EDUCATIONAL ASPECTS OF THE PUBLIC HEALTH PROGRAM

by

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CHAPTER I

INTRODUCTION

A truism which is not always fully appreciated, especially by school people, is that not all education takes place in the schools. Currently, many agencies are practicing education. Many business operations have their schools, at both the trades and the professional levels. The Armed Services were made up of schools, more than ever during and probably since World War II. The lawyers have their professional conferences, the educators have their "workshops", and the physicians their clinics and short courses. Individuals who are not familiar with the work of the public health movement on the federal, state, county, city, and school levels and who do not know the aspirations of the public health and other nurses for their profession would, probably, not think of public health work and of nursing as largely teaching professions.

The purpose of this thesis is that of giving a brief review of the development of the public health movement in the world, the United States, Oregon, and Benton County; and to show that it operates largely through teaching procedures in order to help people to help themselves.

Even the experimental and investigative work of the public health movement is done in order that facts may be learned and then presented to the public for the greater health or comfort of the people, especially those who cannot or will not seek out health for themselves. The wise use of public meetings, booklets of information, moving pictures, magazine articles, posters, and personal contacts on each of the levels of the movement is based first on creation of a desire for knowledge and second on the imparting of the desired knowledge. The program of the public health movement is one of (a) beneficent propaganda of knowledge of healthful living and (b) of performance of curative measures where these are necessary and cannot be obtained elsewhere. This program is also designed for public health workers to keep them up-to-date, for the general public to help them protect themselves both from epidemics and from the less spectacular causes of ill-health, and for the part of the general public which needs personal guidance and personal care and cannot obtain them for themselves, to care for and cure them to the point at which they can care for themselves. When one considers that this whole field is not yet a century old, it would seem reasonable to rate the amount of accomplishment that has been made as tremendous while admitting that

still more than has been accomplished remains yet to be done, not only in "darkest Africa" but in the dark spots in the United States and in other civilized areas.

It is hoped that this thesis will be of some interest to public health workers who are already in the field and to nurses in hospitals and to other students who wish to know more about the field of public health nursing, either for their general information or because they may desire to enter the field.

In the second chapter of this thesis may be found a brief reume of (a) the beginnings of the public health movement in Europe and in the United States, (b) the development of the movement in Oregon, (c) the history of the movement in Benton County, and (d) some of the hoped-for improvements in this field. In the third chapter are illustrative cases which show the actual work of a county public health nurse in Oregon.

CHAPTER II

THE DEVELOPMENT OF THE PUBLIC HEALTH MOVEMENT

When one thinks of the various plagues which have swept Europe, Africa, and more especially Asia with their thousands and hundreds of thousands of deaths coming so rapidly that the living could not bury the dead for days or even weeks, one realizes in a dramatic way the importance of public health activities and the agencies which - less dramatically - carry them on day after day. The influenza epidemic which covered much of the world in 1918 is still remembered by many people. Routine weekly morbidity reports, promptly and accurately tabulated, may well be compared with military intelligence reports in their yielding of information of what may be an approaching epidemic or only a trend which may become dangerous and which needs attention and correction. Advice to and care of expectant mothers who would otherwise be left without any skilled care both before and after the birth of the child have saved many lives and prevented many years of invalidism. Fetal-death certification from all sources and a study of the causes are important in the recognition of costs, not wholly financial, to the family and to the society of which the family is a part. The

so-called vital statistics or reports of all births and all deaths are important in the continuing survey of the resources of the nation in numbers, qualities, and trends of population. The new science of gerontology, or the study of the older people, is another field of the public health movement and one of extensive sociological, economic, and political as well as of familial and personal importance in which public health agencies have already interested themselves.

Environmental sanitation is of great value in terms of comfort as well as of health where it is properly directed and executed. Mosquito control which destroys the annoying as well as the typhoid-carrying mosquitoes, fly control, rat control - one of the most valuable economically as well as desirable in reducing the spread of bubonic plague which has existed now for several decades in the United States - the inspection and the making safe of dairy and other food products, the purity and the palatability of water supplies, the inspection of restaurants and groceries, the proper disposal of sewage and of garbage, the destruction of ticks such as those carrying the Rocky Mountain spotted fever, and many other items which will become of more and more importance as people live more closely crowded together are valuable and desirable. Anti-smoke and anti-noxious gas

prevention and correction measures have already become important. It is conceivable that anti-poison gas and anti-fission products measures may at some time become acutely critical.

Another whole field of the public health movement is that of health education, including first aid and accident prevention. Every member of every public health department staff should recognize his role as an educator, a persuader in health-producing activities, and a co-operative assistant and adviser in matters of better health at every opportunity. Simple, correct, and understandable answers about causes and effects should be given. There should be greater emphasis in elementary and high school curricula on the living of health measures as well as learning about them in order that ignorance, superstition, and the inertia of tradition may be overcome and superficial sophistication may be challenged, for example, knowledge of the effects of habit-forming drugs such as marijuana and of the potent and hazardous sedatives such as the barbiturates.

To build (5, p.530) effective public health departments in the present and in the future, however, serious defects in the professional and the personal training of members of their staffs must be corrected.

At present (5, p.530), there are weaknesses in the orderly and applicable professional training of the members of these staffs and there is insufficiency of field training during and after the completion of courses offered in the schools of public health to the physicians, public health nurses, sanitary engineers, professional educators, and other interested and active persons.

Rapid changes (7, p.529) have been occurring in medicine and in public health in recent decades. The advances have been in both curative and preventive medicine, and strong evidences appear that the borderlines between these two phases are fading out. A survey (7, p.529) was reported in 1947 of present and projected public health work in thirteen nations, including the United States. It was found that in all of these countries steps are being taken toward a program of curative measures as well as preventive measures which will make available to a large share of all mankind all of the facilities of modern science necessary to the development and maintenance of physical and mental health. Much of this improvement (7, p.529) has come out of World War II.

The public health nurse (7, p.529), too, is coming into her own. She is far more numerous than other health workers and, in large measure, the practice of public

health depends on her. Local public health work succeeds or fails as the related nursing services are good or poor. This also involves, in part, the quality of the preparation of teachers, supervisors, and administrators for their posts of responsibility in the training of nurses for public health and other work in nursing as well as the skill of the public health nurse in all phases of her work while on the job.

The early phases (8) of public health work involved principally the segregation of the contagiously ill and the striving for and the enforcement of mild laws of sanitation. Later phases were the development of a public health nursing program, some special training for public health nurses, and the development of public health courses or even curricula at the college level. Still later have been the expansion of federal and state public health departments, better training for all nurses, much more emphasis on health courses at all school levels, and the establishment of the many "foundations" by private and by public philanthropy for research in and prevention and cure of various epidemic diseases. The Rockefeller Foundation, the National Anti-Tuberculosis Society, the Shrine Hospitals for Crippled Children, the Lardner Fund (for research on cancer), the March-of-Dimes, and the Harkness Foundation for the promotion of public health are

a few of the best-known of these.

Not only is the public health movement becoming worldwide but it is (7, p.529) approaching the requirements of an applied social science. It has its roots (7, p.529) deep in general public welfare and includes branches like housing, recreation, nutrition, education, and social security. Much work is being done by American agencies in Central and South America, parts of Africa like Egypt and Liberia, and in Europe and Asia. Some of these areas support this work financially themselves but lack the properly trained personnel; others currently accept this work as charity.

THE FUTURE PREPARATION OF NURSES

For a quarter of a century (2, p.vii), leaders in the field of education for nurses have striven with considerable zeal but, many of them believe, with distressingly small results to create a sound and socially-motivated form of nursing education. Prior to that time, the majority of the leaders were content with a form of training which is held to be no longer satisfactory. These leaders (2, p.vii) have become convinced that a system of apprenticeship such as existed in the

majority of earlier training schools for nurses, then numbering almost two thousand, is no longer adequate for the preparation of nurses either for the increasingly complex demands of institutional nursing or for the vast new field of community or public health nursing which is still in the process of development. One of the first and important decisions in the correction of the situation was that of viewing nursing service and nursing education in terms of what is best for society and not what is best for the profession of nursing as a possible vested interest. This position was held to be imperative if (7, p.xi) the American public was to be convinced that serious effort had been made to view a difficult and emotionally explosive subject with such unbiased objectivity as was possible.

Since the United States (7, p.xi - xii) is a vast country, rich in the diversity of its geography and economy; its racial, ethnic, and religious groups, and its ways of viewing the task of living; many scores of regional adaptations to the specific conditions and the needs of institutional and community nursing and of public health work should be considered and, possibly, included in any broad plan for the future in these fields. For the very reason that these are adaptations (7, p.xi - xii), they often have a validity and a vitality far greater than

any uniform program, however carefully devised, imposed from outside would have.

Before any questions about (7, p.xii) who shall organize, administer, and finance the broadened programs of the future schools of nursing can be answered as clear a picture as possible will have to be drawn of the probable nature of health services in the second half of the twentieth century and of the nursing services likely to be demanded by these evolving health services. Inquiries (7, p.xii) into the kinds of training and of academic and professional prerequisites for the preparation of nurses for the rendering of these various kinds of services is essential.

These inquiries (7, p.xii) have come at a time when the supply of more "hands and feet" to perform nursing duties is so precariously low that health services and the public find it difficult to think of other than a quantitative supply of nurses. Interest (7, p.xiii) in the greater competence of nurses in the professional areas of nursing might become negligible when there are so few nurses of any kinds and qualifications available. Where the earlier physicians desired principally an inexpensive supply of nursing service, there are many other physicians and non-physicians today who see nursing as of more importance than "hands and feet", for example,

the head of a famous department of psychiatry - (7, p.xii) - has asked how soon he may hope to obtain nurses who would be "colleagues in research and writing"; and a dean of a medical school has asked: "Do you suppose nurses want to carry trays? If they would only make up their minds about what they want to do!" There are, however, too many physicians today (7, p.xiv) who desire only a large, docile, and inexpensive supply of nursing assistance.

If the professional schools (17, p.497) for nurses are to prepare nurses for beginning positions in public health as well as for other nursing services, experienced public health nurses will be forced to participate more actively in nursing school teaching programs.

At present (1948) a small minority, about five per cent, of the total number of graduate registered nurses (10, p.33) are college graduates. There are some 280,500 active registered nurses in the United States. Of these 22,100 are in public health work and should have had a comprehensive program of health education and training in preventive care, and general education.

At the beginning of 1948, just under 10,000 students (10, p.48) were enrolled in collegiate schools of nursing out of a total of 92,000 in all schools of nursing. This is slightly more than ten per cent, but only about half

of the students in the collegiate schools of nursing were pursuing the regular three-year nursing program leading to a diploma. At present, only seven per cent of all schools of nursing (10, p.57) are affiliated with universities or colleges, but the expansion of facilities for training professional nurses may prove to be difficult. The private colleges are encountering difficulties in meeting their obligations for the programs which they have established. It is unlikely (10, p.22) that they will be able to continue their programs of nursing education without financial assistance. The prospect is more promising for affiliating schools of professional nursing with state than with private universities, as the federal government has given aid to state schools, but even this is not to be taken for granted. There is, however, an increasing demand by the American public (10, p.45) for medical and health care.

When the education of all professional nurses includes a four-year course in a college or university affiliated school of nursing which includes a basic training in public health nursing, all nurses will be able to do more educational work among their patients and the general public with whom they come into contact. This will help materially in promoting and maintaining

health and in preventing disease. The registered nurse should also be relieved of housekeeping and clerical duties that may easily be performed by housekeeping and clerical personnel.

According to the present proposals, then education for professional nurses will be placed in colleges and universities. More attention will be given to blending general education and professional nursing education into balanced courses leading to a professional degree. The health promotion and preventive aspects of nursing care will also be woven into the whole educational program. Such programs will require amounts of training for limited numbers of nurses not generally here-to-fore considered practicable, plus extensive field training in the various kinds of nursing. Such a program will be a severe test of any individual undertaking it.

EDUCATION FOR THE PROFESSIONAL NURSE

Those who are conversant with the trend of professional nursing in the United States agree that the preparation of the nurse belongs squarely within the colleges and the universities. This training should be supplemented with laboratory work or field training in

hospitals and in the public health agencies, of course; but it is now believed, the major part of the professional training should be given outside of the hospitals and in the colleges and universities.

Two distinct (2, p.138) but closely inter-related kinds of preparation that only higher education is broadly equipped to provide are essential for the training of such nurses. The first is the laying of a foundation that permits continuing growth of many kinds, such as growth in positive health and integration of the personality; insight into one's own motivation and behavior and the direction of these in others; the cultural patterns that influence human behavior; the ability to use the spoken and the written language effectively; skill in the analysis of problems, collection of data, and the drawing of logical conclusions; a perspective view of human behavior gained from psychological and sociological records of human development and the development of society and social institutions; and an understanding of and convictions about the responsibilities and the rights of citizenship and of membership in the nursing profession.

The second kind of preparation (2, p.139) is the more specific technical training for professional practice. This training should transcend that for the care of the hospitalized ill and should prepare for the

broad field of public health nursing service. Besides the (2, p.139) relatively well-defined components of the current course of study for nurses, such training should include knowledge of nutrition, housing, employment, economics, class and caste structures, recreational activities, analysis of the health needs of individuals, methods in the art of teaching health procedures to well or to ill persons as individuals or in groups, and skill in teamwork with social workers whatever their specialties.

The foregoing program is the preparation proposed for the segment (2, p.140) of nurses who would be expected to act in truly professional capacities. These are nurses who will be expected to be contributing members of teams dealing with complex clinical situations in which technical nursing and medical skills of a high order are correlated with sociological and psychological knowledge and practice. Such nurses would also be teachers of many kinds of personnel who would, in turn, teach others who are less well trained. They would carry on greatly needed research and publish the results for the use of others. Attempts to promote (2, p.141) and to integrate this kind of education for nurses in any nation, including the United States, have not yet

been characterized by success. Where the professional schools for law, medicine, and social work, for example, have customarily demanded two or three years of undergraduate work for admission and the professional schools themselves have been parts of colleges and universities, in nursing, they generally have not been. Of late, however, professional schools for nurses (2, p.141) of several kinds have begun to question the desirability of this sharp separation between the general and the professional educations.

