act provided for the registration of all graduate nurses practicing in the state without examination. "Seven hundred forty-eight such certificates were granted" (Wilson, 1931, p. 115). After July, 1908, the certificates were issued following completion of a successful examination.

At the first meeting of the Iowa Board of Nursing held August 21, 1907, 86 hospitals were placed on the accredited list by the board. All were in good standing until January 1, 1908, at which time a bulletin was sent to each hospital superintendent from the State Department of Health containing instructions and qualifications for an accredited school of nursing.

The first work of the Board of Nursing was to establish minimum requirements of the schools whose graduates would be eligible to write the examination. From July, 1908, until July, 1910, graduates of two-year programs were eligible. After that date, only graduates from three-year programs were eligible to write the examination.

The minimum standards for the schools of nursing were completed and mailed to all nurse training schools. Names of the Iowa schools that met the minimum standards were published in the Iowa Health Bulletin of August 1908b:

> At the regular meeting of the Iowa State Board of Health, held July 14-16, 1908, the following Training Schools for Nurses were declared to be in good standing, and the graduates thereof eligible to admission to examination by this Board:
> Boone--Eleanor Moore Hospital
> Burlington--Mercy Hospital; Burlington City Hospital
> Carroll--St. Anthony's Hospital
> Cedar Rapids--St. Luke's Hospital, Mercy Hospital
> Cherokee--Cherokee State Hospital Training School

> Clarinda--Clarinda State Hospital Training School
> Clinton--St. Joseph's Mercy Hospital
> Council Bluffs--Mercy Hospital; Edmundson Memorial Hospital
> Creston--Cottage Hospital
> Davenport--St. Luke's Hospital; Mercy Hospital
> Des Moines--Mercy Hospital; Iowa Methodist Hospital
> Dubuque--Finley Hospital; St. Joseph's Mercy Hospital
> Glenwood--Glenwood State Hospital Training School
> Ida Grove--Conn Bros. Hospital
> Independence--Independence State Hospital Training School
> Keokuk--Gram Hospital; St. Joseph's Hospital
> Marshall[t]own--St. Thomas' Mercy Hospital
> Muscatine--Benj. Hershy Memorial Hospital
> Mt. Pleasant--Mt. Pleasant State Hospital Training School
> Ottumwa--Ottumwa Hospital
> Sioux City--Samaritan Hospital; St. Joseph's Mercy Hospital
> Waterloo--Syndical Presbyterian Hospital
> The applications of Training Schools located in this state whose names do not appear in the foregoing list were held pending further investigation. Action was also postponed on all Training Schools located outside the state of Iowa. This was made necessary for the reason that the Board was unable to obtain satisfactory evidence that the curriculum of these schools conformed to the minimum requirements prescribed by this Board.
>
> Before graduates can be admitted to the State examination, the Training School from which they graduate must be placed in good standing by this Board. Training Schools that have not already filed a certified copy of their curriculum should conform to this requirement with out further delay in order that action can be taken by the Board at the meeting to be held October 14, 1908 (pp. 19-20).

In addition to the list of Training Schools for Nurses published in the August Bulletin, the following were placed in good standing with the Board at the meeting held October 13-14:

> The Iowa Sanatorium Training School for Nurses, Maquoketa, Iowa. Bellevue Hospital Training School for Nurses, Muscatine, Iowa. State University Hospital Training School for Nurses, Iowa City, Iowa. State University Homeopathic Hospital Training School for Nurses, Iowa City, Iowa. Iowa Sanatarium Training School for Nurses, Des Moines, Iowa (Iowa Health Bulletin, 1908c, pp. 66-67).

The first State Board Examination questions were written and corrected by members of the Board of Nursing. The first examinations also included a practical examination. Notice of the examination appeared in the Iowa Health Bulletin:

> The next regular examination for Nurses will be held at the office of the Secretary of the State Board of Health, Capitol Building, Des Moines, Iowa, July 28, and 29th, 1908, Commencing at 9 A.M.
>
> Candidates for examination must not be less than 23 years of age and of good moral character. They must be graduates of training schools recognized as in good standing by the Iowa State Board of Health, and shall have received two years instruction in a general hospital. Applicants are required to file an application upon forms provided by the Board, together with the examination fee of $5.00, at least two weeks prior to the date of examination.
>
> The examination will be both written and oral, and will consist of the following subjects: Anatomy, Hygiene, Physiology, Materia Medica, Dietetics, Practical Nursing, and the Rules and Regulations of the State Board of Health relative to infectious diseases and quarantine. A general average of 75 percent of correct answers will be required to pass.
>
> The oral examination will be conducted at the hospitals. Applicants are required to appear in uniform at the oral examinations (Iowa Health Bulletin, 1908a, p. 2).

The results of the State Nursing Examination were reported in the Iowa Health Bulletin:

> At the State Examinations held July 28 and 29, fifty-one graduates from Iowa Training Schools were examined. The written and oral examinations were held at the Capital Building and the practical at Mercy Hospital (Iowa Health Bulletin, 1908b, pp. 20-21).

The following chart illustrates how Iowa's system of nurse training programs was managed. The length of the program was three years. This requirement was established by the State Board of Health. The number of students enrolled, the average daily hours, whether or not students were

Location	Name of school or hospital with which it is connected	Students enrolled	Graduates in 1911	Capacity (beds)	Average daily census	Daily number of hours on duty	Are students sent into families during training	Admission Requirements	
								Education	Age
Boone	Eleanor Moore Hospital	8	3	30	10	8	yes	H.S.	21-35
Burlington	Burlington Hospital	22	5	65	45	10	yes	8th	20
Cedar Rapids	Mercy Hospital	20	2	70	.....				
...do.....	St. Luke's Hospital	25	4	65	40	10	no	8th	20
Centerville	St. Joseph's Mercy Hospital	6	...	28	.....				
Clinton	Agatha Hospital	21	4	50	40	8	no	H.S.	18
...do.....	St Joseph's Mercy Hospital	19	6	50	...	9	.....	H.S.	20
Council Bluffs	Jenny Edmundson Memorial	23	5	55	33	12	no	H.S.	21-30
...do.....	Mercy Hospital	25	10	150	75	9	yes	8th	20
Davenport	Mercy Hospital	30	7	100	...	10	no	H.S.	21-30
...do.....	St. Luke's Hospital	15	4	45	25	10	no	H.S.	21-35
Des Moines	Iowa Methodist Hospital	65	10	145	110	9	no	9th	19-35
...do.....	Mercy Hospital	45	10	100	90	9	no	8th	19-35
Dubuque	Finley Hospital	24	7	50	30	8½	no	9th	20-30
...do.....	St. Joseph's Mercy Hospital	40	4	220	...	10	no	C.S.	19-30
Iowa City	Iowa State University Hospital	30	7	125	.....				
...do.....	University Homeopathic Hospital	12	4	30	20	9	yes	9th	.....
Iowa Falls	Ellsworth Hospital	3	...	15	6	7-9	yes	C.S.	20

Keokuk	Graham Protestant Hospital	10	2	35	.....				
...do.....	St. Joseph's Hospital	13	4	150	...	10	yes	H.S.	24
Lyons	St. Joseph's Mercy Hospital	20	3	80	.....				
Marshalltown	Mercy Hospital	8	4	30	...	9½	yes	9th	18-25
Mason City	City Park Hospital	7	...	25	.....				
Muscatine	Benjamin Hershey Memorial Hospital	8	...	25	13	9	yes	H.S.	20
Nevada	Iowa Sanitarium	21	6	40	33	6-10	yes	8th	18-35
Ottumwa	Ottumwa Hospital	12	5	50	.....				
Sioux City	German Lutheran Hospital	18	5	44	30	8	no	H.S.	20
...do.....	St. Joseph's Mercy Hospital	55	14	100	.....				
...do.....	Samaritan Hospital	31	9	65	.....				
Waterloo	Synodical Presbyterial Hospital	18	7	36	29	9	no	H.S.	18-35

(Nutting, 1912, pp. 68-69)

sent into private families for a portion of their education and admission requirements were not yet established by the State Board of Health.

The 1900s can be described as the prime period of hospital and nurse training schools. From 1900 to 1909 the number of schools in the United States increased from 432 to 1096, a 300% increase. Many of these schools were connected with small private hospitals (Report of United States Bureau of Education, 1909, p. 1077). The list of Iowa schools in 1912 demonstrates the growth of programs in Iowa.

June 30, 1912. Training Schools in Good Standing with the State Board of Health:

Atlantic: Atlantic Hospital Training School

Boone: Eleanor Moore Hospital

Burlington: Burlington City Hospital; Mercy Hospital

Carroll: St. Anthony's Hospital

Cedar Rapids: Mercy Hospital; St. Luke's Hospital

Centerville: St. Joseph's Mercy Hospital

Cherokee: Cherokee State Hospital

Clarinda: Clarinda State Hospital

Clinton: Agatha Hospital; St. Joseph's Mercy Hospital

Council Bluffs: Jennie Edmundson Memorial Hospital; Mercy Hospital

Cresco: St. Joseph's Mercy Hospital

Creston: Cottage Hospital; Unity Hospital

Davenport: Davenport Hospital; Mercy Hospital; St. Luke's Hospital

Des Moines: Des Moines General Hospital; Iowa Methodist Hospital

Mercy Hospital

Dubuque: Finley Hospital; St. Joseph's Mercy Hospital

Ft. Dodge: St. Joseph's Mercy Hospital

Glenwood: Glenwood State Hospital

Ida Grove: Conn Brother's Hospital

Independence: Independence State Hospital

Iowa City: State University Hospital (Regular); State University Hospital (Homeopathic)

Keokuk: Gram Hospital; St. Joseph's Hospital

Maquoketa: Iowa Sanitarium Training School

Marshalltown: St. Thomas' Mercy Hospital

Mason City: City Park Hospital

Muscatine: Benjamine Hershy Memorial Hospital; Bellevue Hospital

Mt. Pleasant: Mt. Pleasant State Hospital

Nevada: Iowa Sanitarium Training School

Oskaloosa: Abbott Hospital; Oskaloosa Public Hospital

Ottumuwa: Ottumwa Hospital

Sioux City: German Lutheran Hospital; Samaritan Hospital; St. Joseph's Mercy Hospital; St. Vincent's Hospital

Waterloo: Synodical Presybterian Hospital

Waverly: St. Joseph's Mercy Hospital

At the end of the biennial period, June 30, 1912, there were 1,220 nurses registered in Iowa. Of that number, 251 were granted certificates during the previous biennial period (Sixteenth Biennial Report, 1913, pp. 176-177).

The vocation of practical nursing made little progress during the period from 1900 to 1918. Perhaps the rapid expansion of hospital schools for graduate nurses and the struggle with licensure left little energy to establish a new vocation.

Practical Nursing

One reference is made to trained attendants in the Sixteenth Biennial Report of the Board of Control of State Institutions for the period ending June 1903, "2 years of study for graduate attendants and 3 years for a certificate for graduate nurse" (p. 4). The report also comments upon the innovation of having five female attendants caring for male patients.

Earlier reports give the course of study for attendants as "two years of service in this hospital, faithful attendance upon two courses of lectures, and passing a credible exam in the content of three text-books, entitles an attendant to a diploma" (Tenth Biennial Report, 1892, p. 27).

The primary objective of the school was to develop good attendants who could be employed as attendants for the insane when relatives preferred to have them kept and treated at home.

Summary

The women's suffrage campaign in Iowa was remarkable for what it failed to achieve. After fifty years of hard work, the women of Iowa were defrauded of their right to vote and had to wait for their enfranchisement until 1920 when the Nineteenth Amendment to the

federal Congress was ratified.

The growth of nurse training schools had to await the acceleration of the general hospital movement. The nurse training school was considered an indispensable asset to a general hospital, both for providing nursing care with a staff of uniformly instructed student nurses and for economic reasons. Students were given private duty assignments in patient's homes and the payment received was considered to be the hospital's, not the students' income. This form of economic exploitation was common in Iowa schools of nursing.

Student nurses worked long hard days doing menial tasks. The 1912 study of nursing education by M.A. Nutting demonstrated that schools were utilitarian in purpose and provided a mediocre education.

The Smith-Lever Act and the Smith-Hughes act provided federal funds for vocational education. Public high schools were increasing in number. Iowa enacted a law in requiring compulsory attendance for children who were eligible to attend the common schools.

The Spanish-American War led to wide-scale utilization of trained nurses in military hospitals and resulted in the development of the first large, all trained, rather than untrained, nursing staff. Dr. Anita McGee was selected by the Daughters of the American Revolution to select nurses for employment by the army.

Nursing organizations worked to protect the public from inadequate services of unqualified nurses. Legislation demanding approval of schools of nursing, faculty preparation and planned curriculum were demanded by nurses. Iowa's Nurse Practice Act was passed by the General Assembly in 1907.

The majority of Americans outside of the wealthy classes were unable to provide health care for themselves or their families. Lack of money to pay for medical care and fear of hospitals left millions of people without the services of a family physician or nurse during times of illness. Several community agencies attempted to remedy the situation by providing training for attendants. There were only four schools of practical nursing in the United States During this period of time.

Nurses were not responsible for some of the decision making about their profession because of their lack of educational preparation. Most nurses did not have sufficient academic preparation, social skills or administrative experience to select and achieve essential goals. Many nurses refused to accept new roles and desired to cling to tradition. Nurses who opposed the idea of government legislation because they viewed nursing as a self-sacrificing service would be compelled to alter their view as the country moved into an era of vocational education, economic prosperity, depression and the first World War.

CHAPTER FOUR: THE ERA OF VOCATIONAL EDUCATION, ECONOMIC PROSPERITY, DEPRESSION AND RECOVERY 1918-1941

The National Scene

It may be of value to recognize the economic, military, and technological forces which shaped and even perhaps directly affected vocational education in the United States in the post World War I years. The joy of the armistice spread to the business world and the belief that the high prices obtained during World War I would be maintained held for a brief time. By the election of November, 1920, the entire country was engulfed in a depression. Slowly the American industries expanded to the South and West. Scientific and technical advances were stimulated during the war period, and the introduction of new improved products caused production of goods to increase. The depression seemed to be mitigated and the country started on an era of new prosperity. The farmer who had his land under intensive cultivation, who had been selling to a foreign market, found himself in a land boom when suddenly the market for farm products was gone and everyone wanted to sell and no one wanted to buy. Prices fell and the farmer did not share in the new era of prosperity.

The stock market crash of 1929 caused business and industry to fall into a period of chaotic disorganization. The country was in a period of deep and severe depression during the thirties.

America had just begun a slow recovery from the great depression when on September 1, 1939, Hitler moved the German Army into Poland

and the Second World War began. The United States was plunged into the most disastrous war man had yet experienced in December, 1941.

Federal Legislation

The Smith Hughes Act of 1917 was specifically directed toward vocational education. The bill created a Federal Board for Vocational Education and a corresponding board to administer federal funds (Eddy, 1956, p. 158). The demand for teachers for secondary-level instruction in agriculture, industry, and home economics was increased. An expansion in vocational classes in the high schools followed the implementation of the Smith Hughes Act.

Other vocational educational bills passed during this period were the George-Reed Act of 1929, the George-Ellzey Act of 1934, and the George-Dean Act of 1936. All these legislative acts led to the expansion of vocational education opportunities for youth.

Elementary Education

Kindergartens and nursery school programs were developed and grew during this time span. The curriculum moved away from the traditional emphasis toward concern for individual children. During the depression, many rural schools failed to open although only a few city public schools were closed. Parochial and private schools failed to open. Many public schools had to charge a tuition and admitted only those children whose parents could pay the fees. The length of the school term was shortened with many rural schools running for about three months.

As the economy improved in the post-depression period, the schools reopened and the American public became interested in providing good education for all children.

Secondary Education

Many of the schools reduced or eliminated art and music instruction, physical education, home economics, industrial arts and health services. The abolition of child labor in industry under the National Recovery Act had placed about 100,000 students in high schools. The schools of the United States in the year 1933--1934 were trying to give instruction to pupils who had increased in number by more than a million since 1930 on funds decreased by about $368,000,000 (Knight, 1934, p. 602).

Higher Education

The curriculum of the colleges responded to national changes. The colleges abandoned the notion that their purpose was to produce either a small number of socially elite or practical workers. College curricula emphasized citizenship and training for national service, and the educational philosophy was directed to human welfare.

The junior college concept grew and by the beginning of the 1930s over 400 public and private junior colleges had been established (Thayer, 1965, pp. 2-7).

Education in Iowa

The rural neighborhood school gradually became discarded as a result of preference for consolidated district schools with free bus service. Junior colleges were developed and provided many students the

opportunity to gain additional education while living at home. "In 1938 there were 8,850 rural schools in Iowa, 1,438 graded schools and 937 high schools" (Cole, 1940, p. 472). The growth was not restricted to elementary and high schools. Twenty demoninational colleges, the State University, the State College of Agriculture and Mechanic Arts, and the State Teachers College provided opportunities for higher education.

Elementary Education

During the depression of the early 1930s, closings of rural schools ran as high as 100 schools per year (Iowa Department of Public Instruction Reports, 1939, p. 13). Iowa emphasized the improvement of instruction. The State Department of Public Instruction directed the preparation and distribution of elementary courses of study for rural and graded schools. The curriculum emphasized reading and study, safety education, language, history, music, physical education, health education and geography (Iowa Department of Public Instruction Reports, 1939, p. 13-14).

Secondary Education

The immediate postwar economic prosperity led to an era of consolidation of school systems.

> Between July 1, 1919, and June 30, 1920, an average of ten new consolidated districts were formed for every nine school days, . . . in one 29-day period in March, 1920 a total of 33 districts were established (May, 1956, p. 34).

When the economic depression affected the Iowa farmer, the consolidation of new school districts ceased. In 1921, Iowa had a total of 439 consolidated school districts; by 1940-41, the number decreased to 407 districts.

Vocational education and an expansion of the practical arts became a part of the secondary school curriculum. The provisions of the Smith-Hughes Act called for the recognition of vocational education as part of the educational program.

Higher Education

The establishment of the Junior College was a major development in higher education in Iowa during the time between the two world wars. Mason City originated the first public Junior College in 1918 without legal sanction because there were no state laws on the statute books authorizing the organization of junior colleges as part of a public school system (Iowa Official Register, 1966, p. 244).

Burlington Junior College was organized in 1920. The Junior College movement continued to grow until 1927, when nine schools were added. From 1930 to 1945, no new schools were added. Clinton Junior College was organized in 1946.

The first law authorizing the establishment of public junior colleges was enacted by the Forty-second General Assembly in 1927. Clara M. Wallace, Supervisor of Public Junior Colleges, State Department of Public Instruction of Iowa, discussed the Junior College movement in a January, 1931, article published in The Junior College Journal:

> Reasons for establishing public junior colleges in Iowa are: (1) It permits students to remain at home and attend college, thus, extending parental influence two years; (2) A student may get one or two years of college work in connection with the high school at a very moderate cost; in some cases students are able to stay at home, attend college one half-day, and work the other half-day thus earning tuition to college: (3) It brings more business to the community (Wallace, 1931, pp. 176-182).

In the same publication Ms. Wallace listed the twelve private junior colleges in operation in Iowa during 1931.

> Acquinas Junior College, Davenport
> Graceland College, Lamoni
> Grand View College, Des Moines
> Grundy Junior College, Grundy Center
> Lenox College, Hopkinton
> Mount St. Clare Academy, Clinton
> Mount Mercy Junior College, Cedar Rapids
> Northwestern Classical Academy and Junior College, Orange City
> St. Joseph's Academy, Ottumwa
> Waldorf Lutheran College, Forest City
> Wartburg Normal College, Waverly
> Wartburg College, Clinton (pp. 176-182).

Ms. Wallace continued her article with a listing of the public Junior Colleges, including the county in which the college was located, the date of establishment and the 1931 current enrollment.

Location	County	Date Established	(1931) Enrollment
Albia	Monroe	1927	425
Bloomfield	Davis	1928	308
Boone	Boone	1927	715
Britt	Hancock	1927	171
Burlington	Des Moines	1920	1017
Centerville	Appanoose	1930	562
Clarion	Wright	1929	305
Chariton	Lucas	1927	470
Clarinda	Page	1923	425
Creston	Union	1926	572
Eagle Grove	Wright	1928	385
Earlham	Madison	1928	129
Elkader	Clayton	1929	95
Emmetsburg	Palo Alto	1930	216
Esterville	Emmet	1924	387

Fort Dodge	Webster	1922	1009
Independence	Buchanan	1928	235
Iowa Falls	Hardin	1928	235
Manchester	Delaware	1929	339
Maquoketa	Jackson	1927	260
Mason City	Cerro Gordo	1918	1176
Marshalltown	Marshall	1927	863
Muscatine	Muscatine	1929	708
Osceola	Clarke	1927	309
Red Oak	Montgomery	1922	468
Sheldon	O'Brien	1926	727
Tipton	Cedar	1927	226
Washington	Washington	1927	226
Waukon	Allamakee	1927	263
Webster City	Hamilton	1926	443

A total of forty-two junior colleges existed in 1931 (pp. 176-182).

A severe teacher shortage occurred during World War I and this condition continued into the 1920s. During the 1918-1919 school term, 87 teachers were placed out of 983 requests received by the appointment committee (Iowa State College Student, 1919, p. 1). A return to peace and growing prosperity brought many more teachers into the profession. Only the vocational areas and special subjects continued to experience a shortage until approximately 1930 (Iowa Department of Public Instruction Reports, 1939).

Salaries of instructors with Master's degrees in the public junior colleges for the year 1929-30 ranged from $1,600 to $3,000 for men and from $1,400 to $3,080 for women. The median salary for fifty-four men was $2,075 and for ninety-four women, $1,727 (Wallace, 1931, p. 181).

Junior Colleges were being used for teacher training institutions.

> In communities where the public junior college is prospering there is coming to be a demand for more than the present narrow academic course. A desire is developing for a course in teacher-training and in some cases for vocational education. During the past year the public junior colleges at Burlington, Creston,

> Maquoketa, and Iowa Falls have won approval for offering a normal training course, and students from these schools have received certificate recognition. The school at Iowa Falls has also introduced work in vocational training (Wallace, p. 182).

Teacher preparation requirements were very low. As late as 1941, Iowa still did not require preparation above high school graduation for teachers. A lack of retirement benefits, low salaries and minimum job security caused a large turnover of teacher personnel (Iowa Department of Public Instruction Reports, 1939, p. 27).

Women's Movement

The feminist movement gradually improved the whole place of women in society and indirectly benefited nurses. The old tradition of servant-nursing gave away more easily to a professional program as women established their right to professional status in nursing as well as other fields.

In Iowa the rights of women were based on the common law of England. The single woman had the same right to hold property and sell or dispose of it as did any man. The married woman, however, lost her right to property to her husband. If she worked outside the home he could collect her wages. The widow regained control of her affairs, but was entitled to only a "dower" right of the deceased husband's property. The dower right was one-third of the real estate for life and one-third of the personal property if there were children. The children received two-thirds of the real estate and personal property. If there were no children, the widow received one-half of the real estate and one-half of the personal property (Petersen, 1952, p. 1046).

The Nineteenth Amendment to the United States Constitution finally conferred on the women in all states the right to vote. Iowa amended the State Constitution in 1926 to remove the provision limiting membership in the General Assembly to male citizens and thus barring women from equality in political rights (Petersen, 1952, p. 1048).

Nursing in Prosperity, Depression and Recovery

World War I created a huge demand for nurses, opened up new fields of specialization, accelerated the educational processes and awakened the consciousness of the public to the importance of good nursing. It was during this period that the nursing profession gained respect and recognition. Public health nursing experienced an expansion. Infant welfare and school nursing was largely preventive in nature. The health maintenance carried out in home nursing was supported by the Red Cross, settlement house, and tuberculosis societies (Shryock, 1959, p. 309).

Red Cross

The American Red Cross conducted classes in home nursing for women who could then care for their own families. In 1912, it was suggested that nurse's aides be trained to work in army base hospitals. The idea was opposed by Jane Delano, director of the Red Cross Nursing and other graduate nurses (Johnson, 1966, p. 26). However, by 1914, the European War had enlarged and it became apparent that some action was necessary. The nursing leaders modified their views and developed a planned course of instruction for nurse's aides.

At the outbreak of World War I in August of 1914, the American Red Cross sent units of doctors and nurses to help in six countries of Europe. In 1917, when the United States became involved in the War, millions of men were drawn into it and the medical and nursing resources of the world were strained to meet the great needs.

> Miss Dora Thompson, Superintendent of the Army Nurse Corps, said that on the day we declared war, we had in our regular army corps 230 nurses and 170 in our reserve. On the day that the armistice was signed we had 3,532 regular nurses and 17,956 reserves (Modern Hospital, 1919, p. 47).

The vision and planning of Jane Delano, who served as director of the American Red Cross Nursing Service from 1909 to 1919, was responsible for a reservoir of nurses at the beginning of World War I (Griffin & Griffin, 1969, p. 134). Miss Delano developed a system for the Nursing Service of the American Red Cross in which a nurse would be ready to serve as a reserve for both military and emergency service with the American Red Cross. In order to join this reserve group, a nurse had to be a member of the American Nurses' Association and the Army Nurse Corps, as well as the American Red Cross Nursing Service. In addition, members also had to be graduates of schools that met the minimum standards set by the state boards of nursing (Dolan, 1978, p. 286).

During the period of the war, the American Red Cross had as its principal task the securing and equipping of trained nurses for the Army and Navy. The following is a report of the activities of the Nursing Service:

> During the twenty months ending February 28, 1919, 23,822 nurses were enrolled as Red Cross nurses. Of these 19,931 nurses were assigned to active duty with the Army, Navy, United States Public Health Service and Red Cross overseas service . . . . In addition to the numbers mentioned above, 1,177 nurses who were not able to undertake active overseas service were enrolled as home defense nurses.
>
> Vitally related to the above was the enrollment of 2,248 nurse's aids, i.e. women with practical knowledge of nursing, and the enrollment of 2,558 dietitians (Work of American Red Cross, 1919, p. 33).

Immediately after World War I, the number of students enrolled in nursing programs decreased markedly and alarm was expressed. There were demands for a lowering of the admission standards and shortened training in order to supply the needed number of nurses.

Nursing Shortage

Ethel P. Clarke, Director of the School of Nursing, Indiana University School of Medicine, Indianapolis, Indiana, stated that the shortage of pupil nurses was probably due to three causes: (1) the number of other fields open to women with humanitarian leanings, (2) the expected disorganization following the war, and (3) the natural reaction from the apprenticeship system of training (Clarke, 1921, p. 425). Many individuals expected nurses to come home from the war and the shortages would be over. Elinor Gregg expresses the feelings of many nurses who returned from the war.

> After the first World War, I cam home from Base Hospital 5 in France, realizing that I must decide what kind of nursing I wanted to spend the rest of my life doing . . . . I had tried industrial nursing in a cotton mill, training school supervising, and hospital management, and none of them really excited my enthusiasm . . . . Like the returning soldiers, I had an itching foot. The Red Cross,

> spending some of their war funds, was engaged in a project to teach and establish public-health nursing, especially in the rural areas . . . . The medical profession as a group was not interested in preventive medicine (Gregg, 1965, p. 1).

Miss Gregg began her career with the American Red Cross in 1922. In 1926 she reported her salary as an administrator in the Indian Service as $2,600 a year (p. 136).

The economic and social conditions of the country seem to affect the number of students who enter and graduate from nursing programs.

> While there are exceptions, in general . . . the number of graduates have tended to increase from two to four years after marked periods of panic or depression in this country, and have tended to decrease sharply following marked periods of prosperity (Goldmark, 1923, p. 58).

In a paper read at the annual meeting of the Ohio State Hospital Association, Columbus, Ohio, on May 28, 1918, Florence Dakin, R.N., Superintendent, Middletown Hospital, Middletown, Ohio, accurately summed up the "nursing situation."

> For a dozen years before the War, the symptoms of dissatisfaction with the prevailing system were not wanting among nurses. It was not infrequently said that the extension from a two to a three-year training course was in the interest of the hospital service rather than in the interest of the nurse in training. Undoubtedly the lengthening of the course, whether justified or not, was sometimes adopted as a means of slowing up the output of nurses, because with the multiplication of hospital training schools a curious thing had happened. More nurses had come to be needed as undergraduates in hospital service than society needed as graduates on private duty . . . . There was definitely no shortage of nurses in private practice, and the employment of nurses in public health service was at that time limited to only a very negligible number . . . . The deficiency of nurses in the hospitals finally became sufficiently marked to lead to the practice of employing graduate nurses in special hospital service, a practice which has grown during the past twenty years (Dakin, 1918, p. 49).

Ms. Dakin continued to identify the reasons for the 1918 nursing shortage--that of an increase in public health needs, the number of nurses who came back from serving their country and found "that their own widened sense of opportunity of a higher destiny in nursing had been met by the sharply awakened consciousness of the people to the already serious deterioration of the public health, discovered by the statistics of war" (Dakin, 1918, p. 49). The way to increase the number of nurses was thought to be to let down the educational standards, to propose short courses, and to offer a premium to pupils as incentive to enter the profession.

There was discontent among the nurses and nurse educators. There were wide reports of shortages of nurses, yet many nurses were unemployed. Abraham Flexner's study on medical education, which resulted in a classified list of medical schools, had brought about drastic changes in these institutions. As early as 1911 the representatives of the National League of Nursing Education attempted to gain support for a committee on the grading of nursing schools. They had approached the Carnegie Foundation, but without success (Stewart, 1943, p. 205).

Nurse leaders became deeply involved in efforts to improve nursing education programs, nursing service in hospitals, and community nursing services of various types. The problem in nurse education had to do with recruitment, selection, education, and housing of students. It also dealt with the recruitment and selection of teachers and supervisors and the maintenance of relationships with physicians, hospital administrators and others in positions of influence and power within the hospital and

the community. Nurse educators were recommending changes in nurse education. They learned that it was essential to unify their efforts through the establishment of nursing organizations and to obtain information about the existing conditions in nursing education and service so they could justify the changes that were being recommended. From 1920 to 1970, nursing organizations made or sponsored a number of far-reaching studies of nursing education and service.

Formal Studies of Nursing Education

The first comprehensive and critical survey of schools of nursing in the United States was published in 1912, sponsored by the Federal Bureau of Education and directed by M. Adelaide Nutting (Stewart & Austin, 1962, p. 208). One thousand one hundred schools responded to the questionnaire and most were rated as essentially utilitarian in purpose and providing a mediocre education for student nurses.

In December, 1918, the Rockefeller Foundation called a special conference to study postwar nursing needs in relation to an expansion of the public health program. Dr. C. A. Winslow of the Department of Public Health at Yale University accepted the chairmanship of the committee. His secretary, Josephine Goldmark, did much of the actual work, and the survey is therefore known as the Winslow-Goldmark Survey.

This first famous nationwide study of nursing education and service in the United States made by Josephine Goldmark, Ph.D., at the close of World War I was financed by the Rockefeller Foundation and called the Committee on Nursing, 1923. Private duty nursing, public health groups, and 23 schools of nursing were surveyed.

The results and recommendations of the study were published in 1923 under the title Nursing and Nursing Education in the United States. The study concluded that in the public health field there was an urgent need for teaching personal hygiene in the home. Many physical defects could be prevented or cured. Maternal and infant mortality could be lessened by health teaching (Goldmark, 1923, p. 171).

The training of a subsidiary group was recommended:

> To urge training for this group is not thereby to create any new type of nursing service. The subsidiary worker is already here in numbers practically equal to the graduate nurse. Of the 276,000 women nurses recorded by the census of 1920, 44 percent were of lesser grade of ability and training known variously as practical nurses, undergraduate nurses, attendants and the like (Goldmark, 1923, p. 172).

It was believed that private duty nurses were so dependent upon hospital situations and so highly trained that they would not be willing to accept the nursing care of an acutely sick patient in rural areas or in city apartments. While nurses were not overpaid, their salaries could be afforded by the very rich, or the very poor who received free medical services. Those with moderate means were left unprovided for; not many insurance plans existed for the benefit of this group.

Three recommendations were made by the Goldmark Survey:

(1) Basic preparation be shortened from three years to about two years and four months with an optional period of eight months of study to prepare for public health and head nurse positions.

(2) More university schools of nursing be developed to offer general as well as professional education with emphasis upon preventive and curative aspects of nursing.

(3) Attendants be prepared and licensed to assume less responsible duties of nurses.

As early as 1918 the value of the three-year program was questioned:

> In our opinion the reduction of the present three-years' course is of the first importance both in order to aid in meeting the increased demands for nursing service of all kinds in all parts of the country, and to aid in recruiting students who may be willing and able to give a shorter period of time. The three-years' course not only should be radically reduced by about one-forth, but can, in our opinion, be so reduced to the advantage of training.
>
> This reduction can be effected by the following means:
> By elimination of services of least value for student training such as private duty.
> By radical reduction of other services in which students now spend time totally disproportionate to the educational value of the service, such as the surgical wards, the surgical supply room, the diet kitchen.
> By saving of time now educationally barren in the first year for lack of theoretical instruction later given to explain the nursing and treatment of the diseases encountered, and finally,
> By the saving of training educationally barren in the third year through the monotonous repetition of duties (Goldmark, 1923, p. 460).

The living quarters of pupil nurses (professional nurse students) and trained attendant students were provided by the hospital because of the early concepts of the need to provide a home for young women who were living away from home. No nurses' residences were attached to hospitals before the new schools. Homes had to be rented or bought for the new schools. If funds were not available, a large ward was often cleared of patients and served as a classroom and sleeping quarters. Individual bedrooms were rare, and the proper provision for adequate rest, privacy and recreation were slow in being established. The nurses'

quarters were more like monastic cloisters or soldiers' barracks than comfortable, sanitary homes advocated by Ms. Nightingale (Stewart, 1943, p. 107).

> Against the old crowded and often unsanitary arrangements progressive superintendents of schools have long contended. One such superintendent, known to the writer, on assuming direction of a well-established school with a university connection, labored for over a year before she succeeded in getting sufficient funds to abolish from the nurses' residence the old abomination of the "double-decker" bed for two persons, placed in this instance in rooms which were small for a single bed and one person (Goldmark, 1923, p. 443).

This researcher spent her first year in an Iowa hospital training school in 1950 assigned to a room with a double-decker bed.

The toilet facilities of the nurses' quarters were found to be for the most part satisfactory, especially in the new building. The Goldmark Study of 1923 did find exceptions where "toilet provisions for 14 persons consisted of 1 basin and 1 tub" (Goldmark, 1923, p. 446).

Miss Daken, hospital superintendent, gives a few facts about the living and working conditions of the pupil attendants in 1918:

> For compensation, we give pupil attendants $10.00 a month for the first six months and $15.00 to $20.00 a month for the following six months. These prices may be modified to suit situations and conditions, but we must pay our attendants a higher salary than we would pupil nurses, as we are giving them less in theory and practice. The hospital furnishes board, room and laundry, and the privileges of the home are the same as for pupil nurses. The salary of the trained attendant, after she has completed her course and takes outside cases, should be from $10.00 to $15.00 a week, until her experience entitles her to more--$18.00 or $20.00. This cannot be strictly regulated, of course, but doctors and others who would be responsible in standardizing this approved schedule of prices, hospitals and registries, can be informed of these rates by the hospital with which the school is connected (Dakin, 1918, p. 199).