There now exists (2, p.182) in the United States only one collegiate school of nursing offering a curriculum which demands a bachelor's degree for admission. The usefulness of this school to the profession of nursing is amply demonstrated by an examination of a list of the positions held in this and other countries, by its graduates. Although this school is on a higher educational plane than now seems practical as a pattern for all schools for nurses, it is believed that at least two or three such schools should be established in widely separated locations within the nation where they will be available to the greatest number of potential students.

Below this group, in professional training, it is planned that there would be large numbers of less highly

trained nurses who still might well be recognized as professional nurses. Trays do have to be carried. Charts do have to be prepared, and medicine administered. A considerable number of the professional nurses of the present would not or could not complete or profit by the advanced training proposed above. There is and will be plenty of opportunity for these nurses to give valuable and respected service, as they are doing at present.

ADDITIONAL SOURCES OF NURSES

Male nurses might well be recruited for both levels of professional nursing if the foundationless prejudice in the United States against male nurses could be overcome. Thousands of males served in many capacities in the medical units of the military services of the United States in both World Wars. Provision was made for full recognition of the worth of male nurses, but few of them appeared. In this period of scarcity of nurses, it would seem advisable to try to improve this currently unprofitable situation.

With the changing mores of the nation, more and more professional nurses who are practicing their profession are married. If the older custom of nurses retiring from their profession upon their marriages were

enforced today, there would be few nurses in some communities and no nurses in many communities. Whether one approves of the situation or not, it is here. Whether these married nurses will continue their professional growth or not is both an individual matter and one for group education or beneficent propaganda. In time, there will doubtless be some means of denying continued recognition to those who have failed to continue their training and have become sub-standard professionally, but the selection should not be based on marital status.

With current changes in attitude toward so-called minority groups, it is quite possible that permission for Orientals, Jews, Negroes, and others who are now excluded by consent if not by rule from training and practicing as professional nurses might be granted. Such training might be on the upper or the lower level discussed above, in accordance with the abilities and the desires of the individual.

Moreover, there is both room for and the need for the so-called practical nurse in large numbers within the nursing profession. Obviously, standards of training and of performance would have to be established and maintained but, if tradition and prejudice could be put aside, these would not be difficult. Practical nurses

(17, p.496) are currently employed in public health agencies, largely to share in the care of individuals with long-term and relatively stable disease conditions. Subject to experience, it is believed that they should be tried in clinics, schools, and industry. Individuals who could not or would not meet these standards could be eliminated from this group. The others should be recognized and rewarded for their degrees of training and skill.

The idea of nursing personnel (17, p.496) with varied backgrounds is not new to nurses. Many nurses joined hospital nursing staffs first, and secured their qualifying preparation as professional public health nurses later. The depression days and WPA (17, p.496-8) brought about the employment of such registered nurses who had had no preparation in public health nursing for special assignments in public health agencies. Present shortages have increased the employment of such workers. They have various names, such as apprentices, trainees, and junior staff nurses. Practical nurses, particularly during and since the war, have become established members in many health agencies. It may well be (17, p.496) that the nurses of the future will be divided into three great groups - - the practical nurse, the registered nurse of

today, and the truly professional nurse who is a graduate from a degree program which prepares her for any beginning position in the nursing services with an expected rapid rise as she acquires experience in her work.

THE FUTURE OF NURSING EDUCATION

Changes in nursing education (13, p.675) and nursing service throughout the last three-quarters of a century have followed closely the changes in medical science. The Woman's Education Association met in Boston, in April, 1873, and heard a report from its Industrial Committee recommending the establishment in Boston of a "Training School for Nurses".

At this time (13, p.678) there were no schools of nursing operating in the United States sufficiently well organized to serve as patterns. There were no curriculum guides and no proved knowledge of the essentials of a good school of nursing. There were no trained nurses to assist with the plans and no text books to suggest the course content a trained nurse would need. The philosophy of this first curriculum (13, p.678) was the philosophy of the pioneer. The aim was the development of a new career of service for women. The purpose chosen for the school, from the beginning, was directed toward "the

instruction and training of nurses for the sick". The curriculum was in essence the care of patients.

Nursing service today, as in the 1870's, is a combination of patient-care and of other activities necessary for medical education and practice and of hospital and ward administration. The new trend in medical care is away from easy and gradual convalescence to the practice of early departure from the hospital. This has greatly influenced both nursing service and nursing education. Convalescence is, for these patients, a period of care in the home which requires careful explanation and instruction if the continuity of care in the hospital and in the home is to be preserved and the total care made effective. The training of the nurse must enable her to become a participant in the changed program of care for the patient.

The applicants who sought admission to this school of nursing in the Massachusetts General Hospital seventy-five years ago were mature women (13, p.681). The average age of the first class of eight applicants entering the school on November 1, 1873, was thirty-two years. These women had judgment, mature poise, and insight developed from living among the people of their home communities. Just as the care of the patient in the

hospital furnished their curriculum in nursing, so home and community life furnished for these early applicants the courses in social sciences.

For almost fifty years of the school's history (13, p.681), this was the prevailing situation.

The average age of the students entering the schools of nursing in 1948 is eighteen (13, p.681). In contrast with her predecessors, the student-nurse today is better prepared academically, but often unchallenged and ignorant of the obligations and responsibilities which her position must of necessity entail. That she may be an effective nurse, this young student must herself learn how to live. While her own judgment is developing, she must have guidance. That she may understand the patients' problems and needs, she must have personal insight and knowledge of people and institutions established for social welfare. Through the last twenty-five years, the social sciences have been added to the nurse's training to compensate for her youth and to develop quickly what those early applicants had gained in years of living. Just as the student-government organization - one of the first was formed in a school of nursing in 1918 - has given the student opportunity for development in the difficult art of self-direction, so the counseling program of 1948

gives the student opportunity for guidance in personal adjustments to life and to her profession.

The contrast of the curriculum of 1948 with that of 1873 or 1890 or even 1923 follows, step by step, the contrasting changes in the pattern of health care which medical science has made possible through-out three quarters of a century (13, p.681).

HISTORY OF THE PUBLIC HEALTH MOVEMENT

Throughout the history of war, gentle souls in the armies involved and civilians living near the scenes of battles have given some care to the wounded and have buried the dead, but only in recent times have armies given organized care to their sick or wounded and decent and recorded burial to their dead. Modern military organizations now have quite complete and effective medical departments, not only as means of the conservation of manpower but as a humanitarian measure as well.

The International Red Cross was founded at Geneva, Switzerland, in 1864, as an international agency to care for and improve the lots of members of military services without regard for nationality. The American Red Cross was established in the United States as a continuing

organization rather than an emergency organization in 1881, largely through the efforts of Miss Clara Barton (1821-1912), a nurse. It was re-organized and re-incorporated in 1905. Although the Red Cross has departed widely from its original purposes, it is today an active organization in all parts of the civilized world and even beyond.

More recently still have nations given organized thought and active care to the health of their people. The current trend of the socialistic governments toward a proclaimedly complete care of their people in almost all ways "from the cradle (and before) to the grave" is regarded with extreme favor by some groups and extreme disfavor by others. Relatively few people are neutral or even calm in their attitudes on this matter. This "health insurance" plan, and all other socialistic plans will inevitably fail unless the population totals are commensurate with the supplies of the necessities of life available. Therefore, it is reasonable to assume that such a plan may lead to war as reductive of the population rather than to peace and security. These "health insurance plans" do not imply that the public health situation as it stands in even the civilized nations of the world today is satisfactory. They do raise the question of the most equitable and effective

manner of bringing about desirable improvements in the health of the people of the world.

Miss Florence Nightingale (1820 - 1910) was one of the first to try to put military medical care on an organized basis. Conditions in the Crimean War in the armies of Russia on the one hand and Turkey, Sardinia, France, and Great Britain on the other were inexcusable as far as medical care was concerned. Miss Nightingale, or Nurse Nightingale, not only attached herself to the British Army and gave care to the wounded but she put such pressure on the officers of all ranks that she obtained medical supplies even though these were in small amounts and furnished begrudgingly. When these supplies dwindled and the opposition to her and to her work increased, Nurse Nightingale carried her problem to the British public and to the highest civilian authorities and won her point. In 1860, the Nightingale Training School for nurses was established at St. Thomas' Hospital in London. She spent the remainder of her life fighting for improvement of hospitals and trying to free the public from superstition and prejudice about health matters. She fought for and obtained to some extent medical care for the British armed forces. Other nations slowly followed suit.

The public health nursing of today (3, p.3) had its inception in Liverpool in 1859 with the organization of the Visiting Nursing Association under the leadership of William Rathbone. In a larger sense (3, p.3), however, one may say that the public health nursing movement is a direct outcome of the work and teachings of Nurse Florence Nightingale whose constant hope was that the word, nurse, might be associated with health rather than disease.

It was with high hopes (3, p.5) that Nurse Nightingale awaited the development of the Visiting Nursing Association. It proved so successful that it soon spread to London. It was found (3, p.6) that, with the small number of qualified nurses available, more children in need of care could be reached by utilizing the public schools than in any other way. Access to school children made possible not only the control of communicable diseases but a closer correlation between the school and the home. It was a natural consequence (3, p.6), therefore, that school nursing should become the first specialized type of public health nursing service.

In England, Nurse Amy Hughes was the first nurse to attempt school nursing. She began her work in the school

in Drury Lane, London, in 1891. In the United States, active interest among public school administrators (3, p.6) in health did not begin until the advent of the public health nurse. In New York City, the need for health supervision of school children was so great that a month only was required to demonstrate the value of such service. As a result (3, p.13), school nursing in the United States, has spread rapidly, especially since 1912, from the inaugural work of Miss Lina Rogers in the New York City schools.

The first law (8) providing for the registration of nurses was passed in South Africa in 1891. It also provided for the limitation of the term, "Registered Nurse" or "R. N." to the nurses who had met the qualifications for registration. North Carolina, in 1902, was the first of the states in the United States to provide for the registration of nurses. Nevada, in 1923, was the last.

Among the first, if not the first (9, p.20), of the hospitals in the United States to establish a training school for nurses was the New England Hospital for Women and Children in Boston, Massachusetts, in September, 1872. The next year, Bellevue Hospital in New York City, the New Haven Hospital in Connecticut, and the

Massachusetts General Hospital in Boston established schools for nurses. The number increased until, in 1943, there were in the United States 1,267 hospitals with such training schools.

The organization of nurses and the standardization (9, p.13) of nursing training have continued from the establishments of the Metropolitan and National Nursing Association in England in 1870, the Boston Instructive District Nursing Association, and the Visiting Nurse Society of Philadelphia, both in 1886. The Chicago Visiting Nurse Association was established in 1889. The Henry Street Settlement, in New York, was begun in 1893. The Society of Superintendents of Training Schools (9, p.24), now the League of Nursing Education, was also founded in 1893. The first course in Public Health Nursing was established at Teachers College, Columbia University, in 1910. The League of Nursing, successor to the Society of Superintendents of Training Schools, was established in 1912. The Children's Bureau was established as a part of the Federal Government, also in 1912. The National Organization (9, p.363) for Public Health Nursing was also founded in 1912, and its first nation meeting was in Atlantic City in 1913. This National Organization of Public Health Nursing was

later built around and extended the work of the Association of Collegiate Schools of Nursing. This latter association was founded in 1935 at Webster Reserve University, in Mississippi, with Dean Emeritus Annie W. Goodrich, of the Yale University School of Nursing, as the first president.

In summarizing all of the nursing movements, one may consider the following brief description of one woman's work: more than forty years ago (16, p.xi), Miss Lillian D. Wald persuaded a friend, Miss Mary Brewster, to undertake a new kind of venture with her. These two courageous and public-spirited women took up residence in a tenement on the East Side in New York City. The blocks immediately surrounding were said to have been the most congested in the world. Here they worked out a program for themselves which became the beginning of the public health nursing movement. This was the so-called Henry Street Settlement.

Their purpose (16, p.xi) was not to establish an isolated undertaking either as to the area or the agencies involved. Their plan was to utilize and to work with all agencies and groups of whatever kind there might be which were working for social betterment. The program (16, p.xiii) was founded in the importance of the

interrelation and the possible ultimate integration of all of these forces for social improvement. It was believed that often peculiarly poignant introduction of a nurse to her patient and the hoped-for relationship of the nurse to the community might be both an entering wedge and a sustaining force for all of the other social agencies in a community which was not fond of outsiders or of change. It was the work (16, p.xiii) of these pioneers - first to create their implements and then to demonstrate their value. The first public health nurses were obliged to find out the measures and methods which would prove successful and then to demonstrate their worthwhileness to the public. More than any other individual, Miss Wald transformed the visiting nursing of her day into the beginnings of the community movements which are the hoped-for goals of modern public health nursing.

Miss Wald was a woman of action and, even though her talents did not lie at the end of a pen, she managed to produce two interesting books, which are indispensable in the study of welfare movements: "The House on Henry Street", (1915) and "Windows on Henry Street", (1934). She suggested the Federal Children's Bureau, which has become one of the important agencies working for the

welfare of children. She established the rural nursing service of the American Red Cross, and she became the first president of the National Organization for Public Health Nursing.

The same insight (16, p.xiii), courage, and love of her work which Miss Wald had is demanded in some measure of the public health nurse of today. The latter requires, however, a somewhat different training. As a result of accumulated experience, it has been possible to formulate techniques which were first worked out by trial-and-error. One of the most important of these is the educational aspect of the work of the nurse with her patients. The significance of the education of patients or of possible patients in relation to the prevention of disease and the preservation of health is not a mere academic matter but an active procedure. Advice, or even sterner measures, on social health is only slightly less important than advice on and care of physiological health as an activity of the public health nurse.