The practice of granting an allowance to the student was a surviving mark of the apprenticeship system out of which nursing as a profession was evolving. The schools did not charge tuition, provided room, board and laundry, and granted a stipend amounting to from $4 to $15 a month. Larger hospitals granted the largest allowance.

One professional training school affiliated with a technical college for its classroom charged the students $100 for the preliminary term and $100 for each subsequent year (Goldmark, 1923, p. 222).

Trained Attendants

Many individuals have . . . "gone on the assumption that the smaller the investment in education, the more readily would the nurse charge less for her services and the better supplied would be the rural districts" (Brown, 1936, p. 22). The same arguments were advanced by those who advocated the continuation of the small school in areas where no large schools existed.

> But experience has shown that the poorly trained nurse or doctor is little more inclined than the better prepared colleague to stay in rural practice or to charge lower fees. Moreover, the responsibilities of both doctors and nurses in rural districts present a special need for adequate preparation (Brown, 1936, p. 23).

The generally accepted idea that a person of lesser education would lessen the cost of health care to the public was introduced and apparently accepted by many.

> One year, two years, we are told, are sufficient to give nurses adequate training. It is fondly hoped that if their education is foreshortened they will work for lesser wages, while all experience has proven that the graduate of the two-year school will ask as much for her

> services as the three-year graduate. It would not take long for the one-year trained nurse to think herself as good as her better trained competitors and to adopt the same wage scale. Professional ethics and individual conscience are matters of education and the less educated the nurse the less likelihood is there of development in her of the spirit of social service. Moreover, we may as well say frankly that the only arguement for the rapidly educated nurse is the hospital need and that is not enough to justify a cheapening of nursing education (Dakin, 1918, p. 50).

Goldmark stressed the education of the public as to the difference between the ability of the professional and practical nurse, fearing the need for an adequate income would cause the practical nurse to charge more for her service.

> Again with the precariousness of employment in private duty, her [the practical nurse] pay must be such as to provide a decent standard of living. About $25 a week is the usual charge as against $35 per week for the graduate nurse (Goldmark, 1923, p. 180).

Along with the concept that a person of lesser education would work for less, hence the cost to the patient would be less, raises the problem of where the lesser nursing skill is needed.

> To differentiate between grades of nursing skill, not according to the degree of seriousness of the disease in question but by the financial standing of the patient, seems to us thoroughly mischievous. It is a truism that acute disease is none the less acute among persons of small or no means than among the wealthy (Goldmark, 1923, p. 182).

The scope of practice of the trained attendant caused concern. A hospital and nursing publication reported in July 1921:

> It is not the intention of the nursing body, in giving recognition to the trained attendant, to provide a poorly trained nurse for the poor or middle class.

> It is the intention of the nursing body to have attendants trained, licensed, and so controlled by legislation that it will be impossible for them to practice as nurses, just as it is unlawful for a nurse as a physician. They should be capable of caring for a patient convalescing from an acute illness (where the services of a highly trained nurse are no longer necessary). . . (Modern Hospital, July, 1921, p. 31).

The shortage of trained nurses after World War I and the influenza epidemic of 1918 gave impetus to the expansion of professional or hospital schools of nursing. Professional nurses could not agree upon the need for any type of subsidiary worker or person with a similar title. Florence Dakin, R.N., Superintendent of Middletown Hospital, Middletown, Ohio, expressed the feelings of many nurses when she spoke to the Ohio State Hospital Association, Columbus, Ohio, on May 28, 1918:

> We have two classes of people who do nursing--the trained or graduate nurse and the untrained or practical nurse. The latter is as essential and important as the former and has as necessary a work to do . . . . The term "trained attendant" is aptly chosen, for while it does not transgress upon the ideals incorporated into the word "nurse"--those ideals which we wish to and must keep intact--it implies that there has been training under supervision . . . . The crying need of the great war nursing problem has brought into existence another class--the nurses aid or untrained woman who can give perhaps a few months to a short course of training (Dakin, 1918, p. 198).

One difficulty in nursing was the large number of individuals who were either untrained or poorly trained who called themselves nurses and who were in active nursing practice. In 1913, when the American Hospital Association examined the practice of nursing, they found nine types of personnel who served as "nurses" (Shryock, 1959, p. 306). The National Organizations of Nurses, the National League of Nursing Education and

the American Nurses' Association, worked for legislation which would distinguish between graduate and nongraduate personnel. The first nurse practice act was passed in North Carolina in 1903, and by 1914 some forty other states had also passed legislation. The first state boards usually did not examine the individuals but set up standards and approved schools which met them. The graduates of the approved institutions were authorized to use the title Registered Nurse (R.N.) (Shryock, 1959, p. 307). Persons who were not authorized to use the title were often called "practical" nurses.

The Superintendent of Nurses at Massachusetts General Hospital in Boston suggested to the American Hospital Conference on Hospital Service in September, 1919, that the solution to the nursing problem might be in registration of trained nurses and attendants, more satisfactory working conditions and cooperation of the medical profession. Sara E. Parsons, R.N., the Superintendent, said:

> We know that there should be trained nurses and trained attendants and that both should be licensed before being allowed to practice as such. We can never have trained attendants until trained nurses are compelled to register after passing state board requirements (Parsons, 1919, p. 434).

The problem of the scope of function of the trained attendant or subsidiary worker was apparent in 1918.

> But the question which at once arises concerns the work and scope of the attendants after graduation. Here we touch on the crux of secondary or subsidiary nursing as it is sometimes called, that is, the irresponsibility of the unlicensed sickroom attendant, under whatever name she is known . . . . It appears unmistakable that the graduates of the short courses, as well as attendants placed through registries, tend soon to leave the

> registries and to practice independently under whatever name and whatever price they may choose. The whole object of preparing and placing a subsidiary or secondary group of nurse assistants is defeated . . . . the Boston Household Nursing Association says that its work has been greatly restricted owing to the fact that many of the attendants left the registry . . . they are able to get much higher wages by working independently . . . . In this instance also the tendency . . . to leave the Association to accept nursing calls on their own initiative and to assume responsibilities for which they had neither training nor experience (Goldmark, 1923, pp. 175-176).

The status and lack of distinction of the title by which the practical nurse should be called was of solicitude in 1918. The investigation of the Goldmark report indicated the psychological significance of the title. The term attendant was not acceptable to the individuals who completed the training.

> Even those who appreciate most fully their own limitations and have no desire to assume responsibilities beyong their powers, resent the name and feel a right, by virtue of their ever-so-small share in nursing service, to some designation which shall indicate that service (Goldmark, 1923, p. 179).

In April, 1921, Katherine Shepard, R.N., Superintendent of the Household Nursing Association, Boston, discussed some of the problems which were presenting themselves to the Household Nursing Association in connection with their trained attendants. In a speech before the National League of Nursing Education in Kansas City, Ms. Shepard remarked:

> We have recently had a petition from a number of pupils asking to be called practical nurses. They are apparently willing to have the word "nurse" qualified, if it may only be somewhere in the title. Another problem is their desire to wear white uniforms . . . . Then there is the matter of what pay they should receive . . . . There is above all the grave problem of

> preventing the attendants from undertaking work beyond their ability (Shepard, 1922, p. 82).

Bertha Harmer, B.S., R.N., Instructor, St. Lukes Hospital, New York, stated in an article appearing in Modern Hospital in 1923 that "the term 'practical nursing' calls up varying conceptions in the minds of different people . . . in the minds of the public, nursing itself is generally understood to be merely carrying out, with a certain degree of skill, orders prescribed by the doctor" (Harmer, 1923, p. 587). Miss Harmer noted that the public does not discriminate between the trained graduate nurse and the practical nurse. The public seems only to know that one has been trained in a hospital while the other has been trained in the homes of patients. The real knowledge seemed to be that the practical nurse could be secured for less money than the trained nurse.

The report of the Education Committee of the National League of Nursing Educators which was held in Chicago, June 24-28, 1919, described the curriculum desired for the trained attendant at that time:

> The public health nurses are strongly against institutional training for attendants and believe that such training could best be given in housekeeping centers and that the course should be short--less than a year. The course, as outlined by the committee, will be based on the Red Cross textbook; it will require for entrance the age of at least eighteen years; the ability to read and write English and to keep simple bedside reports; and good physical condition and moral character; it will last for one year, nine months in an institution and three in a public health center; the subjects included will be elementary nursing, twenty hours; cooking and dietetics, twenty hours; care of children, five hours; care of the chronic sick, five hours; care of accident patients, five hours. This course will not be eligible for the Smith-Hughes appropriations as it

> does not include the requisite number of hours. In regard to the types of hospitals in which these courses will be given, it is emphasized that hospital training schools are not suitable. Those suggested are sanatoriums for tuberculosis patients, homes for the aged, for the insane, for nervous diseases, children's convalescent homes, etc . . . .
>
> California has already passed a bill providing for nursing attendants, and schools for their training are being established . . . . The committee decided that the trained attendant would fill a real place in the care of children, of the chronic sick, etc., but that her status must be rigidly defined by law or else inferior nursing will result (Modern Hospital, August, 1919, p. 47).

There were many short courses intended for the instruction in personal hygiene and home care of the sick by members of their families. Some of these courses were under the auspices of the American Red Cross.

One course which caused much controversy was the 8-week course given free by the Chicago Board of Health (Goldmark, 1923, p. 173). The course consisted of 24 lectures on nursing. Each lecture lasted from one and one-half to two hours. Many persons who completed this 48-hour course posed as nurses and asked for and received the $35.00 weekly fee as a graduate nurse. A licensing or registration of these individuals to prevent fraud was becoming more imperative.

Some physicians attempted to influence the public and nursing leaders into thinking that graduate nurses were overeducated and that nursing care could be given by another type of worker for far less cost. Dr. Charles H. Mayo explains the use of the trained attendant as follows:

> I know . . . that in my work I have never had to ask any nurse to do anything which she could not have learned how to do in two years' training. But as the laws of most states demand high school pre-education

> and three years' training for the registered nurse, the only way to circumvent them is by training sub-nurses or nursing aides who will accept smaller pay, whose demands are not so exacting, and who will be proficient enough to take hold of almost any case presented to them (Trained Nurse and Hospital Review, November 1921 b , p. 423).

Dr. Mayo probably reflects the attitude of many physicians when he speaks about the working conditions of the nurse: "Seven dollars a day for an eight-hour day is more than exorbitant; it is prohibitive" (Trained Nurse and Hospital Review, November, 1921b, p.423). Dr. Renwick R. Ross, of Buffalo, New York, made the following observation:

> Dr. Mayo is in a peculiar position because of his large medical establishment and with him the nursing problem is a matter of business. When nurses ask for better working conditions and higher pay he would be likely to resent it (Trained Nurse and Hospital Review, November 1921 b , p. 425).

Following the publication of the report Nursing and Nursing Education in the United States, the National League for Nursing Education recommended that a comprehensive study of nursing schools be made that would lead to the actual grading of schools. In 1926 a Committee on the Grading of Nursing Schools was appointed with representation from nursing, medical, hospital, and public health organizations, universities and the public. Dr. William Darrach, chairman, and Dr. May Ayres Burgess, director, began a five-year program which became the Committee on the Grading of Nursing Schools.

Grading of Schools

Three projects were selected for the five-year period: supply and demands for nursing service, job analyses of nursing and nurse teaching and the actual grading of nursing schools. Reports of the study were

published under the titles: Nurses, Patients and Pocketbooks (Burgess, Mary Ayers, 1928), An Activity Analysis of Nursing (Johns and Pfefferkorn, 1934) and Nursing Schools Today and Tomorrow (Committee on the Grading, 1934).

> When the Grading Committee first started its work, many of the members believed that there was a real nursing shortage; and some of the earliest statistical studies were, in fact, directed toward discovering new sources from which student material might be drawn . . . . The results have been--for the most of the Committee--unexpected and disturbing. The implications of the figures seem so clear as to be unavoidable . . . . They seem to call upon the nursing profession for widespread revisions in organization and for the development of a much more comprehensive educational philosophy . . . . They . . . demand from the public, cooperation and financial support hitherto unknown. They call upon the entire hospital world for drastic changes in policy and increased financial responsibilities (Burgess, 1928, p. 29).

The first question attacked by the Committee on the Grading of Nurses was the question of supply and demand. It was commonly believed that a shortage of nurses still existed. The first study presented statistical proof of a surplus of nurses in some localities and in some branches of nursing service. Part of the difficulty was due to maldistribution and inadequate preparation.

> Indications, however, all seem to point to the conclusion that if the unregulated multiplication of nursing schools continued and if the yearly output of graduate nurses could not be reduced in numbers and improved in quality, conditions were likely to grow steadily worse (Stewart, 1943, p. 207).

Nurses desiring to be employed in private duty enrolled with a registry and would receive their calls for employment through the registry. The individual working as registrar had intimate knowledge

about the number of positions for nurses available and the ease with which those positions were filled.

When the registries were asked if they would like to have more nurses encouraged to move into their city the overwhelming response was NO!

> Several registrars wrote in substance, "Until recently we have been anxious to secure more nurses, but now the hospitals in our own cities have such large graduating classes that we have more local nurses than we know what to do with (Burgess, 1928, p. 80).

Soon after the first question of an adequate supply of nurses being available was answered, the American Medical Association withdrew from the committee since they were only interested in the study from the point of view of securing adequate nursing service for the American people.

The nursing student was eagerly sought because of her economic value to the hospital. "Hospitals run training schools for two reasons. The first reason is that it is cheaper to run a poor school than it is to employ graduate nurses" (Burgess, 1928, p. 435). The second reason is that hospitals have been receiving free service from students for so many years that they regarded it as an inalienable right.

> Who can imagine a public school system placing all its schools in the hands of normal school students, letting them teach as long as they stay in normal school, but the moment they receive their diplomas, telling them; "There is no place for you in the public school system. We run our public schools on student labor. You go out now and support yourselves by being governesses!" Yet that is very nearly what most of the best hospitals in this country are saying to their own graduate nurses (Burgess, 1928, p. 437).

Beginning with the 1929 economic depression, the problem of over-production of nurses with the resulting unemployment was brought into focus. H. Lenore Bradley's article in the American Journal of Nursing in June, 1933, gave evidence of how great was the over-supply of nurses in New York State. She pointed out the fact that of 40,000 registered nurses in New York 30,000 classified themselves as actively engaged in nursing. During a period of ten years the number of registered nurses had increased 220 percent, while the population had increased only 21 percent. In addition to the 30,000 registered nurses, some 22,000 other persons stated they were nursing for pay Bradley, 1933, p. 557). The study reported by Burgess (1928) in Nurses, Patients and Pocketbooks was made during the prosperity of the twenties.

> In spite of apparent prosperity, there was serious unemployment among private-duty nurses, since relatively few people could afford the service (Stewart, 1943, p. 323).

The problem of the cost of nursing care was extremely serious. The average patient with a long illness was unable to afford nursing care. The solutions suggested, however, were not necessarily pragmatic.

> Some physicians seem to feel that a new type of practical, semi-trained, or short course nurse might be produced who would solve the cost problem, while avoiding the defects of the present practicals and undergraduates.
>
> The picture they draw seems impracticable. It calls either for women above the servant level to accept without special reason conditions which servants will not tolerate; or for women at or below the servant level voluntarily to forego opportunities for personal advancement.
>
> Some solution must be found for the excessive cost of nursing service. It is believed that this solution will not come through adding more incompetents to an already overcrowded field, but rather through devising

> new methods of distribution, so that the cost of nursing care can be lowered for the patient, while at the same time the standard of living for the individual nurse can be maintained at a reasonably adequate level (Burgess, 1928, p. 471).

Salaries in nursing were too low to attract high-caliber women who would carry the public health nursing practice or the responsibility for nursing education. The salaries of nurses are often compared to school teachers. Probably the comparison is ideal because both fields are made up of female workers.

> These figures for New York City . . . show that in 1926 the average private duty salary . . . was $1,380. A fourth grade school teacher in New York City starts her work at $1,500. Five years later she is earning $2,000; ten years later she is earning $2,600; and when she reaches her peak after 13 years of service she is earning $4,800 and continues there until she finally retires on a pension . . . . The suggestion that private duty nurses are as well off as public school teachers leaves out of account the relatively permanent tenure of the teacher's position, the automatic increases in pay, the opportunities to earn increased money during the long summer vacations, and . . . provision for a pension . . . when the teacher becomes too old to work (Burgess, 1928, p. 490).

In 1932,the rate of pay for registered nurses was discussed by Ms. Minnie Goodnow, R.N., Superintendent of Nurses, Newport Hospital, Rhode Island. Ms. Goodnow explained the pay scale by saying the nurse who worked one to four days with two hours off received $5.00 a day or night. If the nurse worked for one week, she received two hours off plus two half days off and $25.00. In either one of these cases, the nurse was not entitled to have any laundry services. Nurses who worked from eight to thirteen days would receive $25.00 a week, the two hours off and two half days off each week plus laundry services. It is interesting to note that if the work extended more than three

weeks the nurse received $50.00 for the first two weeks of service, but after that $85.00 a month. The nurse who gained employment for one month or more received $85.00 a month. It would appear that length of service was not encouraged or rewarded (Goodnow, July, 1932, p. 86).

Poorly prepared teachers and out-dated teaching methods plus long hours of duty for students were findings of the committee--which seriously indicated nursing education and the ability of the profession to meet the needs of the society in which it existed.

> In 1928, 75 percent of the schools reported eight hours or less for day duty and in 1932, 73 percent. Only 140 schools out of the 1,224 reporting in 1932 had a 48-hour week; 85 percent of the schools still required a 56-hour week or more, and 37 percent required a 70-hour week or more . . . . Students did not get enough sleep, or enough time for class work and study, or even for their meals . . . . Most schools still gave two weeks vacation only . . . . The comment that "the student nurse is the most overworked student in any profession" certainly seemed justified by these findings (Stewart, 1943, p. 210).

As the number of qualified applicants decreased, hospital schools of nursing lowered the entrance requirements. As more unqualified persons entered the profession it became increasingly difficult to attract students of high academic ability.

> The willingness of some hospitals to admit young women of doubtful character and low intellectual capacity is so well known that . . . the public assumes that all nurses must be of that type . . . . It is unfortunate that the public sometimes regards the nursing school as a sort of respectable reform school, where its mental or disciplinary cases can be sent (Burgess, 1928, pp. 440-441).

In May, 1930, the Committee on the Grading of Nursing Schools reported:

> Education is no longer the prerogative of the fortunate few. It is rapidly becoming a national characteristic . . . . Yet of the 25,000 graduates from schools of nursing in 1929, some 7,600 or 30 percent were admitted to training schools without having a full high school preparation. There are still schools of nursing in which the educational standards are so low that the schools are pouring into the nursing profession young women who could not readily support themselves in most of the recognized fields of female employment (Committee on the Grading of Nursing Schools, 1930, p. 33).

Among the important findings in the self-appraisal reports were an increase in the number of students having completed high school from 65 to 84 percent of the students in the institutions studied (Sellew & Nuess, 1946, p. 325).

In July, 1934, nurse educators were calling for high school graduation as a preliminary requirement for entrance into nursing programs.

> Certainly the requirement that the law should ensure good nursing care necessitates an intelligent learner in the school. Today the requirement of four years of high school should be the minimum requirement for all nurse practice acts. There has ceased to be any need of concern over whether there will be enough candidates for nursing. We cannot afford to bring in young women with less than four years of high school (Burgess, July, 1934, p. 653).

The third objective of the Committee on the Grading of Schools of Nursing was carried out in 1929 and again in 1932. The purpose was to inform each school of its strong and weak points in relation to other schools. All schools desiring to participate in the grading were sent questionnaires. The returned forms were classified by the grading committee and each school was shown its standing in relation to others in the same locality as well as with other schools throughout the United States. The rating included every phase of nursing and the

comparison of schools was made in relation to each phase rather than a total rating. As a result of the study many poor schools were closed (Sellew & Nuesse, 1946, p. 325; Stewart, 1943, p. 213).

An editorial in a well-known nursing journal reported on the number of schools that closed from 1930 to 1932. The report was as follows:

State	1930	1932
Arkansas	26	16
Georgia	44	30
Iowa	54	37
Kansas	57	43
Nebraska	27	18
Oklahoma	36	21
Wyoming	7	4
Texas	72	65

(The Trained Nurse and Hospital Review, July, 1932 a, p. 93).

In an effort to encourage hospital superintendents to use graduate nurses rather than students to provide nursing service, one hospital superintendent explained the situation in a report of the nurses' section meeting of the Hospital Association by saying:

> Then after student nurses were considered safe to handle some nursing procedures on the wards, the maximum eight hours' service which they were permitted to perform in some states--nine hours in others--was less satisfactory than twelve-hour graduate service (The Trained Nurse and Hospital Review, Oct, 1932 b, p. 451).

Many graduate nurses were employed by hospitals in general duty positions and this began to improve the apprentice method of teaching on the wards. Hours of work for both students and registered nurses were reduced. The admission requirements were gradually raised to specify four years of high school work. The qualifications of faculty were improved and the Committee on Grading also made certain requirements for all good schools. First, hospitals with Schools of Nursing

were to be on the Hospital Register of the American Medical Association and approved by the College of Surgeons. Second, the hospital had to offer experience in all major branches of nursing or provide affiliation for such opportunities (Sellew & Nuess, 1946; Stewart, 1943).

The National League for Nursing Education began to work on a standard curriculum for schools of nursing and published the first curriculum in 1917. A revision of the curriculum was published in 1927 and again in 1937. The revision of 1937 represented a major research effort that involved experts from many fields of nursing and higher education from all parts of the United States.

As changes occurred, many nurses expressed doubt and concern. Dr. May Ayres Burgess gave some advice to nurses to help them achieve the needed changes in nursing education and in hospital staffing patterns. She called her advice "a list of don't and do's." In part the list included:

1. Don't spend time explaining how we got into this nursing mess.
2. Don't say that we are victims of a system or anything--this gives another opportunity to come to the gallant rescue.
3. Don't fight the inevitable. For example, don't stage a salary fight that cannot, in face of the present depression, be won.
4. Don't put on a sad face if your own training school is closed. Look cheerful.
5. Don't give so much veneration to tradition. Florence, the immortal, was a terror. She did not stick to tradition a bit.

The list of do's included such helpful advice as:

1. Get some schools closed, and plan to operate most of the hospitals on a graduate basis . . . . Pick the best nurses (The Trained Nurse and Hospital Review, October, 1932.b, p. 460).

Junior College Courses

The establishment of nursing courses in junior colleges began as an effort on the part of the hospital school of nursing to provide the basic sciences for their students under more favorable learning conditions. The junior colleges could provide laboratory facilities and teaching personnel for the necessary basic science courses. The junior colleges desired to serve the communities, and hospitals needed facilities and instructors.

In 1932, Alice Ringheim researched the use of junior colleges by hospital schools of nursing and published her report in a nursing journal. The study included twenty-six junior colleges in eleven states.

> The movement has grown rapidly, more noticeably in the North, Middle West, and California. The impression gained is that this growth is in its incipiency. Hospital needs are being met and junior colleges are eager to serve their communities . . . . Certificate or university credit courses are increasing in importance in the minds of nurse educators. Junior college executives, however, are favorably inclined toward terminal offerings, and their tendency to increase them is evident (Ringheim, 1932, p. 972).

In spite of the interest of nursing educators to improve the educational standards of their students and the interest in university credit, Ms. Ringheim reported, "The nursing profession is not assisting to any noticeable degree in shaping the courses of study" (Ringheim, 1932, p. 972). The study discussed the problem of student selection for training schools:

> Junior college instruction brings a better type of student to the hospital training school. Progress is being made in the method of selecting students . . . . Junior college executives in the majority of cases find that the average of intelligence of nurses is lower

> than the median of the college group. Hospitals are still controlling the education of nurses, even where affiliation has been satisfactorily established. This is evidenced by the large number of terminal courses still offered in the larger centers, a concession of the limited time and, in many cases, limited intelligence of nurses (Ringheim, 1932, p. 973).

The recommendations of Ms. Ringheim's study were directed toward the future of nursing education and were of a pioneering nature.

> Probably the most important conviction which has resulted from this study is that the junior college is the strategic point to which educators of nurses, who desire radical changes and hope for their speedy accomplishment, should direct their attention. Several facts brought out tend to emphasize the importance of the junior college as a point of attack (Ringheim, 1932, p. 973).

Another twenty years would pass before an attempt to experiment with an educational plan that deviated markedly from the familiar pattern and utilized the junior and community colleges would be tried. The associate degree plan for educating technical nurses would wait while the practical or vocational nurse grew in stature and numbers.

Licensure for Attendants

The use of untrained or semi-trained individuals continued into the late 1930s. Hilda M. Torrop questioned the practice in the January, 1937, Nursing Journal.

> Uniform regulations governing the scope of and preparation for orderly duties seem to be lacking. If the subsidiary worker is to be a part of our permanent hospital staff, we can no longer be content with a pick-up form of learning nor with inequality in result that is the outcome of the teaching given by various people when they "have time" to give it (Torrop, Jan. 1937, p. 17).

The licensing of nurses and attendants was a long hard struggle. Many individuals including those in the nursing profession believed that nursing was a "calling" and could not be regulated.

> Other professions had faced facts and sponsored effective laws to control practice, but nursing was still considered to be a calling for the "born nurse," to be casually followed without training or license (American Journal of Nursing, 1938, p. 563).

Opposition to the licensing for practical nurses often came from the professional nurse who did not wish to encourage more competition for the few jobs available.

> Roughly, it may be said that the 120,000 nurses who are private practitioners are trying to make a living mostly from the top 10 percent of the population, classified in terms of family income. Is it any wonder that most private duty nurses are only part-time workers and that in 1937 (to judge from registry reports) 40 percent of them were employed less than half their time. Or that most private duty nurses earn much less than most institutional nurses and have less security? (American Journal of Nursing, 1939, p. 35).

It was not unreasonable for the unemployed nurse to be apprehensive about the practical nurse replacing her in the hospital.

> Unfortunately, even the registered nurses have indicated an uneasiness and have spread rumors that hospitals will employ a larger proportion of practical nurses to save money . . . . These fears are not localized (Manley, 1940, p. 63).

Many nurses did not recognize the fact that the unlicensed person was a greater threat to job security and public safety than the licensed practical nurse.

> It required courage to advocate licensing for the practical nurse. There were registered nurses . . . who felt that to do this would increase rather than decrease competition; who failed to see that such licensure would eliminate the unfit among those whom

> they were already in competition (American Journal of Nursing, 1938, p. 564).

Previous to the passage of laws which licensed and controlled practical nursing, it was a well-established fact that the preparation of practical nurses had been exceedingly limited and often totally lacking.

> The group is known to have been comprised of large numbers of young women who had either resigned or been eliminated from professional schools of nursing and of larger number of subsidiary workers employed in hospitals as well as free lance individuals in the community who just decided one day to be a nurse the next (Creamer, 1939, p. 64).

The three national organizations, the American Nurses Association, the National League for Nursing Education and the National Organization of Public Health Nurses were concerned about organizations that established nursing programs without the knowledge or consent of the State Boards of Nursing or the professional organization. An example of the problem occurred early in 1939 and is described in the following minutes of the American Nurses Association Board of Directors' Meeting January 27, 1939:

> Discussion of Activities of National Youth Administration:
>
> Certain activities of the National Youth Administration were presented for consideration. These were as follows:
>
> On January 6, 1939, Mrs. Mary Hickey referred information to ANA Headquarters relative to a project sponsored by the National Youth Administration for training of a subsidiary nursing group at the Riverside County Hospital, Arlington, California.
>
> Upon Receipt of this word, a conference was held by the Director of ANA Headquarters with the Directors of Headquarters of the NLNE [National League of Nursing Education] and NOPHN [National Organization of Public Health Nurses]. It was decided to suggest to the President of the ANA that Mrs. Hickey and Miss Pearl McIver should be requested to represent the ANA in Washington, D.C., in attempting to see that this project is modified.

Under date of January 12, 1939, a letter was sent to Mr. Aubrey Williams, Executive Director, National Youth Administration, Washington, D.C., over the signatures of the Presidents of the three National Nursing Organizations. This letter read in part as follows:

"These three National Nursing Organizations, with a total membership of over 163,000 graduate registered nurses, residing in every state in the United States and its dependencies, have devoted years of concerted effort toward the establishment and maintenance of desirable standards of nursing service and to better distribution of this service.

"It is believed that the project which your group is sponsoring delegates technical responsibility to persons who are neither qualified nor prepared to perform the duties implied by such responsibilities. For example, in the course of instruction outlined in the project, we find nursing procedures listed on Page 2, Course of Instruction, Practical Nursing, which could be assumed only, with any degree of safety, by graduate registered nurses or student nurses. The latter would be working under the most favorable conditions, that is, where adequate supervision is provided and where the students have had basic preparation in theory and practice in an accredited school of nursing, which would make it possible for them to carry out the procedures which are listed, in a scientific and professional manner.

"If the purpose of the project is to provide employment for youths who otherwise would be unemployed, then it is believed that the National Youth Administration project defeats the purpose for which it was designed, as ultimately it would result in unemployment among graduate registered nurses who are qualified and prepared to assume the duties that the persons enrolled in the course offered by you would neither be qualified nor prepared to discharge.

"Therefore, these three National Nursing Organizations urge that this project be discontinued, to the end that adequate, intelligent and scientific nursing care may be provided for the public."

It was moved by Mrs. Soule and seconded by Miss Densford that the officers of the ANA should be requested to continue their correspondence with Mr. Aubrey Williams in order to protest the establishment of courses similar to that initiated in Arlington, California. Further objections should be raised relative to the teaching of advanced nursing procedures to persons enrolled for such courses, as this would be contrary to the policies of the nursing profession. The motion carried (American Nurses' Assoc.,1939).

Nursing in Iowa

Iowa followed the national trend of opening new hospitals and schools of nursing to meet the growing demand for health care.

> St. Joseph Mercy Hospital School of Nursing, Mason City, Iowa, opened its doors to students on September 27, 1916, with the first graduation being held December 12, 1918 (Mason City Globe-Gazette, June 7-14, 1953).

The Coleman Hospital was established in 1916 by Dr. Anderson. Upon his death in 1919 the building was taken over by Dr. Raymond C. Coleman. A class of nursing students was admitted in April, 1925. Nineteen students were admitted and fourteen of them graduated on July 2, 1928. Only six students were admitted in September of 1928. After Dr. Coleman's death in 1933,the Sisterhood of the Holy Family Society took over this Estherville, Iowa, hospital (Wilson, 1931).

The Sisters of St. Francis of Le Mars, Iowa, established the Sacred Heart Hospital on August 2, 1917. The first graduates of their nursing school, five students, completed the program in 1926 (History--Development of Nursing in Iowa 1900-1930, 1931).

By the end of World War I, in 1918, Iowa had 53 approved schools of nursing. One new school was established in 1919, one in 1920 and two new schools were established in 1924 and again in 1925. By October 31, 1924, 56 schools of nursing were on the Iowa Board of Nursing accredited school list.

The Board of Nursing voted to send a questionnaire to the nurses' training schools. This was the beginning of a grading system in Iowa which would allow schools to compare themselves with others within the state (Board of Nursing. Minutes, October 31, 1924).

The Development of a School

The sequence of events that led to the establishment of a nursing program in the community of Marshalltown, Iowa, is somewhat typical of the beginning of many nursing programs. It will be useful to trace the development of the Marshalltown nursing program in greater detail, in order to clarify how the nursing educators attempted to solve some of the problems of nursing education.

St. Thomas Mercy Hospital, Marshalltown's first hospital, came into being as a direct result of a long and continuing battle with typhoid fever. Every July and August beginning in the late 1870s and continuing until 1902, Marshalltown experienced dreaded attacks of typhoid fever. Thousands of persons died from typhoid during that quarter of a century.

A young Marshalltown doctor discovered the cause of the fever--polluted water. Dr. Aaron C. Conaway, the city health officer, identified the probable source of the fever as raw sewage polluting the Iowa River below the Iowa Soldiers Home, where sewers emptied directly into the stream, and from the interceptor galleries where the untreated water was taken from the river into the city mains. In addition, many home wells were also polluted.

The community of Marshalltown had 11,000 residents and there was no hospital to treat ill patients. Father M. C. Lenihan, St. Mary's Catholic Church pastor, came from a wealthy family and wished to honor his older brother, the Rt. Rev. Thomas M. Lenihan, first bishop of Cheyenne, Wyoming, who had died December 15, 1901. The relatives

agreed to donate $5,000 toward land for a hospital if Marshalltown could attract a Catholic religious order to provide the administration and nursing service.

Father Lenihan convinced the Sisters of Mercy, who operated hospitals in Davenport and Des Moines,to consider a hospital in Marshalltown. They agreed to establish a mission at Marshalltown if the community would build the hospital.

The Lenihan family gift of $5,000 to the Mercy order was used to purchase three acres of land. The Community of Marshalltown raised $25,000 toward the construction of a 30-bed facility.

The city council promised free sewer extensions and on September 1, 1902, ground was broken. The hospital was opened September 22, 1903. The Sisters from Davenport opened their Mercedian School of Nursing in 1905. One of the original six nuns, Sister Mary Machtilde, served on the first Board of the Iowa Nursing Examiners (Iowa Board of Nursing).

During the summer of 1903, while the hospital was under construction, Marshalltown suffered its greatest typhoid epidemic. Again the city had pumped water directly from the Iowa River since its only well could not meet the peak demand for water. This was the last time impure water was used in Marshalltown because public demand forced the building of new waterworks. The first six sisters of Mercy, under the direction of Mother Mary Aloysis, administrator, cared for the sick even though their hospital was unfinished.

The 1910 Green Mountain train wreck gave the hospital and its nurses one of its most severe tests. A Rock Island Lines passenger train, detouring from Cedar Rapids to Waterloo over the Chicago Great Western rails by way of Marshalltown, was wrecked between Green Mountain and Gladbrook. Fifty-five persons died. The sisters called for emergency help from anyone who had nursing experience; many volunteer women responded.

The 1918 world-wide epidemic of influenza filled St. Thomas Mercy Hospital to capacity. The thirty-bed hospital, a house and two floors of the YMCA were converted for emergency use. At its peak, 500 were hospitalized. Additional nurses were recruited and trained by the Sisters and their five student nurses.

In 1919 the hospital tripled its size to 102 beds and had 20 bassinettes. The second major emergency in less than ten years made the community aware that its hospital facilities were inadequate. The new addition was completed and occupied in the summer of 1920.

In 1929 the depression caused the patient census to fall to new lows. Nurses begged for work and asked only for room and board as pay. Mercy Hospital lost all of its ready cash in the city's bank failures. The hospital struggled to meet interest payments on the unpaid mortgage.

The Sisters of Mercy of the Union of the United States of America was formed in 1929. The Iowa houses were attached to Chicago, and the new order numbered more than 3,000 nuns whose primary purposes were teaching and nursing. In 1931, the name St. Thomas was legally dropped from Mercy Hospital's title. By 1940 the census gradually improved

and the Sisters were again able to provide equipment to bring better medical care to their patients (Yearbook 1948-1970 Mercedian School of Nursing, 1971, p. 30-33).

At the same time that the Sisters of Mercy were building and expanding their hospital in Marshalltown, the Evangelical Deaconness Society of Marshalltown was organized. It was in the winter of 1913 that a school was formed in which an unmarried Christian woman could be theoretically and practically trained to nurse the sick in a hospital or private home. The Mission of the Deaconness was to visit the poor and feeble and to assist church workers in humane societies in every effort to uplift humanity. The Deaconness did not take vows for life, but only promised to serve suffering humanity in the spirit of Christ. A Deaconness is called "Sister" and is distinguished by simplicity and uniformity of dress. The mother house takes care of all the Sisters' needs.

The Marshalltown Deaconness Hospital was opened to all patients regardless of creed or nationality and to all doctors recognized by the state. The hospital was under the control of the society. The 1929 Bulletin of the Deaconess Hospital explained the admission requirements for student nurses and gave insight into the living conditions:

> To be eligible for admission to the Training School for nurses, the applicant must be between the ages of eighteen and thirty-six years; must be a member of a Protestant church; must present evidence of good health, and good moral character; must have a certificate of completion of at least two years of High School or its equivalent. High School graduates are preferred. Students may enter at any time, but preferably on

> September 1st or January 1st . . . . Students receive two weeks' vacation each year during the summer months . . . . In addition to their maintenance, students receive $6.00 a month after the probation period (first three months of training). This allowance is not given as compensation for services rendered, but in order to defray expenses for uniforms, text books, etc., incidental to their training. The instruction and profession acquired are considered an ample equivalent. No tuition or entrance fee is required. Other expenses during the course will depend entirely upon the habits and tastes of the individual . . . . The length of the course covers three years from the date of entrance. It is divided into the probation term of three months, junior term of nine months, an intermediate term of one year and a senior term of one year.
>
> Should a student prove herself unworthy of her calling, by gross sins, and give offense by her unbecoming conduct, which we hope that God may graciously prevent, she will be dismissed immediately and will not be entitled to any privileges or credit. In all other cases a notice of one month beforehand shall be given if either the home or a probationer wishes to dissolve their relationship with each other (Handbook of the Evangelical Deaconess Home and Hospital, Marshalltown, Iowa, 1929, unnumbered pages).

Many of the schools were connected with small private hospitals or with special hospitals which offered a very limited or one-sided clinical experience and practically no other educational facilities. If the school could not provide enough experience for students they were often given accreditation if an affiliation with some other school could be arranged. Miners Hospital, Albia, Iowa, was such a school:

> Approved by Eshback . . . that this Training School for Nurses be accredited for the first two years of training, provided they arrange affiliations with some other schools according to Rule 5 . . . . The curriculum as revised and approved by this Board (Board of Nursing, Minutes, June, 1923, p. 89).

Adequate affiliation was often difficult to arrange. If the school had a small enrollment and several students were sent away for an

affiliation for a period of three to six months, the financial advantage of having a nurse training school was weakened.

Amy Beers, Superintendent, Jefferson County Hospital, Fairfield, Iowa, was an early crusader for affiliations to be used to strengthen nursing education. She envisioned the County Hospital to be used as a Health Center. In 1924,she described her idea of nursing education as follows:

> Affiliations can be arranged with the college of the community and with the state university so that the educational facilities may be increased. These affiliations may be both for theoretical and practical instruction (Beers, Feb. 1924, p. 120).

Practicing nurses and the Iowa Board of Nursing were interested in improving the standards of the training schools. The Iowa State Association of Registered Nurses financially supported a system of monitoring schools. Members of the Iowa Board of Nursing looked for ways to inform the public about the ability of the schools of nursing to provide education to its students.

Inspection of Schools

In the fall of 1926, the State Association of Registered Nurses assumed the financial responsibility of the work of a training school inspection. In January, 1927, the Forty-second General Assembly created a Division of Nurse Education. The educational director conducted a preliminary survey during 1927 to ascertain the number of schools that were actually meeting the requirements for accredited schools.

> After this survey, the accredited list was changed by the removal of five schools; two closed voluntarily, two were removed by the board and one closed by mutual

> consent.
> Total number of accredited schools January, 1927..54
> Total number of accredited schools July, 1927.....49
> Total number accredited schools January, 1928.....51
> Total number accredited schools July, 1928.....51
> (Twenty-third Biennial Report of the Iowa State Department of Health, June 30, 1928, p. 117).

On August 30, 1927, Miners Hospital, Albia, Iowa, by voluntary request was removed from the list of accredited schools (Board of Nursing. Minutes, 1927a). In January of 1928, Dr. Albert, a member of the Iowa Board of Nursing, suggested the grading of training schools as A, B, and C rather than of accredited or nonaccredited. He also recommended that the list of schools when so classified, be published in the Department Bulletin and sent to Nurses, High Schools, and Presidents and Secretaries of Business and Professional Women Clubs (Board of Nursing. Minutes., January 28, 1928).

In addition to the requirement of securing affiliation, the Iowa Board of Nursing began to specify the number of students necessary in order for schools to become accredited. By 1932 the requirement for student numbers was at least twelve.

> No school with fewer than twelve students shall be accredited. The ratio of students to patients shall depend upon the hospital and the need for affiliation but in general should be one student to two patients (Iowa Health Bulletin, June 1932, p. 8).

Iowa had a number of schools with enrollment of students so small as to question the ability of the school to conduct actual classes in nursing theory. An example of low enrollment was the St. Joseph Hospital School of Nursing in Centerville. This school averaged three graduates a year. If one could assume a three-year program with three students

in each class the school would have a total of nine students at any one time.

> St. Joseph Hospital School of Nursing, Centerville, Iowa, began its school in 1910. By 1935 the school had graduated 75 nurses. The school closed in July 1935 and transferred its Junior and Freshmen students to Mercy in Des Moines (Iowa State Association of Registered Nurses Bulletin, September 1935, p. 23).

The publicity given to the findings of the Grading Committee on excess production and unemployment helped to bring about, during the years 1929 to 1932, a reduction in the total number of nursing schools. The open discussion about the poor education received by nurses who attended classes in small hospitals caused Boards of Nursing to examine the bed capacity of hospitals. It would be obvious that a hospital with a bed capacity of 35 and an occupation rate of 50% would really have only 14 patients available for clinical learning. The Iowa Board of Nursing slowly raised the requirement of the daily patient average census required for the operation of a nursing school.

> In January, 1930, the board of nurse examiners increased the daily patient average required of hospitals wishing to have their schools of nursing accredited. The requirement is now that there shall be a daily patient average of twenty-five. This raised requirement has been responsible for the action taken by certain hospitals in discontinuing their schools rather than maintain non-accredited schools. It will probably result in others taking the same action (Twenty-fourth Biennial Report of the Iowa State Department of Health, June 30, 1930, p. 68).

The effect of raising the daily patient average requirement of hospitals wishing to have their schools of nursing accredited brought about the anticipated response by the hospital training schools.

Accredited Schools of Nursing According to Bed Capacity of Hospitals:

Bed Capacity	July 1, 1928	July 1, 1930
35 to 49	11	8
50 to 99	19	19
100 to 500	21	21
Over 500	1	1
Total	52	49

Two hospitals of the 35 to 49 capacity group discontinued their schools from choice during 1929 and one during 1930 previous to July 1st. Three other hospitals from this group will admit no more students and will discontinue their schools when the students now in training have been graduated (Twenty-fourth Biennial Report of the Iowa State Department of Health, June 30, 1930, p. 68).

Iowa nursing educators were interested in reducing the number of graduates. "A decrease in the number of students seems imperative owing to the great oversupply of graduate nurses and consequent unemployment. One in every eighteen women gainfully employed in the state of Iowa is a nurse according to the 1930 census" (Twenty-fifth Biennial Report of the Iowa State Department of Health, 1932, p. 8). The Iowa Board of Nursing was concerned about the overproduction of nurses and worked to alleviate this condition. The Board stated one of its goals in the 1930 report as:

> Secure the cooperation of larger hospitals in decreasing the number of student nurses admitted to training in an effort to reduce the oversupply of nurses (Twenty-fourth Biennial Report of the Iowa State Department of Health, June 30, 1930, p. 69).

The report of the Committee on the Grading of Nursing Schools criticized the existent form of apprenticeship teaching. Far too often hospital schools of nursing employed only the director of the school who was also to act as the instructor.

The executive position of the school of nursing was not a stable one. The monthly reports from all accredited schools indicated to the Iowa Board of Nursing that there were frequent changes. The Twenty-fourth Biennial Report of the Iowa State Department of Health indicated "one small hospital reported fifteen changes of supervisors in one year. Another has reported as many as four changes in superintendents of nurses within one year" (June 30, 1930, p. 67).

During the early 1930s, Maude E. Sutton, R.N., Director of the Division of Nurse Education, reported on the conditions of the nurse training schools. She had been working with the Hospital Board of Directors to discover the needs of student nurses in receiving an adequate education.

> There is also an increased insight into the needs of the schools. Improvements in hospital buildings and equipment have been steady. There is a decided increase in the number of full-time instructors employed. All but six [out of 37] schools in the state now employ full-time instructors. Facilities for supervision are greatly improved . . . . All students accepted after April of that year [1930] were high school graduates. The requirement effective September 1, 1932, will be the same as college entrance requirements (Twenty-fifth Biennial Report of The State Department of Health, June 30, 1932, p. 8).

Health Conditions for Iowans

Although the Board of Nursing was working to improve the standards of education of the nurses within the state, Iowa was not vitally interested in health care. The health of Iowans in 1930 was in some respects much poorer than the health throughout the nation.

> For the Biennium, 4,942 cases of smallpox were reported. This is 2,283 more than were reported for the previous two-year period. This is an increase of 86% and is greater by far than should occur in the face of the present possibilities of protection against the disease . . . It has been said that community conscience may be measured by the amount of smallpox present. It is a fact that a town or city may or may not have smallpox, as it wishes (Twenty-fourth Biennial Report of the Iowa State Department of Health, June 30, 1930, p. 31).

There were 214 deaths out of 1,832 cases of diphtheria reported for the biennium ending June 30, 1928 (Twenty-fourth Biennial Report, 1930, p. 24). The year 1929 saw the largest number of cases of typhoid fever ever reported in Iowa and was 67 cases more than the previous high record of 221 in 1927 (Twenty-fourth Biennial Report, 1930, p. 34).

In 1930 there were only six states in the United States that did not have a Division of Child Hygiene. Iowa was one of the six. The Iowa State Department of Health urged the establishment of a Maternity and Child Hygiene Division following the report of the White House Committee on Child Health. The creation of such a division would permit Iowa to receive federal aid for the protection of the health of mothers and children (Twenty-fourth Biennial Report of the Iowa State Department of Health, June 30, 1930, p. 16). It appeared as if Iowans were not interested in the provision of health care.

Conditions in Iowa Nursing Schools

The struggle to improve the weaknesses of the nursing schools was a long hard one. The most outstanding weaknesses were lack of teachers, inadequate equipment for teaching, and inadequate time for preparation and study. Students were often assigned irregular clinical hours with

inadequate supervision and crowded and unattractive living conditions, which created a psychological atmosphere unfavorable to learning. The Iowa Board of Nursing heard a somewhat typical report from a School of Nursing.

> Report regarding the Atlantic Hospital Training School for Nurses, Atlantic, Iowa, by Miss Anna Drake, R.N.
>
> Visited Atlantic Hospital January 20, 1922, met Miss Donnelly, Superintendent of Training School. Find that various recommendations to the Board [Hospital Directors] have not been acted upon. The nurses are still housed in the hospital. Four of them sleeping in two double beds in a small room. There is no classroom or demonstration room. Classes are held in the dining room, the only equipment being a small blackboard. There are no records of any classwork and no grades for practical or theoretical work. The only record gives the time of day duty, night duty, hours off, days off and vacations. Nurses have been accepted with less than the educational requirements of one year of high school. The hospital building is very good. The superintendent of nurses has recently equipped a sun parlor very comfortable as a sitting room for the nurses. Prior to this there was only a small room in the basement which the nurses could use . . . recommended that since the Hospital Board has not compiled with the recommendations for bringing their training school to meet the requirements of accredited schools in Iowa, this school be stricken from the accredited list of this Board (Board of Nursing, Minutes, p. 84-85).

The educational preparation of students in nursing programs was a matter of concern for the Iowa Board of Nursing. The attrition rate of nursing students was partially credited to the fact that the student was "unable to grasp" the work or because of "unsuitability either scholastically . . . and inability to grasp the practical work" (Twenty-fourth and Twenty-fifth Biennial Report of the Iowa State Department of Health, 1930 & 1932, p. 67 & p. 9).

Being of the opinion that students needed to have an academic background to be successful in nursing schools, the Board of Nursing raised the requirements for entrance from two years of high school to four years. The requirement became effective after April 15, 1930.

> This change will meet no hardship to hospitals since ninety-four percent of the students admitted in 1929 were high school graduates and thirty-three of the fifty accredited schools were already requiring graduation from high school (Twenty-fourth Biennial Report of the Iowa State Department of Health, pp. 67-68).

The news of this change was published in the Iowa nurses' publication of April 30, 1930. "The requirements for entrance into nursing programs was raised to 15 units of high school which is equal to high school graduation" (Iowa State Association of Registered Nurses Bulletin, April 1930, p. 23).

The Board of Nursing established graduation from high school as a requirement in 1930. At the same time the 43rd General Assembly of Iowa passed an act "which fixed graduation from a four-year high school and 12 weeks of normal training on the college level as the minimum standard for teacher certification" (Hart, 1954, p. 168).

Many of the problems of nursing service had been attributed to the nurses' immaturity. Almost one-half of the students who entered nursing programs were eighteen years old or less. The Iowa Board of Nursing had a difficult time enforcing the age requirement.

> The Director of Nursing Education was instructed to send a letter to the Superintendent of Nurse Training Schools of such Hospital upon our accredited list emphasizing certain requirements which must be met . . . . It was recommended that individual letters be written to the St. Joseph's Mercy Hospital and St. Vincent's Hospital, Sioux City, Iowa, and Mercy Hospital, Council Bluffs,

> Iowa, calling their attention to the discrepancy in birth dates and in the ages between student personnel record and applications for examination of five students from these schools, and that a copy of Miss Ankeny's letters be attached to and made a part of these minutes (Board of Nursing. Minutes, October 29, 1927b).

When the qualified applicants to the nursing programs decreased, the hospital training schools were inclined to lower the standards in an effort to fill the class.

> The need for more careful selection of students is constantly stressed and greater care is being exercised . . . . There is also a tendency on the part of the schools to raise the minimum age requirement from eighteen to nineteen years (Twenty-fifth Biennial Report of the Iowa State Department of Health, June, 30, 1932, p. 8).

The problem of age continued for several years. However, the Educational Director of the Board of Nursing was visiting the schools of nursing more frequently, so problems of students being too young, but also too advanced in their nurse training program to quit, were solved promptly and on the site.

> Betty Brock was admitted as a student nurse in Mercy Hospital, Council Bluffs, September 7th, upon full knowledge of the hospital that she was under age (not being 18 until December 13th). She was sent home at the direction of the Educational Director, to return next year (Board of Nursing. Minutes, 1936, p. 25).

Slowly but surely the development and implementation of standards, such as high school graduation of students, adequate number of patients for clinical facilities, and the requirement of affiliation for services not available, caused hospital boards of directors to examine their schools of nursing. In many cases the hospital boards did not wish to expend additional funds for nurse education. They elected to close

their schools.

> Accredited Schools of Nursing:
> Total number of schools, July 1, 1932....37
> Total number of schools, July 1, 1934....32
> (Twenty-sixth Biennial Report of the Iowa State Department of Health, June 30, 1934, p. 223).

The public announcement of the closing of a training school often gave insight into the confusion that existed in the mind of the administrator as to the role of the student as compared to the role of the graduate nurse.

> The hospital now has an alumni of 34 nurses, with four more eligible as soon as they pass the state board requirements. Five nurses, who are the class of the training school, were graduated June 19th. Soon after that time the training school was changed to a staff of graduate nurses, with the exception of one student whose term expires in December on account of previous illness. Jessie Joyce, Superintendent (The Monticello Express, November 5, 1931, p. 8).

The weakness of the nurse training program, inadequate teachers, long hours of ward service, and excessive and unproductive night duty caused many students to leave the training school before the completion of their studies. Reports of reasons as to why students left nursing reflect the hardship of the training program.

> 1,403 students were admitted to nursing programs between July 1, 1930, and June 30, 1932. Of these, 399 left the program. There were five deaths, three left to enter college, three to accept positions, and one to enter a convent (Twenty-fifth Biennial Report of the State Department of Health, June 30, 1932, p. 8).

The Iowa Board of Nursing was deeply concerned about the expense of a high attrition rate--the expense to the hospital school of nursing in terms of turnover and the expense of maintaining and giving basic

teaching to applicants who could not meet the advancing standards of nursing schools or of the service agencies employing nurses.

> Of the 1,155 students admitted 265 or approximately 23 percent have already dropped out of the schools. During the preceding biennium 28.4 percent of those admitted left during the two-year period. Again the largest group--about one-third of all those who leave--was dropped because of unsuitability, that is, inability to carry the theoretical work . . . inability to grasp the practical work (Twenty-sixth Biennial Report of the Iowa State Department of Health, June 30, 1934, p. 224).

Nursing educators suggested the institutional program be set up in terms of a six-day and forty-four to forty-eight hour week, which included all organized classwork, clinical experience, and ward teaching. In addition, at least two hours daily were reserved for study and two hours for social, recreational, and other activities. The entire suggested program should include a four-week vacation each year. The entire course should cover a period of from two and one-half to three calendar years.

Information obtained by questionnaire sent to thirty-one schools of nursing describe the conditions for student nurses in Iowa in 1937.

> Length of student week ranged as follows:
> 3rd year students 44 to 65 hours per week
> 2nd year students 48 to 67 hours per week
> 1st year students 48 to 66.5 hours per week.
> Several schools were requiring 12 hour night duty of students. First year students were being placed on night duty before the end of their second semester. First year students were being placed on duty on pediatric and obstetric wards in many instances . . . . Hence the overbalanced program of surgical experience for most of our students (Board of Nursing. Minutes, 1937, p. 35).

Scientific knowledge was expanding. Nurses were expected to learn to perform new nursing procedures. The educational process of observing and reasoning had been unduly subordinated. Too much emphasis had been placed upon the arts of pleasing and too little on problem solving. Well-educated, experienced faculty was not available. The Goldmark Study reported:

> A full-time instructor was found in only one-half of the schools in 1932 and only one-quarter had more than this number (Stewart, 1943, p. 209).

The situation in Iowa was quite similar:

> Two schools [out of 31] had employed new graduates from the five-year combined course. The graduates did not have preparation or experience in teaching (Board of Nursing, Minutes, 1937, pp. 35-36).

Some Iowa schools began to find ways to strengthen the academic background of their students.

> Nineteen of the accredited schools for nursing in Iowa have availed themselves of the provision of the Board of Vocational Education by which theoretical work for student nurses may be secured in local high schools. Subjects most frequently given are: Dietetics, Chemistry and Psychology (Iowa State Association of Registered Nurses Bulletin, April, 1924, p. 3).

With the rapid growth of junior colleges (the number doubled in the thirties) and with a much higher proportion of young women attending four-year colleges, educators estimated that it was relatively easier for American girls to secure two years of college education in the 1930s than four years of high school in 1900.

Early Junior College Affiliation

The junior college movement spread in Iowa in the early 1930s and many hospital schools of nursing began to investigate the possibility of having their basic science courses taught at the junior college.

The Reorganized Church of Jesus Christ of Latter Day Saints made Lamoni, Iowa, its headquarters from 1881 to 1920, moving their national headquarters to Independence, Missouri, after that date (Petersen, 1952, p. 743). The church operates Graceland College at Lamoni in Decatur County. In 1932 Graceland College and Washington Junior College were granting a certificate for the completion of basic science courses to nursing students (Ringheim, 1932, p. 972).

There are other examples of nursing schools using junior colleges for an affiliation and provision for basic science courses.

> Mercy Hospital, Cedar Rapids, Iowa
> The students go to Mt. Mercy College for Anatomy and Physiology, Microbiology and Chemistry.
> Students are receiving their instruction in Anatomy and physiology and Bacteriology at Ottumwa Heights College (Board of Nursing. Minutes, 1937, p. 57).

Boards of Nursing were created to control the profession. In addition to developing regulations for the schools of nursing, the Iowa Board of Nursing had to assume the responsibility of granting a license to qualified individuals. The licensure process included the passing of an examination.

One of the major functions of the Board of Nursing was the development of a state board examination. The traditional methods of testing which stressed the memorization of facts or principles and the mastery

of standardized nursing skills were used.

Board members wrote the questions for the examination:

> Assignment of subjects for examination
> Schedule of Questions for Nurses' Examination
> Section 1. Martha Kratzschmar
> Surgical Nursing
> Medical Nursing
> Pathology ----- 10 questions
> Section 2. Martha Kratzschmar
> Practical Nursing
> Nursing in Nervous and Mental Diseases
> Ethics ----- 10 questions
> Section 3. Sara O'Neill
> Obstetrics
> Gynecology
> Hygiene and Sanitation -- 10 questions
> Section 4. . . . .
> (Board of Nursing, Minutes, October 31, 1924).

State Board questions were all essay type. Some of the State Board Questions in 1933 were:

> Define: Metabolism, anabolism, assimilation, elimination and excretion.
> What is the relative food value of starches, protein, and fats?
> What diet would you give a patient who has Tuberculosis?
> What is Croup? Scurvy? and Rickets?
> Give preventive measures for the last two.
> Discuss the nursing care of a case of Eryslpeias.
> Name three diseases where it is necessary to quarantine the patient and his attendant
> (State Board Examination Booklet, 1933).

Grading essay questions is difficult and for the most part the Board of Nursing gave the student the benefit of doubt on the state board examination:

> It was moved by Zichy, Seconded by Stoddart, that Mr. Grefe refer to Miss Sutton any papers that average between 74 and 75 and if she sees fit, she may raise grade to 75 to pass. Carried
> (Board of Nursing, Minutes, January 28, 1928).

Practical Nursing

Although the number of attendants, aides, practical nurses and other varieties of subsidiary workers was apparently increasing during this period, Iowa did not provide for legal recognition of any nursing except the qualified nurse. Some home nursing courses were being conducted to teach people how to provide nursing care for their families. In Fredericksburg, Iowa, Miss Susan Lenz, of New Hampton, the Chickasaw county Nurse, conducted a short course in nursing. The course was six weeks long and consisted of tests and practical demonstrations (Trained Nurse and Hospital Review, 1921a, p. 162).

New schools were developing for the training of practical nurses. Most of the schools were forming without the knowledge or consent of the Board of Nursing. The educational director was requested to visit the schools to determine their objectives. Many schools that had to give up their professional nursing programs reopened their schools for bedside nurses of a lower grade. The argument of most of the smaller institutions was that they and their communities needed nurses, and that the only sure supply of nurses was the local school.

> Report of the Field Inspector:
> Visited the following hospitals and registries since August meeting:
> 1. Hamburg
> Bed Capacity - 16
> Owned by Dr. R. C. Danlay
> Two Graduates employed (one registered in Iowa)
> Six (6) students enrolled. Length of course indefinite
> Requirements for entrance -
> At least 18 years of age
> High School graduate
> Certificate and pin given upon completion of course.
> Graduates remain in employ of hospital.

2. Hand - Shenandoah
Training School organized in 1922
Mrs. Harry Day, R.N., Superintendent
Five (5) registered nurses employed.
Two year course,
Twelve (12) students enrolled.
Requirements for entrance
At least 18 years of age.
High School graduate
Students pay for uniforms and books
Certificate and pin given upon completion of course
Hand graduates charge $4.00 a day and compete with the registered nurses in the community.

4. Atlantic
Ten (10) subsidiary workers employed
They receive their instruction in the care of the sick in this hospital and remain in the employ of the hospital.

(Board of Nursing. Minutes, 1939a, p.115).

The Field Inspector continued to investigate schools of nursing that began programs without the sanction of the Board of Nursing. The philosophy of the school was quite well explained during the investigation of the Nevada Sanitarium.

Nevada, Iowa, Sanitarium and Hospital
Conferred with Dr. Paul Chaplin, M.D., Medical Superintendent, regarding unregistered nurses and subsidiary workers. On November 1st, six girls were admitted to nine months' course - requirements, high school graduate and over 18 years of age.
Formal class room instruction
Care of the sick - taught by Esther Statz
Bible - taught by Chaplain
Hydrotherapy - taught by Mrs. Dahl
Physiology - taught by Dr. Chaplin
Students are paid 14¢ per hour for the first three months. Out of this sum they pay for their board, uniforms and laundry. At the end of three months their pay is increased to 15¢ an hour. Dr. Chaplin said that the Sanitarium Board had desired to start such a course for several years. They considered that their institution had a duty to fulfill as a training center. Also that there was a need for some type of worker for people who couldn't afford the services of a Registered Nurse.

> Another reason he offered for establishing such a course was the possibility of war involving this country. He suggested that if such circumstances did materialize there would be a need for such workers to replace Registered Nurses who would be called into service. The course apparently is an experiment, and I gather it was the "brain child" of the Board of Directors. The Medical Superintendent does not anticipate reducing the number of general duty nurses employed. Soon after the course was started an official from the headquarters of the Seventh Day Advantist Church visited the Sanitarium. She called the students together and explained to them that such a course would not have legal or professional standing (Board of Nursing, Minutes, 1940, p. 126).

Schools for practical nursing were under private auspices until after the passage of the Smith-Hughes Act and the George Deen Act in 1917. The courses were short--varying from a few weeks to several months. After the passage of the Smith-Hughes Act in 1917, permission was given to use federal funds allocated to the trade and industry division of state vocational education for teaching courses in practical nursing. Several schools in Iowa availed themselves of the funds although they were not educating practical nurses at the time.

> Discussion of Smith-Hughes Fund. The Director of Nursing Education reported that no Accredited School of Nursing in Iowa is using the Smith-Hughes Fund at present. Until recently the following hospitals have made use of the Fund: Lutheran, Sioux City; Jane Lamb, Clinton; Evangelical Deaconess, Marshalltown; Iowa Lutheran and Broad Lawns in Des Moines (Board of Nursing, Minutes, 1939b, August, p. 102).

Although throughout the ages men had been involved with nursing responsibilities, many hospitals accepted only women students. In the early history of the United States some hospital schools were established exclusively for men. The Mills School of Male Nurses was established at Bellevue Hospital in 1888, and in 1914 the School of

Nursing for Men of the Pennsylvania Hospital was founded in Philadelphia (Jamison et al., 1966, pp. 363-364).

In 1938,the Law of Iowa as it Pertains to the Practice of Nursing very clearly stated the philosophy of the state in regard to men in nursing programs.

> Male students are urged to choose a school of nursing having special facilities for their education. Such facilities are not available in Iowa (p. 13).

Summary

The role of the nurse had been molded by the social concept of woman's role in society. The male-dominated society of this period of time viewed the status of the physician as superior, and the role of the nurse was seen to be a subservient and dependent one. The success of the feminist movement improved the whole place of women in society.

The George-Reed, George Ellzey, and George-Dean Acts all provided for the expansion of vocational education. The demand for vocational classes in high schools led to a shortage of teachers for secondary-level instruction in agriculture, industry and home economics.

As America entered World War I, the country faced the enormous challenge of providing sufficient nurses for the civilian as well as the military population. Schools were requested to increase their admissions by about 25 per cent. The increase of nursing students during World War I was short-lived. When the Armistice was signed and the influenza epidemic abated, many students dropped out of their nursing program. The shortage of nurses led to a decline in care and a corresponding lowering of the status and prestige of nursing.

Iowa increased the educational opportunities for youth by the consolidation of the rural school districts. Junior colleges in Iowa increased in number. In 1930, the educational requirement for school teachers was graduation from high school and 12 weeks of teacher training at a college. The educational requirement for nurses during the same period of time was completion of four years of high school plus three full years of training in a hospital school of nursing.

The number of schools of nursing increased to an all-time high in the late 1920s. Very soon the graduate nurse could not find employment, and competition for jobs intensified. Schools of nursing were established in Iowa by the Sisters of Mercy, Sisters of St. Francis, the Deaconess Society and Methodist groups.

The Goldmark Report pointed out that hospital administrators viewed nursing students as a necessity, and because their labor could be utilized at a very low cost under an apprenticeship program, the number of nursing schools rapidly increased. Far too many nurses were graduated without adequate training. The training of a subsidiary group was a recommendation of the Goldmark study.

The study by the Committee on the Grading of Nursing Schools, which pointed to the oversupply of nurses, inadequate wages, poor training and paucity of clinical resources for existing educational programs, had an impact on Iowa schools. The Iowa Board of Nursing began to raise the requirements and standards for the programs. Schools that could not meet the requirements closed. Some of the smaller rural schools became interested in establishing a program for attendants.

Iowa was ready for a change in the educational pattern for nurses.

Amy Beers was calling for affiliations with community colleges and universities to strengthen nursing programs in 1924. Iowa had 16 public junior colleges, but the time for the change had not yet come. Too many nurses were emotionally tied to the past. The vested interest groups ignored or challenged the incriminating data of the studies.

Hospital administrators viewed nurses as a inexpensive source of labor for nursing care and hospital housekeeping. Many viewed nurses as "angels of mercy" because they worked such long hours, and so hard, for such little pay. Nurses were encouraged to take orders from physicians and become handmaidens to them. Rural areas of the nation were in short supply of student nurses. Hospital administrators in these areas campaigned for nursing schools to train a subsidiary group because they thought that the less educated would stay in rural areas and would work for less money.

As the Depression abated, the catastrophic international conflict of the second World War menacingly loomed on the horizion. It would have a dramatic impact on the profession of nursing for many years.

CHAPTER FIVE: NURSING EDUCATION IN MID-TWENTIETH CENTURY AMERICA 1941-1968

The National Scene

The results of war during the early 1940s brought destruction and despair to a considerable portion of the world. However, during this period, America was pushed into a position of world leadership. This leadership was challenged by the Soviet Union. The United States alternated between periods of "cold war" and confrontation in Korea, South Vietnam, and Middle East and Latin America.

The feats of physicists and engineers brought phenomenal changes to the practice of medicine and nursing. In the decade between 1940 and 1950, advancements in atomic medicine, tropical medicine and treatment of war injuries--including blood, bone and tissue banks--became a reality. Powerful drugs such as Atabrine (a substitute for quinine), antihistamines, cortisone and radioactive isotopes were produced. Supersonic and ultrasonic vibrations were discovered to be useful in medical practice. Corrective surgery for "blue babies" and cancer detection tests became available.

The years since 1950 have witnessed the evolution of space medicine, the Salk vaccine for the prevention of polio, and the laser beam. Surgical operations such as open heart surgery and organ transplants have been developed and perfected.

Scientific equipment such as electronic monitoring, automatic thermometers, dialysis equipment, inhalation therapy and data processing

and computers are now common in patient care. The electron microscope had extended the observation of viruses.

Medical missionaries such as Dr. Albert Schweitzer and Dr. Tom Dooley worked to promote good will throughout the world, while at home Rachel Carson's Silent Spring (1962) and Ralph Nader's Unsafe at Any Speed (1965) roused the public into a fight for public health.

Americans discovered that the federal government was big business under four successive Roosevelt administrations. Truman's Fair Deal, Kennedy's New Frontier and Johnson's Great Society fostered the growth of governmental power. Most Americans looked to the federal government as a way to secure "the American way of life." However, discrimination in areas of race and inequality of the sexes prevented all Americans from sharing equally in the "good life."

The Federal Government and Public Health

The Fourth White House Conference on Children and Youth in 1940 was responsible for the Emergency Maternity and Infant Care Act being passed in 1942. The 1946-47 Hill-Burton Hospital Construction Act and the 1948 report of the nation's health were also a result of the Conference (Dolan, 1978, p. 256).

The passage of the Federal Social Security Act in 1935 laid the foundation for the Medicare program of 1965. The parallel Medicaid program, established to assist those who are faced with the problems of poverty, has focused attention on the third-party payments to nurses for delivery of care (Bullough, 1973, pp. 1926-1929).

The Federal Government and Education

The years of war brought inevitable changes in the student population. When the war ended, the returning veteran had a "right" to further education. The number of students nationally attending institutions of higher education increased by almost a million. Quonset huts were relocated on campuses and temporary houses were constructed to accommodate the increased number of married students (Eddy, 1956, p. 203). By 1951-52, land-grant institutions were enrolling 17.2 percent of all students in all types of institutions of higher education in the country. Of all earned degrees, the land-grant colleges were conferring 96 percent of veterinary medicine, 20 percent of medical doctors, 33 percent of pharmacists, and 15 percent of nurses (Eddy, 1956, p. 204).

In 1946 Congress passed the George-Barden Act which authorized federal spending for vocational guidance. The Vocational Education Act of 1963 was the first major revision of vocational education legislative provisions. It updated the technology of programs and provided additional funds.

As a result of the Supreme Court's decision in Brown vs. Board of Education, segregation in the public schools was outlawed in 1954. The provisions of the Civil Rights Act of 1964 denied funds for education if there was any evidence of discrimination (Meyer, 1967, p. 398).

Up to 1957, federal funds had been allocated for vocational courses. However, following the Russian launching of Sputnik I, the National Defense Education Act (NDEA) of 1958 provided federal funds

for science, mathematics, foreign languages, and other services. The social sciences, English and reading were included under the NDEA amendments during the 1960s.

In 1965 the Elementary and Secondary Education Act (ESEA) was passed and federal support of public education reached billions of dollars. Provision was made for private and parochial schools to receive funding for services to pupils. The American public recognized the need for financial aid to schools and supported legislation appropriating funds to be spent for education.

Elementary Education

The baby boom which followed the end of World War II brought about an increase in elementary enrollments beginning in the 1947-48 school year. Pre-school nursery schools provided early group social experiences for children.

The development of audio-visual materials and creative instructional technology added dimensions to learning.

Secondary Education

During the 1940s the number of high school students declined because of the decreased birthrate during the depression of the late 1920 and early 1930s. Following the Brown's decision by the Supreme Court, enrollment in private schools increased while public school enrollment declined (Butts, 1953, p. 570). However, the trend reversed in favor of the public schools during the 1960s.

The comprehensive high school as advocated by James B. Conant was more typical than high schools, with a primary aim for college preparation or vocational education. There was little agreement by the public and by educators as to the curricula or standards of secondary education (Good & Teller, 1973, p. 474).

Higher Education

Postwar college and university enrollments steadily increased as a college education became more essential and accessible to a larger number of individuals. The growth of junior colleges, particularly in the West, was phenomenal. The number more than doubled, and enrollment reached almost two million by 1956 (Good & Teller, 1973, p. 451).

The curricula expanded to meet the growing technology and international expectations. The core course requirements lessened as better prepared students and new areas of learning increased.

Education of Teachers

The lower birthrate of the depression years of the 1930s brought about a teacher shortage during the late 1950s and early 1960s. Increased college enrollments eased the situation somewhat; however, specific areas such as science, mathematics, and elementary education continued to experience shortages (Pounds & Bryner, 1973, p. 418).