The majority (16, p.xiii) of the people whom the public health nurse sees are not to be reached by the ordinary educational channels. They have relatively little experience with the printed word. They (16, p.xii) are not responsive to lecture appeal. Many

of them are tenement dwellers or residents of remote rural sections or even of rural slums. As a rule, they are uneducated. Many (16, p.xiii) still cling to Old-World traditions. To them, the message of health must be brought directly. It must seek them, since they are not habituated to seeking it.

The public health nurse (16, p.xii) has the advantage of teaching through direct contact and of capitalizing on an intimate knowledge of family problems and contacts. She has the advantage at the outset of proving her desire to help the troubled family by doing something. Simple acts, like making a bed well, bathing a patient, or preparing a baby's food, may be tremendously consequential. In any form (16, p.xii) of social work, the initial approach is of great importance. No recent development (16, p.xiii) has had a greater effect upon the nursing profession than the subject of mental hygiene. Year-by-year, understanding of the fundamental principles of mental hygiene is enabling nurses to shed light on hitherto dark and unsolved problems and to help patients not only to see but to foresee the consequences of both action and inaction.

With the mental hygienist (16, p.xiii) and the psychiatrist as well as with the social worker and the public health official, the public health nurse must work

in close cooperation. She, and they, cannot solve many problems unless there is mutual sympathy and a full realization of the contributions to be made by each. Public health nursing has been defined (12, p.3) as including all nursing service organized by a community or by any interested agency to assist in carrying out any or all phases of the public health program. Services may be rendered on an individual, family, or community basis in homes, schools, clinics, and business establishments, or in the offices of the agency. It is administered by official tax-supported agencies, by voluntary agencies, or by combinations of the two.

SCOPE OF PUBLIC HEALTH NURSING IN THE U. S.

The 22,605 nurses (11, p.502) employed in public health work on January 1, 1948, in the Continental United States, Alaska, Hawaii, Puerto Rico, and the Virgin Islands constitute the largest number ever recorded in this work. It is an increase of more than a thousand over the previous record number of January 1, 1947. The numbers in every category except those for national agencies and for universities exceeds the numbers for 1947.

Thirty per cent (11, p.502) more public health nurses were, in 1948, participating in the study of the undergraduate public health curriculum for nurses than the 1947 total of 102. The number of these nurses who have completed at least one year of special preparation for public health nursing in a college or university offering an approved program of study has reached an all-time high of 31.1% in comparison with the previous record of 29.2% attained in 1944.

The number of consultant nurses in public health reported (11, p.502) in 1948 was 364, of whom ninety were engaged in the field of orthopedics, seventy-four in maternal and child-health consultation, sixty in tuberculosis, forty-five in educational guidance, thirty-nine in industrial hygiene, twenty-five in venereal disease control, three in cancer control, three in control of communicable diseases, and two in mental hygiene procedures. The remaining twenty-three were engaged in mixed or joint programs which were not readily classifiable.

With the increase in numbers of public health nurses in 1948 as compared with 1947, no state presented the extremely high average of 20,000 persons in total population to one public health nurse as one state did

in 1947. There were reductions of population per public health nurse in twenty-six states. There are still twenty states that have an average population of 10,000 or more per public health nurse. As in 1947, only eleven states and territories met the standard recommended by the American Public Health Association of one nurse to each 5,000 of population for a program that does not include bedside nursing. Still, public health nurses constitute the largest professional group in the whole field of public health.

Health - physical, mental, and emotional - is our greatest national asset. This (6, p.1) applies to each one of us as individuals, and to our states and to our nation. During the last generation, the United States has steadily improved its health record, but the nation and the people still suffer severe losses through sickness, disability, and death - much of which is unnecessary. Every year in the United States, 325,000 people die whom we have the knowledge and the skills to save (6, p.1). A more complete program of immunization against smallpox and diptheria, and early diagnosis and treatment of pneumonia, cancer, tuberculosis, and the common cold, and the widespread prevention of accidents and other environmental hazards in our Nation's industries would have saved most of these. Every year

(6, p.1), the Nation loses 4,300,000 man-years of work through bad health and sickness. Every year, the Nation loses $27,000,000,000 in national wealth through sickness and partial or total disability.

The record of Selective Service physical examinations during World War II is widely known. At least 5,000,000 men of those called were declared unfit physically or mentally for the armed services of their country. No nation can afford to allow these conditions to continue if it has the means to correct them. Healthy citizens are the Nation's most basic resource. Prosperity and the national security depend heavily on maintaining the health of all citizens at the highest possible levels. Wasteful at any time, the losses we suffer through ill health are particularly damaging today. The Nation is dedicated to a program of full production and full employment for the promotion of a constantly rising standard of living. Many nations of the world today look to the United States for the production of many things, especially food, that are their chief hope of survival. It is no exaggeration to say that their future growth and development, as well as our own, are intimately bound up with high standards of health in the United States.

In estimating the importance to the Nation (6, p.2) of good health and adequate health services today, we cannot ignore the fact that the world is not at peace. We must remember what the war did to European peoples and that in modern total war, the health of the people has become a primary target for enemy action. We know also that our armed forces create special demands for medical man-power, and that a national emergency would throw an intense strain on our entire health system. Fortunately, the steps that would normally be taken for economic and social progress are, in the matters relating to health, the same steps that would be taken to prepare for a national emergency.

From the standpoint of the people, every national gain (6, p.2) will work equally for the individual's good. The value of health to the individual cannot be over-estimated. Poor health can deprive people of most of the enjoyment of life and can wreck family finances. The dollar-and-cents value of being able to work at our best capacity is, in itself, enormous. It is an opportunity that should be guaranteed every one who will work for it.

Can the health of the people be improved? A concerted effort to reduce sickness and premature death and to promote individual and community welfare will

certainly result in great gains. These great achievements of the past bear witness to what can be done:

A. Twenty years of life added to the average expectancy of individuals at birth;

B. Conquest of certain disastrous epidemics, which have been virtually eliminated as a threat to health in this country;

C. A generation of stronger, better-fed children; and a larger body of knowledge on the child - his physical, mental, and social development - from birth to the age of six years than we have about any other period of human life;

D. A vast storehouse of knowledge about the prevention and treatment of diseases.

E. A sharp reduction in the death tolls from many diseases that were high on the mortality lists of the past.

Contributing to these gains are the present public health organizations which combine local, state and federal units (6, p.3). They have specialists in various

fields of medicine who are unrivaled in skill and competence throughout the world. Many devasting communicable diseases have been brought under control, and improved surgery has saved countless lives. Probably the most important single reason for these gains is the fact that, during the last few generations, medicine has really come of age. Scientific medicine is newer than the use of electricity (6, p.3). Anesthetics were first used only a short while after the telegraph was invented. Aseptic surgery came in with the automobile. A little over a hundred years ago, many hospitals were little better than pest-houses, not the modern workshops of scientific medicine that they are today.

These facts tell of some of the tremendous gains that have been made, but the record, good as it is, leaves plenty of room for improvement. Of more than 3,000 deaths that occur daily in the United States, nearly 900 or about 23% are preventable. Specialists in the field of cancer alone say that 25% more of the reported cases could be cured if they were found during their early stages. Many cases of tuberculosis could be prevented or cured if diagnosed early and treatment started at once.

Much of the sickness that cuts down the efficiency of the Nation's working forces can also be prevented. Some 1,600 industrial groups have, for years, been seeking improved health among their employees and improved conditions under which they work. In a survey of results, these industries (6, p.3) reported a 63% reduction of occupational diseases and a 30% reduction in absenteeism due to sickness. These relations are not directly applicable to the population as a whole, but they do indicate marked gains in health. There is no question that parallel gains could be obtained among the population at large by provision of, and ready access to, adequate health and medical services. Every town, city, and rural area should be guarded by a well-staffed public health department against the spread of diseases through sewage, water, milk, food, insects, animals, poisonous fumes, and other environmental hazards. The possibilities of such hazards could be avoided by adequate supervision and inspection at an actual over-all saving.

THE PUBLIC HEALTH NURSING SECTION OF THE OREGON STATE BOARD OF HEALTH

The Public Health Nursing Section of the Oregon State Board of Health, formerly the Oregon Bureau of Public Health Nursing and the Department of Public Health Nursing for Oregon, was created by a resolution of the Oregon State Board of Health at a regular meeting in August, 1919, for the purpose of "promoting, standardizing, and supervising public health nursing" over the state, particularly in the rural districts. The need for this Bureau was brought to the attention of the Board by Mrs. Saidie Orr Dunbar, Executive Secretary of the Oregon Tuberculosis and Health Association, who had started an intensive program of rural public health education in the various counties of the state and who had recognized the need for a central headquarters or a Bureau of Nursing to direct and standardize the nursing services in these counties. The Oregon State Board of Health was, itself, organized in 1903.

During the first year-and-a-half, this Section was financed by the Oregon Tuberculosis and Health Association as a demonstration project, with a small subsidy for salary and travel contributed by the Northwest Division

of the American Red Cross for supervision of Red Cross Nursing demonstrations in the State. In 1920, the State legislature appropriated $20,000 for financing this Section.

Miss Jane C. Allen, who had been employed as a demonstration field nurse for the Oregon Tuberculosis and Health Association in Jackson and Coos Counties, was employed in 1920 as director of this Public Health Nursing Section and spent a great deal of her time in this early period in stimulating the interest of people in the rural districts over the state in the value of a rural public health nursing program and in working out a county plan of nursing that could be used as a standard for work in the rural districts of Oregon.

In the spring of 1921, Miss Allen took a leave of absence to go to Teachers College, Columbia University, for further study in public health nursing; and Miss Helen S. Hartley, of Iowa, was appointed to act as director during her absence. Miss Hartley's program of rural public health nursing followed the one outlined by Miss Allen - a program so well prepared and so sound fundamentally that it is still used as the basis for public health nursing in the rural districts of Oregon. Miss Cecil Schreyer, rural public health nurse in Coos County, was added to the staff as associate director in

the fall of 1921 and, with Miss Hartley, directed and supervised the nursing programs in Clatsop, Washington, Hood River, Lane, Coos, Jackson, Deschutes, Union, and Multnomah Counties and the nursing demonstrations in Clackamas, Linn, Umatilla, Wallowa, Harney, Klamath, and Marion Counties.

A "Nurses' Bulletin" was started in March, 1920, for the purpose of keeping nurses and interested organizations informed of the work being done in other parts of the State and the Nation, about new books, articles, pamphlets, important meetings, and other matters of interest. This monthly bulletin was edited by the director and her associate and has been continued, with the exception of a few months, to the present time. The mailing list in 1920 was eighty, but at the present time averages 500.

Another development in the public health nursing program in Oregon, that of introducing a course in public health nursing under the School of Social Work of the University of Oregon, was started in October, 1920, partly subsidized by the Oregon Tuberculosis and Health Association, plus the cooperation of other public health nursing and social agencies. Nine students were registered in the first class, and rural field work was

given them in March, 1921, under the direction of the Section of Public Health Nursing. Lectures on rural nursing were given these students by the director and her associates.

Upon the return of Miss Allen from Columbia, Miss Hartley's services with the Bureau were discontinued; and the program was carried on for the next year by Miss Allen as director and Miss Schryer as associate director. By this time, the public health nursing program in the rural districts had grown to include Yamhill, Morrow, and Klamath Counties. In 1921, by action of the State Board of Health, the Nursing Section became the Bureau of Public Health Nursing and Child Hygiene; but in 1936, the name was again changed to the Department of Public Health Nursing of the Oregon State Board of Public Health, and later to the Public Health Nursing Section of the Oregon State Board of Health.

In March, 1922, Mrs. Glendora M. Blakely, county nurse in Hood River County, began her duties as field supervisor on the Section staff, and Miss Schreyer was given the direction of the Sheppard-Towner Program in the State, starting a program of prenatal, maternal, and child hygiene that was carried on under the Bureau of Public Health Nursing and Child Hygiene for the next

seven years. The Sheppard-Towner Program was instituted by the federal government providing funds to be matched by the states and counties to stimulate interest in maternal welfare and child care.

In June, 1922, both Miss Allen and Miss Schreyer resigned. The work was carried forward by Mrs. Glendora Blakely, as State Advisory Nurse, and by Dr. Estella Ford Warner, as Director of Child Hygiene.

At this point in the history of the Oregon Section of Public Health Nursing, the status of public health nursing in the state was as follows: eleven counties had permanent nursing services, and three others had demonstration services. The Portland Public Schools Division of Public Health Nursing had a staff of five nurses, and the Portland Visiting Nurse Association had a staff of twelve nurses. A school-nursing demonstration was being conducted in three Portland schools by the Oregon Tuberculosis Association. A nurse was also employed by this organization for demonstrations of the procedures and benefits of the rural public health program. A regular course in public health nursing in which students were prepared for public health nursing was also being conducted annually by the University of Oregon.

The next three years was a period of expansion in the public health nursing program in the State. In 1925, a five-year child-health demonstration was started in Marion County under the direction of the Commonwealth Fund, with a staff (6a) of eleven nurses. The Portland School Nursing Demonstration Program was successful in proving the worth of the program to the city, which under a combined appropriation of the city schools and the State Health Bureau then provided for a staff of eighteen nurses.

The Portland Visiting Nurse Association staff had likewise grown to sixteen nurses. School nursing services in the smaller towns over the state had grown to include four additional towns. Full-time county public health units were now actively established in five counties, with two nurses and a full-time health officer in each. Part-time nursing service units were started in three additional counties, with one nurse each. Demonstration programs by the Oregon Tuberculosis Association were also begun in several counties, additional to those in which they had already been operating. A public health nurse was also employed for the first time at the Oregon Normal School; (now the Oregon College of Education, in Monmouth) and a nursing demonstration was made among the transients in the

hop-yards and the apple orchards of the State by the National Women's Council of Home Missions.