By the late 1960s, completion of a four-year college program was required for teachers in most states. However, because of the shortage of elementary teachers, emergency certificates were being issued to those who had not completed college. Summer sessions and extension

courses assisted these teachers in meeting the professional requirements for certification.

Education in Iowa

The legislation regarding reorganization of school districts essentially eliminated one-room schools in Iowa. Student enrollment increased at all levels following World War II. New subject areas and teaching methods were introduced. In 1953 the state department of public instruction was reorganized and continued to expand its services and upgrade teacher certification requirements.

Elementary Education

Between the ten-year span of 1948 to 1958, one-room schools in Iowa decreased more than 50 percent--from 5,561 to 2,067. As district reorganization grew; the number of remaining one-room schools declined until in 1963-64 only 195 one-room elementary schools remained (Iowa Department of Public Instruction Reports, 1965, p. 14).

The curriculum of the elementary school was directed toward academic and practical arts of home economics, industrial arts and the related activities of health, guidance, library experiences, art, music, and physical education. More specialized services were available to individual students.

Secondary Education

Major changes in the curriculum at the secondary level were initiated and supported by federal and state funds. Vocational training

such as off-farm agricultural occupations, vocational home economics, and trade and industrial education courses increased immediately following the war. Later, the Vocational Education Act of 1963 provided both for the extension of previous programs and for the development of new ones such as health occupations education, home economics occupations, distributive education and office occupations (Data on Iowa Schools, 1967-1968, 1969, p. 165).

Iowans recognized the need to provide a guidance service to students in preparing for the future. In 1959 only 11.5 percent of Iowa's public school districts had an approved guidance program. By the 1967-68 school term, this number had increased to 78.5 percent (Iowa Department of Public Instruction Reports, 1950-52, p. 50 and 1966-68, p. 71).

In 1953 the Fifty-fifth General Assembly changed the consolidation law into a community school district unit which would eliminate many small and weak school districts (Sage, 1974, p. 331). During the four-year period from July 1, 1954, to July 1, 1958, the number of districts maintaining a four-year high school were reduced from 819 to 745. The Iowa legislature further required all non-12 grade districts to become attached to high schools by July 1, 1966. Five districts failed to comply by 1968, giving Iowa a total of 460 school districts with 455 high schools.

Higher Education

The junior college movement reached a peak in Iowa shortly before World War II. During the war, the number of junior colleges declined

leveling off at a total of 16. No new public junior colleges were established from 1947 until 1953. However, enrollment in the existing colleges more than doubled during the period between 1955 and 1965. The names and dates of the organization of Iowa Public Junior Colleges in 1966 are as follows:

College	Date Organized
Mason City Junior College	1918
Burlington Community College	1920
Fort Dodge Community College	1921
Clarinda Community College	1923
Estherville Junior College	1924
Creston Community College	1926
Webster City Junior College	1926
Boone Junior College	1927
Marshalltown Community College	1927
Eagle Grove Junior College	1928
Ellsworth Community College, Iowa Falls	1929
Muscatine Community College	1929
Centerville Community College	1930
Emmetsburg Community College	1930
Clinton Junior College	1946
Keokuk Community College	1953

(Iowa Official Register, 1965-66, Des Moines: 1966, p. 244).

The first law authorizing the establishment of public junior colleges in Iowa was enacted in 1927 by the Forty-second General Assembly. However, as the colleges extended their services more and more into the areas of terminal, technical and adult education, they have come to be looked upon as community institutions. Consequently, the Fifty-eighth General Assembly in 1959 amended the law to enable these institutions to be designated as community colleges.

In 1949 provision was made for a system of state aid of 25 cents per day of attendance for each full-time student. A full-time student was defined as carrying 12 or more semester hours of college work. In 1957 the Fifty-seventh General Assembly increased the amount to one

dollar per day (Iowa Official Register, 1967-68, 1968, pp. 257-259).

Area community colleges and vocational schools. The public community college system was reorganized by the Sixty-first General Assembly to provide for area vocational schools and area community colleges. Under Chapter 280 A, Code of Iowa, six area community colleges and five area vocational schools were organized within the last six months of the biennium ending June 30, 1966. Others were in the process of becoming formally organized and by June 30, 1967, four more area community colleges were formally organized and the area school at Ottumwa had achieved the status of a community college. The allocation of state aid increased to $2.25 per day for Iowa students.

The fifteen merged area schools and their administrative centers are as follows:

Merged Area	Administrative Center
Area I Vocational School	Calmar
Area II Community College	Mason City
Area III Community College	Estherville
Area IV Vocational School	Sheldon
Area V Community College	Fort Dodge
Area VI Community College	Marshalltown
Area VII Vocational School	Waterloo
Area IX Community College	Davenport
Area X Community College	Cedar Rapids
Area XI Community College	Des Moines
Area XII Vocational School	Sioux City
Area XIII Community College	Council Bluffs
Area XIV Community College	Creston
Area XV Community College	Ottumwa
Area XVI Community College	Burlington

Area Eight, which included the city of Dubuque and the counties of Dubuque, Jackson, and the majority of Delaware county, did not organize into an area system.

By the fall of 1967, the fifteen community colleges and area vocational schools were scheduled to offer programs. The missions of the schools were similar in that both the community colleges and area vocational schools offered diversified programs:

1. Vocational and technical training.
2. Programs for in-service training and retraining of workers.
3. Programs for high school completion for students of post-high school age.
4. Programs for all students of high school age who may best serve themselves by enrolling for vocational and technical training while also enrolled in a local high school, public or private.
5. Student personnel services.
6. Community services.
7. Vocational education for persons who have academic, socioeconomic, or other handicaps which prevent them from succeeding in regular vocational educational programs.
8. Training, retraining, and all necessary preparation for productive employment of all citizens.

In addition to the above, community colleges also offered the first two years of college work, including pre-professional education (Iowa Official Register - 1967-1968, 1968, p. 258).

The organization of the community colleges and area vocational schools in Iowa had a profound impact upon the education of vocational and technical nurses within the state. The funding of the area schools was provided for through a combination of federal, state, and local funds and student tuitions. The Vocational Education Act of 1963 recognized health occupations education as a vocational program. The new fifteen area schools were anxious for programs and students. General state aid was distributed to the area schools on the basis of $2.25 per day for the average daily enrollment of full-time students and the full-time equivalent of part-time students.

The area community colleges and vocational schools grew in programs and number of students. Fifteen of the sixteen junior and community colleges merged with the area schools. The one public college that remained outside the system of area schools in 1970 was Emmetsburg Community College in Emmetsburg, Iowa.

The schools and their full-time enrollment and full-time professional staff for the fall term of 1968 was as follows:

School	Enrollment	Staff
Area I - Northeast Iowa Area One Vocational-Technical School, Calmar	297	37
Area II - North Iowa Area Community College, Mason City	1,635	103
Area III - Iowa Lakes Community College, Esterville	847	58
Area IV - Northwest Iowa Vocational School, Sheldon	171	23
Area V - Iowa Central Community College, Fort Dodge	1,691	150
Area VI - Area VI Community College, Marshalltown	2,028	117
Area VII - Hawkeye Institute of Technology, Waterloo	737	52
Area IX - Eastern Iowa Community College, Bettendorf	1,431	123
Area X - Area X Community College, Cedar Rapids	1,242	137
Area XI - Des Moines Area Community College, Ankeny	974	134
Area XII - Western Iowa Tech. Sioux City	345	43
Area XIII - Iowa Western Community College, Council Bluffs	853	65
Area XIV - Southwestern Community College, Creston	449	35
Area XV - Iowa Tech-Merged Area XV, Community College, Ottumwa	1,331	110
Area XVI - Southeastern Iowa Area Community College, Burlington	1,165	80

(Iowa Official Register 1969-1970, 1970, p. 320).

In addition to the area community colleges and vocational schools, Iowa in 1968 had four private junior colleges. The junior colleges were:

Mount Saint Clare College, Clinton
Grandview College, Des Moines
Ottumwa Heights College, Ottumwa
Waldorf College, Forest City
(Iowa Official Register, 1968, p. 289).

Private colleges and universities. In addition to the three Board of Regents universities, Iowa had, in 1968, thirty private colleges and universities. These colleges offered four-year courses or graduate study beyond high schools.

Nursing Education in the Nation

During World War I, nursing leaders were convinced that the preparation of nurses for the demands of war could not follow traditional peacetime methods. Two different methods of training more nurses were suggested. One was that separate government schools of nursing be established, the alternative to increased enrollments in existing school facilities.

In the First World War, the Army had its own School of Nursing. But at the onset of World War II, the Army declined to undertake the training of nurses. The burden of supplying nurses to meet the military as well as civilian needs was given to the civilian nursing organizations and health authorities.

The Nursing Council on National Defense initiated campaigns to increase nursing classes but were handicapped by shortages of clinical facilities, housing, classroom space and lack of instructors.

A lesson from World War I, that of too great an expansion in the profession during war which led to vast unemployment for a peacetime nation, brought about a tendency to increase the number of nurses within conservative limits. The Office of Education requested federal aid for nursing education from the Bureau of the Budget. Bureau officials were most attracted to the plan for refresher courses as being a time and money-saving method of increasing nursing service. They were not at all sure that basic training should be subsidized (Cadet Nurse Corps, 1950, p. 6).

On July 1, 1941, federal funds became available for three types of training: (1) refresher courses for inactive registered nurses; (2) postgraduate education in special fields for graduate nurses; and (3) increased student enrollment in basic nursing schools. All 1,330 state accredited schools of nursing in the United States were notified of their opportunity to participate in the first federal aid to nursing education. All accredited schools could offer refresher courses. Schools connected with hospitals having a daily average of 100 or more patients in the four basic services were eligible to apply for aid for increased student enrollment. Postgraduate courses had to meet standards equal to those recommended by the National League of Nursing Education and the Association of Collegiate Schools of Nursing.

Federal funds were used to provide scholarship tuitions for qualified applicants, specifically for the subsistence of students added to the normal enrollment, for additional instructors and instructional facilities, and for affiliations in special services for those in basic

training. The funds could not be used for construction of buildings, but were allowed for securing additional dormitory space. Cash allowances to students were not provided. It was originally thought that the largest amount of the funds would be used for the refresher course. However, when the applications were tabulated, it was found that requests for basic nursing programs were 40 times greater than requests for refresher courses (Cadet Nurse Corps, 1950, p. 10).

Representative Frances P. Bolton of Ohio, a champion of improved nursing education since World War I, was a strong advocate of increasing federal aid and in 1942 relayed to Congress a message from the nursing profession that still further expansion of schools might be required the following year. As the war progressed and employment for nurses increased, the incentive for women to enter the nursing profession had to be greater than what was then being offered. An analysis of the national nursing resources and needs was made in January 1943 by the Public Health Service at the request of the Subcommittee on Nursing.

> A postcard questionnaire was prepared and distributed with the assistance of state nurses' associations. Replies were received from 259,174 registered nurses. The inventory revealed that outside the Army Nurse Corps, 170,599 registered nurses were active, about one-third of them on private duty. About 100,000 were inactive. Two-thirds of all active nurses were 40 or under and perhaps eligible for military duty. It was estimated that approximately 100,000 nurses did not respond to the questionnaire (Cadet Nurse Corps, 1950, p. 11).

The enrollment of women into schools of nursing was not high enough. Nurses were constantly leaving to get married or to enter other work. The National Nursing Council for War Service summarized the problem this way:

> (1) Some civilians continued to demand special and luxury nursing services; (2) with increasing opportunities for well-paid jobs in industry, many nurses were leaving their profession for higher salaries; (3) state boards of nurse examiners were loathe to modify hard-won nurse practice regulations, and nurses whose licenses had expired found re-entry into their profession tangled with red tape; (4) the military forces had recruited nurses in anticipation of action in the various theatres, and these waiting nurses wrote home discouraging letters about the Army Nurse Corps; (5) professional nurses in the Army lacked permanent status; (6) Negro nurses were not admitted by the military on an equal basis with white nurses and frequently not at all; (7) local, state and even national nursing councils had no official status for the recruitment of nurses (Cadet Nurse Corps, 1950, pp. 11-12).

Three times in 1942 the Office of War Information gave nursing its top radio priority, urging young women to join the profession--but recruitment did not measure up to the demand.

The supporters of a Victory Nurse Corps concluded that recruitment into a Cadet Nurse Corps would be possible because:

> Uniforms and insignia would appeal to young women who might otherwise be attracted to other uniformed services; payment of a stipend, while small, would cover some personal expenses in connection with a nursing education; acceleration of the traditional 36-month course to 30 would attract additional students and make them available for full-time services earlier; provision for full maintenance, plus the stipend, would offset, to a degree, higher salaries paid by industry; the plan made it possible to receive an education for a life profession; reimbursement of hospitals for partial costs of maintaining all students for nine months would provide an incentive to schools to increase enrollment (Cadet Nurse Corps, 1950, p. 15).

The United States Cadet Nurse Corps bill was introduced by Representative Bolton to the first session of the Seventy-eighth Congress. During the Senate hearings, Marion W. Sheahan, representative of the National Nursing Council for War Service and the Subcommittee on Nursing said:

> We in the profession feel we have done all we can. We are competing with all of the other very spectacular and dramatic appeals to women of the country . . . there must be some evidence that the Government considers . . . that nursing is essential (Cadet Nurse Corps, 1950, p. 16).

At the same hearings, Katherine Faville, chairman of the National Nursing Council Recruiting Committee, pointed out:

> Nursing is the only women's war job at the present time in which the trainee has to pay her way while she is training, and that is certainly a handicap in recruiting (Cadet Nurse Corps, 1950, p. 17).

The requirements for participation of nursing schools in the program were as follows:

> . . . that the school must (1) be State accredited; (2) be connected with a hospital approved by the American College of Surgeons, or with a hospital of equivalent standards; (3) maintain adequate instructional facilities and personnel; (4) provide adequate clinical experiences in the four basic services--medicine, surgery, pediatrics and obstetrics; (5) provide maintenance and a stipend of $30 for all Senior Cadet Nurses, or arrange for their requested transfer to Federal or other hospitals; (6) provide satisfactory living facilities and an adequate health service for students; (7) provide for an accelerated program and (8) restrict its hours of practice (Cadet Nurse Corps, 1950, p. 23).

As programs in nursing applied for funds, nurse education consultants verified the acceleration of the educational programs and determined how many students could be enrolled. The schedules of clinical practice, facilities for teaching, housing and health programs, libraries, classrooms and demonstration rooms were surveyed. This information revealed many substandard conditions among schools of nursing.

> The national picture was not altogether pleasing . . . . A large number of our 1,300 nursing schools are not training skilled nurses, and haven't for the past 40 or

> 50 years. The main reason is the small school with its plea to be left unchanged. And so we must keep our standards low enough to allow them to get through, and thus we have held back nursing education all these years. There must be some solution to this which doesn't penalize the whole country, and every student who goes into these poor schools (Cadet Nurse Corps, 1950, p. 48).

The Cadet Nurse student was required to sign a promise to engage in essential military or civilian nursing education for the duration of the war. During the first nine months of training the student was classified as a pre-Cadet. The Corps regulations limited clinical practice to not more than 24 hours a week. The hospital received a monthly maintenance of $45 for each Cadet. The student received $15 a month from the government through the school. Following the first nine months the student was classified as a Junior Cadet with an allowance raised to $20 a month. When the student completed 21 months more of training, the classification was changed to a Senior Cadet and the student was scheduled for six months of clinical practice in either a federal or nonfederal hospital. If the student remained at the home hospital (nonfederal) they received a stipend of $30 a month. Pay at the federal hospitals was $60 a month. Seventy-three percent of all Senior Cadets remained in their home hospitals (Cadet Nurse Corps, 1950, p. 43). The six-month period of clinical practice was a way the Cadet program could meet the State Boards of Nursing requirement for a three-year (36 months) program.

Army nurses were offered "relative rank" by the armed forces. This relative rank provided an officer's title and uniform without an officer's commission, retirement privileges, dependents' allowances, or

pay. The Navy offered "officer's privileges" until Congress altered the situation in July, 1942. At that time the Navy also gave "relative rank." The nurse ensign received a base pay of $90 a month as compared to $150 for a male ensign. Frances Payne Bolton attempted to remedy this injustice by introducing a bill to provide full military rank for members of the Army Nurse Corps on December 1, 1943. The bill was considered for four months, but the War Department rejected it because it authorized permanent officer's rank for nurses.

The matter of relative rank was reported in the Rocky Mountain News:

> Sue is a college graduate . . . she volunteered as an Army Nurse. She was at Pearl Harbor when the attack came . . . . Her discharge pay as an Army nurse, second lieutenant, is $60 a month. Had she held the same rank as a WAC or a WAVE . . . her pay would be $112.50 a month . . . . Why? Because the rank of the others is permanent, the rank of the Army Nurse is relative (U.S. Congress. House, 1944, pp. 28-30).

On June 22, 1944, Congress enacted a law providing members of the Army and Navy Nurse Corps with temporary officer's rank. For the duration of the war and for six months thereafter they were entitled to the same initial pay, allowances, rights, benefits and privileges as prescribed by law for commissioned officers.

Postwar Reappraisal 1945-1950

The end of World War II did not bring the anticipated over-supply of nurses. Rather, the severe shortage continued to grow. Sixty-five percent of the hospitals reported acute shortages of nursing personnel. The American Hospital Association discovered in a 1946 national salary

survey that the average starting salary for a staff nurse was $35.75 a week. The average work week was 48 hours, granting a rate of pay of 74 cents an hour. At the same time, typists were averaging 97 cents an hour; bookkeepers, $1.11; and seamstresses, $1.33. In Ohio a hospital paid regular nurses $30 a week and hired extras at $60 a week to help during the acute shortage periods--the two nurses doing exactly the same work with one earning twice as much money (Whitman & Ingalls, 1947, pp. 26-67-69).

Hospital nurses sought recognition as professionals worthy of trust and responsibility. They were unhappy with their status, which required blind obedience and uncomplaining acceptance of criticism rather than a status which involved cooperative participation in planning and decision-making. As late as 1946, one of every four hospital nurses was still working a split shift. This shift meant that the nurse's working day consisted of two segments of duty with an intervening period of time off without pay. Since it was difficult to make effective use of limited leisure time between periods of duty, the shift was exceptionally burdensome. The hospital benefited from the split shift because it took three or more nurses working a seven or eight-hour day to do the work that formerly required two persons, each paid for nine or 10 hours a day.

The depletion in the ranks of nurse personnel during the war proved devastating to the civilian health care delivery system. The acute shortage of nurses put an end to the case method of patient care. An assignment pattern which utilized less prepared personnel was designed for the task oriented form of nursing designated as a functional method

of assignment. This resulted in fragmented care which drew criticism from the patient and dissatisfaction from the nurse. The functional method designated one nurse to give the medications, another to give treatments, another to take all the vital signs. The functional approach to the provision of nursing care continued long after the war and through a change in staffing patterns. The dissatisfaction of the providers of care was compounded when staff of different educational backgrounds found they were assigned the same tasks.

The Nursing Council of National Defense became the National Council for War Service in 1942 and at the end of the war it continued as the National Nursing Council for the purpose of sponsoring three studies: a history of its own accomplishments presented in The History of the National Nursing Council by Hope Newell; an economic survey of the nursing profession compiled and distributed by the Bureau of Labor Statistics of the United States Department of Labor; and a study of nursing education. Esther Lucile Brown, Ph.D., a social anthropologist, was funded to make another study of nursing education. The continuing and serious inadequacies in nursing education programs were again highlighted and far-reaching recommendations for change were made by Dr. Brown.

Dr. Brown remarked, "Today the nurse probably ranks close to the teacher as a social necessity . . . . Because of the apprenticeship system of training, however, that has characterized nursing education, the public has assumed little responsibility for . . . the proper financing of the preparation of nurses" (Brown, 1948, pp. 164-165).

Dr. Brown continued:

> Through an unfortunate historical accident, the public has yet made little provision for the support of nursing education. This is in sharp contrast to the financing of the preparation of teachers for elementary and secondary schools. Education for each child has consistently been viewed as the country's foremost instrumentality for advancing the goals of our national life. So firmly has this belief been held that public and also private funds have been poured not only into a system of schools that seeks to reach into every community, but into large numbers of colleges designed specifically for the training of teachers, and departments of education in public and private universities. The principle of financial support of teacher training is an integral part of the mores of the United States. . . . By the time nursing education sought admission to institutes of higher learning, the concept of support of nursing education by institutions of higher learning was not in the mores of America (Brown, 1948, pp. 164-166).

Nursing was fighting a losing battle in attracting the necessary number of young women to enter the profession. In commenting about the present conditions in the practice of nursing, Dr. Brown said:

> Many thoughtful persons are beginning to wonder why young women in any large numbers would want to enter nursing as practiced, or schools of nursing as operated, today. The facts about nursing as the average R.N. is expected to practice it have been presented . . . . The average graduate nurse paying for her own living quarters earned between $170 and $175 a month . . . . The lack of opportunity for promotion and salary increases was reason for complaint. The actual work week for nurses in all fields averaged forty-four hours. For institutional nurses scheduled hours rarely exceeded forty-eight but about one-third of them actually worked fifty or more hours . . . . No compensation . . . . In money or free hours . . . . Lack of retirement and unemployment provisions (Brown, 1948, pp. 45-46).

The dissatisfaction of the nurse was explained by Dr. Brown:

> Hospitals predominantly are operated on the authoritarian principle rather than that of a cooperative team relationship. The nursing service is caught between the authority exercised by the medical administration on the one hand and

> the hospital administration on the other. Unfortunately the nursing service also tends to be highly authoritarian. Hence the individual nurse finds herself with little freedom of movement and of initiative for other than specific duties, even within that service of which she is a part . . . . She is primarily a person who takes and carries out orders. As a consequence she tends to develop those socially undesirable characteristics of subservience to persons above her in a hierarchical structure and of mastery over those below her (Brown, 1948, p. 47).

The Brown report made the following recommendations:

> That nursing make one of its first matters of important business the long overdue official examination of every school.
>
> That lists of accredited schools be published and distributed, with a statement to the effect that any school not named had failed to meet minimum requirements for accrediation or had refused to permit examination.
>
> That a nationwide educational campaign be conducted for the purpose of rallying broad public support for accredited schools and for subjecting slow-moving state boards and nonaccredited schools to strong social pressure.
>
> That provisions be made for periodic re-examination of all schools listed or other requesting it, as well as for first examination of new schools, and for publication and distribution of the revised list.
>
> That if organized nursing committed itself to this undertaking of major social significance, the public assume responsibility for a substantial part of the financial burden (Brown, 1948, pp. 132-170).

Reaction to the Brown Report was violent, and much heated discussion was generated. Many physicians and hospital administrators were hostile to the recommendations. The president of the American Hospital Association, Graham Davis of Battle Creek, Michigan, told the 1948 AMA convention in Atlantic City that Dr. Esther Lucile Brown's Report ignored the facts of life. He defended the small hospital schools of nursing in that they had allowed the hospital to deliver nursing service during the war and following in the postwar shortage (Davis, 1948, p.

138). Nevertheless, elimination of poor programs occurred, enrichment of many programs began, and the accreditation process grew into a more dynamic social and professional force.

Practical Nursing

During World War II, the practice of employing paid auxiliary nursing workers increased drastically. The war's continuous drain upon the ranks of professional nursing increasingly pressed hospitals to meet the nursing service demands. Elmira Wickenden, speaking for the National Nursing Council in 1943, stated:

> Common sense seems to indicate that it is wasteful to assign highly skilled graduate nurses to patients who are mildly ill, convalescent, or for some other reason partially dependent upon others for their personal needs. Practical nursing is filling the gap between acute illness and recovery (Wickenden, 1943, pp. 807-809).

It was widely felt that the registered nurse represented too large an investment in education for some of the tasks she was given to perform. It had been estimated "that approximately fifty percent of the general duty nurse's time is spent in duties which could be performed by less well-trained aides under supervision" (Wickenden, 1943, p. 808).

More than 500,000 Red Cross Home Nursing Course certificate holders were urged to give voluntary services to Veterans Administration Hospitals. At first those who received the training had been asked not to use their preparation in any paid capacity. Later, in 1945, the United States Civil Service Commission began recruitment of nursing assistants to work in Veterans Administration Hospitals. The jobs paid $1,440 a year, with overtime. This was close to the professional nurse's

salary and was considered to infringe on the professional nurses who had helped train the aides (Joint Committee on Auxiliary Nursing Service, 1946, pp. 239-250).

In her report, Esther Lucile Brown summed up the system of non-graduate nursing service:

> Practical nurses have probably existed for as long as persons have been hired to tend the sick. That they have often been highly incompetent because of lack of selection, training and supervision, does not nullify the importance of the role that they have played . . . . attendants have provided the predominant part of the bedside care given in hospitals for the mentally ill, and for chronic, convalescent . . . . They even constitute the major part of the nursing provided the acutely ill in some large municipal and county general hospitals. Their technical skill and understanding of patients have ranged from extreme limitation to remarkable ability . . . . Then came Pearl Harbor and the drastic stringency of subsequent years. In order to keep hospitals in operation, a wide and often strangely assorted variety of personnel had to be employed . . . . Assistant workers of the attendant type were sought far and wide; much less consideration than formerly was given to their national origin, material status, or color of skin. Although the major field of the practical nurse had formerly been private practice in the home care of the sick, every obtainable person so trained was pressed into hospital service . . . (Brown, 1948, pp. 58-60).

The American Nurses' Association was interested in providing nursing care for all segments of the country and in safeguarding the professional nurses role. The minutes of January 29, 1940, discuss the potential problems of staffing small hospitals without professional nurses.

> The proposals of President Roosevelt regarding a new plan for hospital expansion have a number of important implications for organized nursing groups. This plan referred to the construction of approximately 50 small hospitals to accommodate about 100 beds . . . . If not safeguarded in every possible way, the institution of this plan might result in the preparation and employment of subsidiary workers in large numbers to assume responsibility for

> nursing service which should be rendered by registered nurses.
>
> The location and size of these hospitals would not attract professional nurses unless satisfactory conditions of employment were provided. Would it not be advisable to call the attention of professional nurses to the ultimate effect which their refusal to accept positions in these institutions might have on the practice of nursing. If subsidiary workers demonstrate that their services are of value in small hospitals located in rural areas, their services will be in demand and we may expect to see these persons employed on a larger scale in institutions of various sizes, in urban centers and also in the homes in both rural and urban communities (American Nurses Association, Board of Directors. Minutes, 1940a, p. 49).

The American Nurses Association attempted to protect the role of the Registered Nurse by controlling the subsidiary workers in the care of the sick and the following recommendations were adopted:

> That the Report of Joint Committee of the three National Nursing Organizations to Outline Principles and Policies for the Control of Subsidiary Workers in the Care of the Sick be adopted.
>
> That the outlines be printed and made available to those interested in subsidiary workers in the care of the sick.
>
> That the recommendations of the American Nurses' Association and the National League of Nursing Education, i.e. "that no formal courses for the preparation of subsidiary workers should be approved until such time as a method for the control of the practice of subsidiary workers be devised," be emphasized to state groups. . . (American Nurses Association, Board of Directors. Minutes, 1940a, p. 87).

The correspondence of Dr. Malcolm T. MacEachorn, Associate Director of the American College of Surgeons, and Dr. Theodore F. Hammermeister, Union Hospital, New Ulm, Minnesota, in regard to the Miller Plan of training practical nurses was shared with the American Nurses Association. Under date of Feb. 28, 1940, Dr. Hammermeister wrote to Dr. MacEachorn:

> . . . the Federal government, together with the State government, have had in operation for at least some period of time, the vocational training, which is to be compared to industrial training, business training, etc., through the public school system. Incorporated in this same setup for which the government provides teachers, who are to be nurses, and having routine setup which has been instituted for the business of providing vocations in the subacute fields of nursing. Those familiar with the subject and who have had experience along this line, state, that there is a tremendous field for that type of worker in homes, especially where the convalescent patient needs some care and some attention is to be given to household duties.
>
> It had never been possible in my experience of twenty-five years to obtain a graduate nurse to do all the various duties excepting as occasionally claims are made, that the graduate nurse does such duties. In actual practice, it has never been found to be working. Besides, the present impoverishment of the great majority of pay patients find that it would solve the problem, which are really household duties. The charges of a nurse are really exorbitant for subacute nursing.
> I hope that the bulletin, which was sent to you in my second letter of February 23rd, has reached you and that it will provide the information needed and that you desire in the formulation of your reply to my letter.
> It does not seem that the medical profession had better look at their business before relegating the entire situation, which amounts to practically socialized medicine, into the hands of the American Nurses Association.

Dr. M. T. MacEachorn of the American College of Surgeons replied on March 7, 1940, as follows:

> I have your communication of Feb. 28, together with a copy of the Miller Vocational High School pamphlet, all of which I have perused with the utmost care.
>
> I am certainly not impressed with the Miller Plan. That type of training can only lend to a sort of "pseudo-nurse." The name "practical nurse" is wrong. If the graduates of this school were designated "ward attendants," "nurses aides," or "subsidiary workers," it would be much safer. These young girls, without even high school education, are turned loose in nine months on the unsuspecting public. Apparently they are allowed to wear cap and gown, get a certificate, and have graduation exercises. I wonder how the man on the street knows the difference between these so-called "practical nurses" and the registered graduate nurse?

> It is my opinion that the plan will only tend to lower professional nursing standards, which have been built up over a period of years. I wonder how the medical profession would like a "practical doctor" introduced into the field. I do not think they would care for it.
>
> I understand that these students are to obtain their training on chronic or sub-acute patients, not in an acute hospital such as the Union Hospital.
>
> Frankly, we believe that hospitals on the Approved List should maintain and associate themselves only with high and progressive standards; not promote or encourage sub-standards of professional education, such as the Miller School plan seems to do. It would appear to me that the Federal and State Government need proper professional advice on such matters.
>
> In the last analysis, of course, it is the governing board of the hospital which must decide the policy, but I have given you my frank opinion on this matter, based on actual findings where similar attempts have been made. (American Nurses' Association, Board of Directors. Minutes, 1940b, pp. 138-139).

Confusion about the name to be used by the subsidiary worker, the place where the worker should be trained, the role that should be played, and the way in which the worker should dress, was paramount during the early 1940s. In June, 1941, Miss Edith Beattie, R.N., Executive Secretary of the Graduate Nurses' Association of the District of Columbia, wrote to the Nursing Information Bureau of the American Nurses' Association, expressing an interest in knowing what other registries were doing concerning the subsidiary worker (American Nurses' Association, Board of Directors. Minutes, January 21, 1941, p. 44). the same meeting the Board of Directors of the American Nurses' Association also received a letter from Miss Lola Bailey Pearce, R.N., of Oklahoma City, Oklahoma, asking if anything could be done to prevent persons other than graduate nurses from wearing the nurse's cap (American Nurses' Association, Board of Directors. Minutes, January 21, 1941,

p. 44). And still in October, 1948, the question of what the practical nurse should wear was brought to the attention of the American Nurses' Association Board of Directors.

> The next communication to be considered was sent by Miss Ella Thompson, President of NAPNE, concerning the wearing of white uniforms, caps and hose, with identification of an appropriate insignia, by practicing practical nurses. It was moved . . . that a letter be sent to Miss Thompson stating that the ANA does not approve of the practicing practical nurse wearing white uniforms, caps and hose because the public has been taught to recognize that as the uniform of the professional nurse (American Nurses' Association, Board of Directors. Minutes, October 2, 1948, p. 43).

The desire to cling to tradition was discussed in the nursing journal of January 1944:

> The all important question of uniform agitates all groups periodically. A blue uniform with white bib and apron is usual during training--white throughout, afterward . . . while the licensed attendant is still searching for an acceptable distinguishing emblem. Most attendants wear caps. One group voted - as "graduates"--not to wear caps, for remarkably far-sighted reasons;
> 1. Unsuitable to many of their tasks.
> 2. Not particularly distinctive since so many workers everywhere wear white caps.
> 3. Graduate Nurse caps represents three years of training.
> 4. Not diplomatic at this time when private duty nurses are not too friendly (Deming, 1944, p. 42).

The National Association for Practical Nurse Education, Inc., (NAPNE) was founded in 1941 and Hilda Torrop, Director of the Ballard School of Practical Nursing, New York City, was elected president. She held the position for six years. Helen Z. Gill was elected vice-president, and Etta Creech secretary and treasurer. Miss Torrop was able to interest the United States Department of Education in sponsoring a study of the practical nurse occupation. Ms. Torrop realized that a

job analysis should precede the development of a curriculum.

On April 28, 1944, the Working Committee on Practical Nurse Education of the National Advisory Committee of the United States Office of Education began a job analysis of practical nurse duties. The committee, membership represented each of the national nursing organizations the fields of public health, private duty, institutional nursing and so-called "practical nursing," held meetings to determine the function of the practical nurse.

Mr. Arthur Wrigley, State Supervisor of Trade and Industry Education, New Jersey, and skilled in job analysis, was delegated the responsibility for directing the study. Federal funds were made available for the work. The training, when authorized in several states, would be reimbursed as a regular program under the Smith-Hughes and George-Deen Acts. This made possible the continuation of the program when war production funds were no longer available (Creamer, 1944).

The study was a milestone for practical nursing. It was the first time that a committee had attempted to reach a unanimous agreement regarding the duties and limitations of the practical nurse.

> The analysis covered four important phases: (1) what the practical nurse does, (2) limitation of her duties, (3) what she must use, and (4) what she must know (Practical nursing; an analysis, 1947).

By January, 1944, fifteen states had provisions for licensing attendants or practical nurses. The title of these workers varied from trained attendant, licensed attendant, licensed undergraduate nurse, obstetrical nurse and practical nurse. In all fifteen states that enacted licensing laws, except in California where it was administered

by the State Department of Public Health ("Trained Attendants and Practical Nurses," 1944, pp. 7-8).

Hilda M. Torrop described the National Association for Practical Nurse Education as an organization:

> . . . composed of professional women who are directors and instructors in practical nurse schools, prominent laymen, representatives of general education and of state associations of practical nurses. It is engaged in the pioneering job of setting standards and establishing criteria for the evaluation of practical nurse schools (Torrop, 1944, p. 79).

NAPNE grew and prospered. It was formed at a time when there were numerous unsolved problems. There were no educational standards for the practical nurse program and in many states the practical nurse had no official status. The future of the organization may have looked uncertain to Dorothy Deming, editor of Public Health Nursing, as she commented:

> The organization of the National Association of Practical Nurse Education, originally an association of "directors and instructors in schools of practical nursing" (reminiscent of the early name of the National League of Nursing Education), brings up the question of the responsibility of the NLNE to this newcomer. The same educational problems confront it, the same public is to be protected. The American Nurses' Association has for years taken on the duty of promoting legislation controlling the practice of this group and for years also the National Organization for Public Health Nursing has recognized the place and value of the practical nurse working under graduate nurse supervision in the home. Perhaps this is not a "wanted baby"--this struggling group of subsidiary workers in the care of the sick . . . but at the present time the baby is hungry for help and guidance! As Miss Stewart so wisely indicates, we as professional nurses can no longer side-step this issue and it is the need of the community as a whole for this type of service which calls us to account (Deming, 1944, p. 43).

Professional nurses had adamantly believed that professional schools of nursing and practical nursing schools should not be conducted at the same institution. The arguments advanced were:

> There appear to be only three arguments in favor of training attendants in hospitals where schools of nursing exist--one is the obvious fact of hospitals' need of this group; the second is that a wealth of teaching equipment and qualified staff are on hand; and the third, perhaps the best, that students learn to work with attendants--valuable knowledge for the future.
>
> There are, however, convincing and overwhelmingly numerous arguments vigorously opposed to such a plan. These are summarized as follows:
>
> 1. The levels of teaching are difficult to handle; differentiation between groups is lost.
> 2. Resources of clinical material are strained to the deprivation of both groups.
> 3. Confusion results in the public's mind between the two groups--both in the hospital and later as "graduates" of the same school.
> 4. Attendants apt to feel they get only the "dirty work"; dignity of job is lost.
> 5. Students are apt to make friends of attendants and teach them upper level procedures.
> 6. Attendants are always "second fiddle," always a little resentful. Better to place them in situations where, as the only student group, they get full attention (Deming, 1944, p. 42).

Not all nurses shared this attitude. The acceptance of practical nurses was demonstrated when Adelaide Mayo, Executive Director of the National League of Nursing Education, spoke at the meeting of the National Association of Practical Nurse Education, Inc., in 1949 and said; "Practical and professional nursing schools should share clinical facilities so that their students learn to work together as a team, but the two programs must also share facilities, hours, and instruction fairly so that neither program is subordinated" ("NAPNE Meets," 1949, p. 541).

Continued Shortage of Nurses

The end of World War II did not bring an end to the shortage of nurses. Those on the home front who waited for the returning nurse to fill the civilian jobs did not find the expected relief. Rather, the demand for nurses continued to increase. Modern Hospital emphasized the fact that marriage, not other jobs, was the prime cause of the nurse shortage. However, reading the result of the study of the Bureau of Labor Statistics, brought conditions of nursing practice out in the open.

> . . . Most nurses who leave the profession do so primarily to get married rather than to seek more attractive work elsewhere. It is the potential nursing students who are lost to the profession by the hope of more economic security in other jobs . . . . certain aspects of nursing were widespread enough to constitute a serious problem.
>
> Leading sources of dissatisfaction concerned lack of provision for retirement and security against unemployment, rates of pay and opportunities for promotion and pay increases. Quantity and quality of nonprofessional help . . . hours of work, methods of settling grievances and opportunities for constructive criticism regarding procedures . . . . lack of adequate locker and restroom facilities . . . . The average hospital nurse providing her own living quarters earned $172 a month plus about one meal a day . . . . About one nurse in four was on duty at least 50 hours a week . . . overtime is not paid for in the majority of the cases and about one . . . nurse in four is required to be on call beyond her hours on duty. A corresponding proportion work split shifts, divided by more than an hour off each day (Modern Hospital, 1944, p. 116).

The way in which a typical hospital answered the question of overtime pay was illustrated in a nursing journal question-answer column:

> Question: When nurses must work overtime because of a shortage of help, should they be paid extra, possibly time and one-half? E.M.S., Ill.
> Answer: A distinction should be made between additional work and overtime work. It would seem only fair that if a nurse is asked to do work in addition to that for which she was employed, she should be paid for the additional work at regular rates. For example, if she was employed for a 3 p.m. to 11 p.m. shift and was asked to come on duty for two extra hours in the morning, she should be paid accordingly. If however, a situation arises in which a nurse cannot finish her regular assignment on time, as a professional woman she should be willing to give a little overtime service (Modern Hospital, 1944, p. 39).

During the war, hospitals had used student labor with the blessing of the Cadet Nurses Corp and Congress. One of the strongest cases for the Cadet Nurse Corps was the plea of hospital authorities that nursing care in civilian hospitals was in a desperate state.

> Since the military forces took only graduate nurses, it was not expected that the Cadet Nurse Corps would directly or immediately aid the Army and Navy, except in the use of advanced students. Congress accepted the reasoning that if thousands of more nurses entered training, they would help replace graduate nurses enlisting for military service. And it heard with interest that three students after nine months of training could replace two graduates (Cadet Nurses Corps, 1950, p. 17).

The American Red Cross and the Office of Civilian Defense trained 100,000 volunteer nurses' aides so that each hospital nurse might have at least one trained aide to help her extend her services to many more patients. Five essential requirements for the effective use of volunteer nurses/ aides were listed by the Office of Civilian Defense, which urged hospitals and nursing schools to cooperate in training aides: (1) they had to be expertly trained; (2) they had to serve an adequate number of hours in a hospital or clinic throughout the war;

(3) they had to conform to the organization where they worked; (4) they were not to replace paid hospital personnel; (5) they were to render service without pay ("Training Program Announced," 1941, pp. 41-45). The return to peace conditions would seriously alter the economic structure of hospitals. The introduction of a practical nurse who would work for a lower salary also had an influence on the situation. Ms. Torrop warned of some of the problems that would come about with the use of practical nurses. "The postwar replacement of thousands of volunteer workers with persons prepared at the proper level is a major hospital administration problem." She suggested a need to study hospital patient categories with a revision of duties and responsibilities. Torrop continued:

> The fact that the war years have given to hospitals volunteer workers by the thousands will not have helped the thinking of certain administrators. It will be increasingly difficult to obtain adequate salaries where little or nothing has been paid for the same amount of volunteer service (Torrop, 1944, p. 80).

Schools of nursing were having a difficult time filling their classes. Many young women were finding employment opportunities in new fields open to them. The rigorous training expected of the student nurse was publicized in a critical article by Clarence Woodbury in the June, 1949, Woman's Home Companion. There was a controversy as to whether nursing education should become collegiate. Hospitals were employing a multitude of nurses' aides and practical nurses. For the most part, professional nurses had not taken the opportunity to define the scope of their own practice. They permitted a task oriented approach to patient care. Because they were not adequately educated,

they could not teach so they failed to become accountable to their clients. The lack of autonomy kept many from entering the profession.

Mid-century Nursing

The expected oversupply of civilian nurses following World War II was anticipated by many and feared by those who had seen the problems of unemployment following World War I. But the oversupply never occurred. Instead,the early 1950s found the severe shortage of nurses continuing. There were a variety of reasons for the continued shortage. There was general agreement that a tremendous expansion of health and medical services occurred. The rising average age of the population, the growth of population with its attendant urbanization, hospitalization and group insurance plans that came into being, antibiotics and new techniques of medicine that saved the lives of those who would previously have died; nurses moving out of homes and hospitals into industry and public health agencies; and the increased number of women who accepted hospitalization for the birth of a baby all contributed to the severe shortage of nurses..

In addition, the composition of the labor as it pertained to women was a contributing factor. The low birth rate of the 1930s resulted in a small number of high school graduates in the 1950s. The postwar high rate of marriage and the birth of children also accelerated the withdrawal of nurses from the profession. Nursing had always been predominantly a career for women. For the most part maintenance which included housing was an expected part of the nurse's pay. Married women presented a conflict between living in the hospital and maintaining an outside home. Most hospitals and public health agencies preferred

single nurses. Most student nurses and graduates regarded marriage and children more important than nursing. If they worked they regarded their job as a way to provide a small supplement to the family income, rather than the primary source of income. The nursing shortage was conducive to job mobility, and some hospitals reported a turnover rate which exceeded 66 percent.

The shortage of nurses did not remarkably increase the amount of salaries offered, nor did it improve the working conditions. Nursing World, a professional journal, carried the following advertisements in the April 1952 issue:

> Nurses Wanted: Registered Graduate $2,760 and maintenance. Registered Practical $2,200 and maintenance. 5-day week, annual increases, vacations and sick leave. Long Island, New York.
>
> Registered Nurses: For Jersy City Medical Center. General Duty positions available immediately. Salary $2000 per year plus full maintenance for experienced nurses in an attractive modern residence. 44-hour day duty and 40-hour evening and night duty. 12 National Holidays per year. Transportation to New York by bus or Hudson Tubes in 15 to 30 minutes. Jersy City. N.J.
>
> Graduate Nurses: General Staff in all departments. Surgical Scrub and O.B. in 160 bed hospital. $235.00 monthly with year-end raises. 44 hour week and $10.00 differential for evenings or night shifts. 12 days sick leave, two weeks vacation (Nursing World, 1952, p. 196).

The same issue carried an advertisement for a science instructor for a school of nursing. The "salary for degree and experience $3,804 to $4,164, retirement program and social security" (Nursing World, 1952, p. 196).

Two side effects of the Cadet Nurse program influenced nursing education in the 1950s. The first was the close examination of the cost

of a nursing program by hospital administrators. Edgar Blake, Jr., Superintendent, Wesley Memorial Hospital, Chicago, summed up the thoughts of many administrators as follows:

> The best feature of the cadet program, administratively speaking, was the necessity of carefully segregating and accounting for the funds used in the nursing school. Many hospitals for the first time felt the need of accurate cost accounting in their school records and, consequently, have gained a clearer picture of the relationship between costs of the school and the value of the student nurses' time . . . . Our experience under the cadet corps showed that the difference between the cost of the school of nursing and the value of the student nurses' time averaged $450 per student. Inasmuch as we have no endowment for the school of nursing and do not consider nursing education as a legitimate charge against patient care, we therefore plan to charge each student $467 during her three year course.
>
> In order to eliminate the cost of those who discontinue early . . . we are distributing the costs in the following manner . . . for the first year $500; second year, $110; third year $37 with a stipend of $30 per month for the last six months of training or a return to the student of $180 (Blake, 1946, p. 58).

The second influence of the Cadet Nurse program was acceleration of the curriculum. Programs of nursing were attempting to streamline their courses and focus them on the student's needs. Many changes were made, including the pooling of teaching staffs, the setting up of central preclinical courses and other centralized programs, and the use of devices to extend and economize available teaching, housing and financial resources. There was a marked increase in scholarship aid for students, which was stimulated by the war, and removal of old barriers, such as those which earlier prevented the admission of married students to nursing education programs.

In 1952 R. Louise McManus, Director of the Division of Nursing Education at Teachers College, Columbia University, announced a project aimed at developing nursing education programs in junior and community colleges. The present system of educating nurses had failed to produce the requisite quantity and quality of nurses to meet the demand. The study was designed and carried to fruition by Dr. Mildred Montag. More than 85 percent of all schools of nursing were owned and controlled by hospitals. These schools offered programs of a predominantly apprenticeship type which prepared its graduates to care for hospitalized patients. Only 13.7 percent of the schools of nursing offered a baccalaureate degree, and those schools accounted for 15 percent of all students (Leone, 1955a, p. 933). Dr. Montag's conviction was that programs could be developed in appropriate agencies and educational institutions to prepare individuals who could carry out the functions of a technical nurse. Professor McManus proposed that there existed within the scope of nursing a differentiation of function:

> The function of nursing may be conceived as being of a spectrum range. Many functions involve the performance of skills and technics varying in difficulty and complexity and extending on a continuum, from the simplest performed by the mother and others, and easily picked up without training, to the most complex function demanding a very high degree of skill and expertness that can be developed only with considerable training. Many functions also demand judgment ranging from that based upon common knowledge to judgment that can be arrived at only by bringing to bear upon professional problems pertinent knowledge from an extensive reservoir of scientific information derived from many fields of study. The functions at one extreme of the range of the spectrum, those demanding a high degree of skill and judgment, must be that responsibility of nurses whose educational preparation has been of a professional type. Nurses who perform

> these functions can be assumed to need and to possess the breadth of scientific information with which to do reflective thinking and to have developed their higher intellectual powers and habits of reasoning, judging, and drawing inferences about nursing problems (Regional Planning for Nursing, 1948, p. 54).

On the other end of the spectrum were simple functions based on common knowledge. It was the middle section of the continuum which Dr. Montag determined was occupied by the technical nurse.

There was a marked increase in the number of young people attending college following World War II. In 1940 only 15 percent of college-age youth were in college. By 1952 the number had increased to 31 percent with a prediction of 50 percent by 1970--yet enrollment in nursing schools rose slightly each year from 1951 to 1955; but in 1956 the number fell, and it fell again in 1957. Lucile Petry Leone pondered the question of whether the surge toward college would be felt in schools of nursing. She stated:

> To answer our question--whether the increase in American youth will provide the needed increase in nursing school enrollment--we must consider these factors: the nature of the supply of potential candidates, the conditions of the schools, and the public attitude toward nursing . . . . It is difficult to predict whether the onrush of youth . . . seeking education beyond . . . high school will bring a corresponding increase in candidates of schools of nursing. Comparison of figures for college admissions and nursing school admissions over the last few years seems to indicate a negative answer (Leone, 1955b, p. 1195).

She gives a partial explanation for the conclusion that nursing enrollments will not equal college enrollments:

> Nursing is one of the largest occupations for which preparation is not generally thought of as "going to college". . . . Less than 1 percent of young women in college are enrolled in degree programs in nursing (Leone, 1955b, p. 1195).

The 1952 experiment of Mildred Montag was not the first use of the junior college by hospital schools of nursing. Junior colleges had been participating in nursing programs in a variety of ways for many years. The hospital school either purchased a course or series of courses from the college, or purchased the services of an instructor for a course to be taught at the hospital. In addition, many junior colleges offered what they termed pre-nursing curricula; however, these courses were typical transfer courses not specifically developed for nursing students.

The involvement of the junior colleges in Ms. Montag's project was to be new and different. The actual control of the entire program in nursing was to be the junior colleges, not a hospital. There was no similarity between the new project nursing programs and the experiences of junior colleges in nursing programs in years past.

Seven community junior colleges were selected to participate in the five-year research project to develop and evaluate associate degree nursing education. The colleges were selected from different sections of the country, were of various sizes, had different curriculum patterns and sources of support. All colleges designed approximately one-third of the total curriculum for general education and two-thirds for nursing courses. Of the nursing portion, 75 percent was clinical practice. The clinical experience was carefully planned and included instructional supervision.

Eight hundred and seven students were admitted to the experimental program. The usual pattern of a 20 percent attrition rate occurred. This rate resembled the junior college rather than hospital schools. At the conclusion of five years, one hundred and ninety-two associate

degree graduates had taken state board licensing examinations with a passing rate of 91.7 percent during the first time taken. In nursing programs of all types, the figure was 90.5 percent (Montag, 1959, pp. 342-368).

The concept of the associate degree nursing program is that it is planned within the framework of the two-year junior college, it contains both general and nursing education with concurrent clinical experience. The program emphasizes nursing principles and their application through selected clinical experiences in a hospital or health agency rather than procedures of a particular institution. The associate degree nursing program is not shorter or accelerated.

The associate degree educational program is consistent with good educational practices and similar to other programs that students may choose. It is no longer logical to expect nursing students to be content with different programs, different living conditions, different educational, social, and cultural opportunities from those offered to students preparing in other fields.

Many nurses object to the term "technical" as compared to "professional" Dr. Montag warns:

> The profession must recognize too the differences between professional and semiprofessional or technical functions and between professional and technical education. There are specific ways in which a professional person performs the functions ascribed to that profession. To be able to function in this way is one of the outcomes of professional education. It does not just happen; it requires a deliberately planned training. Nurses are frequently disturbed by any implication that all nursing functions are not professional in nature and that all nurses are not professional people. Simply to label a function professional or to name a person professional, either by law or

> custom, does not make them so. The recognition that there are differentiated functions within the occupation of nursing is the first step. It follows naturally that preparation for these different categories of functions must be differentiated. A natural consequence of these two is that in the practice of nursing, provision must be made for these nurses to work together. That there can be careers in either professional or semiprofessional nursing should be clear. . . . It is an exciting time to be in nursing. It is a discouraging time to be in nursing. Changes are needed so badly and they seem so obvious and so possible. Yet changes seem to be discouraged--or at least not encouraged--by so many in the field of nursing. The decision as to how the profession will move is in the hands of the nurses themselves (Montag, 1959, pp. 367-368).

The State Board Test Pool

Previous to 1940, the development and scoring of state board examinations had been up to each state board of nursing. The tests were generally poorly constructed and unreliable. At the outbreak of World War II, the mobility of the graduates as they joined the Army or Navy Nurse Corps forced state boards of nursing to consider a need for testing that would meet national norms of competent nursing. The state boards of nursing asked the National League of Nursing Education to assist them in developing a test which could be used by all states in order to have more valid and reliable questions which could be used for more frequent examinations. In an emergency conference of state boards held in December, 1942, the Subcommittee on Tests of the Committee on State Board Problems of the National League of Nursing Education recommended the following objectives:

> To provide objective tests of nursing competency which will enable each state board of nurse examiners to discover the level of ability of each candidate and the average for each school in the state, and for the state as a whole, in comparison with the level of all other candidates tested, and the average for each other school and state . . . .

> To secure data which will be of help to the state boards of nurse examiners and the schools of nursing in improving the level of nursing preparation ("State Board Test Pool Examination," 1952, pp. 613-615).

By 1944 the pool of questions was operational and six states had agreed to use the examination. The first test contained questions on thirteen areas. Schools of nursing used various parts of the test, some using all thirteen areas. By 1949 the number of areas had been reduced to six: medical nursing, surgical nursing, obstetric nursing, nursing of children, communicable disease nursing and psychiatric nursing.

The grading of the tests brought some concern to nurse educators. The tests had been devised to challenge the most able students, the average candidate was able to answer only about half the total number of questions asked. Many nurses tended to regard the tests as too difficult because they felt the successful candidate should be able to answer 70 to 75 percent of the questions correctly in order to pass the test.

In 1951, the conference of state board examiners recommended that a standard score of 350 be used as the passing score in order to expedite interstate registration through a reciprocal agreement. In 1950 when the last state accepted the State Board Test Pool, nursing became the first profession for which the same licensing examination was used throughout the nation ("State Board Test Pool Examination," 1952, pp. 613-615). The use of a national test expanded the concept of the goals of nursing schools.

Accreditation - A Process of Strengthening Nursing Education

In 1949 the National Nursing Accrediting Service (N.N.A.S.) was formed. The organization represented four organizations which had previously carried out accreditation services. These organizations were the National Organization for Public Health Nursing, the National League of Nursing Education, the Association of Collegiate Schools of Nursing, and the Council on Nursing Education of the Catholic Hospital Association.

This accrediting service was responsible to a Joint Committee on Unification of Accrediting Activities, the membership of which represented the various nursing organizations, the American Medical Association, the American Hospital Association and the regional associations in higher education. This joint committee was in turn responsible to the joint board of directors of the six national organizations. When in 1952 a reorganization took place, the National League for Nursing accepted the responsibility for all accrediting activities because it saw its function as a community oriented organization rather than as the professional organization for nursing (Manual of accrediting, 1949).

The National League for Nursing established a temporary accreditation program which was in effect from 1952 to 1957. The purpose of the program was to help poorer schools find ways of improving themselves. Many special meetings were held, consultations arranged and self-evaluation guides were developed. When the program closed in 1957, the number of fully accredited schools had increased by 72.4 percent (Nahm, 1952, pp. 997-1001).

A.N.A. Position Paper of 1965

At the forty-second convention of the American Nurses' Association held in Miami Beach on May 4, 1960, the house of delegates voted to accept a report from the Committee on Current and Long Term Goals that was to bring conflict and discussion in the states. Included in the report was Goal Three, that stated:

> To insure that, within the next twenty to thirty years, the education basic to the professional practice of nursing for those who then enter the profession shall be secured in a program that provides the intellectual, technical and cultural components of both a professional and liberal education. Toward this end, the ANA shall promote the baccalaureate program so that in due course it becomes the basic educational foundation for professional nursing.

In an effort to implement these purposes, the Committee on Nursing Education prepared a position paper which was adopted by the ANA Board of Directors in September, 1965. The paper was of tremendous historical significance because it was the first time nurses were acting completely alone in making such a decision. The paper was approved by the membership of the ANA meeting during the biennial assembly in San Francisco in 1966. Publication of the position paper brought about conflict over the future role of diploma schools. The rationale that nursing practice had become exceedingly complex and that conditions of nursing are determined by the structure of society and its prevailing values prompted the nurses to develop the thesis that education of those who work in nursing should take place in institutions of learning within the general system of education.

The recognition that nurses are required to master a complex, constantly changing body of knowledge and to make critical, independent decisions about patients and their care led nurses to conclude that:

1. Minimum preparation for beginning professional nursing practice should be a baccalaureate degree education in nursing.
2. Minimum preparation for beginning technical nursing practice should be an associate degree education in nursing.
3. Education for assistance in the health service occupation should be short, intensive pre-service programs in vocational education institutions rather than on-the-job training programs ("American Nurses' Association's First Position," 1966, pp. 515-517).

Surgeon General's Consultant Group on Nursing

The Surgeon General of the United States Public Health Service appointed a special Consultative Group on Nursing to identify the needs of nursing and to assist in determining the appropriate role of the federal government to assure adequate nursing service for the country. The major problems facing the nursing profession according to the report were identified as follows:

1. too few schools were providing adequate education for nursing;
2. not enough capable young people were being recruited to meet the demand;
3. too few college-bound young people were entering the nursing field;
4. more nursing schools were needed within colleges and universities;
5. the continuing lag in the social and economic status of nurses discouraged people from entering the field and remaining active in it;
6. available nursing personnel were not being fully utilized for effective patient care, including supervision and teaching as well as clinical care; and
7. too little research was being conducted on the advancement of nursing practice (U.S. Public Health Service, 1963, p. xiii).

As a result of the Consultant Group on Nursings' recommendations in 1964, an expanded program of federal aid for professional nursing education was proposed in an administration bill known as the "Nurse Training Act of 1964." The legislation authorized the allocation of $283 million over a five-year period (U.S. Congress, Senate, 1964, pp. 1-24).

Iowa in 1941-1968

The National emergency resulted in an expansion of activities and special programs new and unprecedented in the history of the State Department of Health. Preventable diseases remained a problem; however, the biennial period of 1942 saw little increase in epidemics. Raw milk produced an occurrence of 84 cases of undulant fever, or brucellosis in Plymouth County. Prompt control of the epidemic was credited to the sanitary engineer and public health nurse (Thirtieth Biennial Report, 1942, p. 5). The department of vital statistics found its work greatly increased as the demand for certified copies of birth records required by the Selective Service Act brought daily requests of 1,500 per day. In addition, the department developed a card index filing system for all vital records from 1880 to 1942 (Thirtieth Biennial Report, 1942, p. 10).

In 1940 Iowa experienced an epidemic of poliomyelitis more severe in character than any previous epidemic of record in the state with the exception of the outbreak which occurred in 1910. There were 929 reported cases of the disease with 64 deaths. In 1941, 8 children died from diphtheria, and 114 persons contracted smallpox (Thirtieth Biennial Report, 1942, pp. 11-12).

Using the clinical record as a criterion, milk remained the number one sanitation problem in Iowa during the early 1940s with the usual number of epidemics and cases of illness traceable to infected milk. The problem of scarcity of materials, lack of competent labor, and the unfavorable price of whole milk all contributed to the problem (Thirtieth Biennial Report, 1942, p. 109).

Birth rates increased in 1942 with a record total of 49,235 births being recorded. Women were beginning to use the hospital for the delivery of their children with increasing frequency.

> A total of 71.6% of these births occurred in hospitals. The percentage of the births occurring in hospitals in 1943 was 77.10%. The percentage of births occurring in hospitals has been on the increase since 1936 when only 39.43% of the births occurred in hospitals (Thirty-first Biennial Report, 1944, p. 127).

In 1945, Iowa had 465 cases of malaria reported. The striking increase from 16 cases in 1943 was attributed to infection incurred outside of Iowa and the continental United States among men of the Armed Forces and in Prisoner of War Camps.

> Reports from the Schick (Army) Hospital in Clinton accounted for 128 of the cases reported in 1944; the Prisoner of War camp in Clarinda reported 93 cases . . . . and from Page county (POW camp) 35 (Thirty-second Biennial Report, 1946, p. 16).

Although whooping cough could be entirely prevented or made mild through active immunization, there were 176 deaths for the six-year period 1940-1945 (Thirty-second Biennial Report, 1946, p. 22).

The statistics of diseases in Iowa during the 1940 tells much about the health conditions of the state as a whole. But following the headlines of a local paper brings a reality to the statistics:

Waukon Democrat, Waukon, Iowa
May 13, 1948 - Mrs. John Hawes Dies in Childbirth - Followed a Caesarean Section.
October 7, 1948 - Polio Brings Halt To Corn Day
The Board of Health issues an order restraining plans of city for 1948's celebration.
Fear of disease's spreading reason for group action.
Corn Day Committee concurs in wishes to prevent contamination.
Waukon-Republican Standard, Waukon, Iowa
January 13, 1948 - Lansing Girl Dies Friday of Diphtheria

By 1949, 95.9 percent of total births in Iowa were occurring in hospitals. With this increase came the related medical intervention, and somewhat over 20 percent of all births were delivered by operative means, forceps being the most frequent type of operative procedure. (Thirty-fourth Biennial Report, 1950, p. 82).

Marriages and divorces reached a postwar peak in 1946 and declined since that time. The median age for the bride was 21.4 years and the groom 24.3 years during both 1948 and 1949 (Thirty-fourth Biennial Report, 1950, p. 91).

Iowa formed a Division of Hospital Services as a result of an executive order of Gov. Robert D. Blue on February 15, 1945, to conduct a survey of the hospitals and related institutions in Iowa. The order was stimulated by the pending federal legislation in the Hill-Burton Bill, resulting in Public Law 725, passed August 13, 1946. The Iowa Division of Hospital Services was established in the Department of Health in September, 1946 (Thirty-third Biennial Report, 1948, pp. 137-142). Iowa developed a Hospital Plan for the allotment of federal funds. The Hospital Services Division also is involved in the state licensing program (Thirty-fourth Biennial Report, 1950, p. 94).

Nursing Education in Iowa

Iowa experienced a nursing shortage during the 1940-41 fiscal year. In a report of the Field Inspector of the Iowa Board of Nursing for July 1, 1940, to June 30, 1941, she stated:

> There seems to be a shortage of registered nurses in some localities. Many hospital administrators have complained regarding their inability to secure well-qualified applicants for general duty. Apparently this shortage is due to the fact that nurses are entering Government services, Public Health field, or are moving to other states where salaries and working conditions are more attractive. Since March, there has been a trend to increase the salary of the general duty nurse.
>
> The mental health institutions are employing more registered nurses, but in many instances they have from six to nine vacancies which they cannot find applicants for.
>
> One municipal hospital started to train a class of five aides in May. This is their first venture but the Hospital Board felt compelled to do so because of the shortage of registered nurses. These aides are paid twenty-five ($25.00) per month and their uniforms are furnished (Board of Nursing, Minutes, 1941, pp. 166, 167).

Again, the Iowa Board of Nursing heard of shortages of nurses in the state.

> One hospital has closed and six have changed administrators. There are a large number of vacancies for general staff nurses (Board of Nursing, Minutes, 1941, p. 177).

As qualified nurses joined the armed forces, or moved into other jobs to help the war effort, the shortage increased. Federal funds became available for refresher courses and the Board of Nursing attempted to assist schools of nursing in offering the course.

> The Executive Secretary was directed to send a questionnaire to the Schools of Nursing in order to obtain information regarding refresher courses which have been given, are being given or are being planned for (Board of Nursing, Minutes, 1942 a, p.182).

Iowa nurse educators attempted to alleviate the shortage by giving special examinations and by scheduling the usual state board examination earlier.

> A special subjective type examination for older graduates was authorized during April.
>
> Communications were read from Lois B. Corder . . . requesting the Board to conduct a State Board Examination in May or June for candidates who were scheduled to finish in the fall of 1942 (Board of Nursing.Minutes, Feb. 9, 1942 a, p. 182).

The number of students enrolled in Iowa state-approved schools of nursing varied considerably from 1940 to 1946.

Enrollment in Iowa Schools 1946

Year	1940	1941	1942	1943	1944	1945	1946
Enrollment	1694	1793	2236	2490	2948	3020	2412

(Board of Nursing.Minutes, 1946, p. 364).

Nurse resources are intimately related to two major factors: the number of students who enter the field for education and the number of graduate nurses who remain actively engaged in nursing after they have been licensed. Early in 1942, it became apparent that Iowa community hospitals were experiencing shortages of nurses and the enrollment of students was not at the nationally suggested level.

By September 1942, eight schools of nursing had announced their plans to enroll winter classes. Seven schools of nursing had informed the Board of Nursing of their intention to request federal funds for scholarship tuition for the 1942-43 school year (Board of Nursing. Minutes, September 15, 1942c, p. 198).

On September 16, 1942, five hundred and fifty-four graduates appeared at the Statehouse ready for the State Board Examination. This

was the largest class of candidates in the history of nursing in Iowa (Board of Nursing.Minutes, 1942c, p. 199).

By fall of 1943, thirteen schools of nursing had obtained the permission of the Board of Nursing to establish mid-winter classes (Board of Nursing.Minutes, 1943, p. 206).

Efforts of the Iowa Board of Nursing to establish and maintain quality nursing programs continued during the war. Today the nursing programs emphasize nursing care. However, in 1942 the Educational Director described the educational program after a survey visit to St. Joseph's Hospital in Dubuque as providing excellent teaching of nurses with follow-up in the clinical area. However, the report continued, "One very disappointing thing is the lack of doctors' lectures. All teaching is done by instructors" (Board of Nursing.Minutes, 1942c, p. 186).

The enrollment was influenced by the establishment of the Cadet Nursing Corps. The first Cadet Nursing students could be admitted during the fall of 1943 school term.

Of the thirty schools of nursing in Iowa, 23 participated in the 1943-44 year and 27 participated in the 1944-45 school year (Board of Nursing.Minutes, 1945, p. 314). The Iowa Board of Nursing supported schools in their efforts to cooperate with the Federal Government and the Cadet Program. In a Special Meeting of the Board held on December 27, 1943, the board made the following decisions:

> It was decided to extend to Senior Cadets the privilege of applying for the State Board examination to be held Feb. 1, 1944. Policies for schools of nursing regarding U.S. Cadet Nurse Corps were recommended as follows:

1. That schools of nursing comply with recommendations of the U.S. Public Health Service in regard to vacations for students in the U.S. Cadet Nurse Corps (See American Journal of Nursing, December, 1943, page 1133.)
2. That in the event of illness, time be allowed Senior Cadets Nurses, not to exceed 7-1/2 days.
3. That the curriculum for the Senior Cadet period be submitted to the Iowa Board of Nurse Examiners for approval.

It was the opinion of the Board that applications of hospitals for Senior Cadets be acted upon individually in lieu of setting minimum standards.
(Board of Nursing, Minutes, 1943, p. 245).

At the same special meeting the Board of Nursing reviewed the application of the Veterans' Administration Hospital in Des Moines to have Senior Cadet Nurses in their facility.

A report of the proposed Senior Cadet experience at the Veterans' Administration Facility at Des Moines was presented and given favorable consideration. The following recommendations were made:

1. That a qualified head nurse be appointed as Educational Director in charge of the program for Senior Cadet Nurses.
2. That the instructional program be planned to include clinical conferences, demonstrations, etc., averaging about 3 hours a week.
3. That ward libraries be available to meet the needs of Senior Cadet Nurses.
4. That an adequate reference library be developed.
5. That in the event of illness time allowed not to exceed 7-1/2 days.
6. That insofar as possible, Cadet Nurses be assigned to services which will best supplement their previous training.

(Board of Nursing, Minutes, December 27, 1943, p. 245).

Hospitals were short of professional nursing staff and saw the Cadet Nurse program as one way to provide trained nurses for patient care. The state hospital at Cherokee, Iowa, desired Cadet Nurses and submitted their application to the Board of Nursing. A report of the

proposed Senior Cadet program at Cherokee was presented. The following recommendations were made:

1. That a qualified Director of Nurses be appointed to assist in planning, guiding and administering the program for Senior Cadet Nurses.
2. That services to which Senior Cadets will be assigned be in charge of graduate registered nurses who has had experiences in psychiatric nursing.
3. That Senior Cadet Nurses be under the supervision of graduate nurses throughout the entire course.
4. (a) That a more complete class outline be submitted.
   (b) That a more definite plan of clinical experience be submitted.
5. That hours per week average 48 including class and ward teaching.
6. That students be assigned to day duty only.
7. That the length of Senior Cadet experience be three months.
8. That in the event of illness time allowed Senior Cadets Nurses not exceed three one-quarter days.
9. That a pro-ratio of vacation would be acceptable.
10. That ward libraries be available to meet the needs of Senior Cadet Nurses.
11. That an adequate reference library be developed to meet the needs of Senior Cadet Nurses.
12. That complete records of theory and practice be kept for each student.
13. That adequate and comfortable living quarters be provided.
    (a) Renovating rooms for Cadets
    (b) Furnishing living room attractively
    (c) Making provisions for kitchenette if possible

(Board of Nursing, Minutes, 1943, p. 246).

The Iowa Board of Nursing recognized two areas of concern as they moved into the accelerated program of the cadet program. The first area was a lack of adequate clinical experience which was available in the smaller hospitals. St. Thomas Hospital in Marshalltown was advised to secure a six months' affiliation in surgical nursing. The Board of Nursing stated "it seems questionable to us if the surgical experience of the students in this school is adequate since the daily census is

limited as 12-1/2 for 1940, 10-1/6 for 1941, and 9 for 1942" (Board of Nursing. Minutes, 1943, p. 226). As a rough estimate to determine the adequacy of clinical material, the Iowa Board of Nursing suggested the following yardstick:

> Medical or surgical service ratio of one nurse to approximately three patients.
>
> Obstetrical service ratio of one nurse to approximately two patients.
>
> Pediatric service ratio of one nurse to approximately 1.5 patients (Board of Nursing . Minutes, 1943, p. 227).

The second area of concern was the lack of qualified nursing faculty. In 1947 there were only 61 colleges and universities in the United States that offered programs for graduate nurses (American Nurses Association, Facts About Nursing, 1952, p. 65). The majority of the teaching staff in Iowa in the early 1940s were graduates of a diploma school with little experience in nursing.

> One of the continuing acute problems in most Iowa Schools of Nursing is the lack of an adequately prepared faculty.
>
> The Schools of Nursing in the state have participated in the faculty emergency program provided by the U.S. Public Health Service--the "trainer-trainee" program. The Iowa League of Nursing Education acted as the sponsoring agent in this state.
>
> Trainers were provided by:

No. of trainers	Hospital school of nursing	Courses given
2	Mercy Hospital, Cedar Rapids	5
1	Broadlawns, Des Moines	3
1	St. Joseph, Sioux City	2
1	St. Joseph, Dubuque	2

> Other trainers giving courses in the state were from: Vanderbilt University (1), Mercy Hospital, Chicago (1) Peoria, Illinois (1).
>
> The courses given by the latter were not sponsored by the Iowa league of nurse education. A total of 15 courses were given by 8 trainers in the past 4-1/2 months. Schools of nursing with "trainees" courses given in residence or in the locality . . . . [included 25 Iowa Schools] The total number of faculty taking courses will be well over 200 (Board of Nursing. Minutes, 1944, p. 315).

The nursing faculties recognized their need for additional education and, when provided the opportunity for help, requested specific assistance in relation to:

> faculty: organization, preparation
> controlling body: organizational charts
> student selection: counseling guidance
> curriculum: clinical evaluation
> (Board of Nursing, Minutes, 1944, p. 317).