During this period, the Sheppard-Towner Program for the promotion of maternal and infant hygiene had become well established under Dr. Warner's leadership, with clinics or conferences held over the State in counties some of which were organized and some of which were unorganized for public health programs. Letters on prenatal care were sent to mothers upon request. Lectures and informal talks were given before clubs, institutes, and colleges. Nursing services, financed by a cooperative prenatal and maternal clinic program with the Portland Visiting Nurse Association and the Oregon Medical School for the instruction and care of expectant mothers otherwise unable to afford this service and for the instruction of senior medical students in obstetrics in the technique of home delivery and prenatal care at the Oregon Medical School were afforded in numerous communities. In the rural districts, especially in the counties which had full-time public health units, a state-wide program of communicable disease control was carried on, with immunization against diphtheria and smallpox especially emphasized.

Upon the resignation of Dr. Warner, in 1926,

Mrs. Blakely was appointed Assistant Director of the State Bureau of Child Hygiene as well as Director of Public Health Nursing. The clinic or conference program was carried on, with the assistance of a pediatrician loaned by the Federal Children's Bureau, and an effort was made to establish permanent health centers in the various counties, using local physicians for the medical examinations. On May first, or May Day, dedicated by the federal government as National Child Health Day, an intensive state-wide campaign for the improvement of child health attracted so much attention that it reached every town and community in the state, and stimulated the interest of parents, teachers, and communities toward a year-round health program for their children.

Cooperation, begun by the State Dental Society during this campaign, in an educational program for dental care, especially for children, was so successful that it has been continued to the present time. A big impetus was also given to the work of the Parent-Teacher Association by the cooperating agencies in their annual "Summer Round-Up" of physical and mental examinations for preschool schildren who were of the proper age to enter the first grade in the following autumn. This work has also been widely continued since.

In 1928, a field supervisor was added to the staff on the Section of Public Health Nursing when Miss Mary P. Billmeyer, former Multnomah County public health nurse, was appointed to this position. Under her guidance, an intensive program of "well-baby conferences" was held over the State during the summer months. Miss Billmeyer resigned in February, 1929, to go to Judson Center, New York; and Miss Margaret Thomas was appointed to succeed her.

The Sheppard-Towner Funds for maternity and infant care were discontinued on July 2, 1929, and with them went a large part of the State child hygiene program. The counties took over the nursing services to limited extents. The Oregon Medical School fully financed the newly restricted maternity and prenatal nursing services, and the Section of Public Health Nursing carried on the program of letters on prenatal care and the distribution of literature from the Federal Children's Bureau.

The field work of the Public Health Nursing Section of the State for 1929 consisted of demonstrations and educational talks on public health nursing, child

hygiene, and personal hygiene before adult groups and high school pupils. A special school-nursing demonstration was made in Lake County, and the "well-baby conferences" program continued throughout the State, with local physicians assisting.

Upon the resignation of Miss Thomas in March, 1930, Mrs. Minnette Twist, who had had a wide experience in nursing in the fields of maternity and of tuberculosis, was appointed as field supervisor. She placed special emphasis upon these two services, (a) with the nurses already in the field, (b) with the student nurses from the University of Oregon course in public health nursing who had their field service training in these activities, and (c) in the counties under the general direction and supervision of the Oregon Section of Public Health Nursing.

This Section has, for the last five years, conducted or cooperated with other nursing groups in holding regional meetings for public health nursing staff-education in the southern part of the state and in or about Portland. These meetings have been held each autumn, and have had as speakers people of both state and national prominence in the public health field, as well as round-table discussions and demonstrations of

techniques to increase interest in current public health subjects. The Section also cooperated with other nursing groups in a "Prenatal and Maternity Institute", conducted by the New York Maternity Center.

Standard record and report forms for public health statistics for the whole of Oregon are distributed through the Section, and all rural and school nurses send in monthly reports of their work. Monthly reports of the work of the Portland Visiting Nurse Association, the Portland School Division of Public Health Nursing, and the Medical School Clinic are also filed in the Section.

The monthly Bulletin of this Section has been continued through the years, and its bound copies have been added to the Section of Public Health Nursing Library as a history of the public health nursing program in the State. New pamphlets, books, magazines, announcements of meetings, new pieces of work on health or nursing, and any other suitable material in the Library or otherwise available are called to the attentions of the nurses and other public health workers in the State through the Bulletin. About 100,000 pieces of literature are sent out annually.

Oregon, on January 1, 1948, had (4, p.15) 135 full-time public health nurses. This is an average (4, p.15) of one public health nurse for each 10,500 people. This is twice the recommended number of 5,000 to each nurse except in the localities in which bedside nursing is done by public health nurses in needy or emergency cases. There, the recommended ratio is one nurse for each 2,000 population. Three counties in Oregon, with an aggregate population of 30,697 have no public health nursing service at all.

Oregon (4, p.15) is in need of 152 more public health nurses to give the recommended minimum care or of 577 nurses to give optimum nursing care. If Oregon's population (4, p.15) reaches the estimated 1,860,000 in 1960, the state program will need a total of 960 public health nurses to give optimal nursing care, administer the program, and supervise the field training of the recently graduated public health nurses. At present, there are no indications that this number will be available.

At the present time, only twenty-one of the thirty-six counties in Oregon have rural public health nursing programs. School nurses are employed in only

twelve of the larger cities of the state. The Portland School Division has grown to a staff of twenty-four nurses, and the Portland Visiting Nurse Association has eighteen nurses on its staff. Two demonstration nurses are employed on the Oregon Tuberculosis Association staff. Public health nurses are also employed federally by the United States Indian Service at the Umatilla, the Warm Springs, and the Klamath Reservations, but they meet with and, as far as is practicable, work with the Oregon public health nurses - both state and county employed.

The public health nursing program in Oregon is still one of expansion, standardization, education, and stabilization. One of the real needs of rural public health nursing in Oregon at the present time is local field supervision. Another is a more generalized nursing program, with all public health nurses in any county working under the direction of a full-time and properly trained executive. An organized rural public health center in which student-nurses may be given field service training in rural public health nursing under the direction of a qualified supervisor is also needed.

The current functions (1a, p.7-12) of the Oregon Bureau of Public Health Nursing, as defined by the Oregon State Board of Health in 1936 are:

A. To coordinate the nursing service of the State Board of Health;

B. To define the qualifications of nurses employed;

C. To promote public health nursing throughout the State;

D. To carry on a program of staff education; and

E. To give advisory service to the public health nurses in the field.

The objectives (1a, p.7-12), although not all of the tasks being actually accomplished for the improvement of the general public health nursing in Oregon, are practically the same today as they were in 1936. The weaknesses (1a, p.7-12) of the public health nursing program in Oregon are similar in 1949 to what they were in 1936, i.e.,

A. An irregular and "spotty" program, depending upon the impression the consultant was able to make;

B. Confusion on the parts of the local nurses through trying to carry out the suggestions of too many advisors;

C. No increase in certain major activities; and

D. The quality of work not improving as rapidly as desirable, especially in record-keeping, reporting, and program planning.

An additional chronological report on the history of public health nursing in Oregon, which has not been published, is included in this thesis as an APPENDIX. It is the work of Mrs. Catherine Webster, State Consultant Nurse. It is believed that it is too long to be included in this thesis at this point, but is worth making available to the reading public.

The Public Health Nursing Section of the State Board of Health in Oregon as of January 1, 1949 has, in addition to the director, six generalized consultant nurses. A generalized consultant nurse is one who advises other public health nurses from her fund of both general and special training and practice in the many fields of nursing. In public health nursing, six specialized services or fields of special interest have

been designated, in addition to the more or less routine cases and activities. These special fields are: communicable diseases, venereal diseases, maternal and child health, tuberculosis, school nursing, morbidity, and orthopedics. The generalized consultant nurse should have one or two of these as specialties and know at least the elements of the others. One of the present Oregon generalized consultant nurses has specialized in prevention and care in tuberculosis, one in industrial nursing, and another in maternal and child health. Their services, on a consultant basis, are available to the various counties when requested by the local health departments.

Family health is the goal of all public health nursing. Maternity services are considered one of the important services in the public health nursing program. It includes the guidance and care of the mother through pregnancy and delivery and the care of the mother and child during the following six weeks. In connection with the social service agencies of the state, Oregon public health nurses carry on this work where their aid is most needed.

Child health service is the phase of the family health program which deals, first, with the infant from

birth to one year of age and, then, from one year to six years of age. This service is separate from that given to maternity cases. It emphasizes the care and development of the child not only from the point-of-view of his physical development but from the emotional and social standpoints as well. This involves much consultation and the education of many families in order that the child may be considered a member of the family and be treated as an individual in such a way as to be emotionally and socially healthy and of good personality. Again, in connection with the social service agencies of the state, Oregon public health nurses carry on this work where their aid is needed.

Not only does the public health nurse with the aid, frequently, of one of the state consultant nurses hold clinics for the sick children but she also holds conferences for the well children and their parents. These conferences may include medical, nursing, and mental hygiene teaching. Conferences of this type help to develop initiative and thinking among the parents who attend.

The school health program is concerned with the well-being of the school-age children and their education in healthful living. Through her knowledge of nursing

and, frequently, of the child's home conditions as learned from the county health nurse or from social workers, the school nurse is able to interpret the needs of the child to school personnel. The nurse teaches the teacher to observe symptoms which suggest deviations from the normal in the children, not only physically, but emotionally and socially as well.

THE PUBLIC HEALTH PROGRAM IN BENTON COUNTY

The history of public health nursing in Benton County is neither long nor impressive. On December 9, 1921, Miss Mary Carrothers was appointed as County Nurse for a demonstration period in the hope that an appropriation for the services of a county health nurse would be included in the County budget. This demonstration had the backing of the Corvallis Women's Club, the Corvallis Health Officer, the School of Home Economics of the Oregon State Agricultural College, the local Parent-Teacher Association, the Commercial Club, and others; and was financed by the Oregon Tuberculosis Association. A temporary committee, consisting of Professor E. B. Beatty of the Corvallis Welfare Association, Mr. John Allen of the Commercial Club, Mrs. George Buxton of the Parent-Teacher Association,

Mrs. Butler, member-at-large, Mrs. Minnie Hawley of the local American Red Cross and Corvallis Woman's Club, was formed; and plans were made for community group organizations in Corvallis, Monroe, Philomath, Alsea, King's Valley, Summit, and Wells.

At the first meeting of the temporary committee, on December 10, 1921, Mrs. Hawley of the American Red Cross stated that that organization would take over the task of fostering the work of a county public health nurse when the Tuberculosis Association halted its support. Several committee members expressed themselves as feeling that there would be no chance of a County appropriation for a nurse being made that year.

Temporary office quarters for the nurse were arranged for in the Benton County Court House in the office of the County treasurer; and the nurse, having no other means of transportation, went about the county with Mr. E. H. Castle, the County School Superintendent.

By December 27, 1921, seven centers had been organized by Miss Carrothers, and she seems to have had at least fairly good cooperation from teachers and other interested people. Some intensive work was done by Miss Cecil Schreyer and Miss Jane Allen of the State Section of Public Health nursing in assisting Miss Carrothers in interesting these centers in her program.

In March, both of these supervisors visited the districts with her and spoke to groups at North Albany, Monroe and Philomath. This program was carried on for four months, but was closed the latter part of April because of lack of funds. On March 18, 1922, the Benton County Public Health Association (now the Benton County Health and Tuberculosis Association) was organized, with Mrs. Saidie Orr Dunbar, Miss Allen, and Miss Schreyer present.

During the demonstration period between December, 1921, and April, 1922, much stress was placed on a school nursing program and on community organization and information. Unfortunately, Miss Carrothers had to have a tonsil operation during the last month of her stay. This, coupled with continuous strife stimulated by some unpleasantnesses on the part of the Red Cross Secretary, was responsible for Miss Carrothers becoming very much discouraged and resigning.

In 1925, Miss Margaret Gillis, Oregon Tuberculosis Association Demonstration Nurse, spent the months of November and December in Benton County, inspecting school children, following up on cases of tuberculosis and of other marked defects, talking before groups, and developing greater interest in public health work. She also

helped to prevent an epidemic of smallpox and diphtheria by assisting with vaccinations and immunizations and informing parents and teachers of the value of such protective measures. January and February and part of March of 1926 were also spent by Miss Gillis in Benton County. In May and June of 1929, Miss Gillis returned to the county for a month's intensive follow-up and inspections after a lapse of two-and-a-half years.

In September of 1929, Miss Edna Flanagan was sent to the County by the Oregon Tuberculosis Association for a demonstration which was to last until the County was thoroughly convinced of the value of the work.

In December, a joint meeting of the County Health Association, the Red Cross Chapter, the local Parent-Teacher Association, and the Oregon Tuberculosis Association was held. It was decided that each was to assist in financing this project. However, the salary of the nurse only was contributed by the local organizations, and the Oregon Tuberculosis Association still carried the field expenses of the nurse.

Miss Flanagan continued to work in the County, as public health nurse through the school year, continuing the school and pre-school conferences. An early-diagnostic clinic was directed by Dr. G. C. Bellinger, Superintendent of Oregon Tuberculosis Hospital, in which

all tuberculosis suspects and contacts were examined and given the Mantoux Test. A dental survey also was made this year. 1493 children were examined, and many found to have defective teeth. Forty-one per cent of these children had not previously been examined by any dentist. In this same year, 1930, Dr. Henrietta Morris, educational director for the Oregon Tuberculosis Association came to Benton County for a one-week period to instruct teachers and pupils in health education practices.

Miss Flanagan was returned to the County in the fall of 1930 to stay until after the county budget meeting. Mrs. George Denman and Mrs. Jonnasson were especially helpful in giving support and assistance to Miss Flanagan. Miss Flanagan continued the program of public health nursing until the County Budget meeting in 1931. Mrs. Saidie Orr Dunbar, long a prominent and able worker for better health in all parts of Oregon, and members of the County Public Health Association were present and were successful in interpreting to the County Court the need for a public health nursing service continuously in the community. The Benton County Health Association, a group of citizens interested in improving the Public Health of the

Community, had been organized on March 18, 1922, and has worked intelligently and continuously with the County Health Department since its beginning in 1931. Although for years they had no funds except their own contributions and such others as they could solicit from time to time, they have done much to promote health work in the County.