Postwar Reappraisal in Iowa 1945-1950

In a report to the Iowa Board of Nursing, the Educational Director made note of the drop in admissions to schools of nursing in the fall of 1946.

> In the fall of 1945, 673 students were enrolled.
> The present figure is 23% below that of last fall.
> (Board of Nursing, Minutes, 1946, p. 380).

Although there were 28 schools admitting classes in 1946, six of the schools had classes under ten students, and St. Joseph of Clinton did not admit a class because of a lack of applicants. The schools with small classes were:

Burlington - Mercy Hospital	7
Clinton - Jane Lamb	7
Council Bluffs - Mercy	8
Des Moines - Broadlawns	8
Dubuque - Finley	8
Marshalltown - Mercy	9

The large classes in the fall of 1946 were:

S.U.I. - Iowa City	73
Des Moines - Iowa Methodist	43
Des Moines - Iowa Lutheran	32
Sioux City - St. Joseph	29
Dubuque - Mercy	26

(Board of Nursing, Minutes, 1946, p. 380).

The Cadet Nursing program at Mercy Hospital, Marshalltown, Iowa, had been established when Sister Mary Brigid Condon arrived in 1943. In 1946 there were 9 applicants to the diploma school of nursing. Sister Brigid realized that something had to be done about the acute nursing shortage. She wrote to St. Mary's Hospital in Rochester and the Holy Ghost Hospital in Boston for some assistance in planning a new type of nursing program for Iowa. But neither of these hospitals had experience in the type of program suggested by Sister Brigid. Utilizing one year as preparation time, Sister Brigid Condon planned the 18 months' program. Sister Brigid, a tiny lady who confessed to putting rolls of coins in the pockets of her habit so she would weigh enough to donate blood, stated she was aware that Iowa did not have a licensing law for practical nurses when she admitted her first students in June, 1948. "However, I guaranteed the students that we would have State licensure by the time they graduated. I think God took care of my foolishness" (Condon, Note 1). In March, 1949, nine months after the first students began the program, Governor Beardsley signed the licensing law for practical nurses. The law became effective July 4, 1949. The first students of Mercedian School of Practical Nursing graduated in January, 1950. The Mercy Hospital School of Nursing, Marshalltown, Iowa, diploma program closed as the Mercedian School of Practical Nursing opened. The pioneer class at Marshalltown in 1948 began with a group of 14 students including two religious sisters. Twelve students graduated. Graduates for the next few years were:

1951 -- 5
1952 -- 8
1953 --14
1954 --12
(Yearbook 1948-1970, 1971).

The acute nursing shortage in Iowa was affecting all hospitals. Some employing agencies found it necessary to train their own auxiliary workers and hire practical nurses who may or may not have been graduates from schools of practical nursing from outside of Iowa. In the fall of 1947, the Iowa Board of Nursing gave consideration to accepting students into nursing programs who were not as qualified as were the previously selected students.

> Selection and Guidance of Students: No change since 1944, except approval for those in lower 1/3 of high school class if average rank is attained on National League for Nursing Education Pre-nursing tests (Board of Nursing. Minutes, 1947, p. 475).

The Iowa Board of Nursing strongly believed that nursing students could not be educated in a facility which did not provide adequate nursing care. The use of a "role model" for clinical practice was deemed extremely important. In February, 1948, the shrinking number of available professional nurses had to be dealt with once again. The policy controlling employment practices within hospitals that had schools of nursing had to be reexamined.

> The Board met in the Senate Chamber at 12:30 at the call of the Chairman to discuss the employment of auxiliary workers and practical nurses in hospitals conducting accredited schools of nursing.
>
> A communication from Jessie P. Norelius, Executive Secretary, Iowa State Nurses Association, was re-read.
>
> On motion of Adelaide Beers, R.N., it was unaminously voted that the following policy be adopted and that Schools of Nursing, Registrars, and the Board of Directors of the Iowa State Nurses' Association be so notified.

> Practical Nurses who are graduates of an accredited or approved School for Practical Nursing (accredited or approved by the legally authorized accrediting agency in the state in which it is located, or by the National Association for Practical Nurse Education), may be employed as practical nurses in a hospital conducting an accredited school of nursing (Board of Nursing.Minutes, 1948a, p. 441).

The nursing resources in Iowa were intimately related to the factors of student enrollment and graduates staying in practice. Perhaps the report of the Educational Director of the Board of Nursing explains why there was a severe nursing shortage during the summer of 1948.

> Admissions to Iowa Schools of Nursing reached a maximum during the fiscal year ending June 30, 1944. Thirteen hundred and ninety-nine students were admitted during that year representing an increase of 73% over 1941 figures. From this all-time high admission figure, the admission for 1945-46 dropped to 730, which figure is approximately 9% below the 1940-41, and the 1946-47 to 590 which figure is approximately 35% below that of 1940-41. The figure of 726 admissions is approximately that of the 1945-56 year and is about 10% below 1940-41. The admission figure for 1947-48 is 23% over that of 1946-47 (Board of Nursing.Minutes, 1948b p. 470).

Reasons as to why young women did not enter or stay in nursing are widely varied. One important reason was the attitude toward married students. Nursing schools did not have provisions for married students. If students decided to marry while attending school, they often had to drop out because schools did not know how to handle the problem of where the married student should live.

In 1949 over 90% of all Iowa births were taking place in the hospital. New surgical techniques, increased knowledge of medicine encouraged the use of hospital facilities. The

situation in 1948 was described by the Board of Nursing:

> One of the very evident problems creating many pressures is that of nursing service. Some of the contributing factors are: increased number of patients, in some instances marked over crowding, student enrollment is greatly decreased, the number of graduate nurses employed may be limited due to various factors, and increased number of aides needing adequate supervision. The cooperation of all interested in the hospital and school of nursing will assist in meeting and solving the problems within the institution (Board of Nursing . Minutes, 1948b, p. 478).

Practical Nurse Licensure

In 1947, the Iowa State Nurses' Association, the professional nurse organization, supported the introduction of a bill for the licensure of practical nurses in the State Legislative Assembly, but the bill was never brought to the floor for a vote. In 1949, the Iowa State Nurses' Association sponsored an amendment to the Iowa Nurse Practice Act. This amendment provided for the licensure of practical nurses with a provision for annual licensure renewal. This law defined practical nursing:

> For the purpose of this title the practice of nursing as a licensed practical nurse shall mean the performance of such duties as are required in the physical care of a convalescent, a chronically ill or an aged or infirm patient, and in carrying out such medical orders as are prescribed by a licensed physician or nursing services under the supervision of a registered nurse, requiring the professional knowledge and skills of a registered nurse (Law of Iowa, 1949, p. 7).

The Iowa Board of Nurse Examiners was charged with responsibilities of examining candidates for licensure and approving education programs in practical nursing. The Educational Director of the Board of Nursing reported the activity which followed the passage of the Practical Nurse Licensure law as follows:

> In January, 1949, we cooperated with the American Nurses Association by addressing and mailing 15,530 postal card questionnaires to all actively registered nurses in this state for the inventory of professional registered nurses.
>
> In March, Governor Beardsley signed House File 300, the provisions of which became effective July 4, 1949. The provision providing for the permissive licensure of practical nurses has increased the volume of work in the Department. It was necessary to compile application forms, pernament ledger cards, and other materials necessary for licensure of another group. The system has been set up as recommended by and acceptable to the Supervisor of State Audits.
>
> Some of the newspaper and radio publicity regarding the requirement for the licensure of practical nurses has been misleading; therefore, increasing the deluge of correspondence. Some of the registered nurses in key positions have not been entirely clear regarding the provisions of the Nurse Practice Act which now provides for the mandatory licensure of the registered nurse and the permissive licensure of the practical nurse.
>
> There seems to be considerable interest manifested by hospital administrators in establishment of schools for practical nurses. The Woodward State Hospital has recently graduated their first class of practical nurses. The program has been under the guidance of Bess Cunningham, a former school nurse in Oskaloosa. Miss Jessie Norelius, Executive Secretary, Iowa State Nurses' Association, offered considerable assistance in the establishment of the course. There seems to be a general trend in other state institutions to establish similar courses. We have also received inquires regarding requirements for practical nurse schools from administrators of hospitals which formerly conducted schools for registered nurses. The four local hospitals in conjunction with the Adult Educational Department of the Public School system are interested (This will be discussed later.) Since the revision of the Rules and Regulations for the Accredited Schools of Nursing contains material only in relation to the school for the registered nurse, it would seem expedient that the Board set the requirements for practical schools at an early date (Board of Nursing. Minutes, 1949, p. 510).

The bill provided for a two-year period, July 4, 1949, through July 3, 1951, in which those who had been successfully employed in nursing could become licensed through waiver of the requirement of

attending an educational program. The applicant had to provide affidavits from physicians or professional nurses to certify the competency, character and experience, and each applicant was required to pay a licensure fee and pass the licensure examination. When the waiver period ended on July 3, 1951, all applicants were required to have completed an educational program as required in the law.

On July 28, 1949, Myrtle Kitchel, Director of Nurses, State University of Iowa School of Nursing, and Amy Francis Brown, a member of the faculty, appeared at the Board of Nursing for a conference. "Discussion followed regarding the future plans and the place of the State University of Iowa School of Nursing in the total pattern of nursing education (Board of Nursing. Minutes, 1949, p. 528).

The Iowa Board of Nurse Examiners sponsored a meeting July 28, 1950, at Hotel Savery in Des Moines to discuss the problem of Practical Nurse Education in Iowa. Those present represented various educational and nursing interests including the Iowa State Office of Vocational Education, Des Moines Hospitals, the Iowa State League of Nursing Education, the Licensed Practical Nurse Association of Iowa, the Iowa Department of Health and the Iowa State Nurses' Association Committee on Aid to the Practical Nurse. Miss Amy Viglione from the United States Office of Education was present as consultant. Miss Dorothy Freriks, Chairman of the Iowa Board of Nurse Examiners presided.

> Miss Vera Sage, Executive Secretary of the Iowa Board of Nurse Examiners, outlined the progress of the Practical Nurse movement in the state. The amendment of the Iowa Nurse Practice Act which was sponsored by the ISNA was passed by the State Legislature in 1949 . . . Three hundred twenty-seven practical nurses have become

> licensed under the waiver clause of this amendment, after successfully passing the examinations which were held in September 1949 and February 1950. In several of the state institutions, special classes have been provided for the attendants to prepare for the examinations under the waiver clause (Rasmussen, Note 2).

Miss Viglione also urged the group to form a State Advisory committee for Practical Nurse Education and a "pilot" school which would serve as a model for the rest of the state (Rasmussen, Note 2).

The Iowa Board of Nursing did not have criteria for practical nurse education programs when the licensing law was passed. However, they recognized the need to develop the requirements and had several meetings with the State Director of Vocational Education.

On January 31, 1952, a report of the efforts to establish standards for practical nursing schools was shared with the Board:

> At a brief meeting of the Iowa Board of Nurse Examiners held September 15, 1951 at Hotel Savery, the Director of Nursing Education presented a plan for Criteria for a Practical Nurse Program which was approved by the Board. Conferences have been held from time to time with Mr. Cope, State Director of Vocational Education to discuss the requirements for establishing a program in Practical Nursing in a Vocational Education situation. The State Board of Nurse Examiners have not been informed of any specific plans to establish a program. To the knowledge of the director of Nursing Education, no progress has been made (Board of Nursing. Minutes, January 31, 1952a, p. 599).

On August 22, 1952 Myrtle Kitchell, Dean of the College of Nursing at the University of Iowa, Iowa City, provided a Suggested Plan of Operation of the Practical Nurse Education program to Dr. Virgil Hancher, President and Dr. Harvey H. Davis, Provost. The organization of the practical nurse program was described as:

> The Department of Practical Nurse Education is an adjunct department of the College of Nursing, and is placed under the administrative guidance of Dean of the College (Kitchell, Note 3).

On September 23, 1952, Ms. Kitchell notified the Board of Nursing of the University of Iowa's intention of developing a Practical Nurse Education Program. The program was developed with the idea of meeting the standards of accreditation under the National Practical Nurse Education Association (Kitchell, Note 4).

In January, 1953, a first class of six students was enrolled in the demonstration program in the Department of Practical Nurse Education of the University of Iowa. In September, 1953, a second class of 23 students was enrolled. By 1953, there were approximately 60 graduates from the Mercedian School of Practical Nursing; however, Iowa had over 1,000 licensed Practical Nurses (ANA, Nursing Information Bureau. Facts About Nursing, 1954, p. 105). The majority of these nurses had met the requirement to take the licensing examination by waiver which was: citizenship in the United States, good character, and practice of practical nursing for a period of two years during the preceding five years. It was quite natural that problems with interpersonal relationships would develop. A lack of rapport existed between many of the licensed practical nurses and professional nurses.

On September 14, 1950, Jessie P. Norelius, Executive Secretary of the Iowa Nurses' Association sent a memo to the Directors of Hospitals, Nursing Homes, Sanatoriums and Physicians. The memo was directed to the standards of care that could be expected of a practical nurse. Instead, the memo covered some of the questions raised by registered and practical

nurses. The practical nurses were to wear a white uniform, but no cap. They were directed to purchase a pin from the Iowa State Nurses' Association and to purchase the insignia which they must wear on the left sleeve (History -- Development of Nursing, 1970).

On February 29, 1952, a registered nurse wrote a letter of concern to Ms. Norelius. She complained that the practical nurses had similar caps, pins, uniform, and white hose.

> . . . we need them badly, but can't we keep them in their place? (History -- Development of Nursing, 1970).

At the time the first advisory committee was meeting to plan practical nurse education on a state-wide basis, another committee under the State Division of Vocational Education (now the Iowa Vocational Education Division) made specific plans for a pilot school to be established in a community where vocational educational facilities were available. On this basis, the first funds for practical nurse education was allocated to the State Division of Vocational Education by the State Legislature in 1951. Plans for this type of school were completed in Des Moines and the opening of the school was to take place as soon as faculty was obtained (Kerr, 1953, p. 8).

On July 10, 1953, a Board of Nursing member and the Director of Nursing Education visited St. Luke's Methodist Hospital, Cedar Rapids, Iowa, to confer with the Hospital Administrator and the Educational Director for the Practical Nurse Program (Board of Nursing, Minutes, July 23, 1953, p. 678). The program at St. Luke's Methodist Hospital, Cedar Rapids, was the first educational program established in a hospital that had an on-going three-year diploma program.

Etta H. Rasmussen served as the Educational Director of St. Luke's Methodist Hospital School of Nursing in Cedar Rapids until October 23, 1952. At that time, she accepted the offer of Miss Kitchell, College of Nursing, Iowa City, to become chairman of the Department of Practical Nurse Education at the State University of Iowa, Iowa City. Elizabeth Kerr accepted the appointment as an instructor in the practical nurse program in September 1952. These two nurses struggled with the question of "What shall we teach the practical nurse students?" They consulted the practical nurse organization National Association for Practical Nurse Education (NAPNE) and Hilda Torrop, who served as a consultant to the program. Ms. Torrop was very critical of the Iowa Board of Nursing because they used the same examination for those individuals who graduated from a program in practical nursing and those who qualified for the examination by waiver (Story, Note 5).

The struggle with the curriculum led to the agreement that instruction in the demonstration practical nurse program would be concurrent with nursing practice.

> Twenty (20) hours per week were allocated to guided practice in the clinical aspects five hours a week to ward conference . . . This plan is a departure from the traditional pattern in practical nurse education in which all instruction . . . is concentrated in a 16-week period . . . followed by a clinical period in which the student is assigned to a nursing area for . . . 40 hours per week (Rasmussen, Note 6).

As part of the responsibilities of being a demonstration program, the instructors and chairperson gave assistance to schools that were planning to establish new practical nurse programs. Some assistance was given to St. Luke's School in Cedar Rapids in curriculum planning, "considerable

help provided to the Clarinda Junior College in Clarinda in all phases of the . . . program." Also help was given to the Fort Dodge Junior College and consultation service to the Jane Lamb Hospital in Clinton (Kerr, Note 7).

The Iowa Board of Nursing was in strict and tight control of all nursing education in Iowa. It reviewed student records to assure admission standards; they approved all potential transfer of courses from one school to another. They were, in fact, acting in the capacity of a director of a nursing program.

> Conference with Mrs. J. P. Lippold from Spencer, Iowa, regarding her daughter Mary, September 23, 1954. Mrs. Lippold came to the office requesting that her daughter Mary be granted permission to enter the Mercedian school for practical nursing after it had been in session . . . The request was discussed with the Chairman of the Board and permission was not granted (.Board of Nursing, Minutes, 1954, p. 728).

> The readmissions and transfers [of students] were presented. The Board unanimously voted to adopt the following policy: That the Director of Nursing Education be empowered to approve readmissions and transfers subject to Board ratification, during the periods between Board meetings (Board of Nursing, Minutes, 1953, p. 679).

On March 27, 1956, the Chairman of the Iowa Board of Nurse Examiners gave a resume of the 1955 conference of Practical Nursing. The Chairman informed the participants that they could recommend to the Board of Nursing:

> 1. No change in admission policies.
> 2. The high school with birth certificates be sent in sometime during the year.
> 3. A complete change in admission policies.
>
> After some deliberation, Elizabeth Kerr moved that the faculties of the practical nurse program be allowed to approve their own candidates for the school without

> sending them to the Board of Nurse Examiners Office for review. Elizabeth Kerr stated that she felt the faculties of the school of Practical Nursing were ready to assume the responsibility. This recommendation will be presented to the Board at their Annual meeting in July. The nurse administrators will receive a reply after the Annual meeting (Board of Nursing. Minutes, March 27, 1956 a, p. 3).

On May 25, 1955, the Iowa Board of Nursing met in special session in Ames, Iowa, for the purpose of reviewing the proposed Practical Nurse Program to be conducted at Clarinda Junior College, Clarinda, Iowa. The program was approved to be established with provision for review at the end of the year (Board of Nursing Minutes, May 25, 1955, p. 724).

Des Moines, Iowa, struggled to establish a practical nursing program.

> The Adult Education Department of the Des Moines Public Schools, the State Department of Vocational Education and other interested organizations have been untiring in their efforts to establish a school for practical nurses in Des Moines. At times, the obstacles such as securing funds and a qualified Director for the programs have seemed insurmountable. However, recently rooms have been made available at North High School and applications have been received for the position of the Director (Board of Nursing Minutes, October 1952 b, p. 12).

It was not until 1958 that classes began at the Des Moines School of Practical Nursing.

In 1957, at the advisory committee meeting for practical nurse education, the four directors of Iowa's only practical nursing programs were invited to comment about their programs.

Mrs. Cornelia Loynachen, Director of St. Lukes School in Cedar Rapids, indicated that all of the schools in Iowa follow much the same pattern regarding length of course, methods of selection of students, and curriculum.

> Sister Mary Annetta, Director of the Marshalltown school . . . said the curriculum was shortened last year [1956] to 12 months.
>
> Mrs. White, coordinator of the school in Clarinda, stated . . . this school differs. . . in that it is the only one under a Board of Education, rather than a hospital . . . administered by Clarinda Junior College . . . experience in . . . Municipal Hospital, Clarinda; Clarinda Mental Health Institute; and the Jennie Edmundson Memorial Hospital, Council Bluffs (Advisory Committee, 1957).

Miss White apparently did not remember that the Iowa City demonstration program was with the College of Nursing, State University of Iowa.

During the Department of Public Instruction, Division of Vocational Education Advisory Committee meeting for Practical Nurse Education, Mr. O. H. Beaty, State Supervisor, Trade and Industrial Education, explained the use of Federal Funds for practical nursing.

> Mr. Beaty, in speaking of new legislation affecting practical nurse education, said that the Federal government has authorized the appropriation . . . for new schools of practical nursing, expansion of existing programs, and in-service training . . . . Iowa's share amounts to slightly more than $45,700 . . . in order to qualify . . . schools must be operated by a public school in cooperation with the Division of Vocational Education. The Clarinda Junior College now conducts the only one which qualifies . . . .He also said that the Vocational Education Department is required to set up an advisory committee to assist in administering the program, and either employ a full-time nurse supervisor, or a part-time nurse-consultant. He said the reason Miss Kerr is referred to as an "unofficial" consultant is that she has been giving her time and services to date and the department is negotiating with the State University, by which she is now employed to bring about her official employment (Advisory Committee, May 16, 1957, p. 4).

On February 7, 1957, Donald Lippold, Director of Adult Education, Waterloo Public Schools, had filed materials with the Executive Secretary of the Iowa Board of Nursing in an attempt to open a practical nursing program in Waterloo, Iowa.

It was the decision of the Board that Etta Rasmussen, Wave Arnold, Myrtle Aydelotte and the Executive Secretary review all the details of the program. Following the review a letter was written to Mr. Lippold calling attention to the areas about which the Board would need additional information.

We wish to raise a question regarding the relationship of the coordinator to the hospitals and the instructors to the hospitals as shown in your organizational chart. Information given in your Memorandum of Agreement indicates that the "clinical teacher supervisors" are employees of the hospital. Are these the same as the instructors shown on the chart? We are particularly concerned about the authority relationships between these "clinical teacher-supervisors" and the coordinator who carries the primary responsibility for the program conducted by the Waterloo Public Schools. It is not possible for the Board to determine the scope of activities of the coordinator since a description of this position was not included in the material submitted. A statement under (Section III E), No. 5 Memorandum of Agreement leads us to believe that the clinical teacher supervisors are not considered a part of the faculty.

We wish to emphasize that these persons in the clinical area should be responsible to the administration of the school for all of their activities in relations to the students in order to provide continuity in the learning experience. You will recall that we have previously questioned the advisability of these persons being in the employ of the hospital. The selection, supervision and guidance, and control should rest with the school. Your memorandium of agreement III A indicates that the hospitals are to provide nursing experience in certain designated areas including geriatrics, psychiatry and the home. We wish to raise the question of availability of such experience. Only one of the three hospitals has psychiatric facilities, and no information is provided regarding geriatrics and provision for home nursing. Your résumé on information on hospitals shows that only one of the three is approved by the Joint Commission of Hospital accrediation. We refer you to the regulation of the Board on page . . . of the requirements, recommendations and policies governing Iowa accredited schools of practical nursing (1954) neither is it clear whether each hospital will provide for all groups of students all of the experiences listed. It will be necessary for the Board to have detailed information on these matters.

We note also that students are to be assigned in the hospitals in an "unbroken 8 hour duty, 5½ days weekly." Elsewhere (Section III - E) it is stated that the clinical instructors are to provide 8 hours of instruction per week.

Are we to understand that these 8 hours are to be included in the 44 hour week?

We are interested in your use of the term "eight hour duty." "Duty" implies that service is to be rendered. It is true that learning experiences can be provided while service is being rendered but it is impossible to provide useful learning experience for this period of time. Students will be repeating unnecessarily, from the standpoint of their learning needs, many procedures which will contribute to the nursing service of the hospital and for which they are not being compensated. If students are assigned to practice over and above their learning needs they are entitled to cash or maintenance reimbursement. (In the Iowa approved Schools of Practical Nursing, to provide maintenance and to limit the practice hours to 20 per week) We note that the student is paying for her own maintenance while she is in the Waterloo Schools.

The Iowa Board of Nurses' Examiners feels that it is sound to require that students pay for their own board and room. But in this event time allocated for practice should be restricted to that needed for learning.

In this connection also we wish to raise a question regarding the possibility of maintaining supervision of students by clinical teacher supervisors for the entire practice period of 44 hours per week. This should be evaluated from the standpoint of faculty load. We also note that the students will be assigned, weekends, evenings, and nights. Will supervision be provided for them during these periods by the same person. The Board cannot approve the title given to the school in the present announcement. The word "licensed" is incorrectly used in relation to the school and practical nursing. Since the licensing is a legal procedure designated by law to be the responsibility of the state agency, it cannot be achieved through a school. (The school of course, may prepare individuals for licensing but the licensing takes place after the preparation period.) In other words "practical nursing" is distinguished from licensed practical nursing only by action of the Board of Nurse Examiners and therefore, a school cannot provide instruction in licensed practical nursing.

No doubt the registered professional nurse whom you appoint as director may wish to revise the model course outlines of the National Association for Practical Nurse Education that you have submitted, to meet the objectives and the special needs of your situation. As an example, and only an example, will the faculty of your school wish to place the same emphasis on certain objectives as the course in Family Living pertaining to home management (see Family living 2 B) as we find in this model: Will this learning experience be needed by the students you admit from

the standpoint of their backgrounds and the type of work which they will be doing as graduate practical nurses?

We do not find course outlines for all of the subjects which you have included in your class schedule and which you have indicated in the list of experiences to be obtained in the hospital. However, we realize that this may have been an omission or lack of time.

In summary the following points have been raised:

1. Appointment of Coordinator.
2. Qualification of faculty.
3. Relationship of coordinator to hospital, instructors, and clinical teacher-supervisors.
4. Functions of coordinator.
5. Time of appointment of coordinator.
6. The placement of the clinical-teaching supervisor in the structure of the school.
7. Provision of learning experiences in nursing particularly in geriatrics, psychiatric nursing, and home nursing.
8. Accreditation by the joint commission of hospitals providing clinical experience.
9. Assigned practice hours in excess of learning needs.
10. Provision of supervision of student's practice during all periods.
11. Use of term "licensed" in the title of the school.
12. Revision of course outlines to meet objectives and needs in the local situation.

If further clarification of the above is needed, please feel free to call upon us. Since the date of the opening of your school has been postponed, we feel that you will have time to give consideration and to take appropriate action on the above and then submit the required information to our Board for review (Board of Nursing. Minutes, 1957, pp. 811-813).

The Waterloo School of Practical Nursing was established in 1957 and was the first program in Iowa to be administered by a local Board of Education under a Public School System.

Sister Mary Clarella, R.N., St. Anthony Hospital, Carroll, Iowa, requested permission to close the professional school of nursing and open a practical program. The Iowa Board of Nursing granted the request, and the Antonian School of Practical Nursing was established in September, 1958.

Elizabeth Kerr recognized the availability of funds and how to take more advantage of the use of those funds. Her philosophy is expressed in a letter to Miss Helen K. Powers, Program Specialist, Practical Nurse Education Section, Division of Vocational Education, U.S. Office of Education:

> It goes without saying Iowa Schools can use additional funds and if it can be done justifiably, it seems regrettable that we should be returning large amounts of unused funds each year (Kerr, Note 8).

Because it was a demonstration program, the Practical Nursing Program at the State University of Iowa, Iowa City, had a higher than average cost. Miss Kerr was able to help that program because of its teacher preparation and research potential.

> . . . officials . . . with vocational education in Iowa's Department of Public Instruction helped us qualify to receive reimbursement for this program through George-Barden funds. Effective July 1, 1959, one-half of our instructional costs in this program will be met from this source (History -- Development of Nursing, 1970).

In 1956, Public Law 911, the Health Amendments Act of 1956, also known as the George Bardon Act Title II, which had as a purpose to improve the health of the people by assisting in increasing the number of adequately trained professional and practical nurses, appropriated federal funds for the preparation of nurses. Iowa qualified for the funds when the State Plan was approved. In accord with this State Plan, the promotion and general supervision of practical nurse education under public education is the responsibility of the Division of Vocational Education and is the responsibility of the Division of Vocational Education of the Iowa Department of Public Instruction (Title II-Vocational

Education in Practical Nurse Training, and Title III, Public Law 911 - 84th Congress, Chapter 871, 2nd Session).

Ms. Kerr requested specific information about the use of P.L. 911 and matching funds in the following areas:

1. For local secretarial assistance.
2. For guidance and counseling on the local level.
3. For supervision of programs as carried out by local administrative personnel.

If funds could be used for a purpose, Miss Kerr was sure to notify involved individuals (Pearson, Note 9). Also in January of 1959, Miss Kerr worked with the Chief, Practical Nurse Education, Division of Vocational Education, U.S. Office of Education Washington, D.C., to clarify her duel role of Chairman of the Department of Practical Nurse Education (appointed November 1955) and State Consultant, Practical Nurse Education, Division of Vocational Education, Department of Public Instruction State of Iowa (appointed January 1, 1958):

> Under the present plan, I am Chairman of the Department of Practical Nurse Education . . . and am serving as State Consultant, . . . The former position requires approximately 25% of my time and the latter, 75%. Contrary to Mr. Pearson's understanding, my salary is paid by the University with 50% reimbursement made to the University from the Division of Vocational Education. My function as Chairman, Department of Practical Nurse Education, College of Nursing, has been viewed as being a part of the State activity . . . .
>
> With the instigation of Practical Nurse Education under Vocational Education in Iowa, the Director of Vocational Education avidly sought guidance and leadership from our University program in Practical Nurse Education and since one of the functions of the University of Iowa is to provide service to the State, University administration was willing to provide a faculty person to serve as Consultant in Practical Nurse Education if this

> person were permitted to carry a partial assignment at the College of Nursing. As I review the responsibilities of the State Supervisor . . . as outlined by your office, . . . it seems the effectiveness of this position in our state is tremendously enhanced with the availability of resource persons, professional educators, facilities for testing . . . the State Consultant, as a University faculty member has available within the University . . . structure. Unquestionably the affiliation with the University also enables the Consultant to make contacts . . . with many state agencies and professional organizations . . . (Kerr, Note 10).

Because of her efforts, the unusual but productive relationship with the State Department of Public Instruction and the Programs in Health Occupations developed. Everyone involved with this arrangement did not always agree that it served the State of Iowa the best. For example:

> Mr. Windol Wayatt, State Director, Vocational Education, Mr. Ken Wold and Mr. Bill Banaghan . . . discussed areas of mutual concern . . . lack of communication between departments, particularly concerning proposal and plans for new programs in nursing . . . number of late proposals and requests . . . Mr. Wayatt shared information that they are recruiting for a nurse . . . they feel it is desirable that one of the nurses in Health Occupations Education be located in the Division of Vocational Education in Des Moines. The matter of lack of communication, not only between vocational education and the Board, but also between the central office of vocational education and the Health Occupations Education and the proposed and established vocational schools seems to be lacking (Board of Nursing Minutes, February, 1967, p. 10).

Again in 1969 a new State Director of Vocational Education desired to alter the well functioning unit. Apparently William Schuermann visited the Health Occupations group in Iowa City and requested they fill out the weekly itineraries required by Mr. Schuermann of all persons working within the Vocational Education Branch. Miss Kerr's response by letter was as follows:

> Last Tuesday, during your first visit . . . you requested we submit our weekly itineraries to . . . in Des Moines. At that time I informed you that Dr. Robert C. Hardin, Vice President of Medical Affairs, . . . took exception to a like request in the past. Dr. Hardin is the person to whom we as University employees are directly responsible.
>
> I also indicated to you . . . that we keep our secretarial staff informed of our whereabouts . . . . we have a WATS line which allows ready access to the State office.
>
> Upon departing this office you expressed satisfaction with our accomplishments and indicated we would continue as at present. Therefore, we were somewhat surprised yesterday when we received a supply of itinerary forms with the direction that each of us was to weekly complete one form and send it to your office . . . . it is my policy to consult Dr. Hardin on administrative matters of an unusual nature, I yesterday shared with him your above-mention directive. Again, his reaction was one of opposition. He expects professional personnel to assume responsibilitie inherent in the position for which each is employed . . . . Should you wish to further press this matter . . . I have no doubt that Dr. Hardin will be willing to discuss this with you directly (Kerr, Note 11).

On July 28, 1969, Mr. O. P. Brunsvold, Associate Superintendent, Vocational Education Branch, State Department of Public Instruction, attempted to alter the arrangement. Miss Kerr again responded by mail.

> During our conversation . . . you expressed a desire for the Health Occupations Education Section to participate in planning and development activities of the Branch. At that time I indicated we would discuss this matter at our regular professional staff meeting Monday morning and indicate to you the results . . . . No one of us is willing either now or in the foreseeable future, to take up permanent residency in Des Moines. However, because we feel there is potential merit in organizing a group for Branch Planning and Development, Dale Petersen has agreed to commute to the Branch office site to participate in these activities. Only time will reveal how much of Dale's involvement is necessary. This, in turn, will indicate whether this arrangement is satisfactory or if an alternative plan will need to be considered (Kerr, Note 12).

A progress report of the growth of practical nursing occurred at a meeting with the State Advisory Committee for Practical Nurse Education which was held May 4, 1960:

a. Programs administered under Vocational Education and receiving Federal funds:
   Clarinda--Clarinda Jr. College School of Practical Nursing
   Waterloo--Waterloo School of Practical Nursing
   Des Moines--Des Moines School of Practical Nursing
   University of Iowa--Iowa City, College of Nursing, Department of Practical Nurse Education
b. Private Programs:
   Carroll--St. Anthony Hospital
   Cedar Rapids--St. Luke's Methodist Hospital
   Marshalltown--Mercedian School of Practical Nursing
c. Proposed program in Iowa;
   The Davenport School of Practical Nursing, Davenport, is in the organizational stage and expects to admit its first class in September, 1960. This school will be under Vocational Education administration in cooperation with two local hospitals

(Advisory Committee, May 4, 1960, p. 3).

When a school of practical nursing is visited by a Board of Nursing member, the report is given to the entire board and at times action taken. It would be useful to follow a visit to a school to determine the effectiveness of the state agencies in dealing with the problem of poor academic standards.

> This school was visited by the Assistant Executive Secretary, written report on file . . . inadequate ratio of faculty to students, inadequate nursing laboratory facilities, lack of evidence in planning for experience in the clinical areas, no evidence of active advisory committee (Board of Nursing Minutes, 1957, p. 829).

And the results of inadequate faculty ratio, nursing laboratory facilities, and no planning are predictable.

> Two students of the 1959 class of the . . . School of Nursing failed to satisfactorily pass State Board Examinations . . . (Advisory Committee, May 4, 1960, p. 3).

Practical nursing was developing under the public school system because of the availability of federal funds. Without the ability to see into the future and predict the willingness of the Federal government to designate funds to nursing in 1953, Elizabeth Kerr said "It appears that at the present time in Iowa there is greater possibility of the development of hospital sponsored programs than of vocational education programs (Kerr, 1953, p. 8). Public funds changed the direction of practical nursing.

Public Funds for Nursing Education

From its beginning, nursing has been outside the domain of the United States general educational institutions. It was not until 1909 when the University of Minnesota School of Nursing was established that any basic programs in nursing education were under the administrative jurisdiction of a publicly supported educational institution.

From 1912, with the publication of Ms. Adelaide Nutting's study, Educational Status of Nursing, to the 1951 President's Commission on the Health Needs of the Nation report, numerous studies of nursing reiterated the need for adequate financing of educational programs in nursing and highlighted the paucity of public funds for nursing education.

Hospital Schools of Nursing often did not study the costs of the school. When they did identify the costs and discovered that the income from nursing student service did not cover the cost of the nursing educational program, the patient fees were adjusted to make up the deficit.

In 1941, as the country was emerging from the great depression and with the threat of war, approximately 3,000 graduate nurses received stipends under the Social Security Act while attending colleges and universities in preparation for public health nursing. In 1941, a two-year federal aid program was secured which allowed schools to increase their enrollment and provided refresher courses.

The Nurse Training Act of 1943, also known as the Bolton Act, provided funds for the U.S. Cadet Nurse Corp and postgraduate education for the graduate nurse. The five-year program (1943-1948) provided approximately $160 million for nursing education. An additional $25.5 million was spent under the Lanham (National Defense Housing) Act of 1940 for new facilities such as classrooms, library space and living quarters. Frances P. Bolton, United States Congresswoman, again assisted nursing education in 1951 with the introduction of the Nursing Education Act of 1951. The bill was not passed, but efforts continued and in 1956 Public Law 911 known as the Health Amendments Act provided funds to educate health professionals. Title one provided for the preparation of public health workers which included doctors, nurses, engineers, health educators, sanitarians, and others. Title II provided for the graduate nurse opportunities for preparation in teaching, supervision and administration. Title III provided for the expansion of vocational education programs for the training of practical nurses (History -- Development of Nursing, 1970).

Vocational Education received some federal funds through the Smith-Hughes Act of 1917. However, it was not until 1946 that the George-Barden Act (Title I) was passed that some states used the funds to support programs in practical nursing under the trade and industrial provision.

The Area Redevelopment Act of 1961 and the Manpower Development and Training Act of 1962 (MDTA) contained provisions for funding and training the unemployed and under-employed. Many schools used the funds to support practical nursing programs.

The Vocational Education Act of 1963 (Public Law 88-120) appropriated funds for programs which were occupationaly oriented and generally considered not professional or as requiring less than a baccalaureate or higher degree. The Act gave impetus to the rapid expansion of health occupations; health personnel have been transferred from the trade and industrial branch in the U.S. Office of Education and established as an independent arm of the Bureau of Adult, Vocational and Library programs.

The Davenport Area Technical School, Practical Nurse Education Division, admitted the first class on September 19, 1960. However, in 1963 the Employment Service initiated a survey to determine the need for practical nurses in the area and announced that they would start a program in practical nursing through the Manpower Training and Development Act. There was a great deal of discussion about the possibility of having two practical nursing programs within one immediate area. The final solution was to have the Manpower Training Development Act cover the cost of the education and initial recruitment and screening. The

School had the final approval of students entering the program. The first year the class was made up entirely of Manpower Training Development Act funded students. However, in following years the students were admitted on an individual basis and MDTA paid tuition to the school for the students (History -- Development of Nursing, 1970).

Communities were eager to begin practical nursing programs. Those communities with junior colleges desired to establish a Vocational Education Division and communities without junior colleges looked toward the Adult Education Division of the local high school. The Iowa Board of Nursing remained actively involved in maintaining established standards for clinical facilities.

> Clinton, Iowa The Iowa Board of Nurse examiners is pleased to advise you that the preliminary survey at the Clinton Junior College School of Practical Nursing appears to be satisfactory for the admission of the proposed 18 students in September 1962 (Board of Nursing. Minutes, July 16, 1962b, pp. 1016-11).

During the 1962 school year, three Practical Nursing programs were established in Clinton, Mason City, and Ottumwa.

> Mr. G. W. Eddings, Director Vocational Education, Mason City Junior College, We are pleased to advise you that approval was granted . . . practical nursing.
>
> Ottumwa Area Vocational Technical School, Your request for a school of Practical Nursing in the Ottumwa Public Schools . . . was granted.
> July 26, 1962b,. pp. 1916-15).

With the approval of the Ottumwa School, Iowa had 11 practical nursing programs. The Iowa Board of Nursing expressed concern about the number of schools that were being developed, and planned a meeting with the individuals controlling the federal and state funds.

> July 19, 1962
> A meeting with B. H. Graeber, Director Vocational Education, State Department Public Instruction; O. Beaty, Supervisor Trades and Industry, State Department of Vocational Education and Elizabeth Kerr, Assistant State Supervisor Practical Nurse Education . . . discussion centered around public law relating to vocational education funds, development of practical nurse programs in schools without the benefit of the survey to determine how many are needed and where they should be located, evaluation of clinical facilities to determine adequacy (Board of Nursing, Minutes, 1962b).

An additional meeting was held on March 12, 1963:

> B. H. Graeber, Director Division Vocational Education, Department of Public Instruction. Members of the Board inquired as to what vocational education considered possible sites for additional schools for practical nursing. Only two sites, Burlington and Dubuque, were identified as possibilities at this time. It was realized that public communities may express interest at any time. This raised the question of how many schools are needed in Iowa. Consideration was given to the danger of schools "mushrooming" and creating an even greater strain on the already inadequate number of nursing faculty (Board of Nursing, Minutes, 1963, pp. 1016-19).

Although only Burlington and Dubuque were identified as potential sites for additional practical nursing programs at the July 17, 18, 19, 1963, Iowa Board of Nursing meeting, the Board received a proposal for a practical nurse program in Ames, conducted by the public School (Board of Nursing , Minutes, 1963, p. 1062).

In 1965, the Sixty-first Iowa General Assembly legislated provisions for the establishment of area vocational technical schools within the state. Practical Nurse programs had been developed in Ames and Sioux City during 1963; however, the development of vocational technical schools throughout the geographic location of Iowa gave impetus to the development of 10 more schools. The largest number of programs were

established in 1966 when six communities opened new practical nurse programs. Since the enactment of the legislation, all practical nursing programs, with one exception, have been transferred to area school administration.

In 1962, Iowa had 224 students enrolled in 11 practical nurse programs (ANA, Nursing Information Bureau. Facts About Nursing, 1966, p. 197). Just five years later, in 1967, Iowa had 678 students enrolled in 22 programs for practical nursing (ANA, Nursing Information Bureau. Facts About Nursing, 1970, p. 165).

The Iowa Board of Nursing expressed concern about schools of practical nursing "mushrooming." In five years, the number of schools increased 100 percent and the number of students 202 percent. It would seem that their fears were well-founded.

In 1962, Iowa had 25 programs for professional nursing. Twenty-two of the schools were diploma, 1 associate degree, and 1 baccalaureate (ANA, Nursing Information Bureau. Facts About Nursing, 1966, p. 107). There were 683 students graduated from initial professional programs in Iowa during the academic year 1961-62. Six hundred and three of the students graduated from diploma programs and 80 students graduated from a baccalaureate program. No students graduated with an associate degree that year (ANA, Nursing Information Bureau. Facts About Nursing, 1966, p. 97).

During the time that the practical nursing programs were growing by unprecedented strides, Iowa closed two professional nursing programs. In 1967 Iowa had 22 total professional programs, 18 diploma, 2 associate

degree and 2 baccalaureate. Seven hundred fourteen students graduated from the programs of nursing education during the academic year 1966-67. Five hundred and ninety-four graduated from diploma programs, sixteen from associate degree and 104 students graduated from baccalaureate programs in Iowa (ANA, Nursing Information Bureau. Facts About Nursing, 1970, p. 93). During this period of time the number of professional programs decreased by 8% but the number of graduates increased by 4%.

In July, 1965, because of the increasing scope of health occupations, a new department, the Program in Health Occupations Education, was established in the Division of Medical Services (now the Division of Medical Affairs) of the University of Iowa. The program was placed under the direction of Miss Kerr who was given the rank of Associate Professor in the College of Medicine.

On December 17, 1965 Miss Kerr summed up the changes in a memo attached to her current job description:

> On September 1, 1965, three additional professional staff members . . . and one secretary were employed . . . . there continues to be expansion in numbers and types of health occupations education programs being established in the state . . . . I visualize the professional staff assuming increased responsibilities for (1) continued professional growth as a vocational educator (2) selected activities relating to the interpretation, development, implementation and evaluation of health occupations education programs at local and state levels . . . . (4) inservice teacher-education at the local level (Kerr, Note 13).

Associate Degree

In 1947, Facts About Nursing indicated that 90.7% of all schools of nursing offering basic professional programs were controlled by hospitals. There were only 47 programs controlled by universities and 1 nursing program established in a junior college (ANA, Nursing Information Bureau. Facts About Nursing, 1949, p. 19). It was not until 1951, that Mildred Montag found herself being the right person in the right place at the right time. This researcher has no way of knowing if Ms. Montag reviewed the 1932 recommendations of Alice Ringheim and paid particular attention to the statement:

> Probably the most important conviction which has resulted from this study is that the junior college is the strategic point to which educators of nurses, who desire radical changes and hope for their speedy accomplishment, should direct their attention. Several facts brought out tend to emphasize the importance of the junior college as a point of attack (Ringheim, 1932, p. 973).

At any rate, Mildred Montag developed the associate degree nursing program as a new program. It deviated markedly from the traditional patterns of the hospital diploma and baccalaureate programs of the day.

In 1951, Lois Streuter, Director of Nursing Education of the Iowa Board of Nurse Examiners, corresponded with Jessie P. Norelius, Executive Secretary of the Iowa State Nurses' Association.

> I feel we must definitely think about the possibility of nursing technicians becoming a part of our nursing program . . . . Certainly it would take a long period of transition to change the present plan of our nursing programs, and it would not seem likely that a large number of church controlled basic three-year schools of nursing could be encouraged in the near future, if ever, to make this drastic change. Many characteristics of this newly proposed plan for educating . . . appear to be basically sound. . . . it will no doubt meet with

> great disapproval by many hospital administrators, hospital boards . . . . We must be ever watchful and open minded . . . to the new thinking that is being introduced. We must certainly know how and if it could fit into our community and region (History -- Development of Nursing, 1970).

During the Annual Meeting of the Iowa Board of Nursing held July 18, 1956, a complete report of the Conference on Nursing Education in Junior and Community Colleges held March 5 and 6, 1956, at Columbia University, New York, was available for Board members to review (Minutes, July 18, 1956, p. 779). The state law in Iowa required three years of education for professional nursing students. If Iowa was to seriously consider the implementation of associate degree nursing programs, the state law would have to be modified.

> The Executive Secretary reported that the Iowa State Nurses' Association invited representation from the Board to meet with the Coordinating Council to present information regarding legislation needs and 2-year programs in Nursing Education. They suggested that Geraldine Busse, President of Iowa State Nurses Association, be invited to meet informally with the Board to elaborate on the plans for the meeting (Board of Nursing, Minutes, July 20, 1956b, p. 789).

Apparently some of the nursing programs attempted to shorten their curriculum to the two-year model; however, often they did not alter their philosophy and attempted to only shorten or accelerate the program.

> The school was visited by Myrtle Aydelotte, R.N., Board member, and Ruth Binder, R.N., Assistant Executive secretary . . . students are working a 44-hour week. Effective September, 1957, the associate degree program was discontinued and the 3-year diploma program was re-established (Board of Nursing. Minutes, 1956b, p. 828).

In 1956, there were only sixteen junior colleges in Iowa. Often these were in a larger city where there was an on-going nursing program established in the local hospital. It was not until 1962 that Fort Dodge

Community College personnel approached the Iowa Board of Nursing with a proposal for an associate degree program in nursing.

> On motion of Etta Rasmussen and E. Francis Stoney, it was voted that the Executive Secretary secure a written opinion from the Attorney General to determine if all the proposed course of study complies with the statutory requirements (Board of Nursing, Minutes, July 20, 1962a, pp. 1016-19).

Fort Dodge persisted with the establishment of a nursing program in the junior college. Because the associate degree nursing student resembles rather closely the average community junior college student, questions concerning entrance requirements arose.

> Approval of Fort Dodge Community College included also a clarification of the matter of the applicant to nursing without high school graduation.
>
> The law of Iowa as it pertains to nursing makes no provision for equivalence tests to satisfy the lack of a diploma. A diploma obtained through a properly approved correspondence course is acceptable (Board of Nursing, Minutes, October 2, 1962a, p.1020).

In 1967, Elizabeth Kerr requested permission from the Iowa Board of Nursing to establish associate degree nursing programs within the new Iowa area vocational-technical, junior colleges.

> The Health Occupations Education Section, Iowa Division of Vocational Technical Education, requests the Iowa Board of Nursing to approve the establishment of . . . associate degree programs in the Iowa Central Community College, Fort Dodge and the North Iowa Area Community College, Mason City. These would be considered pilot programs and each would admit its first class in the Fall of 1967. The Fort Dodge Community Associate Degree Nursing programs which has been in operation approximately five years has been transferred administratively to the Iowa Central Community College and is now seeking funding and consultant services from this office (Kerr, Note 14).

At the February, 1967, Iowa Board of Nursing meeting, action on the request occurred.

It is appropriate that the nursing leadership during this period--those who were politically enlightened, articulate, scholarly and persistently undaunted in their struggle to alter the direction of nursing--was involved in the proposal and decision-making process.

> Proposal for associate degree nursing programs to be administered by Area Community Colleges and Vocational-Technical Schools in cooperation with the Iowa Division of Vocational-Technical Education was reviewed. On motion of Sister Mary Brigid, seconded by Sister Mary Suzanne, approval was given for this proposal (Board of Nursing, Minutes, February 1967, p. 10).

Summary

The struggle for change of control in schools of nursing, with a subsequent upgrading, was not easy. Some nurses failed to recognize new expanding nursing needs. They desired to cling to tradition. Change is painful when introduced into a traditional system. Resistance to change is cited by Bernard Asbell in an interview granted him by John Gardner. Asbell quotes Gardner as telling this story.

> I remember how tremendously impressed I was when one of my professors described an incident in the canning industry. The people who packaged asparagus had always put them in little square cans, and one day they decided this was ridiculous. All the other cans were round, so they said, "Let's put our asparagus in round cans." And they did--and people wouldn't buy it. I was just immensely impressed with that incident, the extent to which outward and unessential form had gotten hold of the very experience of asparagus (Asbell, 1969, p.2).

Gardner could have been describing the mid-century nurse in America.

The "relative rank" afforded Army nurses was an example of the lower status of women during the early 1940s. Nurses received substantially less pay than male officers of the same rank. The salary of nurses remained low during the mid-century. Job satisfaction among hospital nurses was low and fewer young women were choosing nursing as a career.

Nurses' aides and practical nurses, who had gained a foothold during the war, rapidly expanded in numbers. A great number of nurses left the profession for marriage or because they were dissatisfied with the working conditions, salary, and the limited degree of autonomy. Thousands of students dropped out of nursing programs as the patriotic urge diminished.

Dr. Esther Lucille Brown recommended far reaching changes in nursing practice and education in 1948. These recommendations were met with hostility from physicians and hospital administrators. The Brown report recommended that schools of nursing be moved into collegiate settings.

The Hill-Burton Hospital Construction Act, George-Barden Act, Civil Rights Act and the Vocational Education Act all had an impact upon vocational and technical nursing education programs. The licensure of practical nurses assured the public of some quality in nursing service.

The Bolton Act, which created the United States Cadet Nurse Corps, subsidized the education of nursing students who agreeded to engage in essential military or civilian duty for the duration of the war. The establishment of a Cadet Nurse program within a hospital diploma school forced hospital administrators to examine the curriculum and costs of running a training school for nurses.

The movement in the 1940s toward a national State Board Examination did much to improve the standards in nursing education. Nursing became the first profession for which a common licensing examination was used throughout the nation.

During the 1940s, Iowans were apparently not adequately interested in providing health care for its citizens. Whooping cough, smallpox and undulant fever were prevalent. It was not until federal funds were made available that a Division of Hospital Service was established. A survey of hospitals and a licensing program for hospitals were developed to meet the requirement for federal funds.

In 1949 the Nurse Practice Act for Licensed Practical Nurses was passed. The first school for practical nursing was established at Marshalltown because the existing diploma hospital school could not attract an adequate number of students. A demonstration practical nursing program was established at Iowa City under the College of Nursing, but was not considered to be a part of the college. Other programs soon developed in Cedar Rapids, Clarinda, Waterloo, Des Moines and Carroll.

The Board of Nursing was concerned about practical programs "mushrooming," and following the 1965 establishment of Area Vocational-Technical Schools, that concern was justified. The area schools recognized the attraction of health careers for students, the community needs, and the availability of funding for such programs.

In 1962, Fort Dodge Community College established the first associate degree nursing program in Iowa. By 1967, the Health Occupations Division of the State Department of Public Instruction was eager to

assist Iowa schools in establishing associate degree nursing programs which followed an altered curriculum model developed earlier by Montag.

Mildred Montag directed a project in 1952 at Teachers College, Columbia University, to determine the feasibility of a two-year nurse preparation program controlled by a junior college. Iowa had recently (1965) established a system of state-wide public junior colleges and was ready to experiment with a new approach to nursing education.

An expanded program of financial aid for professional nursing education was proposed in an administration bill known as the "Nurse Training Act of 1964." This bill was based on the recommendations of the Consultant Group that studied the quality and quantity of nursing practice, education and research in the early 1960s.

The American Nurses' Association position paper of 1965 was of tremendous historical significance because it was proposed and approved by the membership of the American Nurses Association. The conditions of nursing are determined by the structure of society and its prevailing values. The ultimate aim of nursing education and service is the improvement of nursing care. The primary aim of nursing education is to provide an environment in which the student can develop intellectual curiosity, and self-discipline and can acquire knowledge and skill necessary for safe, effective nursing practice. The American Nurses' Association recognized the possibility of mobility for students with changing career goals and changing aspirations.

CHAPTER SIX: NURSING EDUCATION AMIDST SCIENTIFIC, TECHNOLOGICAL, AND SOCIAL CHANGES

The National Scene

The decade between 1968 and 1978 saw the celebration of the United States Bicentennial in 1976, and five unthinkable "firsts" between October 1973 and October 1974:

1. The first resignation of a Vice President in face of criminal charges, October 10, 1973.
2. The inauguration of the first Vice President to be chosen under Article 25 of the Constitution, Dec. 6, 1973.
3. The first resignation of a President, August 9, 1974.
4. The inauguration of the first President not chosen in a national election, August 9, 1974.
5. The first pardon of a President for alleged criminal acts, September 8, 1974 (The World Almanac, 1975, p. 35).

The political processes at the national level had diverted much energy and attention to restoring damages rather than advancing many significant societal actions. Births and fertility rates dropped to their lowest points in history in 1977. It was the second consecutive year in which new lows were reached. The declining birth and fertility rates also resulted in a 2.2 percent drop in elementary school enrollments. Persons 65 and older made up 9.8 percent of the 1970 population, 10.1 percent in 1973, and 18 percent by 1977.

An increasing proportion of young married women are postponing motherhood. Among women aged 20 to 24 who have ever married, the proportion who were childless in 1977 was 43 percent, up from 36 percent in 1970. Postponement of childbearing has an important consequence in expanding the number of educational and occupational goals a young woman

can pursue.

The post World War II "baby boom" individuals have now reached the 25 to 34-year age group. This age group had increased to 32 percent during the 1970s. The declining birth rate has caused a drop of 6.4 million children under the age of 14. These combined factors have raised the median age of the population from 27.9 in 1970 to 29.4 in 1977 (Plotkin, 1979, p. 205).

National Education

Accountability was the key word in the decade from 1968 to 1978. Innovation, alternative education, open schools, human relations, and back to basics also occupied much of the literature and some of the time and energy of educators. Teachers used simulation and gaming as methods of presenting course content. Students learned life skills; and teachers talked about competency-based education.

One of the real issues was the declining enrollments and the implications for school curriculum, financing, and teacher reassignment. In 1970 total enrollments in elementary schools began to decline, bringing to an end two decades of educational growth powered mostly by increasing student enrollments. A slowing economic growth reduced revenues, and tighter budgets dampened orientation toward expansiveness. Inflation affects rising school costs, and goods and services are available, but reduced with tighter budgets.

> Total expenditures for public education in elementary and secondary schools were estimated to be approximately $66.6 billion for 1975-76, an increase of 7.3 percent over 1974-75. The average expenditure for operating the public schools is approximately $1,390 per pupil, more than twice what it was 10 years ago . . . . Except for national defense, public education is the largest function of American government and the biggest user of public revenues (Boggs, May 1977, p. 68).

Education in Iowa

Enrollment at the state schools and universities increased from 1968 through the 1970s. Enrollment on November 1, 1968, at the State University of Iowa was 19,506. In the fall of 1977 it had increased to 22,766. The increase was also reflected in graduate school, with a June to June on campus enrollment of 24,591 to 29,405 during the same period of time (Iowa Official Register, 1980, p. 186).

Iowa State enrolls more freshmen than any other college or university in the state. In the fall of 1977 the enrollment of new freshmen at the three public universities in Iowa was 9,078. Iowa State's 4,264 freshmen constituted nearly 50 percent of that total. The university is organized into seven colleges with the largest enrollment in Sciences and Humanities (Iowa Official Register, 1980, p. 188).

The University of Northern Iowa effected a Master of Arts degree program in 1965 and the Specialists's program in 1969. A statement of mission approved by the State Board of Regents in 1972 directed:

> It will offer undergraduate and graduate programs and degrees in the liberal and practical arts and sciences, including selected areas of technology: offer pre-professional courses; and conduct research and extension programs to strengthen the educational, social, cultural, . . . Given the declining demand for teachers for the immediate future and apparently for some considerable period, it behooves to provide other kinds of opportunities . . . . preparation for careers in business, social work and other such fields (Iowa Official Register, 1976, p. 122).

Iowa's Area Schools

There are currently 15 area schools in operation in Iowa. The merged areas of these schools include all of the 99 counties, Cherokee County, the last county to remain outside of the merged area system, joined the system during the spring of 1971. Thirteen of the area schools have been organized as area community colleges and two have been organized and remain as area vocational schools. All area schools were approved by the State Board of Public Instruction and by the State Board of Regents.

There were 16 public junior colleges operating in Iowa at the time the area schools were organized. The legislation permitting the development of the area schools provided a procedure whereby the public junior colleges operated by local public school districts could be integrated into area schools. As the area schools were organized, all of the 16 public junior colleges merged with these new institutions. Emmetsburg Community College, the last of the public junior colleges to merge with an area school, joined with Merged Area III, Iowa Lakes Community College, July 1, 1970.

Nine of the area schools have developed as multi-campus institutions. Eight of the area schools merged with existing public junior colleges and five of the nine have also developed additional attendance centers for a total of 27 major campuses now operating in Iowa.

Enrollment for the fall term in 1977 for all area schools was 32,477. This enrollment includes most of the full-time enrollment of area schools and is comparable to other post-secondary educational institutions (Iowa Official Register, 1980, p. 202).

Iowa Students

A larger percent of Iowa students drop out of high school in the eleventh grade than at any other time. Six percent of the enrollees of the eleventh grade fail to complete their high school enrollment. This figure compares to a dropout rate of 5.47 for the 10th grade and 4.39 for the 12th grade. However, only 3.31 percent of all enrollees from grade seven through grade twelve fail to complete school (Iowa Guidance Surveys, 1978, p. 5).

In a graduate follow-up one year after high school completion it was found that out of 43,372 graduates, 21,800 students had attended some type of additional educational program.

Type of Institution/Program	Number of students
Private 4-year college	4,173
Public 4-year college	8,181
Area School	6,143
Private Community College	764
Out-of-state Public Junior College	249
Private business, trade, tech. school	1,338
Public business, trade, tech. school	93
Nursing other than University, Area School or Junior College	331
Other special schools	346
Apprenticeship training	182

(Iowa Guidance Survey, p. 51).

Nursing, The National Scene

The United States is in the midst of an acute shortage of professional nurses--perhaps the most alarming since the 1940s.

> Declining enrollments in nursing education programs and increasing demand for RNs will continue the shortage at least into the immediate future. National trends in health care--such as a focus on ambulatory care, outpatient services, and disease prevention, and proposed universal coverage for catastrophic illness--may further escalate the demand for RN's (Fralic, May 1980, p. 4).

The demand for health services continued to increase through the 1970s as a result of continued population growth, the increasing availability of public and private health insurance coverage, advances in the science of health care and growing consumer involvement.

> The number of employed registered nurses has been increasing at a faster rate than the population residing in the United States. Between 1973 and 1974 the number of employed registered nurses increased by five percent and the resident population by less than one percent. According to the Division of Nursing of the Public Health Service, 1,100,000 nurses will be needed by 1980. Based upon the current supply estimates, about 28 percent more registered nurses will be required to meet future needs. Furthermore, the data indicate that only about one-third of the 1980 need for nurses prepared with baccalaureate and higher degrees was available in 1974. Educational preparation at the baccalaureate and higher degree level has become increasingly important in light of society's health care needs and the demand for services which can be met by nurses in independent and interdependent roles in the delivery of care (ANA, Nursing Information Bureau. Facts About Nursing, 1976, pp. 1-2).

The health care industry was the third largest in the United States in the early 1970s when the federal government authorized the three-year Nurse Training Act of 1971 which permitted a total of $855 million to be

expended on nursing education. This amount could be compared to the seven-year authorizations under the Nurse Training Act of 1964 and Health Manpower Act of 1968, which amounted to only $573 million. The new program was based upon the shortage of nurses (Executive Office of the President, 1973, appendix). However, President Nixon illegally impounded the appropriation budget and the appropriation was cut. It took successful legal action by the National League for Nursing to secure the release of the funds in January 1974 (Kalisch & Kalisch, 1978, p. 654). The lack of federal funds for nursing education resulted in a slower, but steady, decrease of persons willing and able to attend nursing programs.

The recruitment of students into basic nursing programs has not improved during the recent period:

> Between 1955 and 1960, admissions to schools of nursing increased from 46,500 to 49,500, an increase of 6 percent. During the same period, the number of girls entering colleges and universities increased from 257,000 to nearly 387,000 a year, an increase of 50 percent. These college-bound young women represent the best recruitment potential for nursing (U.S. Public Health Service, 1963, p. 27).

The previous report focused upon the female high school graduate; however, Facts About Nursing 1974-75 reported lack of progress in this area:

> Initial educational programs to prepare registered nurses continue to attract an increasing proportion of the available potential recruits. Even though these recruits include males, licensed practical nurses, and women who are not newly graduated from high school, the relationship between admissions and the number of female high school graduates is informative. In 1972-73 admissions to nursing programs were 6.9 percent of the female high school graduates for the previous academic year, and for the 1971-72 year admissions were 6.3 percent of the female high school graduates. Prior to these latest two years,

> this statistic had not exceeded six percent since the 1950's (ANA, Nursing Information Bureau. Facts About Nursing, 1976, p. 61).

Perhaps the potential of expenditure of federal funds helped alleviate the declining enrollments temporarily.

Nursing Practice

Expansion and change of the nurse's traditional role was occurring. "Nursing has been in an ambiguous status since World War II because of the paradoxical fashion in which it has come to be regarded," according to Genrose Alfano, Director of the Loeb Center for Nursing and Rehabilitation, New York. "On one hand, hospitals and the public have moved toward the concept that nursing care requires minimal skill, knowledge and clinical competency, while at the same time, moving toward the concept that professional nursing requires a great deal of knowledge and assessment skills" (Ellis, 1978, p. 107).

Nurses were struggling with the problem of role change at every level of nursing. The registered nurse began taking over administrative tasks and patient care tasks formerly performed by the physician. The practical nurse began to do many of the tasks formerly performed only by the R.N. and, finally, the tasks of the Licensed Practical Nurse were transferred to the aides.

> . . . asked a sample of RN's and LP/VNs who they felt should perform particular nursing tasks. He [the researcher] found that the two groups disagreed 77% of the time ("LP/VN: Ambiguities," April 1977, p. 10).

The end result of the role change and ambiguity of the nursing profession is that the practice of nursing today permits the least

prepared personnel to provide direct patient care. In contrast, the modality of the delivery of nursing care which is considered to be in the best interest of the patient is primary nursing care. For the most part, hospitals which use the primary nursing care model move in the direction of employing an all Registered Nurse staff (Ellis, 1978, p. 107). Administrators from seven of nine hospitals who use primary nursing responded to a general survey about how they were implementing the change and what their attitudes were about this change. In each case the administrator endorsed primary nursing as a valid and workable way of organizing nursing care. However, nursing directors and assistant administrators emphasized the cost effectiveness issue (Marram & Schelgel, 1974, p. 154). The fact that primary nursing may be cost effective contradicts the general belief that the employing of lesser prepared individuals is an economy measure. Studies by directors of nursing service and hospital administrators in Illinois, New Jersey, and other states indicated a cost effective program with all Registered Nurse staffing (Osinski & Powals, 1978, p. 25; Ellis, 1978, p. 197; Forster, 1978, p. 41).

Employee dissatisfaction is the prime reason for employee turnover and nurses leaving the profession. Nurses typically resign to take other positions because they "feel they don't have adequate control over the content or pacing of their work" reported Carol Weisman, a Johns Hopkins assistant professor of behavioral science who studied nurse turnover in Baltimore (Wall Street Journal, July 18, 1980). Administrators often blame the low level of nursing salaries for the high

employee attrition. However, Brief suggests that other factors may be more important.

> When the nurse lacks a sense of autonomy, a sense of identification with her tasks, a challenge to develop new skills, and adequate feedback about her performance, she will become dissatisfied with her job. It is the lack of full engagement in her work role that may be the main factor precipitating the nurse's decision to leave a position (Brief, 1976, pp. 55-58).

Nursing Education

Janice Sandiford, R.N., Ph.D., Supervisor of the School of Practical Nursing, Columbus Public Schools, Columbus, Ohio, identifies two major factors which are changing the direction of nursing education as: (1) a redefinition of nursing by the American Nurses' Association acting through its state associations, and (2) finances.

> Although the financial situation is a critical issue, and closely related to the redefinition issue, that problem is simple: There is not enough money to go around, and when priorities are established, practical nurse programs are not high on the list . . . . The important question is: Will a change in the preparation of nurses . . . be more economical and cost effective to the people? (Sandiford, 1978, p. 36).

Ms. Sandiford goes on to explain the concept dealing with entry into nursing practice defining minimal education for registered nurses as the baccalaureate degree in nursing as a way of closing all diploma programs. Since the concept has a January 1, 1985, effective date, Ms. Sandiford states the closure of diploma programs would occur after the 1981 starting date.

The concept as it applies to the second level of nursing requires that candidates for a license to practice as a technical nurse shall

have graduated with an associate degree in nursing. According to Ms. Sandiford, "the last licensed practical nurse as we know her today would graduate in 1984, which means that all practical nurse programs would accept their last classes in 1983" (Sandiford, 1978, p. 37).

For many years nurse educators have faced problems of educational mobility. However, until the late 1950s these problems had to do with the movement of diploma graduates into baccalaureate programs. Today nurse educators face pressures from associate degree as well as diploma graduates to move into baccalaureate programs, and from practical nurses to move into associate degree, diploma, and baccalaureate programs. The American Nurses' Association resolutions regarding the entry level of beginning nurses did not ignore the plight of nurses who did not hold baccalaureate or associate degrees.

> Resolution 58:
> Whereas, since 1965 ANA has supported the position that all nurses obtain educational preparation in colleges and universities; and
> Whereas, the overwhelming majority of registered nurses currently do not hold a baccalaureate in nursing and vocational nurses do not hold an associate degree; and
> Whereas, future employment of nurses undoubtedly will be based on academic preparation as well as licensure; and
> Whereas, there a limited educational opportunities for large numbers of nondegree nurses in many geographic areas; and
> Whereas, flexible and nontraditional programs in nursing education can be developed while ensuring academic integrity; therefore, be it
> Resolved, that ANA actively support increased accessibility to high quality career mobility programs that utilize flexible approaches for individuals seeking academic degrees in nursing (American Nurses' Association Convention Proceedings, 1978).

In February, 1970, the Board of Directors of the National League for Nursing approved the following statement:

> An open curriculum in nursing education is a system which takes into account the different purposes of the various types of programs but recognizes common areas of achievement. Such a system permits student mobility in the light of ability, changing career goals, and changing aspirations. It also requires clear delineation of the achievement expectations of nursing programs, from practical nursing through graduate education. It recognizes the possibility of mobility from other health related fields. It is an interrelated system of achievement in nursing education with open doors rather than quantitative serial steps (National League for Nursing. Open Curriculum, 1970).

Mildred Montag developed a program in nursing that would prepare a technical worker--the term technician being defined as a highly skilled person who has knowledge of the reasons of their tasks. They are able to use judgment and work within definitely prescribed limits. Nurses who work within a hospital setting giving direct care to patients do so will skill and judgment. Technical nursing practice is defined as:

> the direct nursing care of patients with evident or imminent health problems and common recurring nursing problems in the areas of physical comfort and safety, physiological malfunction, psychological and social problems and rehabilitation problems. A technical nurse is a registered nurse with an associate degree, licensed for the practice of nursing, who carries out nursing and other therapeutic measures with a high degree of skill, using principles from an ever-expanding body of science (Rasmussen, 1972, p. 25).

The problem of role confusion lies in the fact of a lack of identification as to where and when technical nursing is really practiced. First, it is not practiced when technical functions are assigned to someone with less than technical preparation. Professional nursing is not practiced by technically prepared nurses. With the shortage of nurses and the current pattern of organization for providing nursing care, technical nursing is not practiced in as many places or as often as it should be.

Verle Waters identified the reasons for a careful definition of the role and functions of all levels of nursing graduates:

> We have compelling reasons for making distinctions between technical performance and professional performance. They are our patients, our students, our employers, and ourselves. The whole point of educating nurses at all is that we believe patients will receive better care as a result. But if we are to continue educating nurses in some programs which are roughly twice the length of others, it should follow that we believe the graduates of the longer programs are different from the graduates of the shorter program and that both are desirable for the nursing care of patients . . . . Nursing is too big for the all-purpose nurse (Waters, 1965, p. 101).

Thais L. Ashkenas summed up one of the problems of role identification as a deterrent to the associate degree nurse's ability as a practitioner:

> There is little evidence of the identification of the associate degree nursing graduate as a technical nurse as differentiated from the professional nurse with a baccalaureate degree. Consequently, the line of distinction between the roles of the practitioners who are functioning as registered nurses on different levels is not clearly drawn. The associate degree nursing graduate is deterred in this respect only insofar as she resents not having been prepared to assume certain leadership roles; nevertheless, she does, in time, accept these responsibilities and submits to the roles which the institution imposes upon her (Ashkenas, 1965, p. 64).

The decade from 1968 to 1978 saw the gradual decline of diploma nursing programs with a subsequent increase in associate degree and baccalaureate programs. Practical Nursing programs reached a peak early in 1970 and leveled off at that point.

Type of Program	Number of Programs	
	1968	1973
Diploma	727	493
Associate Degree	325	561
Baccalaureate	229	291
Practical Nursing	1191	1306

(ANA, Nursing Information Bureau. Facts About Nursing, 1977, pp. 81, 168).

New Nurse Practice Acts

Medical licensure laws had originally been necessary to combat quackery; however, state licensure statues for nursing were enacted to protect the public from unqualified, unethical practitioners. Licensure for nurses was permissive, protecting the title, rather than mandatory, which barrs all unauthorized persons from practicing nursing. The state of Washington followed other states and broadened the definition of nursing to include "any act requiring substantial specialized knowledge, judgment, and nursing skill . . . in the observation, assessment, diagnosis, care or counsel, and in health teaching of the ill, injured or infirmed, or in the maintenance of health or prevention of illness of others" ("WSNA Would Broaden," 1972, p. 2136). New York State developed a law which eliminated nonnursing functions. In an effort to implement the new law and new position descriptions, New York nurses sponsored an "Implementation Day" on October 16, 1972.