The services of a part-time Health Officer, Dr. William T. Johnston, and of one public health nurse were continued until 1942. This was the year following "Pearl Harbor", and it seemed certain at this time that an Army camp would be located in or near Benton County. Dr. Harold E. Erickson, Oregon State Health Officer, met with the County Court and told them of the probable need of increased personnel in the County Health Department if a large camp was to be located in the vicinity. The County Court realized the need for increasing the personnel of the local Health Department, and requested that Dr. Erickson make some inquiries regarding the possibility of locating a health officer.

As a result of this meeting and others that followed, coupled with the beginning of the actual construction of a large Army camp, named Camp Adair, in Benton and Polk Counties, the Benton-Polk County Health Unit, consisting of a health officer, five nurses,

and two secretaries was organized for the duration of the war. The Health Officer, Dr. Herbert Notkin, of the United States Public Health Service, arrived in February, 1942, and remained until the construction of Camp Adair was completed. He left in December, 1942, and was replaced after several months by Dr. Robert Ripley, also from the United States Public Health Service. The public health nurses working in Benton County during this period were the writer, Miss Ora F. Scovell, who came in 1938 and who is and has been for most of this period County Public Health Nurse. Miss Mary McConnell of the United States Public Health Service came in 1942 and remained for one year. She was succeeded by Miss Alma Hutala. Miss Barbara Dike came in 1942 and remained until she was transferred to full time work in Polk County. Miss Gertrude Lee came later in 1942 and divided her work between Benton and Polk Counties. She remained until 1945, when the United States Public Health Service withdrew its forces when the need for them was reduced by the reduction in the size of Camp Adair.

Many people from all over the United States came to work on the construction of the camp. Many of these lived in trailer camps, or in crowded and otherwise unsuitable locations, and the spread of communicable

disease seemed to be imminent unless all possible means of control were taken at once. As a result, school children, pre-school children, and infants who had not been previously immunized for diphtheria or vaccinated against smallpox were given (with the consent of their parents) the opportunity to be immunized. This included the senior high school and junior high school pupils as well as those in the grade schools. As a result, a large per cent of the population was protected against diphtheria and smallpox, and no epidemics of these diseases occurred. The venereal diseases, syphilis and gonorrhea, increased to a limited extent but, with careful vigilance by the Army personnel, the police and the Health Unit, the increased incidence of these diseases was not alarming. All food handlers outside of Camp Adair at which Army personnel were permitted to eat were examined by the County Health Unit. All other routine work of the Benton County Health Department was continued and increased. Because of the added personnel, more school children were given health examinations and more pre-school children and infants were examined at the well-child and the infant conferences.

The services of the Health Officer from the United States Public Health Service, Dr. Ripley, were discontinued on August 8, 1945, but the Health Unit

consisting of the two counties, Benton and Polk, with a full-time health officer, Dr. H. R. MacKellar, four nurses, two clerks, and a part-time sanitarian continued until July 1, 1948.

Since that time Benton County's Health Department has consisted of a part-time health officer, two nurses, a part-time sanitarian, and a clerk-typist. The public health program of the County during the last year (1948-1949) has been curtailed because of the time available for this work on the part of the Health Officer. The present health officer, Dr. Peter H. Rozendal, has had special training and experience in this field and could advantageously spend all of his time in this work in Benton County if sufficient funds could be made available for his full-time employment. The results recently achieved are directly in proportion to the number of personnel working together to improve the health of the community. The Benton County Court has, for the first time in its history, budgeted funds for the fiscal year from July 1, 1949 to June 30, 1950, for a full-time health department consisting of a health officer, two public health nurses, one clerk-typist, and a sanitarian. As the results are usually directly in proportion to the number of personnel working together, the health department personnel are

looking forward to greater opportunities for improving the health of the community during this coming year.

The Benton County Tuberculosis and Health Association has had Mrs. Walter Adrion as part-time executive secretary since 1942 (with the exception of one school year when, because of the scarcity of teachers, she taught the health classes at the Corvallis Senior High School). Mrs. Adrion majored in health education, and has spent much time giving informative talks and showing educational films to interested parents and others throughout the entire county. She has also been instrumental in bringing the State Mobile Unit to Benton County for mass tuberculosis x-ray surveys in each of which hundreds of Oregon State College students as well as local citizens have been x-rayed. X-ray films have been taken in these surveys since 1947. Mrs. Adrion has been cooperative and helpful at all times, and her services have been much appreciated by the Benton County Health Department as well as by the citizens of Benton County.

One of the major health problems in Oregon is dental decay. Dental examinations, every three to six months, depending upon the age of the child and the condition of the teeth are advised for the prevention of

dental defects. Dental decay may indicate nutritional deficiency as well as faulty oral conditions. It is important that parents understand the advantage of giving the child a pleasant introduction to the dentist and establishing good relations before the need for remedial work arises. Having the child visit the office of the dentist and having his teeth examined will prepare him for future visits. There is much to be learned regarding the incidence of and the prevention of dental defects. Dental decay incidence is higher in Oregon than in most localities in the United States.

The physicians and the dentists have long believed that good dental care and adequate nutrition are important in building sound teeth and in preventing dental decay. Because of insufficient sunshine, especially in the coastal regions of Oregon, the addition of cod-liver oil or some other form of vitamin "D" to the diet is essential. This is not only true in preventive dentistry, but is important in building strong bodies. The fact is that nutrition is so essentially a part of all health activities that nutritionists (15, p.518) believe it is impossible to do a good job of health work without teaching nutrition at the same time as it should be an integral part of public health education.

The dietary habits and traditions (15, p.518) of rural people may necessitate a different approach in teaching nutrition from that used with urban families. Many rural families produce in abundance the foods required for good nutrition and need to be encouraged or educated to select and to prepare properly the essential foods from the available supply. Systematic nutrition teaching (15, p.518) to small or large groups interested in the improvement of health conditions of individuals or groups is effective in promoting good nutrition. Simple exhibits, posters, leaflets, and demonstrations have their place but are not depended on to tell the whole story. In Oregon much valuable work in this and related subjects is done by the Oregon State College Extension Service. Public health nurses (15, p.518) are the key people in influencing parents and children in the value of good food habits because they have the confidence of families and appeal to children.

It is not unusual to find children living on farms that produce ample supplies of milk, eggs, vegetables, and fruit whose diets are far from adequate. The county public health nurse has the opportunity of making practical suggestions to those in need of nutrition

information about the foods available in abundance locally. Not all rural families, by any means, produce sufficient food for even the minimum requirements, and it is with this latter group that the need for year-round vegetable gardens, milk cows, chickens, and hogs is constantly emphasized. Progress is generally slow, as would be expected, but occasionally a bright spot lights up the day of the county health nurse.

The school lunch program is an important factor (15, p.519) in teaching proper eating habits and is indirectly responsible for improved food habits and greater variety of food being served in the home. In fact, a good school lunch program is one of the most effective means of reaching rural people with nutrition and other health information. Teachers and lunchroom managers are supplied with materials and instructed in techniques which may be used in integrating nutrition education into the everyday experiences of the child.

There are many occasions when parent-teacher association groups or other groups of people are assembled for some other purposes, but short talks on some local health problem are most effective and can usually be worked in. Active interest among parents (15, p.518) in the food needs of their children may also be stimulated at dental clinics, well-child

conferences, through home visits, prenatal, pre-school, and crippled children's clinics, missionary societies, and other clubs or organizations. In order to be effective in rural areas, the county public health nurse has to become a part of and show an interest in all community activities.

In addition to the problem of nutrition and of communicable diseases among both rural and urban children, there are the additional problems of the discovery of marked visual and auditory defects, other physical handicaps, e. g., diabetes, and of areas in which little or no immunization from those communicable diseases for which vaccines and serums of proved value have been discovered. There is always health education to be presented in many ways, such as informative talks, motion pictures, plays, exhibits, and just personal acquaintance and interest.

In general, the more common and severe infections of man (1, p.1) are caused by infectious agents which multiply and best maintain themselves in or upon the tissues of man. In this respect, man (14, p.2) is man's worst enemy. Tuberculosis is one of the most wide-spread of all communicable diseases. Its mortality rate has been changed from first place to seventh among the causes of death for the American population as a

whole. Case-finding is an important problem for the public health nurse. Benton County had fourteen cases of tuberculosis and one death from it in 1948.

Poliomyelitis is a communicable disease, caused by a specific filterable virus (1, p.1).

The early finding of patients is one of the most important activities of the public health nurse. Eighteen cases of poliomyelitis were found in residents of Benton County in 1948. This is the highest record in the County to date.

Other cases of communicable diseases found in residents of Benton County are shown in TABLE I.

TABLE I

CASES OF COMMUNICABLE DISEASES FOUND IN RESIDENTS OF BENTON COUNTY IN 1948

Disease	No. of Cases	Disease	No. of Cases
Measles and German Measles	166	Poliomyelitis	18
Mumps	147	Tuberculosis	14
Influenza	128	Conjunctivitis	2
Chickenpox	49	Dysentery	2
Scarlet Fever	31	Erysipelas	2
Whooping Cough	29	Rheumatic Fever	2
Pneumonia	21	Undulant Fever	2
Septic Sore Throat	20	Diphtheria	1
		Malaria	1
			635

In TABLE II are shown the causes of the deaths which occurred in Benton County in 1948 and which were recorded.

TABLE II

DEATHS IN BENTON COUNTY IN 1948 BY SPECIFIC CAUSES

Cause	No.
Heart Disease	69
Cancer	20
Nephritis	13
Intracranial lesions	12
Pneumonias	10
Premature birth	7
Congenital Malformations	5
Diabetes	4
Motor Vehicle Accidents	4
Suicide	4
Tuberculosis	3
	151

While Benton County showed a considerable number of deaths, the births far exceeded the deaths. 871 births were recorded among residents of Benton County, and numerous others occurred in Benton County among residents of areas outside of the county. This is a ratio of more than five births to one death. This ratio is not normal for Benton County, however, since a majority of the births are in the families of student-veterans in Oregon State College who are living temporarily in Benton County while the fathers or even both parents attend Oregon State College. Both parents may attend the College after the child is approximately a year old if they have their own parents or even one mother to take care of the infant in the hours they are in classes.

In summarizing this chapter, it may be said that while the United States is one of the nations (14, p.3) which leads the world in the support of public health and in the quality of its program for the improvement of the health of the public there is great latitude for improvement of the national, the state, and the county public health programs. The state and the county programs have been restricted by the limited funds allotted to them and to the qualified interest of a considerable part of the people of these units. There

is extensive belief, justifiable or not, that the public health program is, considerably, a program of charity. Actually, it is a great deal larger than that although much of its work is among people who have neither the money nor the education to care properly for their own health. Oregon's program and Benton County's program of public health, like all of the public activities of these areas, are handicapped by a large influx of new population which contributes much to the needs for public services and is not yet established well enough to contribute much to public funds. If the population remains at its present enlarged numbers or increases, new thinking and new plans for all public services - including the public health programs - will inevitably have to be formulated.

CHAPTER III

THE COUNTY PUBLIC HEALTH NURSE IN ACTION

Over the length and breadth of the United States, nearly 25,000 public health nurses are making their daily rounds, fighting disease in the home, the factory, and the school. (16, p.15) It is the purpose of this

thesis to show some of the ways in which public health nurses in the field apply the general principles formulated in the standard programs in the United States of America.

Although the nature and emphasis of a public health program is determined by state or county health officers or the directors of nursing, it is the nurse in the field who must decide on the means and evaluate the results with individual families and determine whether she will put more emphasis on this family or that or, this need or that. While measuring her own capacities, she must also remember to measure the capacities of her families. Perhaps some public health nurses have assumed too much of the responsibility which rightfully belongs to the family and in their enthusiasm have tried to push the families too fast toward healthful living. Leaving more to the family and helping people to learn is more the trend today. In the stories which follow, it will be evident again and again that the most effective public health nurse is the one who takes time to listen to what the members of the family have to say about their needs and their interests and then adapts her teaching and care accordingly.

The development of the will and the power to create a better environment for human living is also called for. In the large cities, health facilities have been established on extensive scales so that the function of the nurse is not so much to create but to make use of them, to know the nature and the extent of the agencies operating in her neighborhood and to avail herself of them in the interest of her patients, but in the smaller communities the nurse will find that social work and health work are unevenly developed. She must take advantage of the facilities that are available in the State Board of Health, among the local physicians and those in the universities and colleges, and all of the available social agencies and travelling clinics. These generally include limited agencies for the following services: maternal health, infant and preschool health, school health, adult health, industrial health, and communicable and non-communicable disease prevention and care.

All of these services together would form a well-rounded public health nursing program if they were all available in sufficient amounts. In all of them, the nurse:

A. Helps to secure early medical diagnosis and treatment;

B. Renders or secures nursing care of the sick;

C. Teaches by demonstration, interpretation, and supervising the care given by relatives or attendants;

D. Assists the family to carry out medical, sanitary, and social procedures for the prevention of disease and the promotion and maintenance of health;

E. Influences the community to develop public health facilities for the promotion of a sound, adequate community health program; and shares in action leading to the betterment of health conditions;

F. Maintains favorable relationships with other health and social agencies which are interested in the welfare of the community. Among these may be;

The Parent-Teacher Associations,

The Public Schools,

The County Tuberculosis and
Health Association, and
The Civic Clubs which are interested in promoting and improving the living conditions of the community.

In Benton County, nearly all expectant mothers are delivered at hospitals where they receive adequate medical and nursing care. The average length of time at the hospital following delivery is now five days. Sometimes the County nurse is requested to assist the mother in the home by demonstrating the bathing of the baby and by assisting with the mother's and the baby's care until the mother is able to care for the baby. She may make other occasional visits until the final post-partum examination.

As an illustrative case, Mrs. Jones has arrived at home from the hospital with her first child and has requested that the public health nurse give a demonstration of the bathing and additional care of the baby on the following morning.

The nurse not only demonstrates but teaches the mother that a sponge bath is given daily until the umbilicus is healed and a tub bath thereafter unless

an oil bath has been ordered by the physician. The room temperature during and for some time after the bath should be between 75 and 80 degrees and the room should be free from drafts. After the nurse has washed and sterilized her hands, she collects and arranges conveniently the supplies for giving the bath, and arranges the baby's clothes in the order in which they will be needed. She tests the bath water with a thermometer, if possible, or uses water that is comfortably warm to the elbow. She places a blanket over the baby, with a towel on top of the blanket. She inspects the eyes, mouth, nose, and ears of the baby, meanwhile instructing the mother about what to look for. She cleanses the nose and the ears with small cotton swabs moistened with a few drops of baby oil. Then she bathes the baby, explaining the procedure to the mother and answering her questions, as this is Mrs. Jones' first baby and a most important event in her life. The mother is also instructed regarding the general care and the feeding of the baby and is advised to return to her physician or a well-child conference to learn more about the continued future care of the baby.

In this situation, the need of the mother for instruction and training was immediate enough and

recognized enough that there was no need to "sell the program" to her. Never-the-less, the public health nurse in such a situation can do much to increase or to decrease the prestige of the local public health program for this family or for all others who may be acquainted with it by her skill, knowledge, patience, and personality. In a way, every such case affects the future success or lack of it for the public health nurse and the public health program. Favorable "word-of-mouth advertising" is essential to the public health program, especially at the local or county level.

At the Infant and Pre-school Well-Child Conferences, the nurse and her volunteer assistants weigh and measure the babies and the pre-school children and record the results. The children are then examined by a physician, and the mothers advised regarding the care and diet of their children. If the infant or pre-school child is found to be ill or needing medical care, the mother is advised to take the child to her physician since no treatments are given at these well-child conferences, except that if, by the age of six months, the child has not been immunized against diphtheria and whooping cough and vaccinated against smallpox by

the family physician, these services may be given by the physician at the conference. As an example of the procedure at a well-child conference at Adair Village, a mother brought her three children to the conference. Their ages were one, three, and five years. The children were undressed, weighed, measured, recorded and then examined by the physician. All three children were found to be malnourished, underweight for their ages and heights, below normal in color and muscle-tone and, in general, very much neglected. The condition of the three children was the opposite of the usually well-kept, clean, and well-dressed infants and children attending the regular well-child conferences.

This mother was referred to her family physician for a thorough medical examination for herself and the children, for observation of the children, and such treatment as he might advise. The mother took the children to a physician of her choice, and followed his directions faithfully for four months. The physician then reported that the children were eating well, growing gradually, and seemed to be developing as normal children should for their ages. The children were then re-admitted to the well-child conference where they were examined at monthly intervals, given general

supervision in routine care, and were given immunizations against diphtheria and whooping cough and vaccinations for smallpox.

In this case, the mother meant well but lacked the usual knowledge and standards of child care. She needed both specific information and general encouragement. She received both, and her children became normal in growth and activity. Her morale and those of her children were raised by this program which was much more persuasive and educational than strictly medical.

At all of these conferences, there is a large supply of good literature which gives information that is helpful to the mothers. This includes such material from the Children's Bureau, of the Department of Labor, in Washington, as "Infant Care", "The Child from One to Six Years", "Guiding the Adolescents", and various pamphlets on nutrition.

A typical Well-Child Conference at Adair Village, which is a housing project for students who are attending Oregon State College and their families, is shown below. The conference was scheduled from nine to twelve o'clock on the morning of April 8, 1949. The schedule sheet was filled with the names of those desiring to attend the

conference. Twenty-two infant and pre-school children attended this conference. Of this number, fourteen were given immunizations against diphtheria and/or whooping cough and tetanus and/or vaccinated against smallpox. Nine were weighed, measured, recorded, and given a physical examination by the physician, either for the first time or because a re-check was desired. Of this number, one was being treated for a rachitic condition by her family physician and was making satisfactory progress. Another, Mary Abbot, had been previously referred to a pediatric specialist because she seemed to be developing very slowly, physically as well as mentally. The mother returned on this day, reporting that two specialists had examined the child and had said that, while the child was developing slowly both physically and mentally, their opinions were that she was developing normally and should return to the well-child conferences regularly once a month for re-checks regarding her development. Another child, George Backman, was examined and referred to his family physician for a special examination of his ears and such treatment as the physician might recommend at that time.

The remaining infants and pre-school children were found to be in a good physical condition and developing

normally mentally. The physician and the nurses gave instructions to the mothers regarding care and nutrition, and answered their questions. Another schedule sheet will be posted in the general store about ten days before the next conference. These parents are very appreciative for the information and advice which they receive, as well as for the immunizations against diseases which they receive.

Here again, the performance of the nursing and medical activities alone are not enough. The instruction on the care and the welfare of the children is likewise not enough. The ways in which these things are done promotes either good-will or indifference and antagonism. These determine the success or failure of future well-child conferences and of the whole county public health program.

In public health nursing, the child health education program, is concerned with protecting, maintaining, and improving child health in preparation for adult responsibility. A different kind of case from the more or less usual cases was that of Stella Cahill, age eight, who was not doing satisfactory work in the first grade in the public school. The step-father and the mother brought the child into the County Health

Department on May 23, 1944, seeking assistance with their problem. The child's physical examination by the health officer was essentially negative, excepting that she appeared to tire easily after use of her eyes. Recommendations were therefore made that the child have an examination by an ophthalmologist and be given a psychometric test. Arrangements were made by the county nurse and the family for both. The ophthalmologist prescribed glasses which were satisfactory. On May 27, 1944, the little girl was given the Stanford-Binet Intelligence Test. The results showed her chronological age to be eight-years-and-one-month, her mental age to be seven-years-and-six-months, and her intelligence quotient to be ninety-three. On September 22, 1944, the child was interviewed by a psychiatrist who reported that she was a small, slow, and shy youngster of almost eight-and-a-half years who came into the examiner's room cautiously and with the general appearance of being very frightened. He studied her problem of not learning to read well. He found her other troubles to be superimposed upon a tremendous feeling of fear, insecurity, and inability which caused her to fail to keep up with the other children scholastically. The background was that of family insecurity, variation of

opinion, and inability to decide on any consistent pattern of family behavior. The little girl is of low average intelligence, is left-handed, and appears physically well. Her emotions and insecurity have been further complicated by an attempt to teach her to be right-handed. The psychiatrist believed that the whole problem would disappear if the girl's security in herself could be built up. If she could be taught better coordination, this would partially relieve the family of their feeling of facing a problem. The psychiatrist's diagnosis was: an early anxiety reaction with some tendency to withdraw; low normal intellectuality; an ambidextrous child in an unsettled home environment. His recommendations for treatment were: (a) The girl should be placed in a grade of her own, with the idea that she is being advanced and that she be taught security, self-assistance, remedial reading, and coordination without emphasis on progress but learning to do well; and (b) The family should be encouraged to withdraw from their attempted teaching program for this child and focus on the possibilities of increasing her socialization.

These recommendations were carried out by the class-room teacher, the special teacher for remedial reading, and the County public health nurse working

with the family to obtain better socialization in the home. On December 8, 1944, excellent progress was noted. According to comments in her folder, the chief things to bear in mind were: to improve this girl's pride in her accomplishments by constant praise and to cease all fault-finding and destructive criticism. The family should be pleased with the steady progress being made." By March, 1945, the child had much more self-assurance and seemed to be less shy and timid than previously. The step-father expressed a sincere desire to help the child all that he could. It was suggested to him that all members of the family make use of still more praise and demonstration of affection for Stella in winning her over. The case was followed during the next several years, and steady progress was noted in the child's school work, her place in the family social pattern, and her relationships with the children in her school. She is still making satisfactory progress in school and is a useful member of her family and of the social community in which she lives.

In this case, the important part of the educational work was not with the child but with the parents. The situation was made easier and more rapidly moving because the parents were interested in the little girl's

welfare. Unfortunately, this is not always the situation. These parents meant well and they were trying, but their methods were doing more harm than good. When they learned better methods and were given some assistance, the little girl became a normal member of society according to her age and was no longer treading the road leading to the asylum for the insane. It should be remembered that this case was not corrected without many conferences and much time spent not only in planning what to do but in getting it done.

Another case was that of a child who was in need of special educational guidance as well as of medical supervision. Michael Dempsey whose birth date was the tenth of April, 1939, who was diagnosed in May, 1946, as having cerebral palsy, ataxic type; compound hyperopic astigmatism; and poor coordination, with limited speech.

Arrangements were made by the county public health nurse for an examination and such treatment as seemed advisable at the Oregon Medical School Out-patient Clinic for the child's eyes. Corrections were made by surgery and by means of glasses. The child's vision improved, but is still far below normal. He had not been given a psychometric test of any type because of

his poor coordination and his limited and delayed speech. This last was probably due to the spasticity of his muscles, but people who have worked with him and who know him believe that he has at least average ability and that he is teachable.

March, 1947, his progress report showed that during the past seven months there had been a vast improvement in his social behavior, coordination, and speech. He was responding satisfactorily to the individual teaching which was provided for this child who needed more individual attention than the classroom teacher had time to give him. In January, 1948, the county health nurse arranged for the child to be seen by Dr. Leon Lassers, speech pathologist in the State Department of Public Instruction who recommended that the child listen to phonographic records of nursery rhymes and simple stories.

The special education program of this child has been a general one, designed to help him in as many ways as possible. He has been given speech correction work to improve his articulation, and exercises and games for the development of his muscle control. He has also been given beginning work in reading, writing, and arithmetic. His social development has been fostered,

too, not only in school but at home and in the community. His muscular development has been gradual but consistent. He has become able to participate in group activities such as games, schoolroom jobs, and free activity work. For a long time, Michael was unable to open the bottle of milk which he had each morning. Another child or the teacher had to do it for him. He was given specific help in learning to do this task which is so simple for the average child. When he was able to do it all by himself, Michael was very much pleased. He could do one more thing just like the other children. While he still could not run or throw well, he could do these well enough to take part in the children's games. He could occasionally run errands for the teacher, and he could draw well enough to be included in the group. Michael's work in his school subjects has been slow, but shows promise. He now writes his own name, recognizes words in a simple reader, recognizes and writes the numbers from one to ten, and types simple words. Considering the handicap of his very poor vision, he has done remarkably well.

His social adjustment has also been good. He is accepted by the other children in the school situation and in the neighborhood. This was not true at first.

Outside of the school, particularly, the children were very cruel to Michael. They would tease and torment him as he went between home and school. The children were not the only ones at fault. Some of the parents said they did not want their children playing with "that foolish boy". Parent-education along this line helped a great deal, and now Michael is included in a good many neighborhood activities.

In this case, the county public health nurse and the county public health officer not only had to find out the physiological weaknesses of this boy but what kind of assistance was needed and where it might be obtained. In addition, there was the furnishing of information to the parents in order that they might work more effectively with the child. Arrangements had to be made for his special teaching. The children had to be won over, not only to ceasing their tormenting but to making him a part of their group activities and including him in their good-will on the playground at school and on the way to and from school. An indirect program of instruction of some of the parents in the neighborhood of the boy's home had to be accomplished, largely through their own children. The actual nursing and medical work done by the county health nurse and the

health officer in this case were small, but the total of their achievements was large.

The school nursing program includes all of the children within the school system, special consideration being given to the individual child on the basis of his needs. In the case of Carl Eaton, the physical findings by the examining physician showed this seven-year-old boy to have a congenital condition which caused a partial paralysis of the lower limbs and, although he had had good medical supervision since infancy, he was unable to attend school at the age of seven years. This was partly because he seemingly preferred to crawl about on the floor instead of walking with the aid of crutches as he had been advised to do by the attending physician. After a conference with the parents, the child was encouraged to walk more. Arrangements were made by the county public health nurse with the school board to have a home-teacher for an hour a day, beginning in January, 1948. His mother who had been working at a cannery stayed at home and helped with Carl's instruction as outlined by the home-teacher. The child was alert and very much interested in his school work. He progressed rapidly and completed the requirements of the first grade by June, 1948. This year, 1948-1949, his general

health has improved and he walks quite well with the aid of crutches. He has attended school regularly, and continues to do better than average school work. He is a very happy boy, because he is in school. Recently, he has been referred by the county health officer for more surgery by a specialist. It is hoped that this child will, some day, be self-supporting and a happy and useful citizen.

If this case had not been taken up by the county public health officials, this boy might have still been crawling around on the floor with nothing to look forward to except possible commitment to the institution for the feebleminded. While it is probable that the boy's mental normality would have been discovered, the delay in the beginning of his treatment would represent not only a loss of time and accomplishment but of self-confidence and ambition. The parents of this boy owe the public health workers a great debt of gratitude that they knew what to do and did it.

Preventing illness is much better than curing it after the person is ill. One out of every fifty Oregonians shows evidence of tuberculosis. A typical diagnostic clinic, with the use of x-ray machines for a "mass survey", would follow along these lines: a

line of people is waiting to find out whether or not they are as healthy as they feel. They are going to have chest x-rays because such x-rays show tuberculosis a long time before one feels ill. One of these people is a young woman, Ruth Dean, who had been working regularly as a waitress. When she had the chest x-ray made by the State Mobile Chest X-ray Unit, she was found to have pulmonary tuberculosis in an early stage and in a small amount. Early discovery usually means early recovery. Ruth, following the advice of her physician, was able to go to a state sanitarium where each patient is given the comfortable, quiet, steady rest in bed that one must have to make her well. It gave her fresh air, and supplied all her needs for the right foods served attractively at regular hours.