> The nurses announced that they would feed patients and assess their nutritional status, but they would not carry away empty dishes. They would instruct a patient for discharge, but they would not transport him off the unit nor clean his bed after he left . . . . Several hospitals reported a crisis backlogs and that one hospital might have to stop patient admissions . . . that legal action might have to be taken against individual nurses as well as NYSNA . . . response was: "I can't imagine what they're talking about. Are they

> going to sue us for practicing nursing?" ("New York City Nurses," December 1972, p. 2136).

State Board Licensure

Beginning with the February examinations in 1976, all candidates for registered nurse licensure began taking the State Board Test Pool Examination (SBTPE) on the same days, coast to coast. Uniform dates were also set for the practical nurse SBTPE. The uniform dates were set by the American Nurses' Association Council of State Boards of Nursing at its annual meeting in May, 1975, to protect the security of the examination.

Previous to the February 1976 examination, the dates varied from state to state, with the same examinations being given many times in some jurisdictions.

> With uniform dates in all jurisdictions, no longer will candidates be able to move from state to state taking the same exams many times . . . . It was reported . . . according to a statistical matching of candidates' names, in one month 500 persons had taken an examination more than once ("Country wide Dates," July 1975, p. 1092).

Nurses and Politics

Although nurses had to depend upon men who had the right to vote to establish some of the first registration laws, their political awareness nevertheless was acute. In 1975 when President Gerald Ford vetoed the health bill which included $553 million for registered nurse training, the American Nurses' Association with its 200,000 members, was ready.

> The groundwork had been laid months earlier . . . following Ford's veto of the original health bill . . . . In a truly grass roots gut effort, nurses responded and were heard . . . as one wise Washingtonian said . . . "I don't think anybody in this town is ever again going to think of the nurse as little old ladies in tennis shoes" (Schorr, 1975, p. 1455).

Nursing in Iowa

Following the Iowa Board of Nursing approval for the establishment of Associate Degree Nursing programs by Area Vocational Technical and Community Colleges in 1967, the growth of programs was phenomenal. The Fort Dodge and Mason City programs were established and admitted students in 1968. The original associate degree proposal was written to:

> Help alleviate this problem [critical nursing shortage] in Iowa, the number of well-prepared nurses in our State can be augmented through the establishment of definitive two-year preparatory programs which lead to an Associate Degree in Applied Science with a major in nursing.
>
> This in no way suggests the diminution or deletion of Iowa's on-going hospital programs in diploma nursing or its public and private programs in practical nursing. Quite the contrary, for in the foreseeable future there will be a need for nurses graduated from approved educational programs in all fields of nursing (Kerr, 1967, p. 1).

Miss Kerr described the use of vocational-technical education funds for a definitive program which produces graduates who are prepared for immediate entry into employment. The curriculum content related to this occupational objective. She also explained that Area Community Colleges and Vocational Technical schools would qualify to offer associate degree programs in nursing; however, only community colleges would be able to offer pre-nursing academic programs of liberal arts courses. These pre-nursing programs would be potentially transferable

to a baccalaureate degree program in nursing.

When the programs were approved by both the Iowa Board of Vocational Education and the Iowa Board of Nursing, they qualified for partial reimbursement under the provisions of the Vocational Education Act of 1963. The pre-professional liberal arts curricula would be administered under the Division of Arts and Sciences rather than the Division of Vocational-Technical Education.

The programs in Iowa are unique because the classroom hours to clinical hours average approximately a 40% to 60% ratio. The program is also eleven (11) months per academic year, over two years on a total of 22 months. Students are required to be in school a minimum of 28 hours per week.

The growth of associate degree nursing programs in Iowa's area vocational technical, since 1966 community colleges was rapid. The following is a list of the programs and the approval dates of the State Board of Public Instruction. The dates do not reflect approval by the Iowa Board of Nursing nor enrollment of a first class.

School:	Center:	Date:
Iowa Central Community College	Fort Dodge	Oct. 1966
North Iowa Area Community College	Mason City	Oct. 1966
Southeastern Community College	Keokuk	Nov. 1967
Iowa Western Community College	Council Bluffs	Feb. 1968
Indian Hills Community College	Ottumwa	Sept. 1968
Clinton Community College	Clinton	August 1969
Kirkwood Community College	Cedar Rapids	December 1969
Northeast Iowa Technical Institute	Calmar	Feb. 1970
Southeastern Community College	West Burlington	April, 1971
Western Iowa Tech. Comm. College	Sioux City	May 1971
Iowa Lakes Community College	Emmetsburg	Feb. 1972
Des Moines Area Community College	Ankeny	April 1972
Northeast Iowa Technical Institute	Dubuque	May 1973
Scott Community College	Bettendorf	July 1973

North Iowa Area Community College	Charles City	1975
Hawkeye Institute of Technology	Waterloo	April 1978
Iowa Valley Comm. College District	Marshalltown	July 1978
Des Moines Area Community College	Boone	May 1979
Iowa Central Community College	Storm Lake	June 1979
Iowa Lakes Community College	Spencer	August 1979

(Petersen, Note 15).

It did not take Iowa nurse educators long to develop innovative approaches to preparing nurses at the vocational and technical levels. Miss Ruby M. Holton, Coordinator of the Program in Practical Nursing at Area XV Community College in Ottumwa, Iowa, developed a shared curriculum program. In a paper delivered at the National League for Nursing Council of Practical Nursing Programs meeting, Miami Beach, on May 2, 1970, Miss Kerr described the program:

> We in Iowa have developed "stepping stones in nursing," although not without some opposition from nursing itself, not without some problems and not without many round table discussions. We have developed a program where experienced aides and orderlies may be admitted into programs of practical nursing, where licensed practical nurses may be admitted into programs for associate degree and applied science in nursing students may be admitted to baccalaureate programs . . . . [the Ottumwa program] Practical nursing students and associate degree nursing students being admitted together as nursing students . . . they all have the same content, primarily basic . . . . They may decide whether they will terminate their present enrollment at the end of the forth quarter and attempt the LPN licensure examination or go into the second year (Kerr, Note 16).

At approximately the same time, Mrs. Donna Story, Coordinator of Practical Nurse Education at Area One Vocational Technical School in Calmar, Iowa, designed a career ladder program in which the students all enroll for the same courses for the first three quarters. At the fourth quarter, those students who wish to terminate as practical nurses take a completion quarter for practical nurses. Students who desire to pursue the associate degree program begin a fourth quarter of technical courses.

All students write the State Board Examination to be licensed practical nurses including those who wish to complete the second year in associate degree nursing. The Area One program at Calmar was approved by the Iowa Board of Nursing to admit a class of second year students in September, 1970. The two experimental programs graduated their first class of associate degree nursing students in July, 1971. Both of the program graduates were successful in the State Board Examination for Registered Nurses (Story, Note 17).

Some of the ideas and attitudes about a career ladder program in Iowa were developed and expressed as early as 1948. Jessie Norelius, Executive Secretary of the Iowa State Nurses' Association, asked advice from Ms. Leila Given, Assistant Executive Secretary of the American Nurses' association.

> We have met a snag in our legislative program and would like your advice . . . . They [the doctors] want us to write into the statutes in some way to allow some means for the practical nurse who has completed her course and then decides to go on into the professional nursing course, to get at least some credit on her practical nurse course . . . . We feel that going from [the] practical nurse course to professional would be impossible (History -- Development of Nursing, 1970).

The response of Miss Given is very informative about the general attitude of nurses as a whole toward the career ladder concept.

> You are aware . . . that the proposals made by the Iowa State Medical Society concerning practical nurses are very much out of line with the principles adopted by the six national nursing organizations (History -- Development, 1970).

The attitudes of the nursing educators in Iowa changed, however, probably because with the movement of nursing education out of diploma schools and under the control of the State Department of Public

Instruction, nursing educators were required to be certified to teach. In order to be certified, each nurse educator had to meet the following requirements:

> Each applicant shall have completed a college level course in American History and/or Government which carries a minimum of two semester hours of credit.
>
> Each professional or para-professional must be currently registered or certified by the appropriate national or state approving agency for his specialty field.
>
> Each applicant shall have had two years of successful work experience in his specialty during the past five years (Kerr, Note 18).

In addition to the above requirements which are considered a minimum standard, the nurse educator had to complete eight semester hours of college credit in four professional courses: History and Philosophy of Vocational and Technical Education, Instructional Methods, Curriculum Development and Measurement and Evaluation. Faculties in nursing became more adequate as their scope of knowledge of how learning occurs increased.

The design of a career ladder curriculum as explained by Story is as follows:

> Designing a career ladder curriculum is not simply taking an existing practical nurse curriculum and an associate degree nursing curriculum and placing one after the other. The curriculum is designed to produce students who are competent practitioners as practical nurses at the end of the first level. It will then allow them . . . to continue for an additional time span to complete the educational requirements for a registered nurse.
>
> . . . Faculties that become involved with a career ladder educational program must have a clear understanding of the role of both the licensed practical nurse and the registered nurse in nursing practice (Story, 1974, p. vii).

Miss Kerr encouraged innovation in educational programs.

One of the anticipated achievements for 1970-71 of the persons associated with the Program in Health Occupations Education was to:

> continue experimentation and innovations in health occupations education to enhance its quality and effectiveness and to more adequately serve those seeking preparation for employment in health careers (Kerr, Note 19).

The success of the two experimental programs was acknowledged by other nursing educators in Iowa. As of October 15, 1978, Iowa had sixty-two basic nursing programs of four types: all are approved by the Iowa Board of Nursing.

Schools	Number of programs
Practical Nursing (1 year, LPN)	26
Associate Degree Nursing (2 year, RN and AASc)	16
Diploma (3 years, RN)	9
Baccalaureate in Nursing (4 years, RN and BSN)	11

The summary of each type of program is as follows:

Generic (definitive) Practical Nursing	Eight programs
Six of the eight programs are provided within the Area Schools	
One is available within the private hospital base program St. Luke's Hospital - Cedar Rapids	
One other is provided at Secondary Level (requires 2 years) Des Moines Tech High School	
Career Ladder	18 programs
Generic (definitive) Associate Degree	3*
Add on: (admit only LPN's)	2
Career Ladder	11
*No option: must complete 2nd year	

(Board of Nursing. Report, October 15, 1978, pp. 2-4).

There are four levels of nursing education programs and two types of licensure. Graduates of three types of nursing programs including the

associate degree, diploma and baccalaureate are eligible to write the State Board Test Pool Examination for Registered Nurse licensure.

Enrollment

For the first time in the history of nursing in America, in 1971 a single college-based group has exceeded the traditional diploma programs in the number of admissions into nursing programs. As of October 15, 1971, there were 29,500 students admitted into associate degree programs, or 37.5 percent of all nursing students. The number of admissions into diploma programs was 28,907, or 36.7 percent (ANA, Nursing Information Bureau. Facts About Nursing, 1976, p. 63).

In Iowa during 1978, admissions to associate degree programs comprised 43.7% of the total admissions into nursing programs. There were 669 students admitted into the associate degree programs, 526 students (34.4 percent) into the diploma programs and 333 students (21.7 percent) into Iowa baccalaureate nursing programs (Board of Nursing. Report, Oct. 15, 1978, pp. 2-4).

The 1978 individual school enrollment credits Hawkeye Institute of Technology, Waterloo, with the largest enrollment in practical nursing, with 105 students. Des Moines Technical High School had the smallest second year enrollment of their two-year program with nine students during this same year. The first year enrollment at Des Moines Technical High School in 1978 included twenty-nine students. The program in Des Moines was the only high school program in the state of Iowa at the time of this research.

State Board Examinations

Iowa nurse graduates have always performed well on the State Board Test Pool Examination. The examinations are administered in accordance with the national testing dates as established by the National Council of State Boards of Nursing, Inc. The licensure has one major purpose, to test the minimal acceptable competence as defined by the Board of Nursing. In Iowa, the minimum passing score is 350 in each of the areas tested for the registered nurse and 350 on the test for practical nurses.

A somewhat typical ranking of the test results are given. The following list relfects Iowa's ranking on the State Board Test Pool Examination for registered nurse licensure in comparison with the national mean according to the July 1977 testing. This ranking is based on the scores of 64,761 candidates, of which 1,228 were candidates from Iowa.

Registered Nurse:	Iowa Mean	National Mean	Iowa Rank
Medical Nursing	535.0	514.7	9th
Psychiatric Nursing	538.8	514.4	6th
Obstetric Nursing	551.1	521.5	4th
Surgical Nursing	549.9	519.1	3rd
Nursing of Children	547.5	518.2	5th
Iowa Overall Rank:	3rd in percentage of candidates by jurisdiction who met or exceeded specified standard scores of 64,761 candidates.		

(Board of Nursing . Report, October 15, 1978, pp. 2-4).

Summary

The shortage of health manpower and the consumer demands for better nursing care caused the leadership in nursing to respond to the need for assurance of quality nursing care. The number of diploma programs were decreasing rapidly while associate degree and baccalaureate programs were increasing. The career ladder approach to education which recognizes the worth of past educational experiences had become well established in Iowa.

In the late 1970s, nursing was passing through one of the most exciting periods of its history. The role of the nurse was constantly expanding, and the image of nurses stood at a new high. In Iowa the transfer of nursing education programs from hospital based schools of nursing to public institutions was almost complete. The requirement of the Department of Public Instruction for certification of nursing faculty increased the competence and quality of nursing education.

Among the forces in society that helped to shape the role of the nurse today were the woemn's liberation movement, the soaring costs of health care, and consumer dissatisfaction with health care. The advancement of health care in the nation depends to a large extent upon the number of qualified nurses providing the health service. The health care in the nation and in Iowa will continue to be strongly influenced by nursing preparation programs. Because nurses are the most inclusive and largest number of health care providers, the education of nurses must be continually advanced in order to insure adequate health care in the United States.

CHAPTER VII: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS OF " A STUDY OF THE DEVELOPMENT OF VOCATIONAL AND ASSOCIATE DEGREE NURSING EDUCATION PROGRAMS IN IOWA FROM 1918-1978"

Summary

The purpose of this study was to provide a history of practical and associate degree nursing programs in the state of Iowa from 1918 to 1978. At the beginning of this research, three specific purposes were posed to justify the undertaking of this study. Each of these purposes was addressed within the research. A brief summary of each of these purposes will consolidate the major findings of the study.

Goal 1. Examine the origins of practical and associate degree nursing education programs in Iowa.

As early as 1891 there were programs for the training of attendants within some of the state institutions for the insane. However, these programs were rather specific both the purpose of providing a work force for state institutions, and for providing persons to care for insane persons within their own family setting.

Programs in practical nursing did not have an official status until state licensure was imposed in 1949. Several hospitals that formerly maintained professional nursing schools, but closed them early in 1930 because of the increasing elevation of standards of the Iowa Board of Nursing, opened practical nurse schools to train persons to work in their own hospitals. At times these individuals calling themselves trained practical nurses, accepted positions as private

nurses in homes of patients. The competition for jobs within the community between the unlicensed practical nurse and the licensed professional nurse, and a desire to protect the public from unethical practitioners, led to the passage of laws to control the practice of practical nursing.

It was under the dynamic leadership of Sister Mary Brigid Condon that the first program for practical nurse education was established in Marshalltown with the specific purpose of meeting National Association for Practical Nurses Education criteria for practical nurses and the Iowa Board of Nursing requirements for state licensure. Unlike practical nursing programs in other parts of the United States, Iowa programs began under hospital control rather than community education agencies.

Following the passage of the practical nurse law, several State of Iowa Institutions again established their own programs. One such program was established at Woodward State Hospital under the direction of Bess Cunningham of Oskaloosa, with the assistance of Jessie Norelius, Executive Secretary of the Iowa State Nurses' Association. These programs were designed for the purpose of helping individuals pass the state board examination, under the waiver clause rather than generic programs.

Early interest in practical nursing was exhibited by the Adult Educational Department of the Public School system in Des Moines. The public school system and four local hospitals cooperated in establishing a practical nurse program.

A State Advisory Committee was established under the guidance of the Vocational Education Division of the State Department of Public Instruction. This advisory committee recommended the establishment of a "pilot" program which would act as a demonstration school for other schools within the state of Iowa. This school was established in connection with the College of Nursing at the University of Iowa, Iowa City. However, it was considered to be an adjunct of the department rather than an integral part.

The early licensees were for the most part persons who had experience "taking care of folks," usually a good neighbor or compassionate woman who assumed the role of providing care for those in the community. They may have had some education provided by the American Red Cross home nursing courses with experience working in hospitals during World War II. They did not know what was considered proper apparel for them on the job and this caused much concern for the registered nurse. Apparently the outward symbols of the registered nurse, i.e. the cap, pin, white hose, shoes and uniform were vestiges thought worth protecting by many nurses. Most of the early opposition to the practical nurse from the registered nurse focused upon the protection of the vestage rather than the role and function of these individuals.

Etta Rasmussen, director of a successful and still (1980) functioning diploma program, left her position at St. Luke's Methodist Hospital School of Nursing, Cedar Rapids, to join the faculty at the College of Nursing as Director of the Demonstration Program in Practical Nursing

at the University of Iowa, Iowa City. Miss Rasmussen's far-reaching vision allowed her to foresee the role of the practical nurse in Iowa. She stayed with the College of Nursing and became Teacher Educator for faculty in practical nursing. Elizabeth Kerr accepted the appointment as an instructor in the program and together these two nurses developed the curriculum for the demonstration program.

In 1955, Miss Kerr was appointed Chairman of the Department of Practical Nurse Education and in 1958 State Consultant, Practical Nurse Education, Division of Vocational Education, Department of Public Instruction, State of Iowa. In her dual role, she assumed responsibility to work with vocational education divisions within public schools to establish practical nurse programs. The position expanded greatly in 1965 and The Program in Health Occupations was established in the Division of Medical Affairs at the University of Iowa. Miss Kerr remained the chief officer of the new division.

If one were to list individual nurses involved with the beginnings of practical nurse education in Iowa, they would have to include the following:

Sister Mary Briget Condon, an early pioneer in establishing Mercedian School at Marshalltown.

Etta Rasmussen, the first Director of a nursing program established in an educational setting.

Elizabeth Kerr, State Consultant in Practical Nursing from its inception until 1979. Miss Kerr was preceived by many educators as the driving force for the establishment of programs within public institutions.

Myrtle Kitchel Aydelotte, Dean, College of Nursing, University of Iowa, at the time the demonstration program was established.

> And, of course, the many unnamed first chairmen and directors and the early teachers and students of practical nurse education programs in Iowa.

The origins of associate degree are more recent. Although there were some early attempts at shortening or accelerating the typical professional nurse curriculum, it was not until Mildred Montag developed a carefully planned curriculum in a junior college that any real attempt was made in Iowa to establish associate degree nursing programs. State law of Iowa prevented the curriculum from being any shorter than three years. When the shortened or accelerated curriculum was carried out through a hospital base school, the Iowa Board of Nursing did not apparently question their own authority in permitting such an experiment. But, when the shorter curriculum was suggested for a community college, the Iowa Board of Nursing requested an opinion of the Attorney General as to their ability to permit a shorter program.

In order to have associate degree nursing programs, Iowa first needed to have junior colleges. In 1931, Iowa had a total of 42 junior colleges. In 1932, Alice Ringheim emphasized the junior college as the strategic point to which educators of nurses should turn to produce radical changes with speedy accomplishment. The Goldmark Report had been published in 1923 and the Committee on the Grading of Nursing Schools had published its first report in 1928. But Iowa was not yet ready to leave the apprenticeship training of nursing education. In 1924 Amy Beers, Superintendent, Jefferson County Hospital, Fairfield described the use of community colleges, state universities and hospitals in providing nursing education, but she was not the right

person in the right place at the right time, so the use of the community college for associate degree nursing programs would have to wait for approximately forty years.

A community college was established at Fort Dodge in 1922. In 1962 personnel from Fort Dodge Community College approached the Board of Nursing for approval to establish an associate degree nursing program. This first program was conducted for approximately five years before the consultant service of the Programs in Health Occupations from the State Department of Public Instruction was available to them.

The growth of associate degree programs in Iowa was as phenomenal as that elsewhere in the nation. There was only one associate degree nursing program in Iowa from 1962 to 1966. Between 1966 and 1970, seven additional programs were established. Between 1970 and 1979, twelve new programs began. At the present time in Iowa there are twenty associate degree nursing programs and only 9 diploma programs in nursing. The transition of nursing education out of the hospital and into the institutions of higher learning is almost complete.

Goal 2. Interpret the past social, economic and political forces which led to the development of these programs.

The Civil War provided the impetus toward education and political autonomy for women. Without the tragic loss of so many husbands, fiancees, fathers and brothers to support them, women would have remained within their defined sphere of the home, church and sewing circle. But, when forced by circumstances to earn their own way in the world, women soon learned the value of education and the injustice of a system that did not permit them the right to vote.

World War I brought the country into a new era. The agrarian culture gave way to scientific and technical advances and the industrial beginnings of the nation. Many of America's youth had been to Europe and had seen a different world than their own home town. The surprising fact that many Americans were in poor health created the need for expansive health care programs. Lack of knowledge about nutrition and poor food sanitation brought many preventable health problems to the population.

The American Red Cross was credited with the training of many nurses to work in army hospitals at home and abroad. The civilian hospitals were staffed with women who learned about patient care through the Red Cross Nursing programs. Transportation systems improved as the need to move men and goods from all parts of the nation increased. Sanitation measures were improved as knowledge about the cause of diseases increased.

The second World War encouraged the feats of physicists and engineers as they had never before been encouraged. The atom was unloosed, and the birth of a new field of nuclear medicine began. Federal funds were provided to improve conditions for soldiers, which also meant methods of providing health care. As the base of medical and surgical knowledge grew, the need to have adequately trained nurses became more intense. The technological advances learned during the war continued to increase following the war, but were put to peace-time efforts of improving the standard of living.

The impetus to establish practical nursing programs in Iowa was the result of a severe shortage of registered nurses following World War II. Many civilian hospitals and public health agencies expected the nurses to return from the war and take up where they had left off. However, the nurse shortage during the war continued in the post-war period and became more severe as young women found new fields more exciting. Many young people married, and nursing was not for the married women who would live away from the hospital and probably not wish to work full time.

Practical nurse programs were designed to attract older more mature women into the field of nursing. Lower academic standards were accepted because the level of training to be given was not expected to require an academic background beyond 10th grade. The women who graduated from practical nurse programs were expected to aid the professional nurse in patient care by providing care for the chronically ill or recovering patient.

The idea of assigning portions of patient care to specifically educated individuals resulted in fragmented care. The level of assignment was to be based upon the patient's need and the level of education of the provider. However, nurses' aides, practical nurses and the diploma graduates all found themselves doing the same tasks.

The Goldmark report and the study by the Committee on the Grading of Nursing Schools had resulted in the closing of many smaller poorer nursing programs in Iowa's hospitals in the 1930s to 1940s. But with the establishing of practical nurse programs, many hospitals expressed

an interest in reopening their schools for practical rather than professional programs. They were short of help. Hospital use increased as women began having their babies in hospitals rather than at home, and patients accepted surgery as a way of improving their health rather than as a life-saving measure.

During World War II, many hospital schools availed themselves of the use of federal funds for the Cadet Nursing Program. This caused them to examine the costs of their programs and to look at the curriculum they were using. The requirements of the Cadet program influenced programs to study their own requirements and policies. The number of hours students were required to be in the clinical area, the number of days off, and the number of nights worked were all regulated by the Cadet program.

Following World War II, the acute shortage of nurses occurred. The Iowa Board of Nursing had to reverse itself on a policy of allowing practical nurses to work in hospitals that conducted schools of nursing.

For the first time in the history of nursing in Iowa, a state-wide advisory committee for practical nursing education was formed. This committee operated throughout the early years (1950s) during the establishing of practical nurse programs in vocational education departments of schools.

The availability of federal funds influenced the establishment of practical nurse programs. The local high school districts that had established adult education or vocational education programs were aware

of the potential of establishing a practical nurse program. Waterloo School of Practical Nursing was established by a local board of education under a public school system in 1957.

In 1956, Elizabeth Kerr believed that Iowa would be establishing more practical nurse programs in hospitals rather than vocational educational programs. She, of course, could not predict the effects of the Vocational Education Act of 1963 and the establishing of area community colleges and vocational technical schools throughout the state of Iowa.

Because of the increased scope of health occupations after the establishment of area schools and the use of federal funds for health occupations programs, the Program in Health Occupations Education was expanded and moved from the College of Nursing to the Division of Medical Affairs.

The impetus of the development of associate degree nursing programs in the state of Iowa has been the development of the area vocational-technical, community colleges. Junior colleges had been established in the late 1920s and early 1930s. Although several community colleges in Iowa cooperated with hospital schools of nursing to offer courses for the nurses, no junior college wished to accept the responsibility of a total nursing program until 1962, when the administrative personnel at Fort Dodge Community College expressed an interest in developing a program similar to the ones developed by Mildred Montag. It was not until 1967 that the Program in Health Occupations Education requested an opportunity to experiment with a curriculum slightly different than the Montag model. The two community colleges that developed experimental programs were located at Fort Dodge and Mason City.

The requirement of teacher certificates to teach in nursing programs in community colleges and the establishment of two programs in nursing (practical and associate degree) within one area school gave impetus for the career ladder education programs. The Programs in Health Occupations Education Division of Vocational Education and the Iowa Board of Nursing encouraged experimentation with curriculum to meet Iowa public health needs. Two nursing programs began an upward mobility experiment at the same time. Both were equally successful with state board examinations and satisfaction of students and employers. Since the conclusion of the experiment, 18 programs in nursing have developed their curriculum following the model of the program at Calmar, Iowa, which was conducted under the direction of the researcher, Donna Story.

In the world of yesterday and today, external factors have profoundly affected nursing. The most prominent one was the state of the economy: inflation, recession, cost of living, consumer price index, and the health expenditure as a percent of gross national product.

When third-party payers resisted paying the education bill for students enrolled in diploma (hospital based) programs, the decline of these programs began. When community colleges established nursing programs to provide educational opportunities for women and increase their total enrollment the growth of these programs began. When the federal grants available for start-up, capitation, financial distress, and special projects diminished, the halcyon years for nursing education were over.

The federal funds available for the Cadet Nursing Program during World War II and the experimental program of Mildred Montag affected profoundly the direction of nursing education. With the tightening economy and the limitation of funds for all education, nursing education has been forced to fight for survival.

Other equally important factors affecting nursing are the women's rights movement, other civil rights movements, adult education the leveling off or decline of educational enrollments, the growth of non-traditional study and the movement of nurse education from the hospital based diploma programs to institutions of higher learning.

The woman's rights movement affected an attitudinal change in nurses toward their profession and themselves. Traditional nurses were taught to be timid, to shrink from actions that may be dangerous or difficult, to shy away from issues, to try to please everybody. The concept of women's rights gives the nurse the strength and courage to confront the issues and problems facing nursing and to support changes that are needed but unpopular.

The transition of nursing education from an apprenticeship-type education to a learned profession has been difficult. It has been resisted by many including the nurses themselves. Many individuals and some administrators of clinical facilities believe that lesser prepared individuals automatically mean lesser costs for service. As more students obtain their education in colleges, they acquire more of the characteristics of college students. They do not accept their educational program as rightfully paternalistic. They view their education

as a commitment and are motivated toward active professionalism, not a steady or part-time job. They expect salary scales to be evaluated for appropriate remuneration for services rendered on the basis of preparation and expertise rather than on sex and tradition.

Goal 3. The third purpose of this study was to document the origins and the forces which shaped the direction and developments of these programs.

The documentation of the early programs in nursing education was made difficult because of the lack of record keeping. Hospital boards of directors or owners considered the nursing education program a part of nursing service, therefore little effort was made to provide separate records.

The social, economic and political forces which shaped the direction and development of the nursing programs are the forces which shaped general history. The inextricable interweaving of nursing service exists with all other branches of human culture.

Principal Conclusions

The following conclusions are based on the findings of this investigation.

1. Practical nursing education programs have been in continuous existence in Iowa from 1891 to the present with periodical interuptions. Following state licensure in 1949, there has been a steady increase in the number of practical nursing education programs. The first program designed to culminate with state licensure was the Mercedian School of Practical Nursing, Marshalltown, Iowa, established under the direction of

Sister Mary Briget Condon in 1948.

Associate degree nursing programs began in Iowa in 1962 at Fort Dodge Community College, Fort Dodge. From the inception of the first program, there has been no interruption in the rapid growth of associate degree nursing programs in Iowa.

The concept of a career ladder educational approach to nursing was established in Calmar, Iowa, at Northeast Iowa Technical Institute in 1970 under the direction of Donna Story. The career ladder concept is firmly established in Iowa's nursing programs.

2. No single force, economic, social, scientific, technological, or consciousness to reduce human suffering, singularly provided the impetus to originate, sustain and improve nursing education, but rather it was the slow and deliberate integration of all these forces which tended to win public acceptance and support for better health services. This process will not end in our time. Improved health services have been evolutionary rather than revolutionary in nature.

3. There is a challenge to detect and delineate the factual, documented events and dates related to nursing education that could ignite in the receiver an appreciation of the way in which problems re-appear and solutions get lost through time. Nursing has been oblivious to the great importance which other professions, such as law and medicine, have placed upon history, and the way in which knowledge of their past has guided and inspired their progress. The documentation of nursing history occurred through a study of the growth of medicine, hospitals, and general social, political and economic records.

Additional Conclusions

1. Nursing has evolved from the pre-science stage to science, from apprentice-type training to higher education. Some major difficulties have been encountered in the attempt to devise a viable system of education that is congruent with the changing role of the nurse.

The educational system in nursing prepares persons for four different entry levels to practice,but licenses for only two levels. The associate degree, diploma and baccalaureate level are all licensed as Registered Nurses, while the Practical Nurse receives a license to practice at the vocational level. There is no legal guarantee for safety to practice at the baccalaureate level of preparation because the baccalaureate degree graduates currently take the same licensing examination that the associate degree and diploma graddates take. Taking the same test only signifies that baccalaureate degree graduates are safe to practice at the Registered Nurse level. It would be comparable to license dentists according to their performance on the licensing examination for dental hygienists, or to license medical doctors according to their performance on a licensing examination for physicians' assistants.

A change in the system of licensure must occur in order to eliminate the confusion and role ambiguity among the levels of nursing education and practice. A separate licensure examination for each level should be developed.

2. Both national and state legislation, particularly in the field of vocational education, constituted major forces in the expanded development of public, rather than private, nursing education in Iowa.

3. The development of practical nursing education programs in Iowa was a response to the critical nursing shortage that occurred following World War II.

4. The development of associate degree nursing programs in Iowa was facilitated through the legislation which developed the area community college system in the state. There is the inherent danger that as the declining enrollments in junior colleges cause a loss of tax supported financing for the school, the nursing programs will be presented with the problem of educating students with lower academic ability.

Just as hospital schools of nursing depended upon the students to provide labor for low cost patient care, junior colleges may depend upon students to generate needed full time equivalency numbers for securing adequate state funding.

5. The concept of career ladder education in Iowa's nursing programs is firmly established.

Limitations

1. The use of the historical method as a major research technique contains unique weaknesses.

a. The test of external criticism or tracing the document to its original source can be affected by the natural biases of the researcher. For example, the eagerness to obtain information about an area of inquiry may lead the researcher to accept without adequate questioning the authenticity of documents. This researcher found in many references the statement that the bill to license practical nurses was introduced

into the 1947 legislative session but the bill was "lost in the sifting committee of the senate." This statement supports the author's views about the time-frame of practical nursing in Iowa, but could not be validated with complete accuracy.

b. Documents cited in the study may contain errors due to the original author's biases, his/her inability to observe or his/her inaccuracy as a recorder.

An example of this inaccuracy is the text on nursing history in Iowa by Emma Wilson. The text material in this book is not documented. However, this researcher was able to find the original manuscript and match information contained in the text with various other sources.

c. Information is recorded without any thought that such information may be of future historical significance. For example, Vera Sage, Educational Director of the Iowa Board of Nursing during the 1940s, to 1960s, was commissioned by the personnel in the Program of Health Occupations Education to develop a history of the practical nurse programs in Iowa. The work is mostly undated and contains statements such as "this program began in 1956 with ten students; five students were in the second class and fifteen students in the third. To date, 40 students have graduated." But there is no date, no student names, no plan of organization, and no statements were documented.

d. Information is not preserved. On a visit to a diploma program (one of the nine left in the state), the researcher was asking for information from faculty minutes at about the time the practical nursing program was started using the same facility. There is only one nursing

program in Iowa that currently has a practical and diploma program. The director of the school informed the researcher that all faculty minutes were thrown away after five years because they were no longer useful. When the researcher talked about the value of such information the director replied, "That type of information will be available in the nursing journals."

2. The existence of uncataloged data delayed research efforts and necessitated validation and cross validation of facts. A major problem was encountered at the Iowa Board of Nursing when it was impossible to copy information by a mechanical means because the Iowa Board of Nursing budget could not permit copy of materials for a private citizen and there is no mechanism established for a private citizen to pay for copies to be made. In addition, the materials could not leave the premises to be taken to a public copy center. The cost of renting a copy machine to place in the area was not within the economic considerations of the investigator. A solution was reached when the researcher rented microfilm equipment and microfilmed extensive Iowa Board of Nursing minutes.

2. Materials for this study were located in Iowa City, Des Moines, Marshalltown, Waukon, Calmar, and Ames. In addition, materials pertaining to the national scene of nursing were located in New York and Boston. Time and financial considerations limited the researcher's availability to these materials.

3. Although a great deal of care was taken to locate all relevant information, there is a possibility that some materials were not located and searched.

Recommendations

Based on this study, the following recommendations are presented for consideration.

1. Each program in nursing education should begin and maintain its own archives. Both pictorial and nonpictorial material should be preserved. The available material should be cataloged in the school's library. Ready access to all these materials should be granted to those pursuing research.

2. The Iowa Board of Nursing should develop a history of its organization. The Board has changed locations a number of times and unless the individual currently serving as the executive officer is interested in history, the materials generally are not preserved.

3. The program in Health Occupations Education should develop a history of its organization. The unique arrangement of a State Department of Public Instruction consultant also being a member of a university faculty was not obtained without some discord and concessions. An understanding of the arrangement leads to an understanding of the organizational structure within the state.

4. A copy of this study should be made available to educational directors in practical and associate degree nurse programs in Iowa. It will provide them with background information on the development of practical and associate degree nurse programs within the state.

5. Further studies suggested by this investigation include the following:

a. The history of Mercedian School of Practical Nursing in Marshalltown.

b. A history of the Demonstration Practical Nursing Program in Iowa City.

c. A study on the effects of the Cadet Nursing Program in the state of Iowa.

d. The whole matter of the naming of the levels of nursing education.

e. All aspects of the career ladder education programs.

In summary, a comment made by Josephine Goldmark in 1923 in the Study to Grade Nurse Education seems to have meaning today:

> The history of nursing education . . . is indeed the history of most vocational education. For professional, commercial, industrial training in all lines had its roots in apprenticeship of one kind or another, and until comparatively recent years apprenticeship was the traditional and accepted method of instruction. But while standard professional education such as law and medicine, architecture, and engineering, has long outgrown the apprentice stage, and even such callings as journalism business and social work are rapidly moving toward an ordered educational scheme, the training of nurses remains one of the few survivals of this earlier and largely outworked type of education (Goldmark, 1923, p. 193).

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