Such a sanitarium not only helps the patient to prevent the disease from extending within her own body but prevents her from spreading the tuberculosis germs to her family and her friends. She is taught a program for taking care of herself and for protecting others, in other words, she learns the ways of preventing the spread of tuberculosis. All people who have had contacts with active cases of tuberculosis should be

examined regularly for some months. Mrs. Elizabeth Johnson, sister of Ruth, was informed that her sister had active tuberculosis and had been admitted to the Oregon State Tuberculosis Hospital. She, too, was advised to contact her local public health department for examinations for herself and her family because "Tuberculosis is a Family Disease". Mrs. Johnson, her husband, and their two children came to the health department and were given the Mantoux Test, a simple safe test made by introducing into or applying upon the skin small quantities of harmless tuberculin which tells the physician at the end of two days which persons have been infected with the tubercle bacilli. This family of four each showed a positive reaction. A chest x-ray showed that the two children, ages three years and one year, had primary tubercular infections and that the mother showed "shadows" of a suspicious character. All three were advised to follow a careful routine of cod-liver oil, vitamins, a balanced diet, rest, and sunshine; and to have a recheck and a clinical study in three months. The father was found to be free from infection at this time.

In these cases, the educational work of the county public health program was both preventive and curative. Had there been no State Mobile X-ray Unit

in the State Board of Public Health program, the presence of tuberculosis in Miss Dean would not have been discovered as early in its course as it was. Had the County Public Health program not included a visitation by the X-ray Unit, the tuberculosis in this and other cases would not have been found so soon. If the young woman had not been persuaded to go to the Mobile Unit for an examination when she did, her infection would have progressed until she was seriously or even dangerously ill. If her sister and her sister's family had not been warned of the danger and had not been examined, there might have been three additional cases of active tuberculosis in the county. All of these would have represented economic loss to the county and tragedy to the family, yet none of the measures taken would have been possible without persuasion and education of both the public and of the individuals concerned.

Jean Ryan was born on June 14, 1937. She had pneumonia when she was one year of age. Six weeks after recovering from pneumonia, she became acutely ill. A pediatrician's diagnosis was that of pulmonary tuberculosis and pleurisy with effusion, and a program for her case was laid out. In examining the people with whom she had had contacts, the immediate members of her

family were the first examined. This is the usual procedure in public health nursing. The father was found to have active pulmonary tuberculosis, moderately advanced. He delayed going to the State Tuberculosis Hospital until 1940, however, or until he had complications and his condition became worse. He died in 1941. The mother's clinical chest examination and x-ray revealed well-healed lung scars. She has continued to maintain her general good health, and her chest condition remains unchanged.

Jean has had good general care under the careful supervision of chest specialists and has maintained her usual good health. Her chest x-ray of February 2, 1949, showed some tuberculosis changes. She is now under the supervision of a chest specialist who has restricted her activity, and she is to return in three months for a recheck. This case again proves that tuberculosis is a family disease, that every case of tuberculosis comes from another case, and that the disease can be controlled only by very close supervision and education of the patient and of all the people with whom she has had contacts. Jean will need to follow a well organized program of care and of restricted activity, especially during the next thirteen years or during her adolescence

and young womanhood.

While pronounced success has not yet been achieved in this case, all that can be done has been done. Without the efforts of the county public health workers, the little girl would either be very ill now or would be dead.

Recent developments in the care for the aged have aroused interest in this once-neglected group of our population, and real optimism rather than the traditional defeatism is the trend for them. Much of this is obviously due to the sheer numbers of the aged in the population. There is recognition that the aged are individuals, with both rights and responsibilities. The increasing numbers of "oldsters" will demand not totally different and additional services, but rather, new uses of those in existence - hobby therapy, psychotherapy, or even vocational counseling. Even case-work is being adapted to their needs. Each elderly person needs individual attention and guidance. Recreation for older persons is still new, but they do need some form of play to occupy their time and attention and to fill their lonely hours. They also need companionship which will bring them out of their retreat.

An elderly couple, Mr. and Mrs. Rex Sand, whose ages were eighty and seventy-nine, recently lost their home and nearly all of their wordly possessions by fire. Mrs. Sand had been a semi-invalid for many years as the result of a broken hip. At the time of this fire, Mr. Sand was severely burned about the head, face, and hands in rescuing Mrs. Sand who was even more severely burned on her head, arms, back, and hands. Both were taken to a hospital immediately after the fire was discovered by neighbors and there they received the necessary treatment for their burns.

The son, who lived three thousand miles away, arrived the following day by airplane. He asked them to go home with him. He has a large house, and could have made them comfortable; but the mother did not wish to go. She has lived in Corvallis for twenty years, and felt that she did not want to leave her friends and familiar surroundings. The son's next plans were to rebuild the home, and make it more modern and comfortable. This appealed to the elderly couple, as they could visualize happily living in their home again. No one was able to find a dependable housekeeper who could be relied upon to care for them however; and this plan, which otherwise seemed ideal, was discarded and

arrangements were made for the aged couple to be cared for in a home for elderly people. As it was their son who made the arrangements and as he is taking care of the finances, this couple will make every effort possible to be contented.

Friendly visits from neighbors which will be very much appreciated and which will help them to make the necessary adjustment will bring comfort and happiness to them. The public health nurses and the case workers will bring cheer to them when making visits in the vicinity, and will encourage their friends to call upon them frequently for short visits.

With this couple, due to their advanced ages, no vocational therapy is indicated. Because they are making the effort to be content and because they are frail, hobby therapy does not seem to be desirable. Social therapy or the fostering of social contacts is in order, and will be encouraged. It should make their future years pleasant to them and prolong their lives for some months at least.

There are many types of cancer which can be cured when treated early in their development by a capable physician. Thousands of men and women who have had cancer are now well and happy (1, p.8-14). Mrs.

Wilda Shaw was an attractive and vivacious young woman who was happily married and was happily busy in the active practice of her work as a registered nurse. She was considerate of everyone but especially of under-privileged children and was always ready to do something to make their lots happier. It was a great shock to Mrs. Shaw and to her family to find that at age forty she had definite symptoms of cancer. She had the surgical treatment recommended by her physician, followed by deep x-ray or Roentgen Ray therapy for a period of six months. By following the proper medical advice in every way, she is today - nine years later - thoroughly well and leading a normal and active life. It is believed that she will not have a return of this malady.

In this case, the only educational factors were those of persuading Mrs. Shaw to visit her physician in the first place and to continue the x-ray treatments in the second, and neither of these was difficult in this case. In some instances, however, fear or indifference cause postponement of examination and correction until the illness has progressed far beyond the incipient stages and irremediable harm has been done. In other instances, poverty causes postponement of examination and treatment. In this case, none of these was a

factor of any importance. If poverty had been such a factor, the county public health agency can often arrange for free treatment and for financial aid to the family from the social agencies if the family bread-winner is involved.

Cancer is caused by certain body cells which suddenly start to grow in a wild and lawless manner. Cancer always starts in one spot but, unless the lawless cells are promptly removed by surgery or destroyed by radium or x-ray treatments, they may spread throughout the body and begin to grow in other areas. Mrs. Mae Stewart recognized that she had an abnormal growth in her right breast but, instead of having prompt treatment, she disregarded the advice of the public health nurse to see her family physician at once. She postponed having an examination for two years. In January, 1949, she began to have pains in the region of this growth. As this is usually a symptom of an advanced stage of cancer, she went to her family physician for a thorough physical examination. He prescribed a course of general medical treatment to improve her general physical condition, and asked her to return in four months unless the growth or the pain increased. Her

physical condition under this prescribed treatment and rest apparently did improve. Since there was no longer any pain in the region and no increase in the size of the growth, she was advised to continue her rest and general care of herself but to see her physician immediately if there were either pain or increase in size of the growth in the future.

The diagnosis in this case was non-malignant tumor. Even tumors which are believed to be non-malignant or benign should be watched closely because no one can be certain that they will not change and become dangerous.

In this case, the attempted educational procedure of the nurse was disregarded and no precautions taken by the patient until she was in considerable pain and greater fright. In her case, her delay brought about no harm, but no one should expect to be so fortunate indefinitely. In addition, she was a thoroughly frightened woman for a good many months.

Mrs. Virginia Tabor was an attractive middle-aged woman who was always neatly and tastefully dressed and who enjoyed being with her family and her friends. She observed a small abnormal growth in her breast. She was examined by her family physician, and advised to

return if she noticed any increase in the size of the growth. The growth apparently remained about the same for two years, then an increase in size was observed. At this time, other surgery in the region of this growth was advised for the patient. A biopsy or analysis of the suspected tissue was made following this surgical work. The specimen was found to be malignant. The growth was surgically removed, and the patient's recovery has been satisfactory to date.

In this case, the educational factor involved was the encouragement of Mrs. Tabor to see the physician about her abnormal growth in the first place. Her cancerous condition changed from benign to malignant but, since she did not ignore the symptoms of the change by reason of her "education", the malignant cancer was removed before any important harm had been done.

Inez Talbot was born on June 13, 1944, with a congenital dislocation of both hips. She was otherwise a normal child. At an early age, she was referred to Shriners Hospital for Crippled Children in Portland and has been receiving treatment there and at home since she was eight months of age. Her condition has gradually improved. She walks well - almost normally - and her

general health and development are normal. She was last examined by an orthopedist on December 12, 1948. At this time, there no symptoms referable to her hips. She has complete range of painless motion and her hips are stable. This child will continue to return to an orthopedist periodically until she has been dismissed as not in need of further medical observance. She is able to run and play as other children do and probably does not remember when she was unable to run as her playmates did.

In this case, the parents did seek help. When they were unable to pay for all of the expense, the county public health nurse helped them by directing them to the proper agencies for treatment and Inez is a normal child today instead of being a hopeless cripple as she would have been without the proper treatment.

Romana Tucker is a well developed girl of eleven years, and one of a family of seven children living at home. She became acutely ill on October 14, 1948. A pediatrist examined her, and made a diagnosis of poliomyelitis. She was immediately taken to a hospital where she was isolated from other children and where she received the necessary care by physicians, nurses, and physiotherapists. Romana's condition responded to

treatment and she was able to return home on December 3. She knew her exercises, and continued them regularly twice daily for three months. She re-entered school on February 1, and has made a satisfactory recovery with no disabilities.

In this case the child received education in learning to do the required corrective physical exercises and the value to her in doing them correctly and regularly. The county public health nurse helped in this case by arranging for the child's re-examinations after she was dismissed from the hospital and by her continued interest in Romana's maintaining her good health and development.

Sometimes an injury proves to be very serious, especially if an infection gets into the blood stream. This was the case with Clarence West. When he was fourteen years of age, he received an injury on his forehead which apparently caused an abcess. He was treated by a physician, and responded to this medical care. Later, however, he had a pain in his left leg which developed into a chronic osteomyelitis, which required treatment by an orthopedic specialist, including incisions and drainage. As, in all "osteomyelitic" cases with massive bone loss, it was anticipated that

this patient would require observation and treatment over a long period of time. He was, therefore, referred to the Crippled Children's Division of the Oregon Medical School, which was to assume part of the financial obligation of Clarence's care since the family income was limited.

The condition of Clarence continued to improve satisfactorily and, in September, he was able to continue his school work at home with the assistance of a home-teacher coming in daily. His condition continued to improve, and he reentered school in January, 1948. He had transportation to and from school, and his physical activities were limited during the remainder of the school year.

He entered high school in September, 1948, with the privilege of carrying on normal activities except for the more active gymnasium classes and sports. In January, all restrictions were removed and he could carry on all normal activities to the fullest extent. Clarence will continue to have periodic rechecks for a few years.

The county public health nurse, in this case, made the arrangements for the child to be admitted to the Crippled Children's Division. The parents were reluctant to accept this financial aid, and did so only

because of the large costs and the long period of time anticipated for the necessary treatment and the welfare of their son. The county public health nurse not only knew what was needed but the proper agencies to see to obtain it for this boy.

Charlotte Woods was born April 23, 1941, with the congenital deformities of syndactylism of the left foot and hand and of the congenital absence of the middle fingers on both hands. In syndactylism, two or more fingers or two or more toes are joined together. Charlotte was the fifth child in the family. The other children, one boy and three girls, were normal. Charlotte needed the care of an orthopedist, and was admitted to the Shriner's Hospital for Crippled Children in Portland at the age of three. She has been under their supervision for medical and surgical treatment since that date. In 1947, the orthopedic surgeon reported that both her feet and both hands had improved markedly, and were as nearly normal as they could be made.

The education by the health officer and public health nurse in this case was of the parents to get them to accept the child, and to obtain the best correction of her defects that was possible. After considerable

persuasion, they accepted their problem and are very happy with the results obtained. Charlotte has useful hands, and she is a sweet child. She is not self-conscious about her condition and is making a place for herself and is being accepted fully by her classmates in the second grade in school.

Another child who is receiving excellent care is Henry Evans. Henry was born in May, 1947. He is a well-developed child and was referred to the Benton County Health Department by the family's physician because he had a congenital deformity of the left foot. Henry was examined at the diagnostic clinic of the Crippled Children's Division of the Oregon Medical School by an orthopedic surgeon. The examination revealed a Talipes equino cavovarus deformity of the left foot, with marked lateral rotation of the axis of the talus in relation to the cal caneus. This child was accepted by the Shriner's Hospital for Crippled Children in Portland, for care. Treatment began in March, 1948, and was continued with frequent changing of casts and manipulations until February, 1949, when the foot was well corrected. Henry is now wearing a specially-made shoe during the day and a night splint while he sleeps. He is to return to the Shriner's Out-Patient-Clinic at

intervals of one month for a few months and then less frequently if the foot retains its normal position.

This child had a severe club-foot deformity, which probably could not have been corrected except by an orthopedist who had had the special training and experience in treating this type of deformity. This Hospital treats children without cost if the family cannot afford to pay or charges those who can afford to pay some of the costs only what they can reasonably afford. This child is indeed fortunate to have had the privilege of receiving the services given at the Shriner's Hospital as he will now have the normal use of his left foot which will give him an equal opportunity with others in planning for his future.

The education in this case, also, had to be done with the parents by the health officer and public health nurse in bringing them to understand and appreciate good results a specialist can obtain in a severe deformity of this type.

Another case in which parent education was more difficult than patient education was that of Donald King, a young man born on July 15, 1917. His growth and development from infancy to manhood were considered

normal. He attended grade and high school, and was in the military service during World War II. His general physical condition was apparently good when he entered the Army. He contracted pneumonia in July, 1941, and remained in an Army hospital for four months. Following his discharge from the hospital, he was sent to the South Pacific and remained there until 1945. When he returned to the United States, he was admitted to the Madigan General Hospital at Fort Lewis where he was treated for recurrent malaria. However, when he had an x-ray as a requirement for his discharge from the Service, a minimal tuberculosis condition was found to be present. He was sent to an Army hospital for the care of tuberculous patients, and was discharged in June, 1946. At this time his condition was quiescent, and he returned to the home of his parents in Corvallis.

The county health department is informed of any cases of tuberculosis residing within the county because it is a communicable disease. The veterans are cared for by the Veterans Administration, but the public health nurse visits the family and tries to have all of the contacts examined from time to time by means of a chest x-ray. The parents in this case were very reluctant about having an x-ray made as they felt that

Donald had contracted the disease in the Army and, as there was no history of tuberculosis in either side of the family, they believed that there was no reason for having any chest x-rays. Only after numerous visits had been made and much persuasion by the county public health nurse would the parents have a chest x-ray by the State Mobile X-ray Unit in 1949, for the young man and for themselves. The results of these x-rays were all negative, that is, they disclosed no active tuberculosis, but the members of this family now understand the importance of knowing that no active tuberculosis is present.

The health education in this case was almost entirely with the parents. For a long time, they preferred to believe rather than to know whether or not the tuberculosis had again become active.

Ethel Kurtz, was an underprivileged child, six years of age, who was referred to the Benton County Health Department by the family physician in August, 1948. She was reported from the State Mobile X-ray Unit as having minimal tuberculosis. A more complete examination and more x-rays, including one of the foot, revealed that Ethel had a primary tuberculous complex in her chest and a tuberculous infection in the bones

of her right foot. At this time, Ethel was very pale, malnourished, and under-weight. She was examined by a chest specialist and advised regarding a high protein diet, including Vitamins A, B, and C. Hospitalization was not necessary for the chest condition, but she was placed in a general hospital at welfare expense for treatment of her foot by an orthopedist. She is now making a satisfactory progress.

Health education for the parents was necessary in this situation. Ethel should have been receiving care from specialists much sooner. Only after much persuasion and the actual making of arrangements for Ethel's care by the public health nurse and the social worker were the desired results obtained.

The use of photo-fluorography reveals not only numerous cases of unsuspected tuberculosis but also discloses many non-tuberculous conditions. One of the major conditions found is cardiac pathology. Several such cases were found in Benton County. One was that of Mrs. Laura Harris, a mother about twenty-five years of age, who did not only do her own housework and care for her two children, but worked six-to-eight hours a day outside of her home. Her x-ray photograph showed an abnormal heart or cardiac condition. When this was

discovered and she was placed under the supervision of her physician and having the necessary rest, she was able to continue her normal life with restrictions on her physical activities.

Mrs. Harris was fortunate that she had a chest x-ray as soon as she did. Having the x-ray was suggested by a friend who knew that she was not well. Mrs. Harris was grateful, and immediately stopped working outside of her home. She is continuing to live a normal life, however, and cares for her two children and the family home.

All of the education needed in this case was that of finding the facts and bringing about to Mrs. Harris a realization of her condition.

Before the examination, Mrs. Harris tired very easily, but she did not know why she was so fatigued. Had she continued her prior program of great physical activity, her condition might have become irremediable and she would have been an invalid for many years - if she had lived that long.

Another case of non-tuberculous pathalogy was that of Floyd Nunn, who is now fifty years of age and who has led an active and useful life. The photofluorograph showed "shadows" in his chest of a

suspicious nature. After several x-rays with photographs and after general observation over a period of time these have been diagnosed as non-active tuberculous healed lesions. This man has been advised by his physician to have annual chest x-rays and periodic physical examinations, since early discovery usually means prompt treatment and early recovery from any disease that is remediable. These healed lesions show that Mr. Nunn has had tuberculosis, but that his body was able to "wall off" the tubercular spots without assistance from without. It is obvious, of course, that tuberculosis which is known to be present should not be neglected. If it is present, that should be known. Since Mr. Nunn has once had tuberculosis, he is susceptible to having it again.

The health education in this case has been given by the various physicians, health officers, and public health nurses who have interviewed Mr. Nunn during the past five years in order to persuade him to obtain plenty of rest, to be moderate in his physical activities-especially in view of his age, and to have a chest examination annually.

CHAPTER IV

SUMMARY

The need for national and international public health programs has been demonstrated by the epidemics which have swept whole continents or even the world. The weekly morbidity reports of the public health organizations yield information of what may be dangerous trends in the spread of illness. The battles against tuberculosis and typhoid, to name only two widespread diseases, and the research on cancer promise the ultimate extinction of these diseases. Mosquito, fly, and rodent control have done much for the comfort of people over whole areas and still more for their health.

The principal work in the public health program, because it is the application of all of it, is the education of the public in health knowledge and in the living of that knowledge. Probably the most important group of workers in the public health program is made up of the county, city, and school public health nurses because they are in actual contact with the public that will either accept or reject the whole program.

If the public health nurses as a group are to carry their complete share in the leadership of the public health program, they must have had training considerably beyond and somewhat different from that of the registered nurse of today. The leaders among the public health nurses must know research procedures, educational and counseling methods, sociological techniques and conclusions, as well as nutrition, nursing procedures, and at least elementary medical procedures. These nurses would not only teach other nurses but would work with physicians and with aspects of the health education program involving new techniques and large numbers of people. On a somewhat lower level in training and accomplishment would be the group of present-day registered nurses who could not or would not achieve the more advanced level. There will always be plenty of opportunity for this group of nurses to serve the cause of health. Below the registered nurses would, under this proposed program of development, be a far larger group of practical nurses than now exists. They, too, would be registered after meeting the required standards, but their certificates would be different from those of the registered nurses of today.

Public health work began, probably, with the work of Nurse Florence Nightingale with the British Army in the Crimean War (1854-6). Partially as a result of her work, the International Red Cross was organized in 1864. The American Red Cross was organized in 1881 and re-organized in 1905. The Visiting Nurse's Association was organized in 1859 in England. The Nightingale School for Nurses was established in 1860, also in England. The first established work of nurses in schools was done in London in 1891; in New York City in 1912. The Henry Street Foundation, the first definitely public health program in the United States and probably in the world, was established in New York City as a privately financed work in 1893. The Children's Bureau was established as a part of the then United States Bureau of Labor in 1912. The United States Department of Public Health was organized under an enabling act of the Federal Congress in 1798 as an agency of the United States Treasury Department for the maintenance of a marine hospital service for the care of American seamen and of tuberculous patients from among the American public and, later, from the territorial possessions of Alaska and Hawaii which had no such hospitals at the time. It was re-organized and placed under the Office

of the United States Surgeon General in 1871. In neither of these periods was its influence very extensive as far as the general public was concerned. It became of nation-wide importance with the building of the Panama Canal, begun in 1904, and the partial solution of the problems of the health of the workers on the Canal which permitted the actual construction of the Canal.

Two new phases of the present public health program are those of gerontology, or the study of aged people, and of mental hygiene and its corollary, psychiatry. The importance of the latter has been greatly increased as a result of the effects of World War II. The largest new agency in the field of public health, although not a part of the United States Bureau of Public Health, is the Veterans Administration with its dozen of hospitals and thousands of beds for the veterans, principally of World Wars I and II, and their families.

The Oregon State Board of Health was established by legislative enactment in 1903. The Public Health Nursing Section of the Board was established by a resolution of the Board in August, 1919. Not only before but for many years after the establishment of the Nursing

Section, the work was supported financially by various private organizations and foundations and by federal funds. Some of these supporting agencies were: the Oregon Tuberculosis and Health Association, The American Red Cross, the Commonwealth Fund, the Harkness Foundation, The Sheppard-Towner (federal) Fund, The Oregon Medical School, and the Oregon Dental Association.

The work of the State Board of Health may be divided roughly into two large fields, those of inspection and sanitation and those of advisement and supplementation of the work of the county and city public health boards and nurses. In the last several years, a great deal of work has been done in cooperation with the various towns and mills of the state in the proper disposal of sewage and of mill wastes and the cleaning up thereby of the streams of the State. The State Mobile X-ray Unit has been used advantageously in all parts of the State. Clinics of various kinds have also been sponsored or aided in many parts of the State. The reports of the county public health nurses, the visiting nurses, and the school nurses are also compiled and co-ordinated by the State Board of Health.

The public health program in Benton County has been very limited in its scope by reason of the limited

funds available. It was begun by an organization of private citizens in 1921 and supported by them and various philanthropic agencies until 1931. The location of Camp Adair near Corvallis, Monmouth, and Albany in 1941 brought about the formation of a Benton-Polk County Health Unit which did excellent work even after the representatives of the United States Public Health Service were withdrawn in 1945 until its own dissolution in July, 1948. Since that time, the Benton County Health Department has consisted of a part-time health officer, a part-time sanitarian or inspector, one or two full-time public health nurses, and a clerk-typist. Never-the-less, a great deal of commendable public health work has been done in the county. More will be done in 1950 because funds for increased personnel have been made available by the County.

The illustrative projects and cases shown in the third chapter are illustrative only and do not lend themselves to summarization. The work done was, however, highly important to those affected even though they did not in all cases understand its worth to them.

It is the belief of the writer that both these cases and the background or historical material should be of value in the training of beginning public health

nurses and, it is hoped, of interest to them and to others who are "health-minded" or who are of historical bent.

APENDIX

Oregon State Board of Health

This brief chronological account of the work of the Oregon State Board of Health was compiled by Mrs. Catharine Webster, State Consultant Nurse, and yields some of the highlights over the years between 1913 and 1948.

1913 - Two school nurses were employed:

1. To make sanitary inspections of the rural Schools of the State, paying particular attention to the buildings and to the water supply;
2. To inspect the children who have obvious defects, particularly those of apparent low mentality, crippled, or partially deaf or blind that could be corrected, and manifest skin diseases, and to make such constructive recommendations and referrals as seemed to be advisable;
3. The summary of the schools visited showed the great need of better

supervision of rural schools, particularly regarding the cleanliness of the buildings and the use of buckets with common drinking cups;

The conditions not only detracted from the work in the school, but from the comfort and personal health of the children attending. A more serious fact is that the child's school days are the formative period of its life and the habits acquired there may be the habits of a life-time. In-as-much-as hygiene and sanitation are parts of the school course, they should be put into actual practice as well as recited by precept.

1914 - Because of lack of funds, the Oregon State Board of Health was unable to continue the work of inspecting rural schools and, instead, devised a scheme of having each rural school elect a pupil health officer to serve as inspector. The plan was submitted to all the county superintendents, and all heartily cooperated except Multnomah County. A small manual of

rules and regulations was provided, dealing with the elementary principles of hygiene and sanitation only and a badge of authority was furnished each pupil health officer. This plan worked successfully since both pupils and teachers were more conscious of the importance of healthful conditions and were motivated to improve or to correct the undesirable conditions. Pupil inspections still continues to be a useful incentive.

1918 - Miss Jane Allen, the first public health nurse outside of Portland began in Jackson County, in May, 1918.

1921-1929 From one to four nurses on the staff of and financed by the Oregon Tuberculosis Association gave demonstrations of Public Health nursing throughout the state of Oregon. This work created an interest in and an appreciation of the program of public health nursing.

1922 - A regular course in public health nursing was begun at the University of Oregon.

1925 - The Oregon College of Education was the first teachers' training school in Oregon to employ a public health nurse to demonstrate the usefulness of a student health service as well as to provide instruction for new teachers in the most approved methods of teaching health.

1930 - Twenty-one counties over the state had a rural public health nursing program.

1935 - Thirty-nine counties had public nursing programs.

1936-1937

1. The handicapped children's enumeration which was started early in the biennium in Clackamas County, May, 1937, soon became statewide. It was carried on by the local public health nurses and required the attention of one member of the staff of the Section of Public Health Nursing.
2. The people conducting the Oregon Medical School State Child Guidance program requested the services of local public health nurses to assist with the field work.

3. The State Relief Committee and the Oregon Medical School established the Crippled Children's Service Program. An agreement was worked out whereby the local public health nurse provided a part of the field work for that service.

1938 - Seventy-six public health nurses were employed in the counties.

1943 - The staffs, State and County, came under the merit system.

Poliomyelitis received special attention in a symposium at the Oregon Medical School and in regional conferences in six centers in the State.

1944-45 In an analysis of nursing visits, it was found that 35% of the time was devoted to tuberculosis control.

1946-8 Oregon's Health during this biennium has been excellent.

The birthrate was the highest on record. The population increase, due to increase of the number of births over deaths, was 39,468.

The incidence of communicable disease was low. The only localized epidemic was

one of poliomyelitis in Malheur County in 1947. There were 256 cases of diphtheria and 131 cases of typhoid fever - which should have been prevented.

The infant mortality rate was 25.8 per 1,000 live births, and the maternal mortality rate was 1.0 per 1,000 live births, both among the lowest in the United States and better than the rates for the previous biennium.

Many public health problems are still far from solution. Typhoid fever, diphtheria, tuberculosis, syphilis, and gnorrhea - all preventable - are still prevalent. Many unnecessary cancer, heart disease, and accidental deaths can be prevented.

Many problems in the field of sanitation, such as sewage and industrial disposal, garbage disposal, rodent and insect control, and restaurant sanitation remain to be solved.

These facts, are adequate proof that much remains to be accomplished in preventive medicine. The progress which

is being made in the State as a whole is being made equally in the counties according to their financial support and public interest.

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